

**A Stage 1 and 2 Archaeological
Resource Assessment of
the Proposed Violet Hill Pit,
Lot 31 & Part of Lot 30,
Concession 4
(East of Hurontario Street),
Mono Township,
County of Dufferin, Ontario.**

Submitted to:

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Executive Summary (Section 7.5.2 – Standards 1 & 2)

Archaeological Consultants & Contractors (ACC) were retained by Greenwood Construction to conduct a Stage 1 and 2 Archaeological Resource Assessment of the Proposed Violet Hill Pit, Lot 31 & Part of Lot 30, Concession 4 (East of Hurontario Street), Mono Township, County of Dufferin, Ontario.

The approximately 150-acre subject lands are generally in agricultural use with areas of standing woodlots, areas of significant slope and three modern farm & residence structures. The parcel straddles Sideroad 30, between 3rd Line East and 4th Line East, south of Highway 89. The lands lie about one kilometer east of the village of Violet Hill along Highway 89 and about 5 kilometers north of Mono Cliff Provincial Park.

A Stage 1 Archaeological Assessment of the of the Proposed Violet Hill Pit, Lot 31 & Part of Lot 30, Concession 4 (East of Hurontario Street), Mono Township, County of Dufferin, Ontario, revealed that no previously discovered archaeological sites were registered on the study area.

The Stage 1 assessment suggested that the study area could potentially exhibit archaeological potential as the lands may exhibit elevated topography (e.g., eskers, drumlins, large knolls, plateau) may contain pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, lie within 300m of a secondary water source and lie within 100m of an early historical transportation route (3rd & 4th Line East & 30 Sideroad). As well, the ARA requires that a Stage 1 and 2 archaeological assessments be carried out on all lands that will be licensed. Therefore, a Stage 2 archaeological assessment was recommended.

The subject lands were 75% pedestrian surveyed at a 5m interval and 10% test pit surveyed at a 5m interval. The balance of the lands (15%) were untested due to areas of steep slope (greater than 20°).

The Stage 2 field assessment consisted of an 85% survey at a 5m interval. This survey did not result in any archaeological resources being found or new archaeological sites being registered with the Ministry of Tourism, Culture & Sport.

As such, the study area does not require further archaeological assessment.

In light of these results, the following recommendations are made:

- The entire study area should be considered free from further archaeological concern.
- 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 the archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.

The above recommendations are subject to Ministry approval and it is an offence to alter any archaeological site without Ministry of Tourism, Culture & Sport (MTCS) concurrence. No grading or other activities that may result in the destruction or disturbance of any archaeological sites are permitted until notice of MTCS approval has been received.

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A Stage 1 and 2 Archaeological Resource Assessment of the Proposed Violet Hill Pit, Lot 31 & Part of Lot 30, Concession 4 (East of Hurontario Street), Mono Township, County of Dufferin, Ontario.

1.0 Project Context (Section 7.5.6, Standards 1-3)

In this introductory section, the context for the archaeological fieldwork will be addressed, including the development context, historical context and the archaeological context.

1.1 DEVELOPMENT CONTEXT (SECTION 7.5.6, STANDARDS 1-3)

Archaeological Consultants & Contractors (ACC) were retained by Greenwood Construction to conduct a Stage 1 and 2 Archaeological Resource Assessment of the Proposed Violet Hill Pit, Lot 31 & Part of Lot 30, Concession 4 (East of Hurontario Street), Mono Township, County of Dufferin, Ontario - see Figure 1). The archaeological assessment was triggered by the *Planning Act* and the *Aggregate Resources Act*.

The approximately 150-acre subject lands are generally in agricultural use with areas of standing woodlots, areas of significant slope and three modern farm / residence structures. The parcel straddles Sideroad 30, between 3rd Line East and 4th Line East, south of Highway 89. The lands lie about one kilometer east of the village of Violet Hill along Highway 89 and about 5 kilometers north of Mono Cliff Provincial Park.

The Stage 1 and 2 archaeological assessment was conducted by Mr. George Clark under consulting license P120, pursuant to the Ontario Heritage Act (R.S.O. 1990). Permission to access the study area and perform the Stage 1 and 2 archaeological assessment was given to Archaeological Consultants & Contractors by Greenwood Construction.

1.2 HISTORICAL CONTEXT (SECTION 7.5.7, STANDARDS 1-2)

No previous archaeological assessments have been conducted on the subject lands.

A review of the 1871 Historic Atlas' (see Figure 4) of the County of Wellington indicated that the subject property was in agricultural use. The 1871 Atlas does not show the presence of any structures directly on the subject property¹.

¹ Prior to 1881, the lands that became Dufferin County were part of Wellington, Simcoe and Grey Counties.

However, historical mapping should not be considered definitive, and points of archaeological interest today may not have been included on historical maps at the time of their production (i.e. previous structures, ancillary structures or tenant farm homesteads). Additionally, during the historic Euro-Canadian period, which constitutes the majority of nineteenth century, archaeologically significant structures are rarely recorded on nineteenth century maps. Additionally, the subject lands long period of land use may have rendered historically significant archaeological deposits on the lands that remain undocumented.

A review of the historical documentation related to the subject property was conducted at the Archives of Ontario which included, but was not limited to, the analysis of the Abstract Index to Deed Titles, Census Records, Commercial directories and other primary and secondary historical documents, if available. The following summarizes these historical context findings.

Dufferin County

In 1860, the residents of Mono township thought they could get a better deal by seceding from Simcoe county and joining with Peel. Several meetings were held and interest was growing. A group of Orangeville professionals and businessmen also took up the notion, but decided the real solution to the problem was a whole new county. Various schemes were proposed between 1861 and 1874, all citing the remoteness of the county towns of Grey, Simcoe and Wellington, and the difficulties that caused for persons participating in municipal government or legal processes (Swanden, 1952).

In 1862 or 1863, about ten years before the founding of the Toronto Grey & Bruce Railway, a daily stage driven by William Lewis and Robert Bowsfield was run from Brampton via Orangeville, Whittington, Shelburne, Dundalk, Flesherton and Markdale to Owen Sound, which in combination with the coming of the railway, enhanced the desire for a new county.

On July 31, 1862, the Orangeville Sun stated that "Dr. Hewatt presided a meeting in Bell's Hotel on Monday evening for the purpose of taking immediate steps to secure the incorporation of a new country around Orangeville. It was stated that it was highly desirable that a new county, to consist of the townships of Mono, Mulmur, Aramanth,

Melancthon, Caledon and the east halves of Luther and Proton and the east half of Garafraxa, be formed into a new county.

The first scheme called for the creation of a new county, centered around Orangeville, and called "Hurontario." Competing schemes were floated, including one for a county based around Mount Forest, and another dividing Simcoe County. The only one sustained was a modified version of the Hurontario scheme which omitted the townships of Caledon and Adjala (Swanden, 1952).

The County of Dufferin Act was passed by the Ontario legislature in 1874, uniting the townships of Mono and Mulmur from Simcoe County, Melancthon Township from Grey County, and Amaranth, East Garafraxa and the Village of Orangeville from Wellington County, into a "provisional county." The potential county was named "Dufferin" in honour of the popular Governor General of the day, Frederick Temple Blackwood, Marquis of Dufferin, from County Down in northern Ireland.

There were provisions attached to the Act. A majority of voters had to vote in favour of creating the new county, and a county courthouse, jail and land registry office had to be built. The depression of the mid to late 1870s dampened enthusiasm for the new project, but after five years, the "Separation Vote" was held in August, 1879. The vote in favour of the county carried. Under the terms of the County of Dufferin Act, Orangeville became the County town. A site for the county buildings was procured and they were substantially completed by the end of 1880. By proclamation, the County of Dufferin came into being on Monday morning, January 24, 1881. The first slate of county officials were patronage appointments. The Conservative federal government appointed Maitland McCarthy of Orangeville as the first County Court Judge. The rest of the appointments were made by the provincial Liberal government and all went to people from outside the new county. For example, Thomas Bowles of Chinguacousy was appointed Sheriff, and W.J. McKim of Peel Township was appointed Registrar (Swanden, 1952).

Shelburne achieved incorporated village status in 1879 and had opted into Grey County, with Melancthon Township, until the new county was established. Luther had divided into two townships in 1881, with East Luther joining Dufferin in 1883. Grand Valley achieved village status in 1897.

Launched on a wave of optimism in 1881, the new county soon faced major

changes. "Manitoba fever" lured hundreds away to the west, while opportunities in the cities of southern Ontario and the northern United States drew others. Between 1881 and 1921, the population of Dufferin was cut in half.

Rather than a time of desolation, it was a time of consolidation as local farmers bought up land from their departing neighbors to make larger family farms. Dufferin developed a healthy farm economy, with three service centers in Orangeville, Shelburne and Grand Valley that were interdependent for their survival. Farm-related organizations flourished. The Women's Institute, Junior Farmers, and 4-H Clubs activities brought together people from all over the county. Dufferin abandoned old political habits and elected a United Farmers member in the 1920s.

Marginal lands were abandoned, and by 1931, a county forest scheme was in place, reducing some of the worst ravages of soil and wind erosion. River basin conservation schemes started. Dams were built at Belwood and Luther Marsh to reduce downstream flooding on the Grand River. In the 1970s, a reservoir, now called Island Lake, was built on the Credit at Orangeville.

The old interdependence of the rural - urban relationship survived until the 1970s. Since then, the rapid growth of Orangeville, the disappearance of many family farms, and the arrival of a new wave of rural, non-farming residents has modified the complexion of the county again.

Mono Township & Villages

The first explorers to explore the woods which became the township of Mono likely came in from the south via Centre Road or Sixth Line and formed a settlement in the corner of Mono, around which grew up the village of Mono Mills. At the time, there would have been little or no survey made of the different townships and these early 'roads' would have been a bridle path following a blazed trail through the woods. When via Centre Road or Sixth Line were finally surveyed, they were left as corduroy roads for many years. The early settlers found the territory peopled by the native Mississauga's, whose traditional lands would have been on both sides of the Credit River, whose source is in Mono (Swanden, 1952).

The opening up and subsequent gravelling of the Prince of Wales Road and the Victoria Road, either of which connected the "Toronto Line" from Owen Sound to "Cummings Corner" (Shelburne Cemetery) was the main factor that contributed to the rapid growth

of Orangeville, which happened to be the terminus of the stage lines from both Brampton and Owen Sound (Swanden, 1952).

In 1851, Mono Township was described as "improving rapidly, with a population having more than doubled since 1842. A large portion of the township is composed of good land, and there are some fine farms on it. The south, however, is very hilly. The "Hurontario Street" runs through the west of the township and it is also traversed by a new road called the Toronto and Sydenham Road, which has been cut across the township from the termination of the sixth line road to the Owen Sound road, which joins it in the township of Holland, a little below the township of Sydenham (Swanden, 1952).

There is a small settlement called Mono Mills, near the south east corner of the township. In 1842, Mono contained a population of 1020, and in 1850 it had increased to 2276. There are three grist mills and one saw mill and 26 000 bushels of wheat, 4000 bushels of oats, 2000 bushels of peas, 11 000 bushels of turnips, nearly 13 000 pounds of maple sugar, 5000 pounds of wool, and 8000 pounds of butter were produced from the crop in 1849. Land in the township is valued at from eight to fifteen shillings per acre for wild, and for farm from thirty shillings to four pounds per acre, according to the situation and inventory" (Swanden, 1952:20).

The first survey of Mono was made in 1823, east of Centre Road by David Gibson and west by Mr. Black. The first actual settlement was made by George McManus on Lot 2, concession 8, 1823 and in 1824 by Adam Raven (Lot 3, concession 8). 1825 saw Robert Henry, from Ireland, settle lot 15, Concession 3 east. Other early settlers included Allen, Brady, Lundy, Huchinson, McCutcheon, McMaster, Montgomery, Perry, Smith, Wright, Tuenball and Williamson (Swanden, 1952).

The first log 'meeting house' is said to have been built in the township in the 1850's on Lot 13, Concession 6.

Shelburne

Settlement of Melancthon Township began in the late 1840's and coincided with the construction of the Toronto-Sydenham Road. By the 1860's settlers had moved into the Shelburne area and in 1865 William Jelly, one of the community's earliest inhabitants, established the British Canadian Hotel, commonly known as Jelly's Tavern. Within a year the settlement included a post-office named Shelburne, reportedly after the Earl of Shelburne. In 1872 Jelly and his brother John ordered the survey of a village plot in

anticipation of the arrival of the Toronto, Grey and Bruce Railway. Rapid economic growth followed and the population increased from 70 in 1869 to 750 in 1877. Two years later Shelburne was incorporated as a Village and, in 1977, it became a Town (Swanden, 1952).

Primrose

Primrose is one of the early villages that flourished in the former days when the monthly cattle fair was held within its borders. Farmers from miles around brought their livestock there for sale and buyers came from Orangeville, Brampton and other points. The hotel was kept in the early days by Edward Henderson who, in later years, was a well-known citizen of Shelburne. In 1882 it was conducted for a short time by R.J. Whitten and William Allen, now of Whitmore, Michigan. It was, however, kept for many years by Mr. James Dean. George Dodd kept a general store and post office, and was also a Commissioner and Justice of the Peace. The flour mill, known as "Ponton Mills" was owned and operated by George Sheppard and Son (Swanden, 1952).

The nearby Violet Hill had its post office established in 1878 (Swanden, 1952).

Land Use History - Part of Lot 32, Concession 4 EHS, Mono Township, County of Dufferin, Ontario

The current study area encompasses Lot 31 (with the exception of a small parcel at the extreme southeast corner of the lot) and a portion of Lot 30, Concession 4 EHS, Mono Township, County of Dufferin, Ontario. The lands lay one lot to the south of the historic northern boundary road of Mono Township.

Historic and archival research has shown that the surrounding lands were privately owned and that these lands have changed hands many times. As well, archival research has illustrated that the subject lands were located near the historic village of Violet Hill.

The earliest available land transaction records for Lot 31 document that the lands were sold from James Cernswill of Tecumseh to David Hare on March 9, 1967². From this date until 1925, thirty-three transactions are noted (see Figure 6).

² The lands were deeded from the Crown prior to 1869. However, as the lands were part of another county prior to the creation of Dufferin County in 1881, the Land Abstract records for the lands that became Lot 31 and Part of Lot 30 Concession 4 EHS in Mono Township could not be found in the records

The 1871 Census of Ontario, Simcoe County (District 40 – Cardwell), lists David Haere as a 55-year-old Irish born Wesleyan Methodist farmer. The census also offers details of his family, including his wife, Isabelle, 45, and children: Isaac Henry, 16; William John, 14; Joseph, 12; and Robert 10 (see Figure 7).

The earliest available land transaction records for Lot 30 document that the lands were sold from Canada Company to John Little of Mono on January 12, 1967. From this date until 1925, thirty-three transactions are noted (see Figure 5).

By 1871, the lands at Lot 30 were owned by James Anderson. The 1871 Census of Ontario, Simcoe County (District 40 – Cardwell), lists James Anderson as a 70-year-old Irish born Primitive Methodist farmer. The census also offers details of his family, including his wife, Ellen, 73, and his daughter Elizabeth, 40 (see Figure 8).

1.3 HISTORICAL CONTEXT SUMMARY

The land registries, census records and historic maps illustrate that the subject lands were mainly rural, in agricultural use, and likely exhibited a moderate level of occupancy in the late nineteenth century. However, the proximity of the subject lands to the historic Highway 89, which is the northern boundary for Mono Township, Sideroad 30 and 3rd & 4th Line East, point to the potential of recovering undocumented Euro-Canadian material.

The fieldwork strategy for the Stage 2 assessment of the subject lands is defined by the *2011 Standards and Guidelines for Consultant Archaeologists*. The Standards and Guidelines provide detailed strategies for the Stage 2 assessment, specifically Section 2.1.1 (Pedestrian Survey). No previous archaeological assessments have been conducted on the subject lands³.

available for Simcoe, Wellington & Grey Counties at the Ontario Archives despite every effort by ACC staff.

³ The lands of Lot 32, 4 Concession EHS, Mono Township, County of Dufferin, underwent a Stage 1/2 assessment by ACC in advance of the Proposed Violet Hill Pit. Please see the report associated with the PIF number P120-144-2012.

2.0 Archaeological Context (Section 7.5.8, Standards 1-7).

2.1 PREVIOUS ARCHAEOLOGICAL RESEARCH (SECTION 7.5.8, STANDARD 1)

For an inventory of archaeological resources to be compiled for the study area, two sources of information were consulted:

- The site record forms for registered sites housed at the Ministry of Tourism & Culture (MTC).
- Published / unpublished documentary sources.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D.), a database maintained by the Ministry of Culture. This database contains archaeological sites registered within the Borden system. The Borden system was first proposed by Dr. Charles E. Borden and is based on a block of latitude and longitude. A Borden block is approximately 13 kilometres east/west by 18.5 kilometres north/south. Sites within each block are numbered sequentially as they are found.

A review of archaeological site locations establishes that no sites are present on the subject property, and that one archaeological site is located within one kilometre of the study area. The site Violet Hill 1 (BaHa-3) potentially represents a single-family, early and early to mid-nineteenth century domestic occupation.

2.2 CONDITION OF THE SUBJECT LANDS (SECTION 7.5.8, STANDARD 2)

The approximately 150-acre subject lands are generally in agricultural use with areas of standing woodlots, areas of significant slope and three modern farm / residence structures. The parcel straddles Sideroad 30, between 3rd Line East and 4th Line East, south of Highway 89. The lands lie about one kilometer east of the village of Violet Hill along Highway 89 and about 5 kilometers north of Mono Cliff Provincial Park.

The portion of the west half of Lot 30 under study here is mainly in agricultural use. It is a generally flat on the extreme east and west portions of the lot, with a seasonal creek running north/south through the western third of the lands. There is a gently sloping valley associated with this creek, and although the slope approached 20° incline, it did not exceed it. The southeast corner of this parcel held a generally flat woodlot. As well, the residence of the local farmer was on the north-central portion of these lands. They included a house, barn and four sheds. All lands were in agricultural use with the exception of the residential portion of the lands and the standing woodlot.

The west half of Lot 31 was divided into two distinct types of topography. The eastern portion was in agricultural use and was generally a gently rolling topography. The western portion consisted of three individual seasonal creek bed running east/west with extreme slopes attached to them – many in excess of 20° incline. These hilled lands were generally covered with standing trees, grass or low-lying brush. The south-central portion of these lands held the local farmers residence, which consisted of a house and one shed. The ruins of a modern barn were visible in the grass field adjacent to this house. The northeastern corner of this field contained a gently rolling terrain woodlot which continued into the east half of lot 32.

The east half of Lot 31 was mainly a gently rolling terrain in agricultural use that was loosely divided by a thin strip of wooded land that divided the north and south halves of this field. The woodlot present in the west half in the northeast corner continued into this lot, and at the extreme northern edge a seasonal creek bed was present. The exceptions to this terrain were the rolling grassed lands of the southeastern portion of the property (with the exception of a residence at the extreme southeastern corner of the lands which is not part of this study). This grassland corner held the local farmers residence (which included a house, barn, shed and the modern ruins of a barn) was generally more aggressively rolling than the balance of the lands. Although many slopes approached a 20° incline, none exceeded it.

The study area is located in the gently undulating Dundalk Till Plain physiographic region (Chapman and Putnam, 1984). The study area is located in the fluted till plain portion of the region, where the flutings generally run southeastward. The region is bounded on the east by moraines and some moronic ridges lie inside the boundary near Shelbourne and Orangeville.

With an elevation of 1400 to 1750 feet, this region forms the watershed from which the headwaters of the Saugeen, Maitlans and Grand Rivers. Numerous small flat-floored valleys form a network over the plain and connect with either the Grand or the Maitland Spillway systems. Despite the elevation, drainage is slow on this high plain. The valleys in the region are frequently swampy, containing small-underfed streams or no streams at all (Chapman and Putnam, 1984).

The plain is characterized by swamps or bogs and by poorly drained depressions. A great majority of the physiographic region carries a superficial deposit of windblown silt, typically less than 2 feet in depth. The original vegetation of the better drained areas

was a hardwoods association of maple, beech, and some birch, with the swamp forests containing elm, ash, cedar and tamarack Chapman and Putnam, 1984).

In northern Dufferin County, the soil series is typified by Honeywood Loam, which is nominally a 10-12cm, slightly acidic dark greyish brown friable crumb structured loam A-horizon, a 30-40cm brown to pale brown friable loam B-horizon, a 30-40cm yellowish brown, slightly blocky friable loam C-horizon and a calcareous yellowish brown loam C-horizon (Chapman and Putnam, 1984).

No significant physiographic features appear within the study area. However, the natural features of this watershed, which form the headwaters of the Saugeen, Maitlans and Grand Rivers, would have long attracted human use. The subsistence regime of these earliest occupants was based largely on hunting, fishing and gathering of wild plant foods and the river watershed itself would have played a significant role.

It should be noted that water is arguably the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in southern Ontario since the Pleistocene era, proximity to water can be regarded as the primary indicator of archaeological site potential. Accordingly, distance from water is one of the most commonly used variables for predictive modeling of archaeological site location. The proximity of the extant study area to the headwaters of the Saugeen, Maitlans and Grand Rivers suggests that there is the potential for the identification of precontact archaeological material.

As well, during Euro-Canadian period, the majority of early nineteenth century farmsteads and other structures were also located near water sources, and as such are likely to be captured by the basic proximity to water model outlined previously, since these occupations were subject to similar environmental constraints. An added factor, however, is the development of the network of concession roads through the course of the nineteenth century. These transportation routes frequently influenced the location of farmsteads and businesses. Accordingly, undisturbed lands within 100 meters of an early settlement road, such as Highway 89, 3rd & 4th Line East, and 30 Sideroad are considered to have potential for the presence of Euro-Canadian archaeological sites.

Therefore, depending on the degree of previous land disturbance, it may be concluded that there is potential for the recovery of historic cultural material within the proposed study area.

2.3 STAGE 1 ANALYSIS & CONSLUCIONS (SECTION 7.7.3, STANDARDS 1-2; SECTION 7.7.4, STANDARD 1)

After analysis of the devlopment, historical and archaeological contexts, and an evaluation of the condition of the subject lands, it was determined that archaeological potential does exist on the subject lands. The following are features or characteristics that indicate archaeological potential (Section 1.3.1):

- within 300m of previously identified archaeological sites
- within 300m of water sources of primary water sources (lakes, rivers, streams, creeks) of secondary water sources (intermittent streams and creeks, springs, marshes, swamps)
- within 300m of features indicating past water sources (e.g., 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)
- within 300m of accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)
- elevated topography (e.g., eskers, drumlins, large knolls, plateau)
- 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. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.
- resource areas, including: food or medicinal plants (e.g., migratory routes, spawning areas, prairie), scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert), early Euro-Canadian industry (e.g., fur trade, logging, prospecting, mining)
- areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries.
- within 100m of early historical transportation routes (e.g., trails, passes, roads, railways, portage routes) or a property listed on a municipal register or designated under the *Ontario Heritage Act* or that is a federal, provincial or municipal historic landmark or site
- property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations

Specifically, the subject lands may exhibit elevated topography (e.g., eskers, drumlins,

large knolls, plateau) may contain pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, lie within 300m of a secondary water source and lie within 100m of an early historical transportation route (3rd & 4th Line East & 30 Sideroad). As well, the *ARA* requires that a Stage 1 and 2 archaeological assessments be carried out on all lands that will be licensed.

However, the *2011 Standards and Guidelines for Consultant Archaeologists* also defines features indicating that archaeological potential has been removed (or “disturbed”) (Section 1.3.2). Archeological potential can be determined not to be present if there is evidence of extensive and deep alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as ‘disturbed’ or ‘disturbance’, and may include:

- Quarrying
- Major landscaping involving grading below topsoil
- Building footprints
- Sewage and infrastructural development

Activities such as agricultural cultivation, gardening, minor grading and landscaping do not necessarily affect archaeological potential.

Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection the there has been complete and intensive disturbance of an area. When complete disturbance cannot be demonstrated during the course of the Stage 1 Assessment, it will be necessary to undertake Stage 2 Assessment.

As this cannot be demonstrated for the subject lands, given their current agricultural use, the subject lands should be subject to a pedestrian survey as outlined in Section 2.1.1 of the *2011 Standards and Guidelines for Consulting Archaeologists*.

2.4 ARCHAEOLOGICAL FIELDWORK (SECTION 7.5.8, STANDARD 3)

The Stage 2 archaeological assessment was conducted by Mr. George Clark on during a series of multiple visits, beginning on September 15, 2014 and ending on November 12, 2014.

2.5 PREVIOUS ARCHEOLOGICAL FEILDWORK (SECTION 7.5.8, STANDARD 4 -5)

No previous archaeological fieldwork carried out within the limits of the study area.

2.6 UNUSUAL PHYSICAL FEATURES IN SUBJECT LANDS (SECTION 7.5.8, STANDARD 6)

There are no unusual physical features that may have affected fieldwork strategy decisions or the identification of artifacts or cultural features.

2.7 ADDITIONAL ARCHAEOLOGCAL INFORMATION (SECTION 7.5.8, STANDARD 7)

There is no additional archaeological information that may be relevant to understanding the choice of fieldwork techniques or the recommendations of this report other than that provided above.

3.0 FIELD METHODS (Section 7.8.1, Standards 1-4)

This section of the report addresses Section 7.8.1 of the *2011 Standards and Guidelines for Consultant Archaeologists*.

Section 7.8.1, Standard 1

As the study are lands currently 75% in agricultural use and 25% in unploughable terrain, both test pit and pedestrian survey methods were employed and are summarized below.

Section 7.8.1, Standard 1

The Stage 2 fieldwork was could be pedestrian surveyed was conducted according to the archaeological pedestrian survey fieldwork standards and guidelines as per Sections 2.1, 2.1.1, and 2.2 of the *2011 Standards and Guidelines for Consultant Archaeologists*.

Pedestrian Survey (Section 2.1.1) – This survey method involves systematically walking the property, mapping and collecting artifacts found on the ground surface.

Section 2.1.1, Standard 1 – The portions of the subject lands have been in recent agricultural production (75% of the subject lands) and are therefore subject to pedestrian survey.

Section 2.1.1, Standard 2 – The portions of the subject lands, as there are actively being cultivated, were recently ploughed in the fall of 2014. The lands were not ploughed using a chisel plough. This was confirmed by ACC staff at the time of the survey.

Section 2.1.1, Standard 3 – The portions of the subject lands, subsequent to ploughing, were allowed to weather for at least one significant rainfall to improve the visibility of the archaeological resources. This was confirmed by ACC staff at the time of the survey.

Section 2.1.1, Standard 4 – The contractor providing the ploughing service, who has historically been ploughing the subject lands for many years, was given direction to plough deep enough to provide total topsoil exposure, but not deeper than previous ploughing. This was confirmed by ACC staff at the time of the survey.

Section 2.1.1, Standard 5 – The lands exhibited an average of above 80% visibility of the ground surface. This was confirmed by ACC staff at the time of the survey.

Section 2.1.1, Standard 6 – The spacing of the survey transects was at a maximum of 5m (or 20 survey transects per hectare).

Section 2.1.1, Standard 7 – When archaeological resources were found, the survey transect spacing was decreased to 1m intervals over a minimum of a 20m radius around the find to determine whether it is an isolated find or part of a larger scatter. This decreased interval (1m) spacing was undertaken while working outward from the original findspot until the full extent of the surface scatter was defined, or until it was confirmed that it was an isolated findspot. This was confirmed by ACC staff at the time of the survey.

Section 2.1.1, Standard 8 – When artifacts were discovered, all visible formal artifact types and diagnostic categories were collected. When 19th century archaeological scatters were encountered, a collection of all refined ceramic sherds, or a sufficient sample thereof, was undertaken.

Section 2.1.1, Standard 9 - When artifacts were discovered, ACC staff, using their professional judgment, collected enough artifacts to ensure that the new found site could be sufficiently documented under the Stage 2 Standards and Guidelines while leaving enough *in-situ* to ensure that the site could be re-located if it was concluded that further assessment of the site was necessary.

This section of the report addresses Section 7.8.1 of the *2011 Standards and Guidelines for Consultant Archaeologists*.

Test-pit Survey (Section 2.1.2) – This survey method involves systematically walking the property along regularly spaced transects, excavating small pits by hand at regular intervals and examining their contents.

Section 2.1.2, Standard 1 – The test pit survey method was selected as these lands could not be ploughed as the subject lands exhibited wooded areas and lands that could not be ploughed (see Plates 1-30).

Section 2.1.2, Standard 2 – The portion of the testable subject lands that were identified as terrain where ploughing was not possible or viable (25% of the subject lands), were not identified as a narrow (10m or less) corridor where pedestrian survey could be carried out. This was confirmed by ACC staff at the time of the survey.

Section 2.1.2, Standard 3 – No portion of the subject lands extended more than 300m away from a feature of archaeological potential. Therefore, a decreasing of the survey interval from 5m to 10m was not warranted.

Section 2.1.2, Standard 4 – Test-pits were excavated to within 1m of built structures, both intact and ruins, if present on the study lands), or until the test-pit soil profiles exhibited evidence of disturbance. This was confirmed by ACC staff at the time of the survey.

Section 2.1.2, Standard 5 – The test-pits were excavated to at least 30cm in diameter. This was confirmed by ACC staff at the time of the survey.

Section 2.1.2, Standard 6 – Each test-pit was excavated by hand into the first 5cm of subsoil and the test-pit walls were examined for stratigraphy, cultural features and evidence of fill.

Section 2.1.2, Standard 7 – Each test-pit's soil fill was screened through mesh no greater than 6mm.

Section 2.1.2, Standard 8 – When artifacts were discovered, all artifacts were collected according to their associated test-pit.

Section 2.1.2, Standard 9 – All excavated test pits were backfilled. This was confirmed by ACC staff at the time of the survey.

When archaeological resources were found during the test pit survey, the following standards were met in order to further refine the significance of the archaeological resource and to assist in determining if a Stage 3 archaeological assessment of the deposit was necessary.

Section 2.1.3, Standard 1 – When positive test pits were encountered, ACC first continued test pit excavation on the survey grid in order to determine if any other

positive test pits were on the subject lands. This was undertaken in the anticipation that further positive test pits would provide sufficient archaeological resources to meet the criteria for making a recommendation to carry out a Stage 3 archaeological assessment, in which case further Stage 2 fieldwork was not necessary.

Section 2.1.3, Standard 2 – If insufficient archaeological resources were documented through the continued survey on the grid to meet the criteria for continuing to a Stage 3 assessment, ACC intensified the survey coverage around the positive test pit to determine whether a recommendation for a Stage 3 assessment can be supported. ACC staff reduced the distance between test pits to a maximum of 2.5m within a radius of 5m around the positive test pit. Furthermore, a maximum of eight additional test pits were excavated within this intensified area and one (or more) 1m-test units were excavated with at least one unit over the positive test pit. This was confirmed by ACC staff at the time of the survey.

Description and Summary of Fieldwork Standards (Section 7.8.1, Standard 2a-2d)

The Stage 2 archaeological assessment was conducted by Mr. George Clark on during a series of multiple visits, beginning on September 15, 2014 and ending on November 12, 2014. The weather ranged from sunny to cool to overcast and cool.

The portion of the west half of Lot 30 under study here is mainly in agricultural use. It is a generally flat terrain on the extreme east and west portions of the lot, with a seasonal creek running north/south through the western third of the lands. There is a gently sloping valley associated with this creek, and although the slope approached 20° incline, it did not exceed it. The southeast corner of this parcel held a generally flat woodlot. As well, the residence of the local farmer was on the north-central portion of these lands. They included a house, barn and four sheds. All lands were in agricultural use with the exception of the residential portion of the lands and the standing woodlot. In this portion of the study lands, the agricultural portions were pedestrian surveyed at the five-meter interval and the balance of the lands were test pit surveyed at a five-meter interval.

The west half of Lot 31 was divided into two distinct types of topography. The eastern portion was in agricultural use and was generally a gently rolling topography. The western portion consisted of three individual seasonal creek bed running east/west with extreme slopes attached to them – many in excess of 20° incline. These hilled lands were generally covered with standing trees, grass or low-lying brush. The south-central portion of these lands held the local farmers residence, which consisted of a house and

one shed. The ruins of a modern barn were visible in the grass field adjacent to this house. The northeastern corner of this field contained a gently rolling terrain woodlot which continued into the east half of lot 32. Here, the agricultural portions were pedestrian surveyed at the five-meter interval and the balance of the testable lands (i.e. the lands surrounding the existing residence and the standing woodlot) were test pit surveyed at a five-meter interval. This portion of the study area (approximately 15% of the total study lands) held the only lands that were untestable due to slope in excess of 20°. These areas included the steep creek valley lands associated with the eastern seasonal creeks.

The east half of Lot 31 was mainly a gently rolling terrain in agricultural use that was loosely divided by a thin strip of wooded land that divided the north and south halves of this field. The woodlot present in the west half in the northeast corner continued into this lot, and at the extreme northern edge a seasonal creek bed was present. The exceptions to this terrain were the rolling grassed lands of the southeastern portion of the property (with the exception of a residence at the extreme southeastern corner of the lands which is not part of this study). This grassland corner held the local farmers residence (which included a house, barn, shed and the modern ruins of a barn) was generally more aggressively rolling than the balance of the lands. Although many slopes approached a 20° incline, none exceeded it. In this portion of the study lands, the agricultural portions were pedestrian surveyed at the five-meter interval and the balance of the lands were test pit surveyed at a five-meter interval.

In the portions that could be pedestrian surveyed, the lands were ploughed in fall 2014 and were allowed to weather at least one heavy rainfall in order to improve the visibility of archaeological artifacts. As illustrated in Plates 1-30, the ploughed lands were well weathered (greater than 80% visibility). These lands were typically a gently undulating sandy clay loam, light brown in colour, with moderate to significant levels of gravel and stone fill. These lands did not exhibit any signs of excessive disturbance or alteration other than ploughing.

In the portions that were test pitted, test pits were approximately 30 centimeters round and were excavated to subsoil in order to facilitate the identification of any subsurface cultural deposits. The soil fill of all test pits was screened through 6-millimetre mesh (where soil types allow), in order to facilitate the recovery of artifactual remains. All test pits were back-filled.

The testable portions of the lands included the standing woodlots in both Lot 30 and 3, the grasses areas surrounding the standing residences and the grasslands on the eastern half of Lot 31.

Test pit profiles of the portions of the study lands documented a relatively thin (less than 20cm) sand loam topsoil A-horizon with high amounts of gravel and stone fill over a sterile sand loam B-horizon with high amounts of gravel and stone fill.

Test pit soil profiles from the testable lands did not exhibit any signs of excessive disturbance or alteration.

The results of the archaeological assessment are shown in Figure 9.

No artifacts of archaeological significance were recovered in the subject lands.

Here is a summary of the applicable 2011 Standards and Guidelines:

Section 7.8.1, Standard 1a – Not all of the subject lands were subject to a Stage 2 archaeological assessment. Specifically, the extreme western portion of Lot 31 due to steep slopes (greater than 20°) within the seasonal creek valleys.

Section 7.8.1, Standard 1b – No obviously disturbed areas of low potential were encountered during the Stage 2 archaeological assessment of the study lands.

Section 7.8.1, Standard 1c – No areas of low potential were determined during the Stage 1 archaeological assessment of the study lands.

Section 7.8.1, Standard 1d - Not Applicable. The proponent & approval authority are not the Ministry of Natural Resources.

Section 7.8.1, Standard 1e - Not Applicable. There are no areas formally prohibited from alteration that were not documented as exempt from survey on the basis of having no or low archaeological potential.

Section 7.8.1, Standard 1f - Not Applicable. There are no areas that are excluded from the development application because they are being transferred to a public land-holding body.

Section 7.8.2, Standard 1a - see above.

Summary of Survey Completion of Subject Lands (Section 7.8.1, Standard 3)

The subject lands were 75% pedestrian surveyed at a 5m interval and 10% test pit surveyed at a 5m intervals. The balance of the lands (15%) were untested due to areas of steep slope (greater than 20°).

4.0 RECORD OF FINDS (Section 7.8.2, Standards 1-3)

No artifacts of archaeological significance were recovered.

Section 7.8.2, Standard 1 – Not Applicable – no sites or archaeological resources documented.

Section 7.8.2, Standard 2 - Table 2 below provides an inventory of the documentary record generated in the field during the Stage 2 assessment.

Table 2: Inventory of Documentary Record	
Document Type	Description
Field Notes	4 pages of written field notes detailing daily weather conditions, survey results, field crew
Photographs	56 digital photographs detailing field conditions and survey
Maps	1 - Results of the Stage 2 Assessment

Section 7.8.2, Standard 3 – Not Applicable – no sites or archaeological resources documented.

5.0 RECOMMENDATIONS (Section 7.8.4, Standards 1-3 & Section 7.8.5, Standard 1)

Section 7.9.4, Standard 1b

No archaeological sites or heritage resources were documented.

Section 7.9.4, Standard 2

A Stage 1 Archaeological Assessment of the of the Proposed Violet Hill Pit, Lot 31 & Part of Lot 30, Concession 4 (East of Hurontario Street), Mono Township, County of Dufferin, Ontario, revealed that no previously discovered archaeological sites were registered on the study area.

A Stage 1 Archaeological Assessment of the of the Proposed Violet Hill Pit, Lot 31 & Part of Lot 30, Concession 4 (East of Hurontario Street), Mono Township, County of Dufferin, Ontario, revealed that no previously discovered archaeological sites were registered on the study area.

Section 7.9.4, Standard 3

No further archaeological assessment of the property is required.

Section 7.9.5, Standard 1

Not applicable – partial clearance of the subject lands is not required as no further archaeological assessment of the subject lands is required.

7.0 Advice on Compliance with Legislation (Section 7.5.9, Standards 1-2)

Section 7.5.9, Standard 1a

This report is submitted to the Minister of Tourism and Culture 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 Ministry of Tourism and Culture, 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.

Section 7.5.9, Standard 1b

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 Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Section 7.5.9, Standard 1c

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 Section 48 (1) of the *Ontario Heritage Act*.

Section 7.5.9, Standard 1d

The *Cemeteries Act*, R.S.O., 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Section 7.5.9, Standard 2

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

8.0 BIBLIOGRAPHY AND SOURCES (Section 7.5.10, Standards 1)

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1984 *The Physiography of Southern Ontario, Ontario Geological Survey Special Volume 2.* Toronto: Government of Ontario, Ministry of Natural Resources.

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1992 *Classification System for Historical Collections.* National Historic Sites, Canadian Parks Service, Ottawa.

Jones, O. and C. Sullivan

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Juppien, J.K.

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Kenyon, I.

1980 Some General Notes on 19th Century Ceramics. *Kewa* 80-3.

1995 A History of Ceramic Tableware in Ontario: 1780-1910. Paper presented at Table Talks Lecture Series, Montgomery's Inn, Toronto.

Miles & Co.

1877 *Illustrated Historical Atlas of the County of Wellington, Ontario.* Toronto: Miles & Co.

Ministry of Tourism and Culture

2011 *Standards and Guidelines for Consultant Archaeologists.*

Tremaine, George R

1860 *Tremaine's Map of the County of York, Canada West.* Toronto: George C. Tremaine.

Sawden, Stephen

1952 A History of Dufferin County, Orangeville, Ontario.

9.0 IMAGES (Sections 7.5.11, 7.9.6)

The images provided below address Standards 1 and 2 of Section 7.5.11, and Standard 1 of Section 7.8.6. All images provided are colour photographs, digital images or technical drawings that meet this standard.



Photo Key



Plate 1: Looking E along Sideroad 30 from the SW corner of the east half of Lot 31



Plate 2: Looking N from the central southern edge of the east half of Lot 31



Plate 3: Looking W from the central eastern edge of the east half of Lot 31



Plate 4: Looking E from the central western edge of the east half of Lot 31



Plate 5: Looking S from the central northern edge of the east half of Lot 31



Plate 6: Looking W from central portion of the west half of Lot 30



Plate 7: Looking W from NW corner of the west half of Lot 30



Plate 8: Looking W from SW corner of the west half of Lot 30



Plate 9: Looking N from central southern boundary of the west half of Lot 30



Plate 10: Test pitting the east half of the eastern portion of Lot 31



Plate 11: Looking N from the central portion of the east half of Lot 31



Plate 12: Looking E from the central portion of the east half of Lot 31



Plate 13: Nominal test pit profile from the central portion of the east half of Lot 31



Plate 14: Looking E from the central portion of the east half of Lot 31



Plate 15: Looking N from central southern boundary of the east half of Lot 31



Plate 16: Test pitting the SE corner of the eastern portion of Lot 31



Plate 17: Looking NW from the central portion of the west half of Lot 31



Plate 18: Looking N from the central portion of the west half of Lot 31



Plate 19: Looking NE from the central portion of the west half of Lot 31



Plate 20: Looking SE from the NW corner of the west half of Lot 31



Plate 21: Looking NE from the central portion of the west half of Lot 31



Plate 22: Looking S from the central northern portion of the west half of Lot 31



Plate 23: Looking S from the central northern portion of the west half of Lot 31



Plate 24: Looking NE from the central southern portion of the west half of Lot 31



Plate 25: Looking SW from the central southern portion of the west half of Lot 31



Plate 26: Looking W from the central southern portion of the west half of Lot 31



Plate 27: Looking NE from the SW corner of the west half of Lot 31



Plate 28: Looking E from the SW corner of the west half of Lot 31



Plate 29: Looking E from the central western boundary of the west half of Lot 31



Plate 30: Looking E from the central western boundary of the west half of Lot 31

Table 1: Nineteenth Century Artifact Date Ranges in Ontario

Artifact Type	Before 1830	1830-1845	1845-1870	1870-1890	After 1890
Nails	Wrought	Machine Cut	Machine Cut	Machine Cut	Wire
Ceramic Wares	Pearlware Creamware	Refined White Earthenware (RWE)	Refined White Earthenware (RWE) Ironstone Introduced	Ironstone Common	Semi-porcelain produced
Edge	Blue & Green Scalloped	Mostly Blue Scalloped	Blue Straight	Not Common	Not Common
Painted	All Blue or Early Palette *	Late Palette**	Late Palette	Not Common	Not Common
Sponged	Not Found	Rare	Common	Becomes Rare	Rare
Printed	Blue Only	Blue, black, purple or brown, red, green	Blue, black	Blue & browns popular 1880's	Many colors: over glaze
Flow	Not found	Not found	Popular	Not common	Revival of Flow
Yellowware (Annularware)	Not found	Introduced in 1840's	Present	Present	Present
Guns	Flintlocks; Percussion invented in 1807	Percussion; Flintlocks in decline	Percussion; rise of cartridge in 1860's	Cartridge	cartridge
Glass Bottles: Bases	Pontil mark	Pontil mark	Pontil mark in decline	No Pontil mark	No Pontil mark
Glass Bottles: Manufacture	Cup mould, two piece open mold, and three piece mold	Cup mould, two piece open mold, and three piece mold	Cup mould, two piece open mold, and three piece mold	Seam from base to lip	Seam from base onto lip and over lip
Glass Bottles: Finish					" Crown" finish; threaded lips common
Other					U.S. McKinley tariff act of 1891 requires country of origin to be marked on goods
Rarely Palette* = Mustard Yellow, Blue, Earthy Green, Orange Brown Late Palette** = Bright Yellow, Blue, Bright Green, Pink, Black <i>Field Manual for Avocational Archaeologists: Derived from Adams, Nick; 1993 OAS, London, Ontario</i>					

10.0 MAPS (Section 7.5.12, 7.9.7)

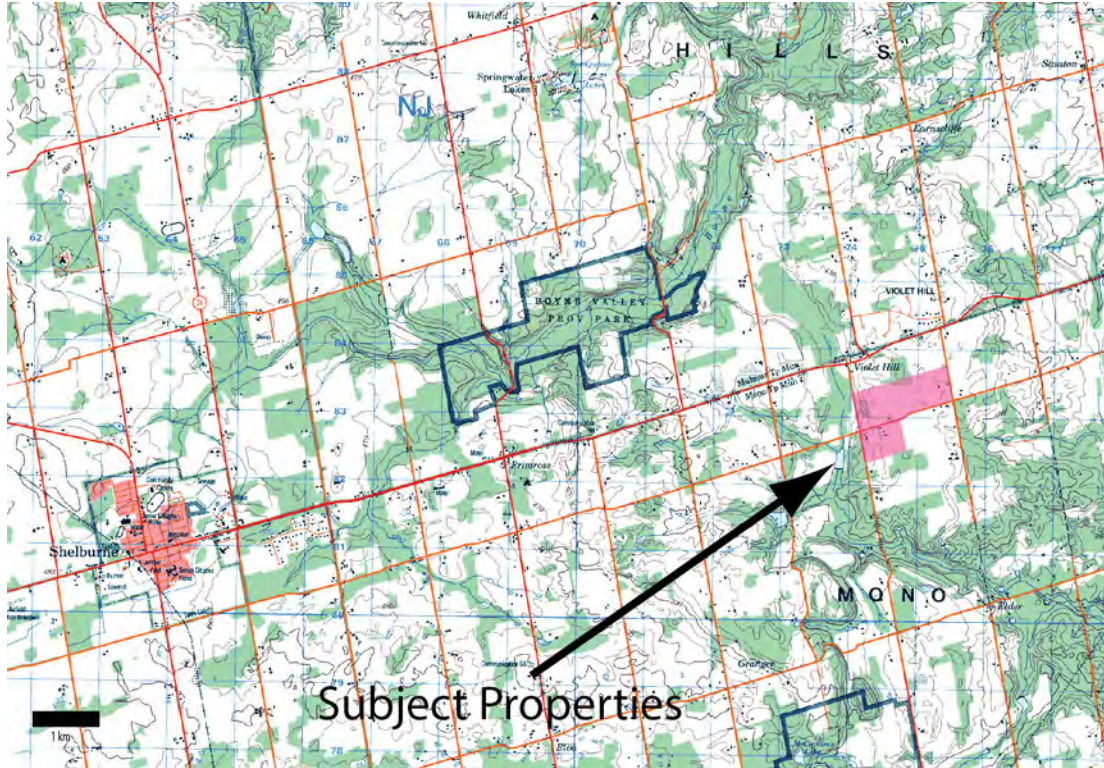


Figure 1: Study area approximate location (NTS 30M/4)

Part of Lots 30 & 31, Concescion 4 E.H.S. Town of Mono, Dufferin County

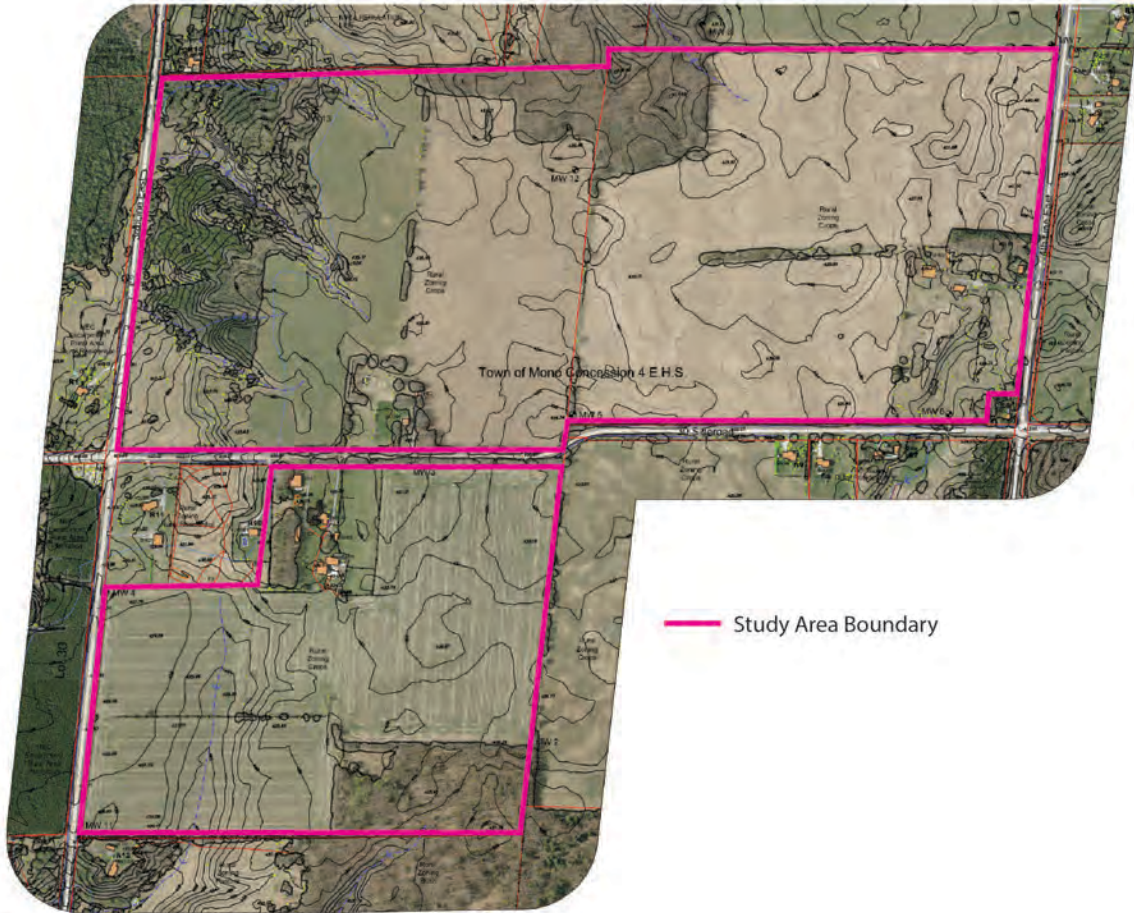


Figure 2: Aerial photography (2005) of the study area and limits of the study area (provided by proponent)

Part of Lots 30 & 31, Concession 4 E.H.S. Town of Mono, Dufferin County

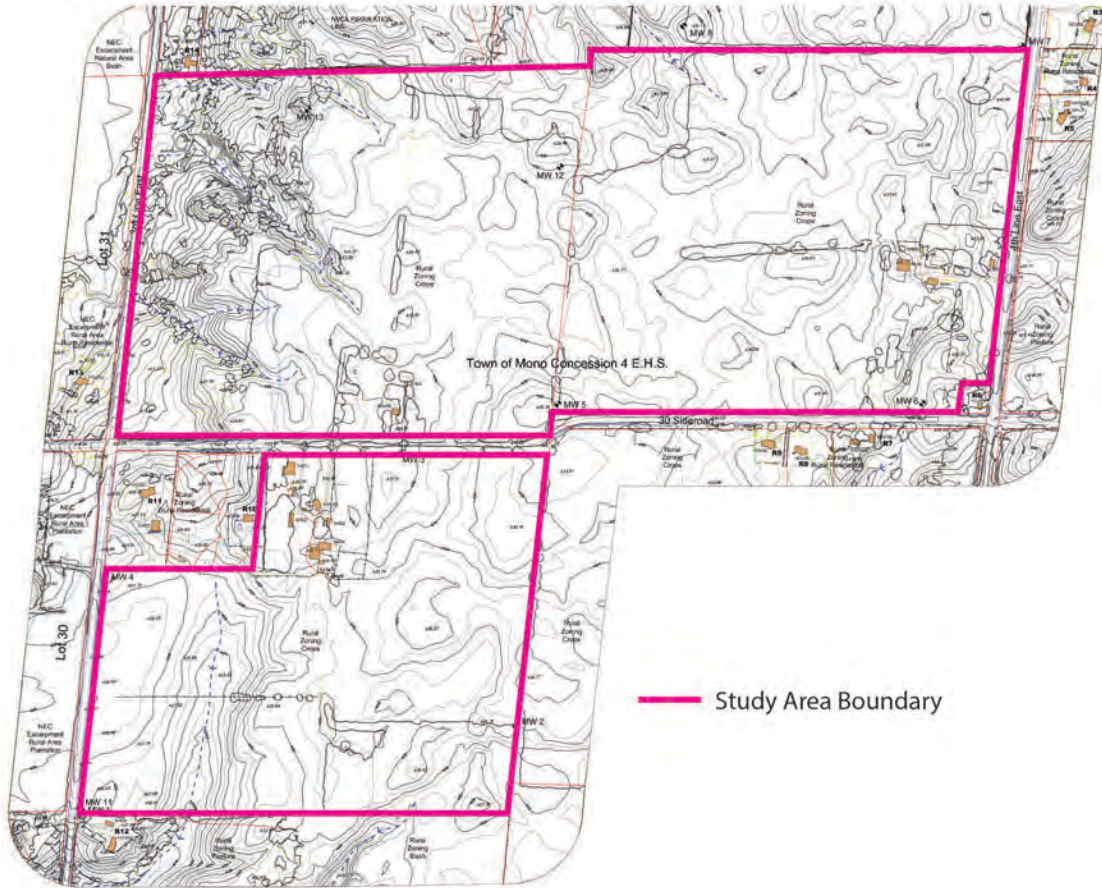


Figure 3: Topography of the study area and limits of the study area (provided by proponent)

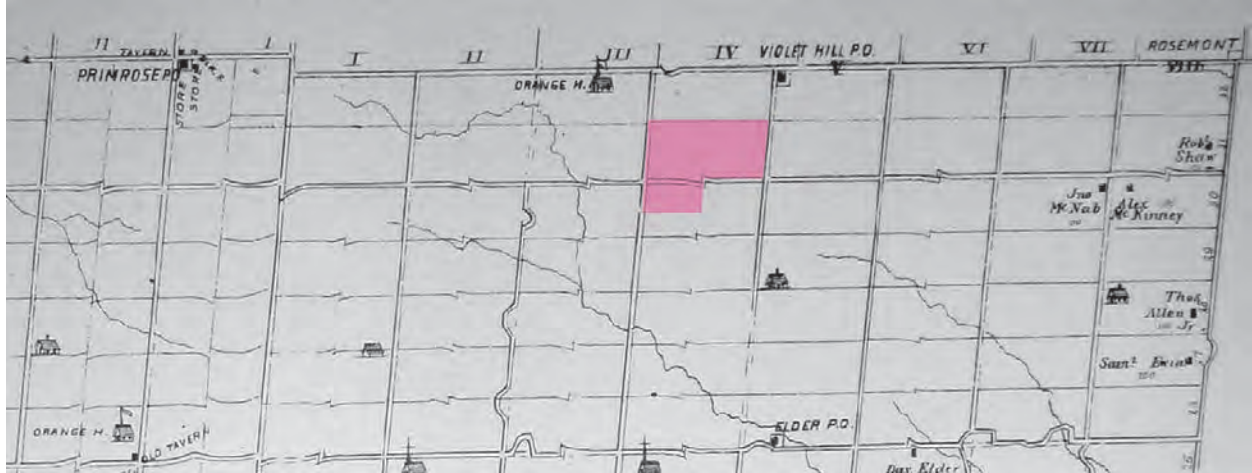


Figure 4: The subject lands as illustrated in the Township of Mono map from the 1877 *Illustrated Historical Atlas of the County of Wellington*

Township of Mono				Lot No. 30 in the 4th Concession, E.H.S.			
No. of Instrument	Nature of Instrument	Its Date	Date of Registry	GRANTOR	GRANTEE	Consideration or Amount of Mortgage	Quantity of Land and Remarks
44393	W.D.	20 Nov 67	20 Nov 67	Canadian Company	Joseph Little & Co	\$175	8 1/2 100 a
44947	W.D.	22 Feb 1866	Aug 2 1865	John Little of Montreal	William Bond of Collington	\$115	"
66663	Mortg	22 Feb 71	24 Feb 71	Joseph Little of Montreal	William Bond of Collington	\$200	"
63126	Mortg	10 Sept 71	14 Sept 71	Joseph Little of Brampton	Michael (Edward) Brantford Jones	\$200	"
64654	Mortg	19 Dec 71	21 Dec 71	Joseph Little of Brampton	Joseph Little of Mono	"	"
64660	W.D.	26 Dec 71	1 Jan 72	William Bond of Collington	Joseph Little of Mono	"	"
69079	Mortg	8 Nov 72	8 Nov 72	Joseph Little of Mono	James Richardson of Chinguacousy	\$100	"
71111	W.D.	21 March 1873	1 April 1873	William Bond of Brampton	Joseph Little of Brampton	"	"
71112	W.D.	21 March 1873	1 April 1873	Joseph Little of Brampton	John R. State of Mono	\$200	"
71113	Mortg	21 March 1873	1 April 1873	John R. State of Mono	Joseph Little of Brampton	\$100	"
71114	Mortg	21 March 1873	1 April 1873	John R. State of Mono	John Little of Brampton	\$100	"
72122	Assignment	11 June 1873	17 July 1873	Joseph Little of Brampton	James Deley of Chinguacousy	\$100	"
73123	Assignment	11 June 1873	17 July 1873	Joseph Little of Brampton	James Deley of Chinguacousy	\$100	"
73127	Mortg	1 June 1875	11 June 1875	John R. State of Mono	Maitland McCarthy of Mono	\$100	"
76166	Assignment	27 June 1876	27 June 1876	James Deley of Chinguacousy	Joseph Little of Brampton	\$100	"
76167	Assignment	19 June 1876	"	Joseph Little of Mono	Robert Laycock of Chinguacousy	\$200	"
187	Assignment	1877	18 Oct 1877	Robert Laycock of Chinguacousy	William Bond of Brampton	\$400	"
188	Assignment	1877	20 Oct 1877	Joseph Little of Mono	Joseph Little of Brampton	\$100	"
313	Assignment	11 July 1878	16 July 1878	James Deley of Chinguacousy	Joseph Little of Brampton	\$100	"
314	Assignment	11 July 1878	16 July 1878	Joseph Little of Brampton	Mary McCarthy of Chinguacousy	\$100	"
327	W.D.	21 Feb 1878	25 Feb 1878	James Deley of Chinguacousy	Joseph Little of Brampton	\$100	"
330	W.D.	9 Feb 1878	25 Feb 1878	Michael Deley of Chinguacousy	Joseph Little of Brampton	\$100	"
483	W.D.	21 May 1879	26 May 1879	Samuel Macdonald of Mono	William Bond of Collington	\$100	"
484	W.D.	"	"	William Bond of Collington	Samuel Macdonald of Mono	\$100	"
772	Assignment	22 Sept 1879	22 Sept 1879	Mary McCarthy of Chinguacousy	Samuel Macdonald of Mono	\$100	"
788	W.D.	23 Jan 1880	26 Jan 1880	Maitland McCarthy of Chinguacousy	Robert Alexander of Brampton	\$119	"
789	W.D.	23 Jan 1880	26 Jan 1880	William Bond of Collington	John R. State of Mono	\$100	"
824	W.D.	8 Nov 1881	9 Nov 1881	Robert Alexander	James Deley of Chinguacousy	\$100	"
825	W.D.	8 Nov 1881	9 Nov 1881	Joseph Little	James Deley of Chinguacousy	\$100	"
826	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
827	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
828	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
829	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
830	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
831	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
832	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
833	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
834	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
835	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
836	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
837	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
838	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
839	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
840	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
841	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
842	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
843	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
844	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
845	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
846	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
847	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
848	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
849	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"
850	W.D.	8 Nov 1881	9 Nov 1881	Samuel Macdonald	James Deley of Chinguacousy	\$100	"

Figure 5: Abstract Index to Deed Titles for Lot 30, Concession 4 EHS, Mono Township in Dufferin County

Township of Mono				Lot No. 31 in the 4th Concession, E.H.S.			
No. of Instrument	Name of Instrument	Date	Date of Registry	GRANTOR	GRANTEE	Consideration or Amount of Mortgage	Quantity of Land and Remarks
45159	Deed M	8 March 67	7 March 67	James Percival of Toronto	David Storey		6 1/2 acres Property to be divided 2 1/2 acres
236	Mortgage	11 Jan 1877	19 Jan 1877	David Storey (deu. of Storey)	No. Hudson & Canadian L. & C. Com. of 100		6 1/2 acres
216	Deed M	10 Nov 1877	17 Dec 1877	Shepley & Co. of Toronto	David Storey of Toronto		Deeds - part of 236
2227	Mtge	27 Feb 1881	11 Mar 1881	David Storey	Re W. A. Roberts	\$1000	6 1/2
2258		11 Mar 1881		Edward Martin	James Johnston	\$1000	
2226	Mort	10 Dec 1877	18 Dec 1877	David Storey of Toronto	Mary Jane Rodwell	\$1000	6 1/2 acres - J.P. JUN 27 1929
2722	Mort	17 Jan 1881	27 Feb 1881	W. A. Rodwell	David Storey		6 1/2 acres - J.P. JUN 27 1929
2277	Mtge	17 Mar 1881	21 Mar 1881	David Storey	London & Canadian L. & C.	\$1000	6 1/2 acres - J.P. JUN 27 1929
2278	Deed M	5 April 1881	11 April 1881	Mary Jane Rodwell	David Storey		6 1/2 acres - J.P. JUN 27 1929
2291		11 Mar 1881					
3923	Deed	23 October 1893	29 Sep 1893	David Storey	James Henry Storey		6 1/2 subject to certain payments
4079	Mtge	10 March 1894	21 April 1894	James Henry Storey	James Henry Storey of 4 & 6	\$2000	6 1/2 - J.P. JUN 27 1929
4090	Release	15 May 1894	21 May 1894	Isabella Storey	James Henry Storey of 4 & 6		6 1/2
4122	Mtge	11 March 1896	17 March 1896	Isabella Storey	Isabella Storey of 4 & 6	\$1000	6 1/2 not by purchase - J.P. JUN 27 1929
4123	Deed M	27 May 1896	28 June 1896	James Henry Storey	James Henry Storey		6 1/2 - J.P. JUN 27 1929
4224	Deed M	14 June 1897	21 June 1897	James H. Storey	Frederick Wake	\$3500	6 1/2 - J.P. JUN 27 1929
4256	Mtge	20 July 1897	2 August 1897	Frederick A. P. Wake	Robert Albert Caughlan Murray	\$1000	6 1/2 not by purchase - J.P. JUN 27 1929
4395	Mtge	1 April 1898	2 May 1898	James Wake	Frederick Albert Caughlan Murray		6 1/2
4422	Mtge	1 April 1898	2 April 1898	Frederick A. P. Wake	Alfred W. P. Roberts	\$1100	6 1/2 not by purchase - J.P. JUN 27 1929
4423	Deed M	5 April 1898	11 May 1898	James H. Storey	Frederick A. P. Wake		6 1/2 - J.P. JUN 27 1929
4424	Mtge	16 Nov 1898	18 Nov 1898	Isabella Storey	Robert John Roberts	\$1000	6 1/2 - J.P. JUN 27 1929
4425	Deed M	30 Mar 1898	17 Mar 1898	David Storey, David Storey, David Storey, Isabella Storey	Frederick Wake		6 1/2 - J.P. JUN 27 1929
4426	Release	15 May 1898	17 Mar 1898	Isabella Storey	James Henry Storey	\$100	6 1/2
4427	Deed M	21 Dec 1898	17 Mar 1898	Frederick A. P. Wake	James H. Storey		6 1/2 - J.P. JUN 27 1929
4428	Deed M	27 November 1898	2 Dec 1898	Alfred Wake	Frederick A. P. Wake		6 1/2 - J.P. JUN 27 1929
4429	Deed M	28 November 1898	2 Dec 1898	Frederick A. P. Wake	Robert John Wake	\$1000	6 1/2
4430	Release	18 June 1897	27 June 1898	Frederick A. P. Wake	Robert John Wake		6 1/2, to be used
4431	Deed M	23 June 1898	30 Aug 1898	James H. Storey	W. A. Lewis	\$1000	6 1/2 not to be recorded in full - J.P. JUN 27 1929
4432	Mtge	20 Aug 1898	30 Aug 1898	Robert John Wake	Robert John Wake	\$2500	6 1/2 not recorded in full - J.P. JUN 27 1929
4433	Deed M	17 May 1898	17 May 1898	James H. Storey	Robert John Wake		6 1/2 mtge 3741 - J.P. JUN 27 1929
4434	Deed M	30 June 1898	July 1898	Robert John Wake	Robert John Wake		6 1/2 mtge 9623 - J.P. JUN 27 1929
4435	Deed M	10 Oct 1898	10 Oct 1898	Robert John Wake	Robert John Wake		6 1/2 less 1/2 acre - J.P. JUN 27 1929
4436	Mtge	10 Oct 1898	10 Oct 1898	Robert John Wake	Robert John Wake	\$1800	6 1/2 less 1/2 acre - J.P. JUN 27 1929

Figure 6: Abstract Index to Deed Titles for Lot 31, Concession 4 EHS, Mono Township in Dufferin County

Province of *Ontario* District No. *40 Cardwell* Sub-District *C* Division *N^o 3 Mac* Page *39*
Census of 1871

Schedule No. 1—Nominal Return of the Living. *W. M. Haere*

No. of Inhabitants	Name	Sex	Age	Date of Birth	Country or Province of Birth	Religion	Origin	Profession, Occupation or Trade	Married or not	Married or not	Education				Education				Name of Occupation and Remarks				
											Can. Sch.	Eng. Sch.	Acad.	Univ.	Can. Sch.	Eng. Sch.	Acad.	Univ.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	<i>Hunt George John</i>	<i>M</i>	<i>12</i>		<i>Ontario</i>	<i>C of England</i>	<i>Irish</i>																
	<i>do do</i>	<i>F</i>	<i>8</i>																				
<i>137</i>	<i>Kelso Francis</i>	<i>M</i>	<i>38</i>		<i>Ontario</i>	<i>W. Methodist</i>	<i>Irish</i>	<i>Farm</i>	<i>M</i>														<i>of 137 W. M. Haere</i>
	<i>do do</i>	<i>F</i>	<i>40</i>						<i>M</i>														
	<i>Robert John</i>	<i>M</i>	<i>14</i>		<i>Ontario</i>																		
	<i>do do</i>	<i>F</i>	<i>12</i>																				
	<i>do do</i>	<i>F</i>	<i>10</i>																				
	<i>do do</i>	<i>F</i>	<i>8</i>																				
	<i>do do</i>	<i>F</i>	<i>6</i>																				
	<i>do do</i>	<i>F</i>	<i>5</i>																				
	<i>do do</i>	<i>M</i>	<i>3</i>																				
	<i>do do</i>	<i>F</i>	<i>1</i>																				
<i>138</i>	<i>Doan David</i>	<i>M</i>	<i>58</i>		<i>Ontario</i>	<i>W. Methodist</i>	<i>Irish</i>	<i>Farm</i>	<i>M</i>														
	<i>do do</i>	<i>F</i>	<i>45</i>						<i>M</i>														
	<i>do do</i>	<i>M</i>	<i>16</i>		<i>Ontario</i>																		
	<i>do do</i>	<i>M</i>	<i>14</i>																				
	<i>do do</i>	<i>M</i>	<i>12</i>																				
	<i>do do</i>	<i>M</i>	<i>10</i>																				
<i>139</i>	<i>Haere Thomas</i>	<i>M</i>	<i>50</i>		<i>Ontario</i>	<i>C of England</i>	<i>Irish</i>	<i>Farm</i>	<i>M</i>														
	<i>do do</i>	<i>F</i>	<i>45</i>		<i>Ontario</i>				<i>M</i>														

Figure 7: 1871 Census of Ontario, Dufferin County (District 40 – Cardwell), for David Haere

A Stage 1 and 2 Archaeological Resource Assessment of the Proposed Violet Hill Pit, Lot 31 & Part of Lot 30, Concession 4 (East of Hurontario Street), Mono Township, County of Dufferin, Ontario. Page 40 of 41

Page 40 Province of *Ontario* District No. *40 Cardwell* Sub-District *Wilmot & Mono* Page 20
 Schedule No. 1.—Nominal Return of the Living. *(Rensselaer)* Census of 1871

Married to General of Education						Name	Sex	Age	Born in Ontario or elsewhere	Country or Province of Birth	Religion	Origin	Profession, Occupation or Trade	Married within last five years	Married within last ten years	Instruction				Literature				Date of Operation and Remarks
1	2	3	4	5	6											7	8	9	10	11	12	13	14	
						<i>Wilson Annis</i>	<i>F</i>	<i>18</i>		<i>Ontario</i>	<i>Presbyterian</i>	<i>Irish</i>												
						<i>Mathys</i>	<i>F</i>	<i>16</i>		"	"	"												
						<i>Beeson Ryan</i>	<i>F</i>	<i>16</i>		"	"	"												
						<i>Alford</i>	<i>M</i>	<i>12</i>		"	"	"												
		<i>73</i>				<i>Winn William</i>	<i>M</i>	<i>61</i>		<i>Scotland</i>	<i>Presbyterian</i>	<i>Irish</i>	<i>Farmer</i>	<i>M</i>										
						<i>Reid</i>	<i>F</i>	<i>27</i>		<i>Ontario</i>	"	"												
						<i>William</i>	<i>M</i>	<i>20</i>		"	"	"	<i>Farmer</i>											
						<i>Valentine</i>	<i>M</i>	<i>16</i>		"	"	"												
						<i>Jane</i>	<i>F</i>	<i>15</i>		"	"	"												
						<i>John</i>	<i>M</i>	<i>10</i>		"	"	"												
						<i>Oliver</i>	<i>M</i>	<i>6</i>		"	"	"												
						<i>Jane Kirby</i>	<i>M</i>	<i>11</i>		"	"	"												
		<i>74</i>				<i>Anderson James</i>	<i>M</i>	<i>70</i>		<i>Scotland</i>	<i>Presbyterian</i>	<i>Irish</i>	<i>Farmer</i>	<i>M</i>										
						<i>John</i>	<i>F</i>	<i>73</i>		"	"	"												
						<i>Elizabeth</i>	<i>F</i>	<i>10</i>		"	"	"												
		<i>75</i>				<i>Anderson Susan</i>	<i>M</i>	<i>28</i>		"	<i>Presbyterian</i>	<i>Irish</i>	<i>Farmer</i>	<i>M</i>										
						<i>Rebecca</i>	<i>F</i>	<i>26</i>		"	"	"												
						<i>Miss Jane</i>	<i>F</i>	<i>10</i>		"	"	"												
						<i>Ann</i>	<i>F</i>	<i>7</i>		"	"	"												
						<i>Joseph</i>	<i>M</i>	<i>5</i>		"	"	"												

Figure 8: 1871 Census of Ontario, Dufferin County (District 40 – Cardwell), for James Anderson

Part of Lots 30 & 31, Concession 4 E.H.S. Town of Mono, Dufferin County

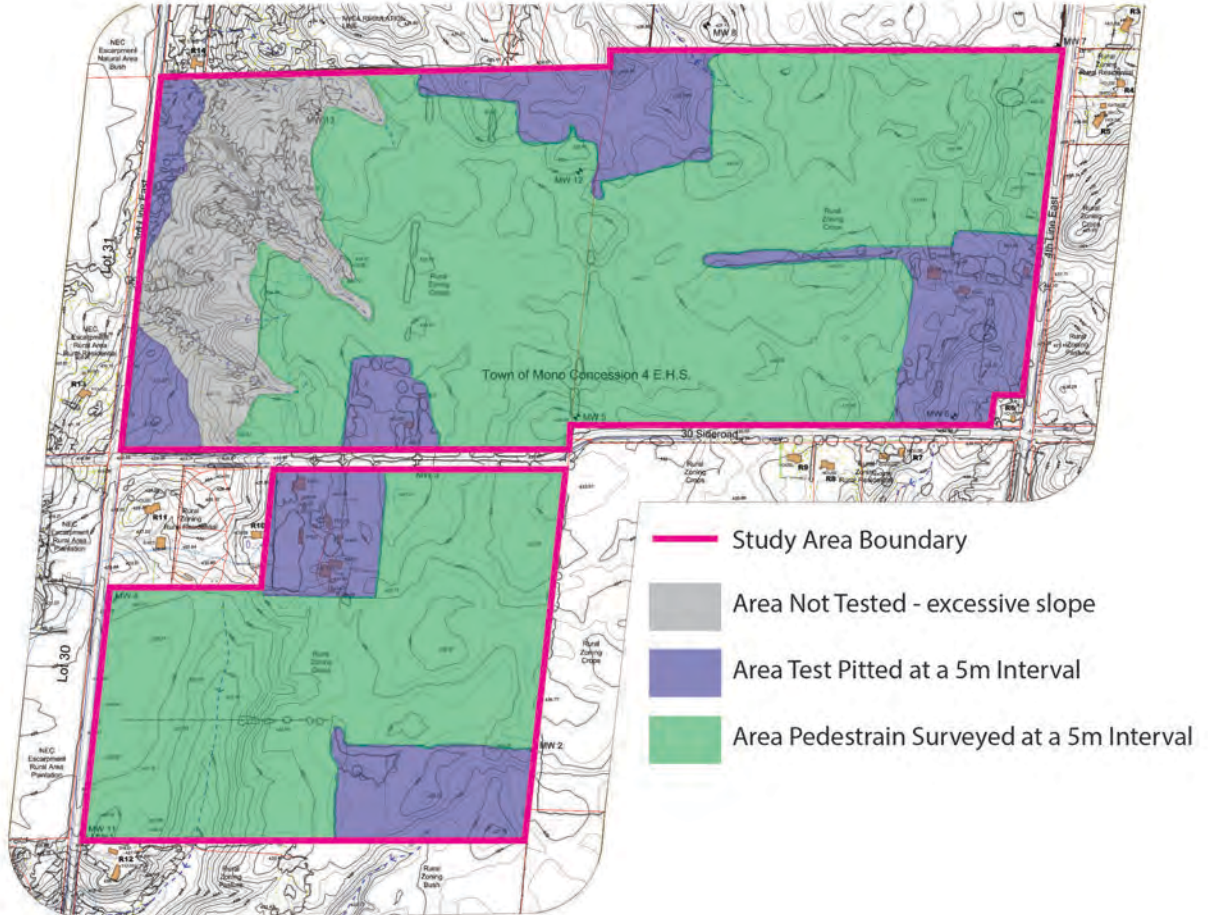


Figure 9: Results of the Stage 2 Archaeological Assessment



ABOUT US

Most land developments, regardless of scale, require a heritage assessment before earth moving can begin. Do you have a property with a heritage condition? Need an archaeological assessment done? Here's what Archaeological Consultants & Contractors can offer:

- Over 18 years experience conducting Stage 1-4 Archaeological Assessments and Excavations all across Ontario - from small-scale residential parcels to large-scale infrastructure and renewable energy projects (including many Municipal, OMNR and MTO projects)
- Experience in delineating unmarked cemeteries and burial relocation using remote sensing
- Experience in working in heavily urbanized areas using traditional, mechanical and non-intrusive methods
- Experience in GIS (Master Plan) Modeling and Cartography
- Specialization in the chemical & instrumental analysis of archaeological artifacts
- First Nations Cultural Consultation
- Underwater Archaeological Assessments

Why are we different from the rest? Our ties to the local academic community give Archaeological Consultants & Contractors unmatched, exclusive access to specialized expertise, equipment, instrumentation and personnel. This in turn allows Archaeological Consultants & Contractors to *provide complete and comprehensive consulting services at a very competitive price.*

The dedicated team of professionals at Archaeological Consultants & Contractors are experts at the rapid documentation and removal (if necessary) of all types of archaeological deposits. We strive to uniquely balance the timeline and budgetary constraints of our clients with the legislative archaeological and clearance requirements demanded by the Ministry of Tourism & Culture. *With our utmost dedication to your projects, large or small, all of your archaeological assessment and excavation requirements will be met.*

SERVICES

What we do best - Stage 1 to 4 Archaeological Assessments...

Archaeological assessments are often required in advance of residential / commercial development or service projects (i.e. road widenings, utility corridors, and waste management facilities) in order to meet provincial and municipal legislation. Archaeological Consultants & Contractors is qualified to engage in historic and archival document searches and undertake intensive field surveys and excavations to in order to satisfy Ministry of Culture requirements and guidelines.

Archaeological assessments are carried out through a stepwise process, starting with a background literature & archival search (a.k.a. Stage 1 archaeological assessment). This is typically combined with an intensive field survey (the Stage 2 archaeological assessment) as the early detection of a significant archaeological site through a detailed field assessment allows for the modification of a project's draft plan and timeline with a minimum of delay and expense. Most projects will start with a combined Stage 1 & 2 assessment.

The following is a brief summary of what each stage (if applicable to your property) will entail:

Stage 1 - The Archival Search (Paperwork...)

During the archival and historic records research of a subject property, archaeological potential is assessed through the identification of any known historic or pre-contact archaeological sites that have been registered on the subject property and through the identification of structures present on historic maps. This data offers an idea of what may be expected in terms of potential heritage concerns.

Stage 2 – The Initial Field Assessment (Walking...)

A Stage 2 archaeological assessment comprises the field review of the subject property. An experienced archaeological field crew assesses the subject property under the guidance of a licensed field supervisor. On farmland, this assessment is typically carried out by means of a 5m pedestrian survey of the subject property. In standing woodlots, the property may be assessed through shovel test-pitting, a process in which small pits (30 cm in diameter by approximately 30 cm in depth) are excavated and the material is screened through 6mm mesh. In heavily urbanized or developed areas, ACC utilizes remote sensing (i.e. GPR, resistivity survey, magnetometer survey) and test trenching in order to determine the likelihood of archaeological deposits on the property.

In underwater assessments, these techniques are carefully applied to submerged shorelines. In deeper locales, remote sensing (i.e. towed side-scan sonar's and magnetometers) are utilized.

If artifacts are encountered, they are catalogued and analyzed to determine their cultural and temporal affiliation, as well as their archaeological and/or their historical significance. If the deposit is deemed significant according to provincial legislation, Stage 3 work will be required.

Stage 3 – Test Unit Excavations (The Little Dig...)

The goal of stage 3 work is twofold: to define the limits of the archaeological deposit, and to determine if the deposit is substantial enough to tell us something about the people that created it.

The first step is a controlled surface collection, in order to record the location of each artifact found on the surface. Following this, a map is generated to reveal the artifact trending, density and distribution across the site. A grid and the surface scatter map is then employed to guide the placement and excavation of a series of one meter square test units across the site. Each unit is hand excavated to sterile subsoil and the soil contents screened through six-millimeter wire mesh in order to maximize the recovery of artifacts. The test units and grid are referenced to a site datum, and the location of each unit is recorded.

If artifacts are encountered, they are catalogued and analyzed to determine their cultural and temporal affiliation, as well as their archaeological and/or their historical significance. If the deposit is deemed significant (i.e. is it big enough? old enough?), Stage 4 work may be required if the site cannot be avoided or preserved.

Stage 4 – Salvage Excavation (The Big Dig...)

A Stage 4 requirement demands the total excavation of an archaeological deposit. Stage 4 recommendations are ideally avoided through the creation of a protected green-space, which surrounds and protects the archaeological deposit for future generations. However, in many cases, the avoidance of an archaeological deposit is not feasible and the site must be excavated and removed prior to development. When this occurs, Archaeological Consultants & Contractors is qualified and capable of conducting the excavation of any archaeologically significant deposits that can potentially occur within a subject property using responsible and cost-effective techniques.

Archaeological Master Plans

Many municipalities, in conjunction with a long-term development planning strategy, utilize predictive modeling of archaeological resources. An Archaeological Master Plan generated by Archaeological Consultants & Contractors begins with the compilation of registered and unregistered archaeological sites within the region and the preparation of an overview of the area's settlement history. ACC then uses this material for the development of an archaeological site potential model based on known site locations, past and present land uses, environmental and cultural-historical data and a review of the current Provincial planning and management guidelines for archaeological resources. Archaeological Consultants & Contractors can provide a recommended management strategy for known and potential archaeological resources within their jurisdiction.

Construction Monitoring Services

In urban areas, development may affect archaeological resources sealed under later layers altered by land use development activities. The removal of soil or fill during construction must be monitored to detect and document archaeological resources when:

- Archaeological assessment has confirmed the presence of deeply buried or sealed archaeological resources.
- Archaeological assessment has concluded that it is likely that previously unassessed archaeological resources are present.
- Construction must avoid protected archaeological site areas.

ACC can conduct on-site construction monitoring whenever construction work is proceeding in areas where archaeological resources are confirmed or where construction is extending to a depth of concern. As well, ACC, in consultation with the proponent and contractors, can prepare a contingency plan outlining procedures, documentation and time requirements in the event that archaeological resources are found.

It should be noted that on-site monitoring techniques rely considerably on the field expertise and experience of the personnel involved, not only to recognize areas of high archaeological potential, but also to determine the appropriate significance of any archaeological resources encountered. ACC recognizes that work-stoppages represent significant costs to the proponent; this extreme measure will only be utilized when absolutely necessary. In most cases, ACC can work around and with construction activities while maintaining appropriate standards.

Delineation of Unmarked Cemeteries

Identifying the limits of unmarked cemeteries has become a priority for many clients in recent years. Boundary demarcation and burial location for 19th and early 20th century cemeteries is often unreliable. With the use of non-invasive remote sensing and traditional large-scale trenching, Archaeological Consultants & Contractors can provide reliable boundary information as well as approximate numbers of interments present at a site. In cases where remote sensing is an unsuitable method, Archaeological Consultants & Contractors can provide monitoring services to ensure that interments are identified during site modification while remaining undisturbed.

Scientific Analysis of Archaeological Artifacts

As specialists in the scientific analysis of archaeological artifacts for many years, Archaeological Consultants & Contractors offers accessible, professional scientific and analytical services and advice to field archaeologists who may be surveying, recording, or excavating archaeological sites that produce ceramic, lithic, glass or metal objects. Whether the material is newly excavated or already held in museum, research, commercial, or private collections, Archaeological Consultants & Contractors offers an expert and comprehensive finds-study service, including trace element analysis, metallographic, mineralogical and chemical analysis.

On-site evaluations can be arranged. Alternatively, you are welcome to send us details of your material and we will advise you on the most appropriate analytical methods.

Underwater Archaeological Assessments

Ontario's submerged cultural resources are non-renewable and valuable. The archaeological and historical value of marine sites offer information and understanding of the past and interpretative opportunities for museums not provided by sites located on land because of the incredible preservation that can take place underwater.

Archaeological Consultants & Contractors specializes and has experience in the practice of marine archaeology in Ontario. ACC staff are qualified to conduct underwater surveys and accurately record and inventory artifacts and wrecks prior to development impact. Often site avoidance is the preferred alternative, as the value of underwater sites and wrecks (with their associated artifacts) is maintained. However, exceptions may be made if artifacts must be removed because they are endangered, or for research and interpretative purposes.

STAFF

Archaeological Consultants & Contractors' Principal Archaeologist, George R. Clark, has over 18 years of experience practicing consulting archaeology in Ontario. After earning a Bachelor of Science (Honors) degree in Chemistry from the University of Waterloo, George completed a Master of Arts degree in Anthropology from the University of Manitoba. George concurrently holds a position of Professor at the Seneca College of Applied Arts & Technology's School of Biological Sciences and Applied Chemistry, where he teaches analytical instrumental methods to chemical and pharmaceutical technologists in addition to his consulting practice. His affiliation with Seneca College allows for unmatched, exclusive access to specialized expertise, equipment, instrumentation and personnel.



George has directed hundreds of archaeological assessments all over Ontario, ranging from small stage 1 and 2 parcel assessments to large stage 4 historic and pre-contact excavations. George has also participated in and directed international excavations in Scotland and in Greece. George's research interests include the study of archaeological materials through the regular application of instrumental chemical analytical techniques, including Liquid and Gas Chromatography (GC-MS/FID/TCD & HPLC), UV/Vis & IR Spectrophotometry, Flame/Furnace Absorption Spectrophotometry and Inductively-Coupled Plasma OES.



George is also a PADI certified Master Scuba Diver and has participated in several near-shore surveys and underwater assessments in Ontario.

George is a Professional Member of the Association of Professional Archaeologists of Ontario and is a Registered Professional Archaeologist.