

**Stage 1 and 2 Archaeological Assessments
1665 Scotch Line Road
Part of Lots 83 and 86, German Company Tract
Geographic Township of Woolwich
Waterloo County
Now Township of Woolwich,
Regional Municipality of Waterloo, Ontario**

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Original Report

EXECUTIVE SUMMARY

Under a contract awarded in October 2023, Archaeological Research Associates Ltd. (ARA) carried out Stage 1 and 2 assessments of lands with the potential to be impacted by the proposed development of 1665 Scotch Line Road, Township of Woolwich, Regional Municipality of Waterloo, Ontario. The assessment was carried out in support of a Plan of Subdivision application and was triggered by the requirements set out in Section 2.6 of the Provincial Planning Statement, 2024 issued under Section 3 of the *Planning Act*. This report documents the background research and fieldwork involved in the investigation and presents conclusions and recommendations pertaining to archaeological concerns.

The Stage 1 and 2 assessments were conducted in July and August 2024 under Project Information Form (PIF) #P1106-0053-2024. Legal permission to enter and conduct all necessary fieldwork activities within assessed lands was granted by the property owner. At the time of assessment, the study area consisted of a farmstead surrounded by active agricultural fields.

The Stage 1 assessment determined that the study area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. The Stage 2 assessment resulted in the identification of thirteen locations of archaeological materials: Site 1, Site 2 (AjHd-48), Site 3, Site 4, Site 5 (AjHd-49), Sites 6-11, Site 12 (AjHd-50) and Site 13. The sites were found to be of no further CHVI. It is recommended that no further assessment be required within the study area.

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ABBREVIATIONS

ARA – Archaeological Research Associates Ltd.
CHVI – Cultural Heritage Value or Interest
CN – Canadian National
CSP – Controlled Surface Pick-up
GCT – German Company Tract
MCM – Ministry of Citizenship and Multiculturalism
PIF – Project Information Form
S&Gs – Standards and Guidelines for Consultant Archaeologists
SD – Supplementary Documentation

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1.0 PROJECT CONTEXT

1.1 Development Context

Under a contract awarded in October 2023, Archaeological Research Associates Ltd. (ARA) carried out Stage 1 and 2 assessments of lands with the potential to be impacted by the proposed development of 1665 Scotch Line Road, Township of Woolwich, Regional Municipality of Waterloo, Ontario. The assessment was carried out in support of a Plan of Subdivision application and was triggered by the requirements set out in Section 2.6 of the Provincial Planning Statement, 2024 issued under Section 3 of the *Planning Act*. This report documents the background research and fieldwork involved in the investigation and presents conclusions and recommendations pertaining to archaeological concerns.

The study area consists of a rectilinear parcel of land with an area of 55.25 ha (Map 1). This parcel is generally bounded by Township Road 27 to the north, cultivated fields to the east, Scotch Line Road to the south, and the Waterloo Spur of the Canadian National (CN) Railway to the west. In legal terms, the study area falls on part of Lots 83 and 86, German Company Tract (GCT) in the Geographic Township of Woolwich, former Waterloo County. The Crown obtained these lands from the Mississaugas as part of a much larger purchase in 1784, but there were uncertainties relating to the area involved. The extent of the cession was clarified during the Between the Lakes Purchase (Treaty 3) in 1792. The Haldimand Proclamation of 1784 granted a tract of land along the Grand River to Six Nations, and the clarifying Simcoe Patent (Treaty 4) was issued in 1793.

The Stage 1 and 2 assessments were conducted in July and August 2024 under Project Information Form (PIF) #P1106-0053-2024. Legal permission to enter and conduct all necessary fieldwork activities within assessed lands was granted by the property owner. As set out in Section 1.0 and Section 2.0 of the 2011 *Standards and Guidelines for Consultant Archaeologists (S&Gs)*, the investigation was carried out to achieve the following objectives:

- Provide information about geography, history and current land conditions;
- Determine whether any previous archaeological fieldwork has been completed;
- Evaluate in detail the study area's archaeological potential;
- Document all archaeological resources within the study area;
- Determine whether there are sites requiring further assessment; and
- Recommend appropriate strategies for Stage 3 assessment, if necessary.

The Ministry of Citizenship and Multiculturalism (MCM) is asked to review the results and recommendations presented herein and enter the report into the Ontario Public Register of Archaeological Reports. A Record of Indigenous Engagement is included in the project report package in accordance with the requirements set out in Section 7.6.2 of the 2011 *S&Gs*. The additional directions provided in the 2018 *Mississaugas of the Credit First Nation Standards and Guidelines for Archaeology* were considered throughout the investigation.

1.2 Historical Context

After a century of archaeological work in southern Ontario, scholarly understanding of the historical usage of the area has become very well-developed. With occupation beginning in the Palaeo period approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Indigenous and Euro-Canadian histories. Section 1.2.1 summarizes the region's settlement history, whereas Section 1.2.2 documents past and present land uses. Two previous archaeological reports containing relevant background information were obtained during the research component of the study. These reports are summarized in Section 1.3.3, and the references (including title, author and PIF number) appear in Section 8.0.

1.2.1 Settlement History

1.2.1.1 Pre-Contact

The Pre-Contact history of the region is lengthy and rich, and a variety of Indigenous groups inhabited the landscape. Archaeologists generally divide this vibrant history into three main periods: Palaeo, Archaic and Woodland. Each of these periods comprise a range of discrete sub-periods characterized by identifiable trends in material culture and settlement patterns, which are used to interpret past lifeways. The principal characteristics of these sub-periods are summarized in Table 1.

Table 1: Pre-Contact Settlement History
(Wright 1972; Ellis and Ferris 1990; Warrick 2000; Munson and Jamieson 2013)

Sub-Period	Timeframe	Characteristics
Early Palaeo	9000–8400 BC	Gainey, Barnes and Crowfield traditions; Small bands; Mobile hunters and gatherers; Utilization of seasonal resources and large territories; Fluted points
Late Palaeo	8400–7500 BC	Holcombe, Hi-Lo and Lanceolate biface traditions; Continuing mobility; Campsite/Way-Station sites; Smaller territories are utilized; Non-fluted points
Early Archaic	7500–6000 BC	Side-Notched, Corner-Notched (Nettling, Thebes) and Bifurcate traditions; Growing diversity of stone tool types; Heavy woodworking tools appear (e.g., ground stone axes and chisels)
Middle Archaic	6000–2500 BC	Stemmed (Kirk, Stanly/Neville), Brewerton Side- and Corner-Notched traditions; Reliance on local resources; Populations increasing; More ritual activities; Fully ground and polished tools; Net-sinkers common; Earliest copper tools
Late Archaic	2500–900 BC	Narrow Point (Lamoka), Broad Point (Genesee) and Small Point (Crawford Knoll) traditions; Less mobility; Use of fish-weirs; True cemeteries appear; Stone pipes emerge; Long-distance trade (marine shells and galena)
Early Woodland	900–400 BC	Meadowood tradition; Crude cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; Bands of up to 35 people
Middle Woodland	400 BC–AD 600	Saugeen tradition; Stamped ceramics appear; Saugeen points; Cobble spall scrapers; Seasonal settlements and resource utilization; Post holes, hearths, middens, cemeteries and rectangular structures identified
Middle/Late Woodland Transition	AD 600–900	Princess Point tradition; Cord roughening, impressed lines and punctate designs on pottery; Adoption of maize horticulture at the western end of Lake Ontario; Oval houses and 'incipient' longhouses; First palisades; Villages with 75 people

Sub-Period	Timeframe	Characteristics
Late Woodland	AD 900–1600	Area occupied by Algonquian-speaking Anishinaabeg and Iroquoian-speaking peoples such as the Pre-Contact Neutral; Early focus on the latter linguistic group identified Glen Meyer, Uren, Middleport and later traditions and tended to emphasize a linear ‘Iroquoian’ developmental sequence; There was likely a close interaction sphere between the two groups, which may have resulted in shared material culture traditions; Pre-Contact Neutral associated with large villages; Some up to 5 ha with 2,500 people; Extensive croplands; Also hamlets, cabins, camps and cemeteries; Fur trade begins ca. 1580; European trade goods appear

Although Iroquoian-speaking populations tended to leave a much more obvious mark on the archaeological record and are therefore emphasized in the Late Woodland entries above, it must be understood that Algonquian-speaking populations also represented a significant presence in southern Ontario. Due to the sustainability of their lifeways, archaeological evidence directly associated with the Anishinaabeg remains elusive, particularly when compared to sites associated with the more sedentary agriculturalists. Many artifact scatters in southern Ontario were likely camps, chipping stations or processing areas associated with the more mobile Anishinaabeg, utilized during their travels along the local drainage basins while making use of seasonal resources. This part of southern Ontario represents the ancestral territory of various Indigenous groups, each with their own land use and settlement pattern tendencies.

1.2.1.2 Post-Contact

The arrival of European explorers and traders at the beginning of the 17th century triggered widespread shifts in Indigenous lifeways and set the stage for the ensuing Euro-Canadian settlement process. Documentation for this period is abundant, ranging from the first sketches of Upper Canada and the written accounts of early explorers to detailed township maps and lengthy histories. The Post-Contact period can be effectively discussed in terms of major historical events, and the principal characteristics associated with these events are summarized in Table 2.

Table 2: Post-Contact Settlement History
(Smith 1846; Coyne 1895; Lajeunesse 1960; Cumming 1972; Janusas 1988; Ellis and Ferris 1990; Surtees 1994; AO 2015; WRM 2017)

Historical Event	Timeframe	Characteristics
Early Exploration	Early 17 th century	Brûlé explores southern Ontario in 1610/11; Champlain travels through in 1613 and 1615/1616, making contact with a number of Indigenous groups (including the Algonquin, Huron-Wendat and other First Nations); European trade goods become increasingly common and begin to put pressure on traditional industries
Increased Contact and Conflict	Mid- to late 17 th century	Conflicts between various First Nations during the Beaver Wars result in numerous population shifts; European explorers continue to document the area, and many Indigenous groups trade directly with the French and English; ‘The Great Peace of Montreal’ treaty established between roughly 39 different First Nations and New France in 1701
Fur Trade Development	Early to mid-18 th century	Growth and spread of the fur trade; Peace between the French and English with the Treaty of Utrecht in 1713; Ethnogenesis of the Métis; Hostilities between French and British lead to the Seven Years’ War in 1754; French surrender in 1760

Historical Event	Timeframe	Characteristics
British Control	Mid- to late 18 th century	<i>Royal Proclamation</i> of 1763 recognizes the title of the First Nations to the land; Numerous treaties subsequently arranged by the Crown; First land cession under the new protocols is the Seneca surrender of the west side of the Niagara River in 1764; The Niagara Purchase (Treaty 381) in 1781 included this area
Loyalist Influx	Late 18 th century	United Empire Loyalist influx after the American Revolutionary War (1775–1783); British develop interior communication routes and acquire additional lands; Between the Lakes Purchase completed with the Mississaugas in 1784 and confirmed in 1792 (Treaty 3); Haldimand Proclamation of 1784 grants land to Six Nations (the Haldimand Tract), clarified by the Simcoe Patent (Treaty 4) in 1793; <i>Constitutional Act</i> of 1791 creates Upper and Lower Canada
County Development	Late 18 th to early 19 th century	Became part of York County's 'West Riding' in 1792; Brant surrenders Blocks 1–6 of the Haldimand Tract to the Crown in 1798; Became part of the Gore District and Halton County in 1816; Wellington District and Waterloo County created in 1840; Waterloo County independent after the abolition of the district system in 1849
Township Formation	Early 19 th century	Woolwich fell within Block 3 of the Haldimand Tract, which was patented to William Wallace in 1798; Northeastern strip sold to Robert Pilkington in 1799; Wallace forfeited most of his lands in 1806, save for the southeast corner; Large block purchased by the German Company in 1807; A. Jones surveyed 130 lots at that time, all of which were soon sold to Mennonites from Pennsylvania; Most settled in Waterloo, leaving Woolwich sparsely settled; First settlers included Thomas Smith (ca. 1810), G. Eby (1813) and D. Cress (ca. 1815); William Crooks purchased the southeastern forfeited Wallace lands in 1821, and sold smaller parcels to mainly Scottish settlers; Crooks also sold lands to William Allen in 1822; Initial settlement was slow; Population was only 84 in 1825; Majority of settlement occurred in the 1830s, with Mennonites from Waterloo or Pennsylvania in the west and English and Scottish in the east
Township Development	Mid-19 th to early 20 th century	Population reached 1,009 by 1841; Two grist and two saw mills in operation by 1846; 13,082 ha taken up at that time, with 3,683 ha under cultivation; The northeastern part of Woolwich (12,153 ha) became the Township of Pilkington in 1852; Population reached 5,907 by 1891; Traversed by the Waterloo Junction Railway (1891) and the Guelph & Goderich Railway (1906); Principal communities at Conestogo, Elmira, St. Jacobs and Winterbourne, with smaller settlements at Floradale, Heidelberg, Weissenburg and West Montrose

1.2.2 Past and Present Land Use

1.2.2.1 Overview

During Pre-Contact and Early Contact times, the vicinity of the study area would have comprised a mixture of coniferous trees, deciduous trees and open areas. Indigenous communities actively utilized the land and its resources well into Post-Contact times, and they would have managed the landscape to varying degrees (e.g., establishing clearings for campsites, plant cultivation, etc.). During the early 19th century, Pennsylvania Mennonites and Euro-Canadian settlers arrived in the area and began to clear the forests for agricultural and settlement purposes. The study area was located northeast of the historical limits of Petersburg. The land use at the time of assessment can be classified as a mixture of agricultural and infrastructural.

1.2.2.2 Mapping and Imagery Analysis

In order to gain a general understanding of the study area's past land uses, three historical settlement maps, one topographic map and three aerial images were examined during the research component of the study. Specifically, the following resources were consulted:

- *Tremaine's Map of the County of Waterloo, Canada West* (1861) (OHCMP 2019);
- *The Map of Woolwich Township* from the *Illustrated Historical Atlas of the County of Waterloo, Ont.* (1881) (MU 2001);
- A topographic map from 1936 (OCUL 2024); and
- Aerial images from 1930, 1955, 1993, 2000 and 2003 (UW 2024; RMW 2024).

The limits of the study area are shown on georeferenced versions of the consulted historical resources in Map 2–Map 9.

Tremaine's Map of the County of Waterloo, Canada West (1861) indicates that the study area traversed lands occupied by James Brunton with a homestead situated in the center of the property (Map 2). Township Road 27, Scotch Line Road and a tributary of Canagagigue/Kinacaghig Creek appear to the north, south and east, respectively. The *Map of Waterloo Township* from the *Illustrated Historical Atlas of the County of Waterloo, Ont.* (1881) identified William H. Bauman as the occupant of the Lot 86 (Map 3). No structures are shown within or adjacent to the study area. This lack of data should not be taken as evidence that the parcel was unimproved, however, as typically, only subscribers' names and farmsteads would be included in the published content.

The topographic map from 1936 suggests that the study area comprised predominantly cleared lands surrounding the farmstead, which remained in the center, with the driveway bisecting the property/study area (Map 4). The property has assumed much of its present-day form with Township Road 27 to the north, Scotch Line Road to the south along with Waterloo Junction Railway and a tributary Canagagigue to the west flanked by woods and wetlands. The aerial images from 1930–2003 largely confirm this land use pattern throughout the 20th century (Map 5–Map 9). The aerial from 1930 closely reflected the topographic map with the wetland comprising a large portion of the western edge of the property (Map 5). By 1955, the farmstead had developed further and the western wetland was more contained (Map 6). By 1993, the layout of the farmstead remained relatively unchanged but a small area in the far west had started being used for soil stockpiling and refuse (Map 7). Little changed on the farmstead over the next decade, aside from a small pond dug immediately to the south of the farmstead (Map 8 and Map 9). Since then, the pond had been replaced by two additional barns and a laydown area.

1.2.2.3 Additional Historical Documentation

Detailed documentary research was carried out for parts of Lots 83 and 86, GCT, that include the study area. The principal transactions documented in the land registry records for this area are summarized in Table 3 and Table 4. A full discussion of the results of the additional historical documentation appears below.

Table 3: Relevant Land Transactions Summary for Lot 83, GCT (LRO #58, 2024)

Number	Date	Instrument	Grantor	Grantee	Acreage
21235	5 Feb 1798	Patent	Crown	William Wallace	Block 3 on Grand River, 86078
205	24 July 1807	Bargain and Sale (B&S)	William Wallace	Augustus Jones, John Erb, and Jacob Erb	Block 3 on Grand River 46795
247	16 August 1807	B&S	Augustus Jones, John Erb, and Jacob Erb	Christian Shunk	350 acres
11	13 March 1846	B&S	Heirs of Christian Shunk	Samuel Shenk	350 acres
607	19 April 1847	B&S	Samuel Shenk	John Wissler	350 acres
1722	23 March 1850	B&S	John Wissler and Wife	Philip Geib	138 acres, 1 rood, 12 perches
2740	17 July 1850	B&S	John Wissler and Wife	John Roberston	138 acres
102	15 Dec 1853	B&S	John Wissler and Wife	John Proudlove	100 acres
285	20 Oct 1856	B&S	John Proudlove at Wife	James Brunton	158 acres, 30 perches
1795	24 Jan 1863	B&S	James Brunton and Wife	Wendell Bowman	158 acres, 30 perches
9360	21 July 1897	B&S	Wendell H Bowman Widow	Jacob Bowman, administrator of Joseph S Bauman	162 acres, 30 perches
13562	13 Dec 1917	B&S	Lovina Bowman, Joseph Bowman	Sarah Heckedorn	160 acres
13699	7 June 1918	B&S	Sarah Heckedorn	Adam Mattusch	162 acres, 30 perches
15154	1 March 1926	Grant	George M. Mattusch, Willow Schaefer, Edward Sidell, Adam Mattusch, Mary Mattusch, Widow	Samuel K. Brubacher	162 acres, 30 perches
16260	20 July 1933	Grant	Samuel K. Brubacher and wife	Sidney M. Brubacher	162 acre, 30 perches

Table 4: Relevant Land Transactions Summary for Lot 86, GCT (LRO #58, 2024)

Number	Date	Instrument	Grantor	Grantee	Acreage
21235	5 Feb 1798	Patent	Crown	William Wallace	Block 3 on Grand River, 86078
205	24 July 1807	Bargain and Sale (B&S)	William Wallace	Augustus Jones, John Erb, and Jacob Erb	Block 3 on Grand River 46795
270	16 Dec 1807	B&S	Augustus Jones, John Erb, and Jacob Erb	John Shaefer	350 acres
1013	21 Aug 1819	B&S	John Shaefer and Wife	Henry Martin	350 acres
590	22 Feb 1839	B&S	Henry Martin	Edward Thomas	100 acres
452	29 Aug 1843	B&S	Edward Thomas and Wife	John Proudlove	19 acres
909	8 Aug 1846	B&S	Henry Martin and Wife	John Proudlove	39 acres and 30 perches
60	5 July 1853	Will	Henry Martin	Henry and David Martin	West of Swamp on the Lands
285	20 Oct 1856	B&S	John Proudlove at Wife	James Brunton	158, 30 perches
1795	24 Jan 1863	B&S	James Brunton and Wife	Wendell Bowman	158 acres, 30 perches
9360	21 July 1897	B&S	Wendell H Bowman Widow	Sarah Bowman, administrator of Joseph S Bauman	162 acres, 30 perches
13562	13 Dec 1917	B&S	Lovina Bowman, Joseph Bowman	Sarah Heckedorn	160 acres
13699	7 June 1918	B&S	Sarah Heckedorn	Adam Mattusch	162 acres, 30 perches
15154	1 March 1926	Grant	George M. Mattusch, Willow Schaefer, Edward Sidell, Adam Mattusch, Mary Mattusch, Widow	Samuel K. Brubacher	162 acres, 30 perches
16260	20 July 1933	Grant	Samuel K. Brubacher and wife	Sidney M. Brubacher	162 acre, 30 perches

The Crown Patent for both Lots 83 and 86 went to William Wallace in 1798. In 1807, he sold both lots to the German Company as represented by Augustus Jones, John Erb and Jacob Erb, who then sold Lot 83 to Christian Shunk in 1807 (350 acres). Christian Shunk died, and the lands were passed to Samuel Shenk in 1846, which was then sold in 1847 to John Wissler. According to the 1851 Census of Canada West, John D. Wissler was a Baptist farmer from the United States. He lived with his wife, Margaret Kaufman, and they had two children, Nancy and Lydia (LAC 1851). John Wissler then proceeded to sell off the eastern parts of Lot 83 to Philip Geib (138 acres, 1 rood, 12 perches) and John Roberston (138 acres) in 1850 while retaining the western half of the property (100 acres). This western half includes the current study area and was sold to John Proudlove in 1853.

Lot 86 was sold by the German Company Tract to John Shaefer in 1807 (350 acres). The entire lot was then sold to Henry Martin in 1819. Henry Martin sold off portions of the property to Edward Thomas (100 acres) in 1839 and John Proudlove (39 acres and 30 perches) in 1846. John Proudlove later obtained the lands owned by Edward Thomas in 1843. The remainder of the lands west of the swamp/Canagagigue tributary passed to Henry Martin's sons in 1853 on his death. At this point, the property owned by John Proudlove included the entirety of the study area as it extended west to the Canagagigue tributary (and later the Waterloo Junction Railway).

The Lot 83 and 86 property (158 acres, 30 perches) was then sold to James Brunton in 1856. According to 1861, James Brunton was a farmer from Scotland belonging to the Wesleyan Methodist Church. He lived on the property in a one-storey frame house with his wife Agnes (née Dickie) and their three children, David, Margaret and Elizabeth (LAC 1861). He held the lands until 1863 when he and his wife sold the property to Wendell Bowman.

As of 1881, Wendell was listed in the census as a German Mennonite farmer and lived on the property with his wife Magdaline and their three children, Noah, Wendell and Judith (LAC 1881). Other sources note Wendell as eventually having nine children in total. He was known to have attended the first school in Waterloo in his youth and was photographed during a reunion in 1895 (Waterloo Region Generations, 2024a; Appendix A). Wendell died sometime shortly after the reunion, and his widow sold the lands to Jacob Bowman on behalf of Joseph S. Bowman, their son in 1897 (162 acres, 30 perches). It is unclear where the additional 4 acres were obtained through a transaction or if it was a result of a re-survey of unclear boundaries with the western swamp/Canagagigue tributary. A Mennonite farmer, Joseph S. Bowman, is noted as living on the farm of his father with his wife Sarah (née Lichty) and their six children (Waterloo Region Generations, 2024b). He died before this transaction in 1896, which may have been related to settling his estate. At some point, the property passed to Joseph L. and Lovina Bowman, children of Joseph S. Bowman and they then sold the lands (160 acres) to Sarah Heckedorn in 1917. Selling the land was likely related to the fact that Joseph L. Bauman was serving in the 118th Battalion as part of the Scots Fusiliers reserve during the First World War (Waterloo Region Generations, 2024c). Sarah Heckedorn (née Lichty) is the former wife of Wendell H. Bowman and the mother of Joseph L. and Lovina, having re-married to a Christian Heckedorn (Waterloo Region Generations, 2024d).

Sarah sold the lands (162 acres, 30 perches) to Adam Mattusch in 1926, a farmer and former Woolwich Township Councillor (Waterloo Region Generations, 2024e). Adam died in 1925, and

the lands were then granted to Samuel K. Brubacher in 1926, another Mennonite Farmer who had moved to the area in 1882 from Pennsylvania (Waterloo Region Generations, 2024f). He lived on the property with his wife, Catharine Magdalena Murphy, and their thirteen children, including Sidney M. Brubacher. It remained in the Brubacher Family throughout the 20th and into the 21st century.

1.3 Archaeological Context

The Stage 1 and 2 assessments were conducted concurrently between July 15 and August 28, 2024 under PIF #P1106-0053-2024. ARA utilized an Emlid Reach RX GNSS receiver with RTK correction, providing a precision of 1 cm during the investigation (UTM17/NAD83). The limits of the study area were confirmed using project-specific GIS data translated into GPS points for reference in the field, in combination with aerial imagery showing physical features in relation to the subject lands.

The archaeological context of any given study area must be informed by 1) the condition of the property as found (Section 1.3.1), 2) a summary of registered or known archaeological sites located within a minimum 1 km radius (Section 1.3.2) and 3) descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the property (Section 1.3.3).

1.3.1 Condition of the Property

The study area lies within the Great Lakes–St. Lawrence forest region, which is a transitional zone between the southern deciduous forest and the northern boreal forest. This region extends along the St. Lawrence River across central Ontario to Lake Huron and west of Lake Superior along the border with Minnesota, and its southern portion extends into the more populated areas of Ontario. It is dominated by hardwood forests, although coniferous trees such as white pine, red pine, hemlock and white cedar commonly mix with deciduous broad-leaved species like yellow birch, sugar and red maples, basswood and red oak (MNR 2024).

In terms of local physiography, the subject lands fall within the Oxford Till Plain. This region occupies a central position in the peninsula of southwestern Ontario and covers over 156,000 ha. The surface is drumlinized, with good drumlins south of Woodstock and faint drumlins and flutings farther north. The till consists of a pale brown calcareous loam in which limestone is the dominant material, although grey or pale brown dolostone also occurs (Chapman and Putnam 1984:143–144). Although once restricted to the area southwest of the Waterloo Hills, this region has been expanded to include the plain between Waterloo in the south and Alma in the north.

According to the Ontario Soil Survey, the study area traverses several different soil map units (Map 10). These consist of groupings of Burford Gravelly Loam, Elmira Loam and Woolwich Loam (Bg=El=Wo) in the west; Brady Sandy Loam, St. Jacobs Loam and Fox Sandy Loam (By>Si=Fo) in the northeast; Conestoga Loam, Woolwich Loam and Maryhill Loam (Co>Wo=Mr) in the south and east; Elmira Loam, Conestoga Loam and Hawksville Loam (El>Co=HK) in the west; London and Guelph Loam (Lo=Gu) in the south and centre; and Wauseon Sandy Loam and Maplewood Loam (Wu>Mp) in the centre and east. The characteristics of these soil types are summarized in Table 5 (Presant and Wicklund 1971; Cressman 1996).

Table 5: Soil Types

Soil Code	Soil Type	Dominant Soil Texture	Dominant Topography	Drainage
Bg	Burford Gravelly Loam	Gravelly loam	Gently Sloping	Good
By	Brady Sandy Loam	Loamy sand	Level	Imperfect
Co	Conestoga Loam	Silt loam over loam	Level	Imperfect
El	Elmira Loam	Loam	Level	Poor
Fo	Fox Sandy Loam	Loamy sand	Gently sloping	Good
Gu	Guelph Loam	Loam	Gently sloping	Good
Hk	Hawksville Loam	Loam over gravel	Level	Poor
Lo	London Loam	Loam	Very gently sloping	Imperfect
Mp	Maplewood Loam	Loam over clay	Level	Poor
Mr	Maryhill Loam	Silt loam over loam	Level	Poor
Si	St. Jacobs Loam	Loam over gravel	Very gently sloping	Good
Wo	Woolwich Loam	Silt loam over loam	Very gently sloping	Good
Wu	Wauseon Sandy Loam	Sand over clay	Level	Poor

The subject lands fall within the Grand River Central/Canagagigue Creek drainage basin, which is under the jurisdiction of the Grand River Conservation Authority (GRCA 2024). Specifically, the study area is traversed by an unnamed wetland in the west, 20 m east of a Tributary of Canagagigue Creek, 400 m southwest of Canagagigue Creek and 3.7 km north of the Grand River.

At the time of assessment, the study area consisted of a farmstead surrounded by active agricultural fields. Field conditions were ideal during the investigation, with well-weathered soils in the ploughed lands, dry soils for screening and high ground surface visibility throughout the investigation. No unusual physical features were encountered that affected fieldwork strategy decisions or the identification of artifacts or cultural features (e.g., dense root mats, boulders, rubble, etc.).

1.3.2 Registered or Known Archaeological Sites

The Ontario Archaeological Sites Database and the Ontario Public Register of Archaeological Reports were consulted to determine whether any registered or known archaeological resources occur within a 1 km radius of the study area. The available search facility returned five registered sites located within at least a 1 km radius (the facility returns sites in a rectangular area rather than a radius, potentially resulting in results beyond the specified distance). Seven additional unregistered sites were also identified within a 1 km radius of the study area. The sites are summarized in Table 6.

Table 6: Registered or Known Archaeological Sites

Borden No. / ID No.	Site Name / Identifier	Time Period	Affinity	Site Type	Distance from Study Area
AjHd-35	Peter M. Martin	Pre-Contact	Indigenous	Scatter	300 m–1 km
AjHd-33	Emmanuel	Archaic, Early	Indigenous	Findspot	300 m–1 km
AjHd-32	Reist	Pre-Contact	Indigenous	Findspot	300 m–1 km
AjHd-24	Tri-Sus	Woodland, Early, Woodland, Middle	Indigenous	Unknown	> 1 km
AjHd-1	Martin (Leander)	Archaic, Middle	Indigenous	Other, Camp/campsite	300 m–1 km
Unregistered	Find Spot 1	Pre-Contact	Indigenous	Findspot	300 m–1 km
Unregistered	Find Spot 2	Pre-Contact	Indigenous	Findspot	300 m–1 km

Borden No. / ID No.	Site Name / Identifier	Time Period	Affinity	Site Type	Distance from Study Area
Unregistered	Find Spot 3	Pre-Contact	Indigenous	Findspot	300 m–1 km
Unregistered	Find Spot 4	Pre-Contact	Indigenous	Findspot	300 m–1 km
Unregistered	Find Spot 5	Pre-Contact	Indigenous	Findspot	300 m–1 km
Unregistered	Find Spot 2	Pre-Contact	Indigenous	Findspot	50 m–300 m
Unregistered	Find Spot 3	Woodland, Middle	Indigenous	Findspot	300 m–1 km

None of these sites are located within 50 m and do not have the potential to traverse the study area. Find Spots 2 is located within 300 m of the study area, however, and must be considered as relevant features of archaeological potential. It was identified during a Stage 1 and 2 assessments of lands to the northwest in 1998 (AHA 1998a). Find Spot 2 comprised a single lithic artifact and no further work was recommended. The remaining sites are over 300 m from the study area and represent more distant archaeological resources.

1.3.3 Previous Archaeological Work

Reports documenting assessments conducted within the subject lands and assessments that resulted in the discovery of sites within adjacent lands were sought during the research component of the study. In order to ensure that all relevant past work was identified, an investigation was launched to identify reports involving assessments within 50 m of the study area. The investigation determined that there are two available reports documenting previous archaeological fieldwork within the specified distance. The relevant results and recommendations are summarized below as required by Section 7.5.8 Standards 4–5 of the 2011 S&Gs.

1.3.3.1 Highway 86 Bypass, St. Jacobs to Elmira

In 1990, a 6.2 km corridor was subject to Stage 1 and 2 assessments for the Highway 86 Bypass from St. Jacobs to Elmira under Licence #90-026 (Lennox 1990). These lands were subject to a combination of pedestrian and test pit survey at intervals of 10 m. The assessed area traverses the far southwest of the current study area, but mapping was insufficient to clearly delineate the extent or the specific methodology of the previous assessment.

No archaeological resources were identified in the overlapping area, but four locations of archaeological materials were identified throughout the broader corridor, including the Tri-sus site (AjHd-24) and Findspots 1-3. The Tri-sus site (AjHd-24) consisted of a single ceramic rim sherd and several body sherds from the early Late Woodland period (ca. AD 800–900). Findspots 1 and 2 both comprised two utilized flakes while Findspot 3 comprised a single Late Archaic projectile point (ca. 1900–1500 BC). The Tri-sus site was recommended for further work. Findspot 1 was recommended to be re-surveyed, Findspot 2 was no longer within the proposed right-of-way, and Findspot 3 was not recommended for further work. The methodology of this assessment does not meet current standards. Overlapping areas covered by the survey require re-assessment.

1.3.3.2 Elmira Industrial Lands (Stage 1-2)

Alder Heritage Assessments carried out Stage 1 and 2 assessments for a proposed industrial subdivision in 1998 under Licence #98-011 (AHA 1998b). The assessed area was located to the west of the current study area, on the opposite side of the CN Rail right-of-way. The lands were

subject to test pit and pedestrian survey at intervals of 5 m and 10 m. The investigation resulted in the discovery of five findspots (Find Spots 1-5) in the agricultural fields, all of which were comprised of single locations of lithic debitage and were subject to intensification of 1 m intervals to 10 m around the artifact. These sites were not deemed to represent significant archaeological finds, and no further assessment was recommended for the property (AHA 1998b).

2.0 STAGE 1 BACKGROUND STUDY

2.1 Background

The Stage 1 assessment involved background research to document the geography, history, previous archaeological fieldwork and current land condition of the study area. This desktop examination included research from archival sources, archaeological publications and online databases. It also included the analysis of a variety of historical maps and aerial imagery. The results of the research conducted for the background study are summarized below.

With occupation beginning approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Pre-Contact and Post-Contact histories (Section 1.2.1). Artifacts associated with Palaeo, Archaic, Woodland and Early Contact traditions are well-attested in the Waterloo region, and Euro-Canadian archaeological sites dating to pre-1900 and post-1900 contexts are likewise common. The presence of 12 previously identified sites in the surrounding area demonstrates the desirability of this locality for early settlement (Section 1.3.2). The investigation confirmed that none of these sites extend into the subject lands. Background research identified one area of previous assessment within the study area (Section 1.3.3).

The natural environment of the study area would have been attractive to both Indigenous and Euro-Canadian populations as a result of proximity to various water sources. The areas of well-drained soils would have been ideal for agriculture, and the diverse local vegetation would also have encouraged settlement throughout Ontario's lengthy history. Euro-Canadian populations would have been particularly drawn to Scotch Line Road and Township Road 27.

In summary, the background study included an up-to-date listing of sites from the Ontario Archaeological Sites Database (within at least a 1 km radius), the consideration of previous local archaeological fieldwork (within at least a 50 m radius), the analysis of historical maps (at the most detailed scale available) and the study of aerial imagery. ARA, therefore, confirms that the standards for background research set out in Section 1.1 of the 2011 S&Gs were met.

2.2 Field Methods (Property Inspection)

Since the Stage 1 and 2 archaeological assessments were carried out concurrently, a separate property inspection was not completed as part of the Stage 1 background study. Instead, the visual inspection was conducted over the course of the Stage 2 property survey, in keeping with the concepts set out in Section 2.1 Standards 2a–b of the 2011 S&Gs. The specific field methods utilized during the visual inspection and the weather and lighting conditions at the time of assessment are summarized in Section 3.1 (Stage 2).

2.3 Analysis and Conclusions

In addition to relevant historical sources and the results of past archaeological assessments, the archaeological potential of a property can be assessed using its soils, hydrology and landforms as considerations. Section 1.3.1 of the 2011 S&Gs recognizes the following features or characteristics as indicators of archaeological potential: previously identified sites, water sources (past and present), elevated topography, pockets of well-drained sandy soil, distinctive land formations,

resource areas, areas of Euro-Canadian settlement, early transportation routes, listed or designated properties, historic landmarks or sites, and areas that local histories or informants have identified with possible sites, events, activities or occupations.

The Stage 1 assessment resulted in the identification of several features of archaeological potential in the vicinity of the study area (Map 11; SD Map 1). The closest and most relevant indicators of archaeological potential (i.e., those that would affect survey interval requirements) include multiple physiographic landforms (e.g., terraces and an esker), two historical roadways (Scotch Line Road and Township Road 27), one previously identified unregistered site (Find Spot 2), one primary water sources (a tributary of Canagagigue Creek), one secondary water sources (an unnamed wetland), one historical railway (the Waterloo Junction Railway) and one historical structure locality (a late 19th-century house). Background research did not identify any features indicating that the study area had the potential for deeply buried archaeological resources.

Although proximity to a feature of archaeological potential is a significant factor in the potential modelling process, current land conditions must also be considered. Section 1.3.2 of the 2011 S&Gs emphasizes that 1) quarrying, 2) major landscaping involving grading below topsoil, 3) building footprints and 4) sewage/infrastructure development can result in the removal of archaeological potential, and Section 2.1 states that 1) permanently wet areas, 2) exposed bedrock and 3) steep slopes ($> 20^\circ$) in areas unlikely to contain pictographs or petroglyphs can also be evaluated as having no or low archaeological potential. Areas previously assessed and not recommended for further work also require no further assessment.

The overlapping areas assessed under Licence #90-026 did not meet current standards and were re-evaluated to confirm the past results. ARA's visual inspection, coupled with the analysis of historical sources and digital environmental data, identified several areas of no archaeological potential. Since these areas of no archaeological potential were identified over the course of the Stage 2 property survey, they are fully discussed in Section 3.1. The remainder of the study area had archaeological potential and required further assessment.

3.0 STAGE 2 PROPERTY ASSESSMENT

3.1 Field Methods

The Stage 2 assessment involved visual inspection, pedestrian survey and test pit survey. Environmental conditions were ideal during the investigation, permitting good visibility of land features and providing an increased chance of finding evidence of archaeological resources. A breakdown of the specific fieldwork activities, weather and lighting conditions appears in Table 7. ARA, therefore, confirms that fieldwork was carried out under weather and lighting conditions that met or exceeded the requirements set out in Section 1.2 Standard 2 and Section 2.1 Standard 3 of the 2011 S&Gs.

Table 7: Fieldwork Activities and Environmental Conditions

Date	Activity	Field Director	Lighting	Cloud Cover	Precipitation	Temperature (°C)
15/07/2024	Test pit survey	CA	Diffuse	Overcast	None	25
17/07/2024	Test pit survey	CA	Bright	Partial	None	28
18/07/2024	Pedestrian survey	CA	Bright	None	None	25
19/07/2024	Pedestrian survey; Test pit survey	CA	Bright	None	None	25
22/07/2024	Pedestrian survey; Test pit survey; Intensification of Sites 1-6	CA	Bright	None	None	25
13/08/2024	Pedestrian survey; Test pit survey; Intensification of Sites 7-12	SB	Bright	None	None	18
26/08/2024	Pedestrian survey; Test pit survey	IC	Bright	None	None	28
27/08/2024	Test pit survey	IC	Bright	Partial	None	29
28/08/2024	Test pit survey; Intensification of Site 13	IC	Bright	None	None	21

The study area was subjected to a systematic visual inspection in accordance with the requirements set out in Section 1.2 of the 2011 S&Gs. This component of the investigation was conducted concurrently with the property survey. The inspection confirmed that all surficial features of archaeological potential were present where they were previously identified and did not result in the identification of any additional features of archaeological potential not visible on mapping (e.g., relic water channels, patches of well-drained soils, etc.).

The visual inspection resulted in the identification of several areas of disturbance, comprising large areas of soil stockpiling, dirt and gravel access roads, a gravel driveway, extant farm and house structures with deep foundations, and associated farming infrastructure (Image 1–Image 6). These areas had clearly been impacted by past earth-moving/construction activities, resulting in the disturbance of the original soils to a significant depth and severe damage to the integrity of any archaeological resources. Low-lying and permanently wet lands were documented within the wetlands in the northwest of the property (Image 7). No other natural features (e.g., sloped lands, overgrown vegetation, heavier soils than expected, etc.) or significant built features (e.g., heritage structures, landscapes, plaques, monuments, cemeteries, etc.) that would affect assessment strategies were identified.

The pedestrian survey method was utilized to complete the assessment within the agricultural field. Section 2.1.1 of the 2011 S&Gs provides clear requirements for the condition of such lands prior to the commencement of fieldwork: all fields must be recently ploughed; all soils must be well-weathered; and at least 80% of the ploughed ground surface must be visible. These conditions were met during the pedestrian survey. In accordance with the requirements set out in Section 2.1.1 of the 2011 S&Gs, ARA crewmembers traversed the field along parallel transects established at a maximum interval of 5 m (Image 8–Image 11).

The pedestrian survey resulted in the identification of twelve locations of archaeological materials: Sites 1–12. A combination of intensified pedestrian survey and controlled surface pick-up (CSP) was conducted at each location in accordance with Section 2.1.1, Section 3.2.1 and Section 7.9.1 of the 2011 S&Gs. During the intensified survey, the transects were decreased to an interval of 1 m and a close inspection of the ground was conducted over a minimum of a 20 m radius around the initial find to determine if it comprised part of a larger scatter. When a larger scatter was identified, the interval was continued until the full extent of the site was realized (Image 12). The artifact stations were recorded with a GPS receiver, and all of the artifacts were retained in order to fully document the deposits. Site relocation can be achieved using the associated GIS and mapping data. While Site 5 (AjHd-49) and Site 6 were within 20 m, their distance (17 m) and their distinct cultural affinities (i.e. Indigenous versus Euro-Canadian) suggest these two sites are unrelated and were, therefore, analyzed separately as distinct archaeological sites.

The test pit survey method was utilized to complete the assessment within the overgrown and heavily obstructed areas because ploughing was not possible or viable (Image 13–Image 16). Using this method, ARA crewmembers hand excavated small regular test pits with a minimum diameter of 30 cm at prescribed intervals in accordance with Section 2.1.2 of the 2011 S&Gs. Since the areas to be tested were located less than 300 m from any feature of archaeological potential, a maximum interval of 5 m was warranted (Image 17–Image 23).

Each test pit was excavated into at least the first 5 cm of subsoil, and the resultant pits were examined for stratigraphy, potential features and/or evidence of fill. Natural test pits generally contained medium brown sandy loam topsoil over medium orange or yellow-orange sandy loam subsoil (Image 24–Image 29). All soils were screened through mesh with an aperture of no greater than 6 mm and examined for archaeological resources.

The test pit survey resulted in the identification of one location of archaeological materials: Site 13. Based on the initial results, it was unclear whether this site had further CHVI. Intensified survey coverage was therefore warranted as per Section 2.1.3 of the 2011 S&Gs. Option A was utilized, which involved the excavation of eight additional test pits at an interval of 2.5 m around the initial positive test pit (PTP) as well as the excavation of a one-metre test unit over the PTP (Image 30–Image 32). The test units were excavated in accordance with the requirements set out in Section 3.2.2 of the 2011 S&Gs. The topsoil of Site 13 was 35 cm deep. Excavations were continued into at least the first 5 cm of subsoil, and the soils were screened as outlined above. All artifacts and other remains were retained for review in the lab. The test pits and test units were backfilled upon completion.

The utilized field methods are presented in Map 12 and Map 13. The study area is depicted as a layer in this map. A breakdown of field methods appears in Table 8.

Table 8: Field Methods

Category	Breakdown
Pedestrian survey at an interval of 5 m	88.38% (48.83 ha)
Test pit survey at an interval of 5 m	7.38% (4.08 ha)
Test pit survey at an interval of 10 m	0.00% (0.00 ha)
Test pit survey at a modified interval due to physical constraint	0.00% (0.00 ha)
Combination of visual inspection and test pit survey to confirm disturbance	0.00% (0.00 ha)
Not assessed due to physical constraint	0.00% (0.00 ha)
Not assessed due to permanently wet areas	0.91% (0.50 ha)
Not assessed due to exposed bedrock	0.00% (0.00 ha)
Not assessed due to sloped areas	0.00% (0.00 ha)
Not assessed due to disturbed areas	3.33% (1.84 ha)
Previously assessed and of no further concern	0.00% (0.00 ha)
Total	100.00% (55.25 ha)

The identified archaeological resources were recorded on field maps, described in field notes and documented with a GPS receiver in accordance with Section 5.0 Standard 2 of the 2011 S&Gs. All maps, image locations and data revealing site location information appear in the Supplementary Documentation (SD) accompanying the report (SD Map 2–SD Map 12; SD Table 1). As required by Table 7.1, Section 7.8.2 and Section 7.8.3 of the 2011 S&Gs, the Record of Finds and Analysis and Conclusions for each site appear in Section 3.2–Section 3.6.

During laboratory processing of the retained finds, detailed analyses were carried out to provide 1) a record of the materials, 2) a basis for all recommendations and 3) enough information to help future researchers determine relevance to their studies. The finds were classified using ARA’s devised typological system, which follows *Nomenclature for Museum Cataloging* (2018). In this system, chert types are determined as per *Cherts of Southern Ontario* (Eley and von Bitter 1989) and *Ontario Cherts Revisited* (Fox 2009), and lithics are classified using the definitions set out in *Lithic Analysis* (Odell 2004) and *Lithics: Macroscopic Approaches to Analysis* (Andrefsky 2005). Euro-Canadian artifacts are divided into classes, materials, object groups and object names using a variety of reference aids (e.g., MACL 2012; Chenoweth 2016; Lindsey 2023). The references used for artifact dating are itemized in Appendix B, and a complete list of all sources cited is provided in Section 8.0. The artifacts appear in Image 33.

The archaeological materials are stored in polyethylene bags within Archive Box A1215. This is a 30.5 x 25.4 x 38.1 cm light-duty, double-bottom corrugated cardboard container labelled with its Archive Box designation. Box numbers are assigned in numerical order, and all associated information is entered into a secure digital catalogue for accurate tracking. Archive Boxes are stored on steel storage shelves at 465 Maple Avenue in Kitchener, Ontario.

3.2 Site 2 (AjHd-48)

3.2.1 Record of Finds

Site 2 (AjHd-48) was identified during the pedestrian survey of the eastern central agricultural field (SD Map 5). The site consisted of an isolated Indigenous artifact within a flat area.

The artifact was observed on the field surface and collected. It consisted of a side-notched point of Onondaga chert. The associated catalogue entry appears in Appendix B, Record 2, and a supplementary analysis is presented in Appendix C. The artifact did not exhibit evidence of heat alteration. It measured 36.6+ x 29.1 x 5.4 mm with part of the base and tip missing. It had wide, shallow biface thinning scars across the surface with careful marginal retouching, shallow notches low on the blade and basal thinning. The point was generally representative of the Early Woodland Meadowood Side-Notched Cluster and dates from ca. 900–400 BC in the Early Woodland period (Spence et al. 1990:125).

No cultural features or structural elements of potential CHVI were identified. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix D.

3.2.2 Analysis and Conclusions

The results indicate that Site 2 (AjHd-48) comprises an isolated Indigenous artifact. The site appears to have a relatively moderate level of integrity, as there was no observable evidence of disturbance since the deposition of the materials, save for ploughing.

The find consisted of a side-notched point of Onondaga chert dating from ca. 900–400 BC in the Early Woodland period. The deposit appears to represent a loss/discard locality associated with an instance of resource procurement/processing.

When evaluated against the criteria set out in Section 2.2 of the 2011 S&Gs, the available evidence indicates that Site 2 (AjHd-48) is of no further CHVI. Specifically, an isolated Early Woodland lithic artifact was found within a 10 x 10 m pedestrian survey area. Site 2 (AjHd-48) does not warrant further assessment.

3.3 Site 5 (AjHd-49)

3.3.1 Record of Finds

Site 5 was identified during the pedestrian survey of the southwest agricultural field (SD Map 8). The site consisted of a 35 x 24 m (SW-NE) scatter of Euro-Canadian artifacts within a relatively flat area.

Approximately 42 artifacts were observed on the field surface, all of which were collected. The retained assemblage consisted of 42 Euro-Canadian artifacts. The associated catalogue entries appear in Appendix B, Records 5–46. A quantitative summary of archaeological materials is provided in Table 9.

Table 9: Site 5 (AjHd-49) – Archaeological Materials

Class	Object Group	Object Name	Count	%
Foodways	Storage Container	Storage Container (Ind.)	1	2.38%
	Tableware	Hollowware (Ind.)	16	38.10%
		Tableware (Ind.)	13	30.95%
		Flatware (Ind.)	6	14.29%
		Saucer	1	2.38%
		Plate	1	2.38%
Foodways Total			38	90.48%
Unclassifiable	Storage Container	Storage Container (Ind.)	1	2.38%
		Bottle (Ind.)	1	2.38%
Unclassifiable Total			2	4.76%
Furnishings	Hollowware	Hollowware (Ind.)	1	2.38%
Furnishings Total			1	2.38%
Recreational	Leisure	Toy Tea Set	1	2.38%
Recreational Total			1	2.38%
Grand Total			42	100.00%

The Euro-Canadian assemblage (n=42) consisted primarily of foodways tableware (n=37) and unclassifiable storage containers (n=2). The assemblage also included a foodways ceramic storage container, a glass hollowware furnishing, and a recreational porcelain toy tea set. No artifacts exhibited evidence of heat alteration. A total of 37 artifacts were diagnostic, and the date ranges are summarized in Table 10.

Table 10: Site 5 (AjHd-49) – Diagnostic Euro-Canadian Artifacts

Class	Material	Dateable Attribute	Date Range	Count
Foodways	Ironstone	General	ca. 1840s–20 th century	15
		Transfer (Brown Line and Stipple)	ca. 1840s–early 1900s	4
		Transfer (Brown)	ca. 1840s–20 th century	2
		Plain and Rounded	ca. 1870s–early 1900s	1
		W. & E. Corn (Ribbed Floral)	ca. 1870	1
		W. & E. Corn (Sea Shore)	ca. 1868–1883	1
	Whiteware	Transfer (Brown Continuous Repeating Linear)	ca. 1820–1891	2
		Sponge (Cut and Stamped)	ca. 1840s–early 20 th century	2
		Sponge (All-Over)	ca. 1830–20 th century	2
		Sponge (Multi-Coloured)	ca. 1830–20 th century	2
		Transfer (Blue)	ca. 1820–present	1
		Transfer (Flow Mulberry)	ca. 1851–1868	1
		Shell-Edge (General)	ca. 1820–1890s	1
Unclassifiable	Stoneware (Fine)	Derbyshire-Style	ca. 1800–1930s	1
Furnishings	Glass	Solarized	ca. 1865–early 1930s	1
Total				37

The datable foodways artifacts consisted primarily of ironstone and whiteware fragments. Developed in 1805, whiteware evolved from earlier pearlware as potters developed ceramics with a whiter appearance; However, it did not predominate until the early 1830s. Early whiteware tends

to transition from an earlier porous paste to a more vitrified, harder ceramics later in the 19th century (Majewski and O'Brien 1987: 120). The use of whiteware continued throughout the 19th century and into the 20th century, but into the mid-19th century, Ironstone became increasingly preferred (Adams et al. 1995; Miller 2000: 10, 13). Ironstone was manufactured as early as 1842, but it was generally most popular from ca. 1875–1900 and is a key indicator of late 19th-century occupations (Kenyon 1980; Miller 2000: 13).

Generic ironstone was predominant in the assemblage, but several decorated fragments were also found. The most common were brown transferware, specifically brown line and stipple from the 1840s–early 1900s, along with several pieces of spongeware from ca. 1830–20th century. The remaining foodways diagnostics were largely contemporaneous with the types noted above and included pieces of moulded ironstone (ca. 1868–1883), blue transferware (ca. 1820–present), flow mulberry transferware (ca. 1851–1868) and shell-edge (ca. 1820–1890s). A single piece of Ironstone had a fragmentary maker's mark with a royal coat-of-arms.

During the 19th century, transfer-printed ceramics revolutionized the British ceramic industry (Samford 1997). Before 1829, most transfer printed wares were blue, but after 1830, colours such as light blue, brown, black, sepia, green, red, and mulberry became more common (Collard 1984; Coysh and Henrywood 1982). From about 1850 to 1890, only the colours blue, black, and brown were common, while in the 1890s and later, a wide variety of colours were in use, including new colours like teal/turquoise (Adams et al. 1995). Initially unintentional, flow transfer print resulted from volatile chemicals bleeding into the surrounding glaze, creating a halo-like effect around the motif (MACL 2012). The effect proved popular, and flow ware was regularly produced between 1845 and 1866, with a revival in the 1890s and 1900s (Kenyon 1991).

Sponged/Stamped decoration was common from the mid-19th to 20th centuries. Edged wares were first introduced in the 1770s in green, blue, and occasionally red colours. Green-edged wares became rare towards the 1840s, while blue-edged wares were particularly popular into the 1860s and remained available into the 1890s and possibly later (Miller 1991). Their most diagnostic feature was their changing rim styles, which evolved from scalloped or undulating rims before 1840 to straight-edged rims occurring after 1840 as decoration trended towards straighter edges and fewer to no impressions (Adams et al. 1995; Miller 1987).

The diagnostic unclassified artifacts were limited to a piece of Derbyshire-style fine stoneware (ca. 1800–1930s) whereas the furnishing artifacts had a piece of “solarized” glass (ca. 1865–early 1930s). Colourless bottles become increasingly common after the 1870s because of the improved understanding of the chemistry of glass additives. Manganese dioxide assisted with the production of these colourless bottles, but their exposure to sunlight produced a chemical reaction that turned the glass into an amethyst colour. Known as “solarized glass,” this type of glass was common between 1880 to the 1920s (Lindsey 2024).

Based on the assemblage, the artifacts generally date from the late 1800s to the early 1900s. No cultural features or structural elements of potential CHVI were identified. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix D.

3.3.2 Analysis and Conclusions

The results indicate that Site 5 (AjHd-49) comprises a small-sized deposit of Euro-Canadian archaeological materials. The site appears to have a relatively high level of integrity, as there was no observable evidence of disturbance since the deposition of the materials, save for ploughing.

Background research indicates that the patent for both Lots 83 and 86, GCT were provided to William Wallace in 1798, who sold the properties to the German Company in 1807. The study area on Lot 83, GCT was then sold to Christian Shenk in 1807, Sameul Shenk in 1846, John Wissler in 1847 and John Proudlove in 1853. Simultaneously, the study area on Lot 86, GCT was sold to John Shaefer in 1807, Henry Martin in 1819, parts to Edward Thomas in 1839 and finally, John Proudlove in 1843 and 1846. By that point, the present-day study area came under the ownership of a single individual. These lands were sold to James Brunton in 1856, who is noted as living in a single-storey framed house, very likely the same house illustrated in the center of the property in the 1861 historical mapping (Map 2). The lands were then sold to Wendell Bowman in 1863, and the property stayed in the family through his son Joseph S. Bauman and his grandchildren, Lovina and Joseph L. Bowman, before returning to his widow in 1917. It then was sold to Adam Mattusch in 1918 and the Brubacher Family in 1926. Based on the historical, topographic and aerial mapping, the homestead remained within the center of the property throughout the 19th and 20th centuries with no indications of any structures in the southwest.

The Euro-Canadian assemblage (n=42) consisted primarily of foodways tableware (n=37), foodways tableware (n=86) and unclassifiable storage containers (n=2). The diagnostic artifacts generally date from the late 1800s to the early 1900s. The lack of diversity in the artifact decoration (i.e. Brown Transferware, Spongeware and Ironstone) and types (i.e. Ceramic Foodways) suggests that a large percentage of the artifact scatter originated from a limited number of ceramic vessels, resulting from a single depositional event or a short period of refuse disposal.

Based on the diagnostic artifacts mentioned above, coupled with the results of detailed background research, ARA proposes that the principal time frame of this event is from ca. 1897–1917, most likely associated with the occupation of the property by Joseph S. Bauman, Lovina Bowman or Joseph L. Bowman. The precise transfer between the generations of the Bauman family is not clear.

When evaluated against the criteria and directions set out in Section 2.2 and Section 3.4 of the 2011 S&Gs, the available evidence indicates that the site is of no further CHVI. Specifically, the occupation dates entirely to post-1870 and there are no other factors indicating that additional work is necessary. Detailed background research coupled with the results of the intensified survey and broader artifact analyses confirms that the site is of no further significance. The survey resulted in a good understanding of artifact distribution patterns and a representative assemblage. Although the site has moderate integrity, further investigation would not contribute to any clearer or more meaningful understanding of the deposit. None of the finds are associated with any significant local figures. Site 5 (AjHd-49) does not warrant further assessment.

3.4 Site 10

3.4.1 Record of Finds

Site 10 was identified during the pedestrian survey of the southwest agricultural field (SD Map 10). The site consisted of a 15 x 1 m (SW-NE) scatter of Indigenous archaeological materials within a relatively flat area.

A total of two artifacts were observed on the field surface, both of which were collected. The assemblage consisted of a biface thinning flake and a flake fragment of Onondaga chert. The associated catalogue entries appear in Appendix B, Records 51 and 52. Neither of the artifacts exhibited evidence of heat alteration.

No cultural features or structural elements of potential CHVI were identified. No artifact concentrations were discernable. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix D.

3.4.2 Analysis and Conclusions

The results indicate that Site 10 comprises a small deposit of Indigenous archaeological materials. The site appears to have a relatively moderate level of integrity, as there was no observable evidence of disturbance since the deposition of the materials, save for ploughing.

The assemblage consisted of a biface thinning flake and a flake fragment of Onondaga chert. Neither of the artifacts were diagnostic, but such finds are usually dated to the Pre-Contact period (ca. 9000 BC–AD 1650). The deposit was likely associated with tool maintenance.

When evaluated against the criteria set out in Section 2.2 of the 2011 S&Gs, the available evidence indicates that Site 10 is of no further CHVI. Specifically, less than 10 non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. The site does not warrant further assessment.

3.5 Site 12 (AjHd-50)

3.5.1 Record of Finds

Site 12 (AjHd-50) was identified during the pedestrian survey of the northwestern agricultural field (SD Map 11). The site consisted of a 19 x 1 m (N-S) scatter of Indigenous archaeological materials within a relatively flat area.

A total of three artifacts were observed on the field surface, all of which were collected. The assemblage consisted of a flake fragment, a utilized primary flake and an end and side scraper of Onondaga chert. The associated catalogue entries appear in Appendix B, Records 54–56, and a supplementary analysis of the formal lithic artifact is provided in Appendix C. The scraper measured 31.8 x 18.3 x 6.7 and was manufactured from a primary flake. It was complete with a trapezoidal cross-section, a continuous marginal retouch of convex lateral and distal margins to form a steeply bevelled ventral edge and an unmodified proximal end. None of the artifacts exhibited evidence of heat alteration.

No cultural features or structural elements of potential CHVI were identified. No artifact concentrations were discernable. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix D.

3.5.2 Analysis and Conclusions

The results indicate that Site 12 (AjHd-50) comprises a small deposit of Indigenous archaeological materials. The site appears to have a relatively moderate level of integrity, as there was no observable evidence of disturbance since the deposition of the materials, save for ploughing.

The assemblage consisted of a flake fragment, a utilized primary flake and an end and side scraper of Onondaga chert. None of the artifacts were diagnostic, but such finds are usually dated to the Pre-Contact period (ca. 9000 BC–AD 1650). The deposit was likely associated with resource processing and tool maintenance.

When evaluated against the criteria set out in Section 2.2 of the 2011 S&Gs, the available evidence indicates that Site 12 (AjHd-50) is of no further CHVI. Specifically, less than 10 non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. The site does not warrant further assessment.

3.6 Isolated Non-Diagnostic Finds

3.6.1 Record of Finds

Sites 1, 3, 4, 6-9 and 11 were identified during the pedestrian survey of various parts of the agricultural field while Site 13 was identified during the test pit survey northeast of the farming complex (SD Map 4, SD Map 6–SD Map 12). These sites consisted of isolated non-diagnostic Indigenous artifacts within relatively flat (Sites 1, 3, 4, 8, 11 and 13) or gently sloping (Site 6, 7 and 9) areas.

The artifacts for Sites 1, 3, 4, 6-9 and 11 were observed on the field surface and collected. Site 13 comprised a single artifact within one test pit and was collected. Eight additional intensified test pits and a test unit were excavated, but no additional artifacts were recovered. The finds consisted of lithic artifacts of Onondaga and Haldimand Chert. The flake fragment from Site 11 exhibits evidence of heat alteration through discolouration, scaling and pot lidding. The associated catalogue entries appear in Appendix B, Records 1, 3, 4, 47-50, 53 and 57, and a supplementary analysis of the formal lithic artifacts is provided in Appendix C. A quantitative summary of the isolated finds is provided in Table 11.

Table 11: Summary of Isolated Finds

Site Identifier	Material	Object Group	Object Name	Heat Altered
1	Onondaga Chert	Lithic Debitage	Flake (Biface Thinning)	No
3	Onondaga Chert	Formal Lithic	Biface (Fragment)	No
4	Onondaga Chert	Formal Lithic	Biface (Fragment)	No
6	Onondaga Chert	Formal Lithic	Biface (Fragment)	No
7	Haldimand Chert	Informal Lithic	Rough Biface (Fragment)	No

Site Identifier	Material	Object Group	Object Name	Heat Altered
8	Onondaga Chert	Informal Lithic	Utilized Flake (Primary)	No
9	Onondaga Chert	Lithic Debitage	Flake (Biface Thinning)	No
11	Onondaga Chert	Lithic Debitage	Flake (Fragment)	Yes
13	Onondaga Chert	Lithic Debitage	Flake (Edge Thinning)	No

No cultural features or structural elements of potential CHVI were identified. The inventory of the documentary record for each site is included in the overall inventory presented in Appendix D.

3.6.2 Analysis and Conclusions

The results indicate that Sites 1, 3, 4, 6-9, 11, and 13 each comprise an isolated Indigenous artifact. The sites appear to have a relatively moderate level of integrity, as there was no observable evidence of disturbance since the deposition of the materials, save for ploughing.

The finds consisted of lithic artifacts of Onondaga and Haldimand chert. None of the artifacts were diagnostic, but such finds are usually dated to the Pre-Contact period (ca. 9000 BC–AD 1650). Sites 1, 9, 11 and 13 are probably associated with minor instances of secondary shaping/tool kit maintenance; Sites 3, 4, 6 and 8 are associated with resource processing; and Site 7 is associated with tool production.

When evaluated against the criteria set out in Section 2.2 of the 2011 S&Gs, the available evidence indicates that Sites 1, 3, 4, 6-9, 11, and 13 are of no further CHVI. Specifically, less than 10 non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area at Sites 1, 3, 4, 6-9, and 11 while less than 5 non-diagnostic artifacts were found within a 10 x 10 m test pit survey area at Site 13. Sites 1, 3, 4, 6-9, 11, and 13 do not warrant further assessment.

4.0 RECOMMENDATIONS

The Stage 1 assessment determined that the study area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. The Stage 2 assessment resulted in the identification of thirteen locations of archaeological materials: Site 1, Site 2 (AjHd-48), Site 3, Site 4, Site 5 (AjHd-49), Sites 6-11, Site 12 (AjHd-50) and Site 13. The sites were found to be of no further CHVI. It is recommended that no further assessment be required within the study area.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Section 7.5.9 of the 2011 S&Gs requires that the following information be provided for the benefit of the proponent and approval authority in the land use planning and development process:

- This report is submitted to the Minister of Citizenship and Multiculturalism 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 MCM, 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 Section 48 (1) of the *Ontario Heritage Act*.
- The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar at the Ministry of Public and Business Service Delivery.

6.0 IMAGES



Image 1: Disturbed Lands
(August 28, 2024; Facing Northwest)



Image 2: Disturbed Lands
(August 13, 2024; Facing South)



Image 3: Disturbed Lands
(July 16, 2024; Facing North)



Image 4: Disturbed Lands
(July 16, 2024; Facing Southwest)



Image 5: Disturbed Lands
(July 16, 2024; Facing Southeast)



Image 6: Disturbed Lands
(July 16, 2024; Facing Northeast)



Image 7: Permanently Wet Lands
(August 26, 2024; Facing South)



Image 8: Pedestrian Survey
(August 26, 2024; Facing North)



Image 9: Pedestrian Survey
(July 18, 2024; Facing Southwest)



Image 10: Pedestrian Survey
(August 13, 2024; Facing Northwest)



Image 11: Pedestrian Survey
(July 18, 2024; Facing North)



Image 12: Intensification (Site 11)
(August 13, 2024; Facing North)



Image 13: Field Conditions
(July 19, 2024; Facing Southwest)



Image 14: Field Conditions
(August 27, 2024; Facing Northeast)



Image 15: Field Conditions
(August 27, 2024; Facing East)



Image 16: Field Conditions
(August 27, 2024; Facing West)



Image 17: Test Pit Survey
(August 28, 2024; Facing East)



Image 18: Test Pit Survey
(August 26, 2024; Facing East)



Image 19: Test Pit Survey
(August 27, 2024; Facing Northeast)



Image 20: Test Pit Survey
(August 28, 2024; Facing Northwest)

S



Image 21: Test Pit Survey
(August 28, 2024; Facing East)



Image 22: Test Pit Survey
(July 22, 2024; Facing Southwest)



Image 23: Test Pit Survey
(August 28, 2024; Facing Southeast)



Image 24: Natural Test Pit
(August 28, 2024; Facing North)



Image 25: Natural Test Pit
(August 13, 2024; Facing North)



Image 26: Natural Test Pit
(August 28, 2024; Facing North)



Image 27: Natural Test Pit
(July 22, 2024; Facing North)



Image 28: Natural Test Pit
(July 16, 2024; Facing North)



Image 29: Natural Test Pit
(July 15, 2024; Facing North)



Image 30: Intensification (Site 13)
(August 28, 2024; Facing Northwest)



Image 31: Test Unit Excavation (Site 13)
(August 28, 2024; Facing Northwest)



Image 32: Test Unit (Site 13)
(August 28, 2024; Facing North)

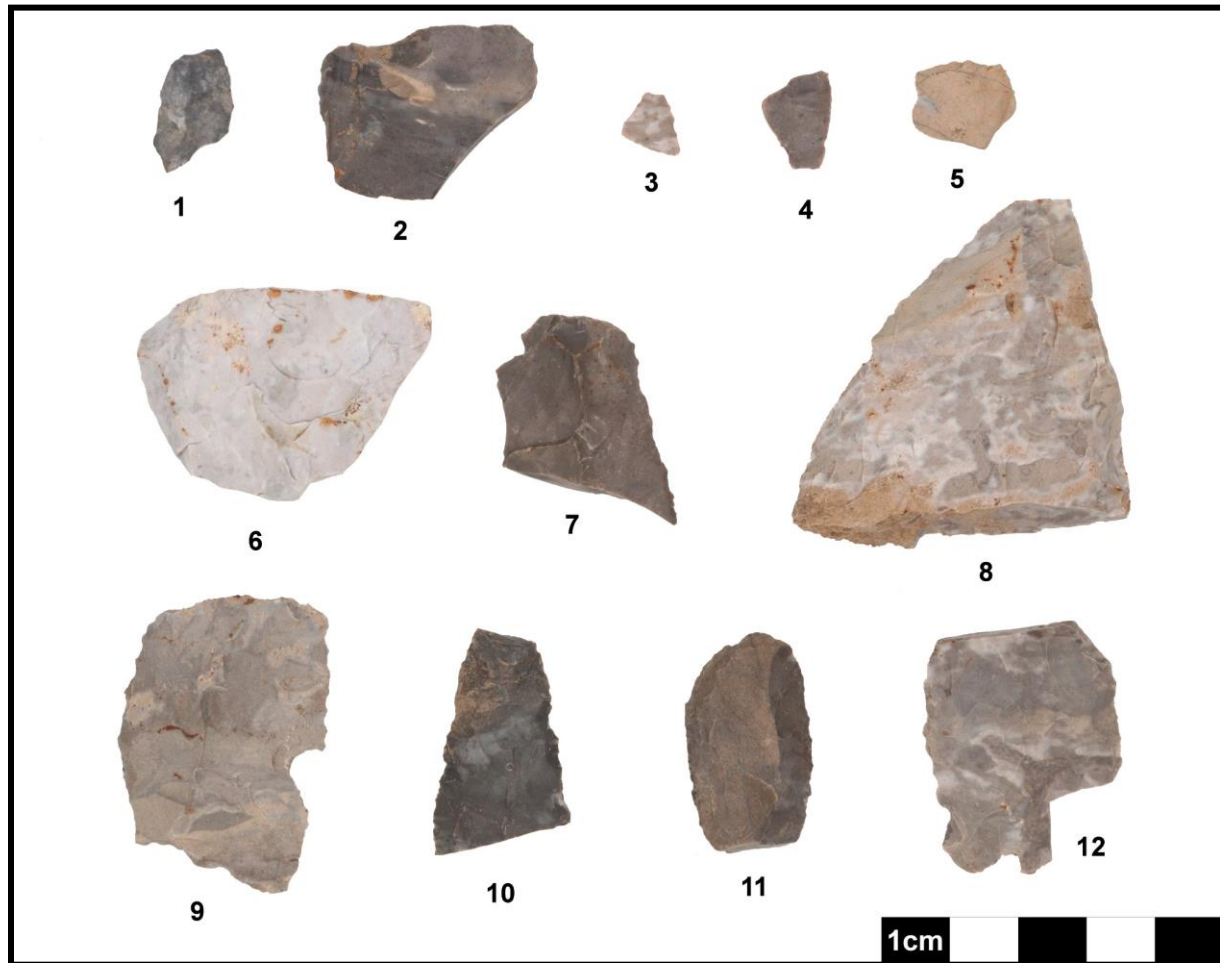


Image 33: Sample of Indigenous Artifacts

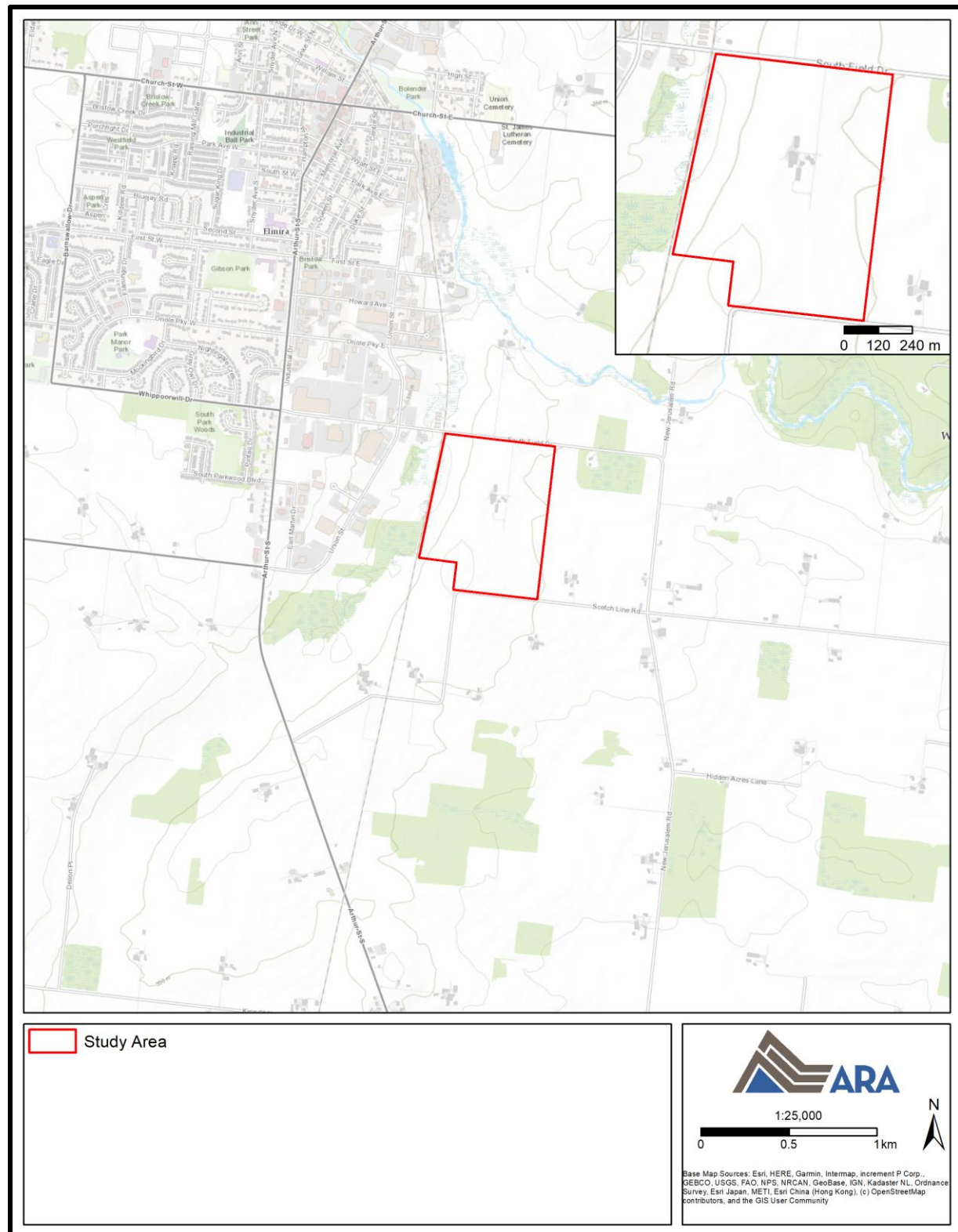
(1: Burnt Onondaga Chert Flake Fragment, Site 11, Record 53; Onondaga Chert Flake Fragment, Site 10, Record 51; 3: Onondaga Chert Edge Trimming Flake, Site 13, Record 57; 4–5: Onondaga Chert Biface Thinning Flakes, Sites 1 and 9, Records 1 and 50; 6: Haldimand Chert Rough Biface Fragment, Site 7, Record 48; 7: Onondaga Chert Utilized Primary Flake Fragment, Site 8, Record 49; 8–10: Onondaga Chert Biface Fragments, Sites 6, 4, and 3, Records 47, 4 and 3; 11: Onondaga Chert Scraper, Site 12, Record 56; 12: Onondaga Chert Meadowood Point, Site 2, Record 2)

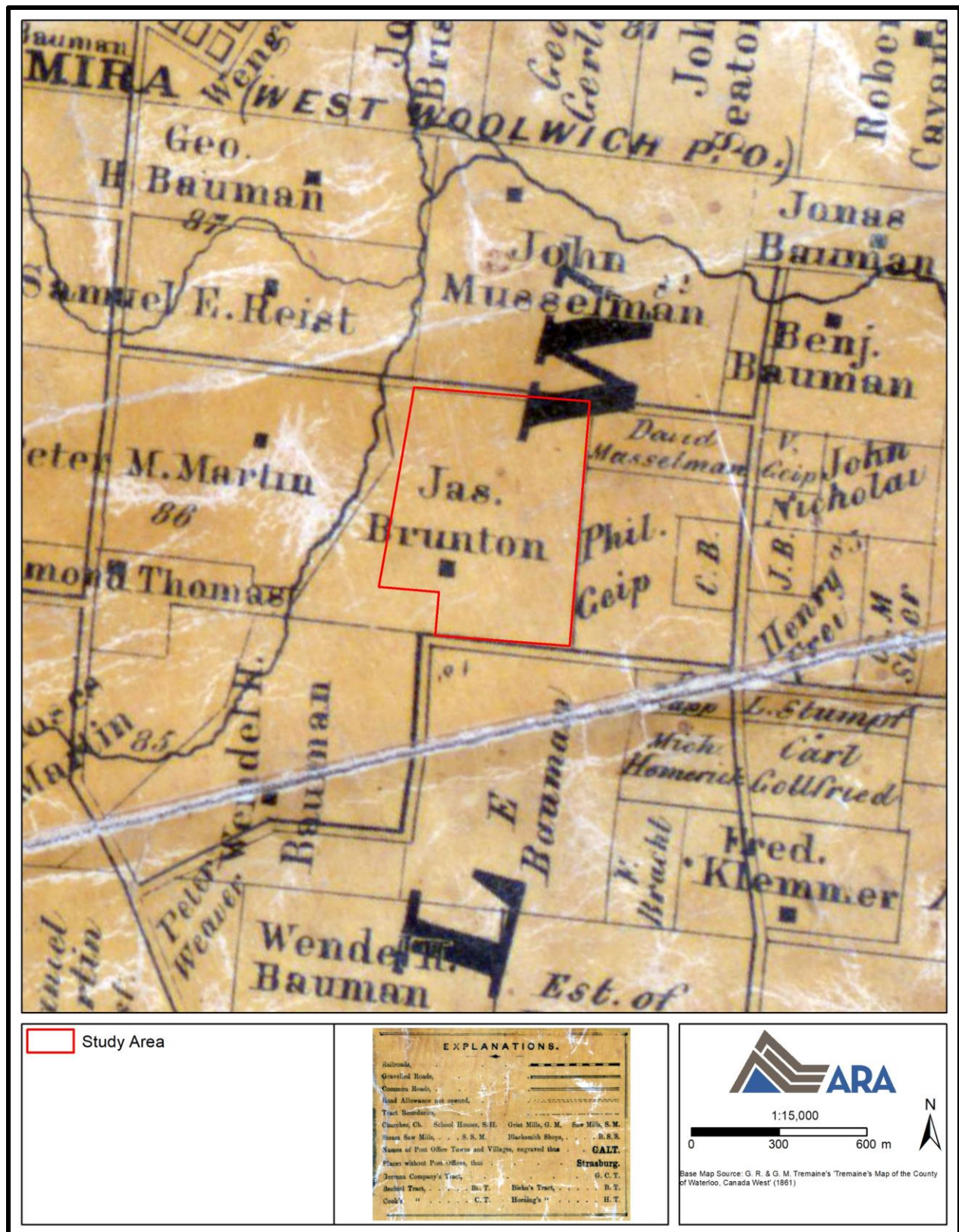


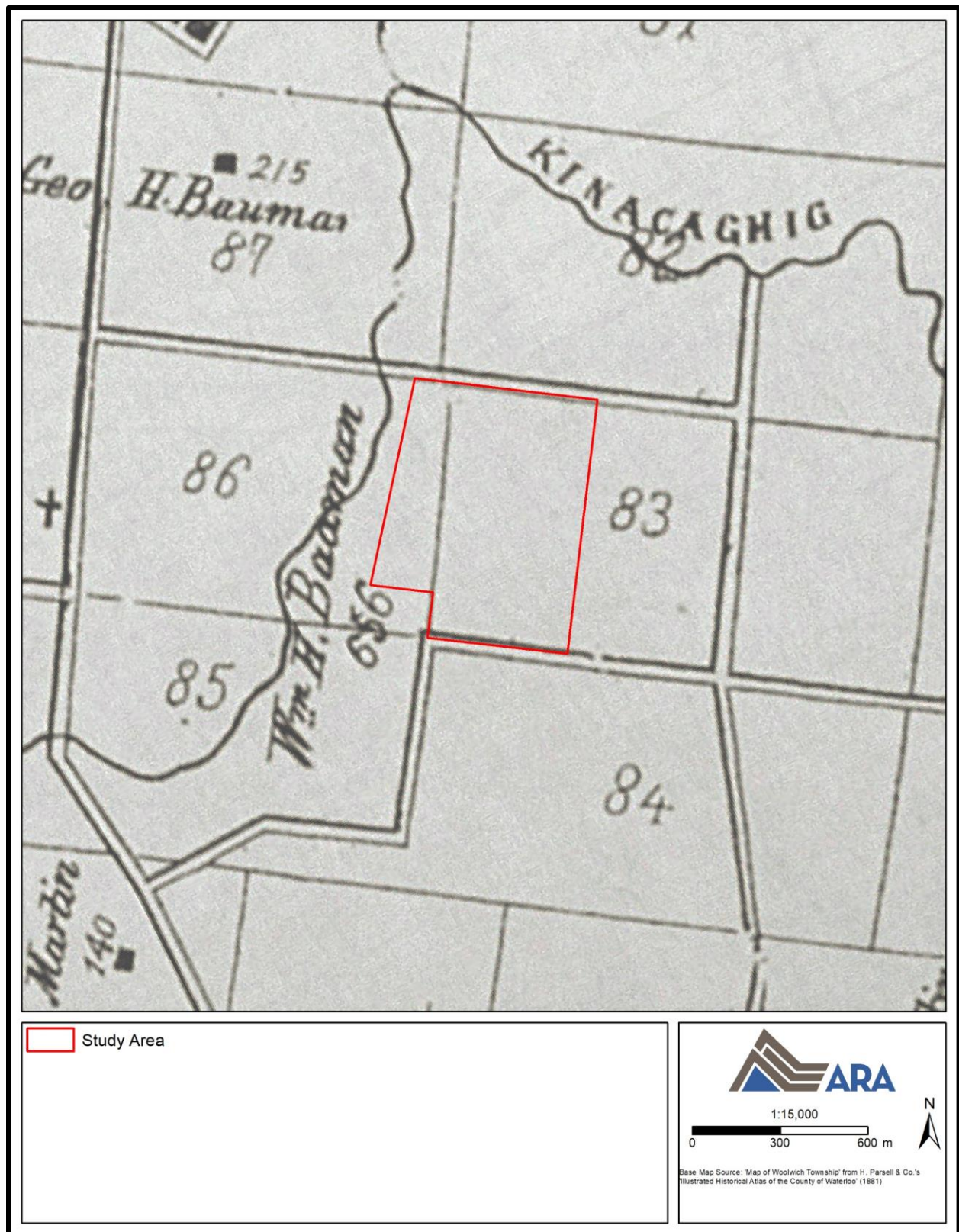
**Image 34: Sample of Foodways, Unclassifiable, Furnishings and Activities – Site 5
(AjHd-49)**

(1: Porcelain Saucer, Record 10; 2: Shell-Edge Whiteware, Record 36; 3: Continuous Linear Brown Line and Stipple Transfer Whiteware, Record 22; 4: Blue Transfer Whiteware, Record 23; 5: Flow Mulberry Transfer Whiteware, Record 42; 6: Stamped Sponge Whiteware, Record 19; 7: Multi-Coloured Sponge Whiteware, Record 45; 8: W & E Corn Sea Shore Shape Ironstone, Record 25; 9: W & E Corn Ribbed Floral Shape, Record 21; 10: Glazed Coarse Red Earthenware, Record 29; 11: Solarized Glass Hollowware, Record 44; 12: Porcelain Toy Teacup, Record 27; 13: Mould Blown or Early Machine Made Glass Bottle Base, Record 34; 14: Derbyshire-Style Bottle, Record 35)

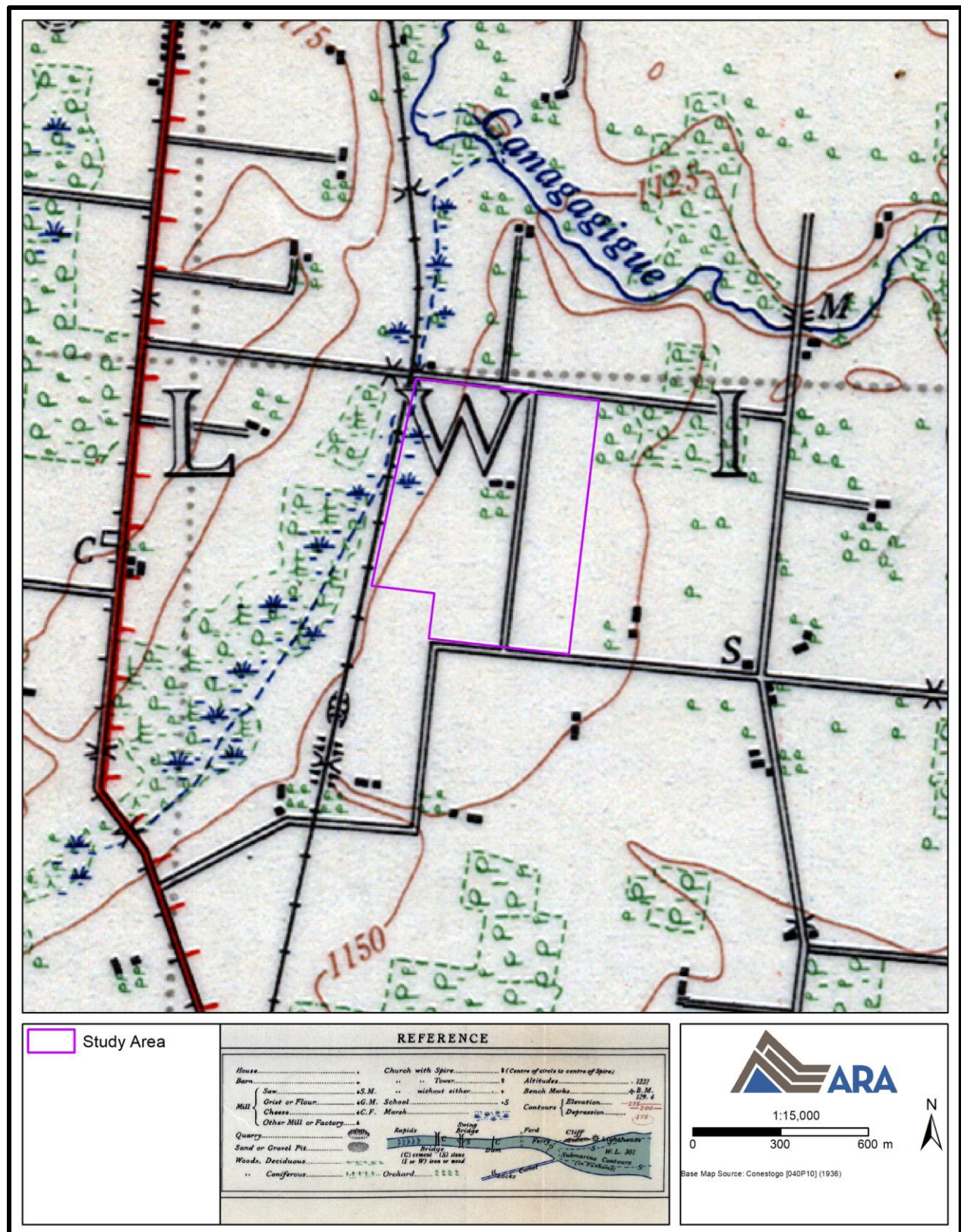
7.0 MAPS



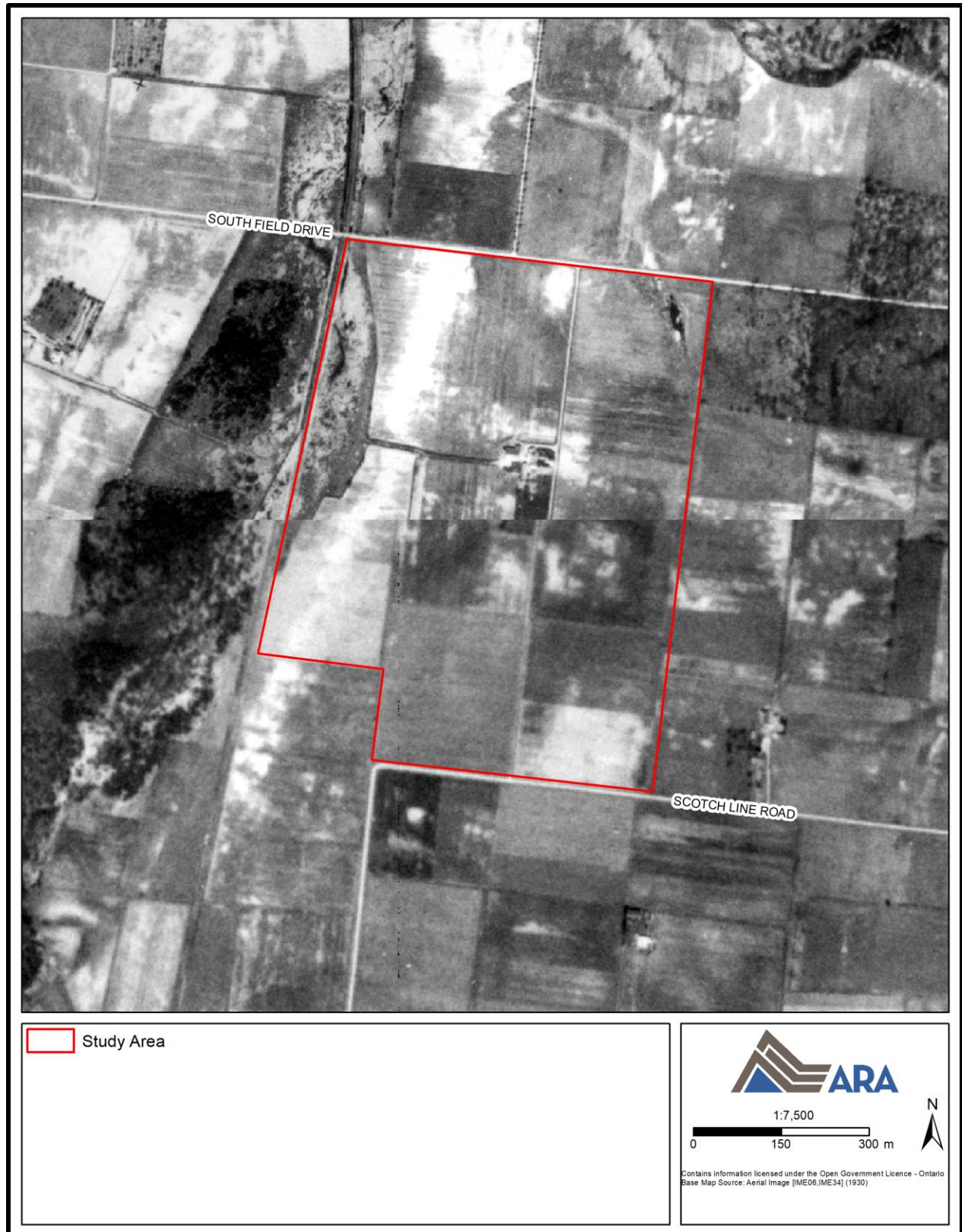




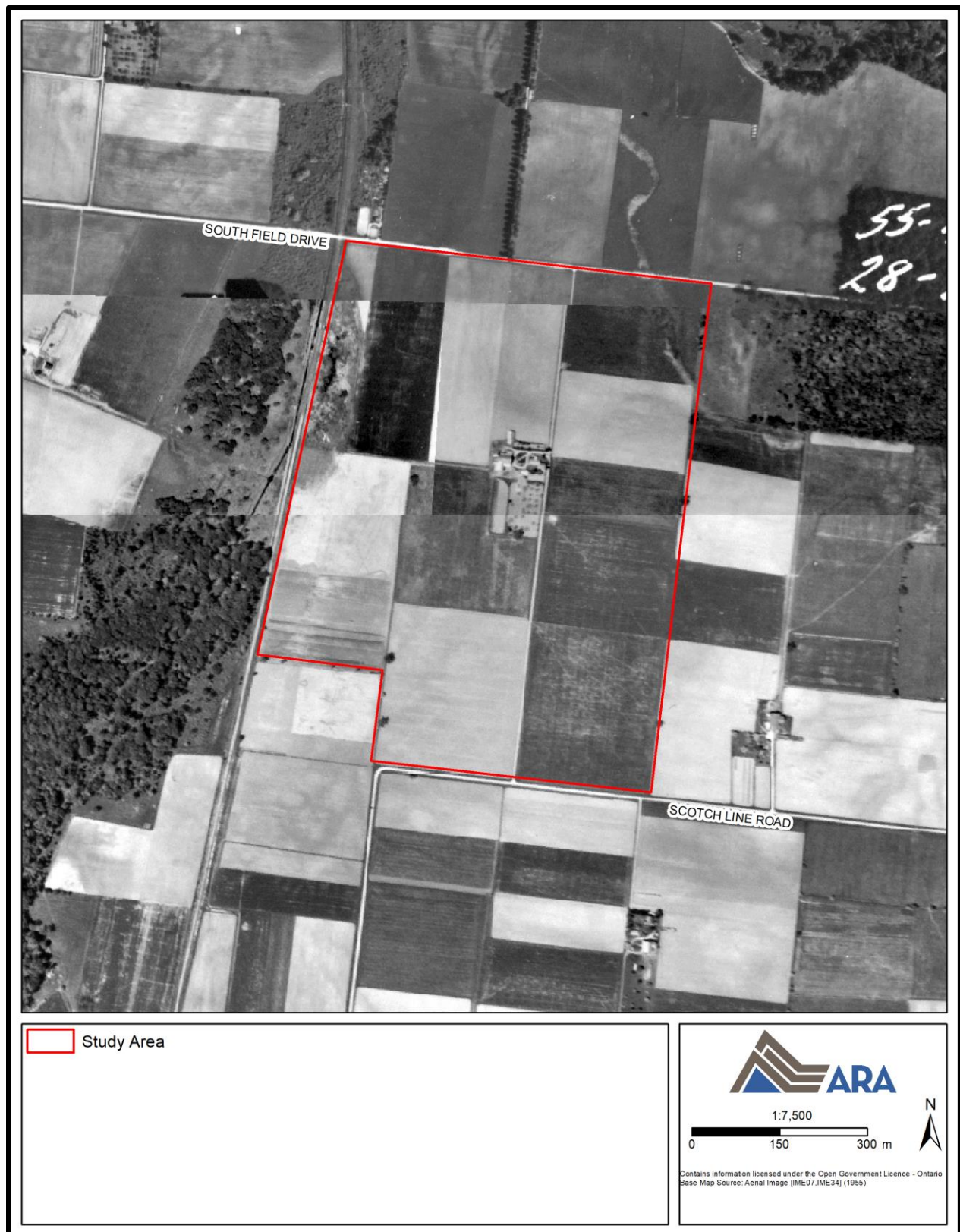
Map 3: Map of Waterloo Township and Map of Wilmot Township from the Illustrated Historical Atlas of the County of Waterloo, Ont. (1881)
(Produced under licence using ArcGIS® software by Esri, © Esri; MU 2001)



Map 4: Topographic Map (1936)
(Produced under licence using ArcGIS® software by Esri, © Esri; OCUL 2024)



Map 5: Aerial Image (1930)
(Produced under licence using ArcGIS® software by Esri, © Esri; UW 2024)



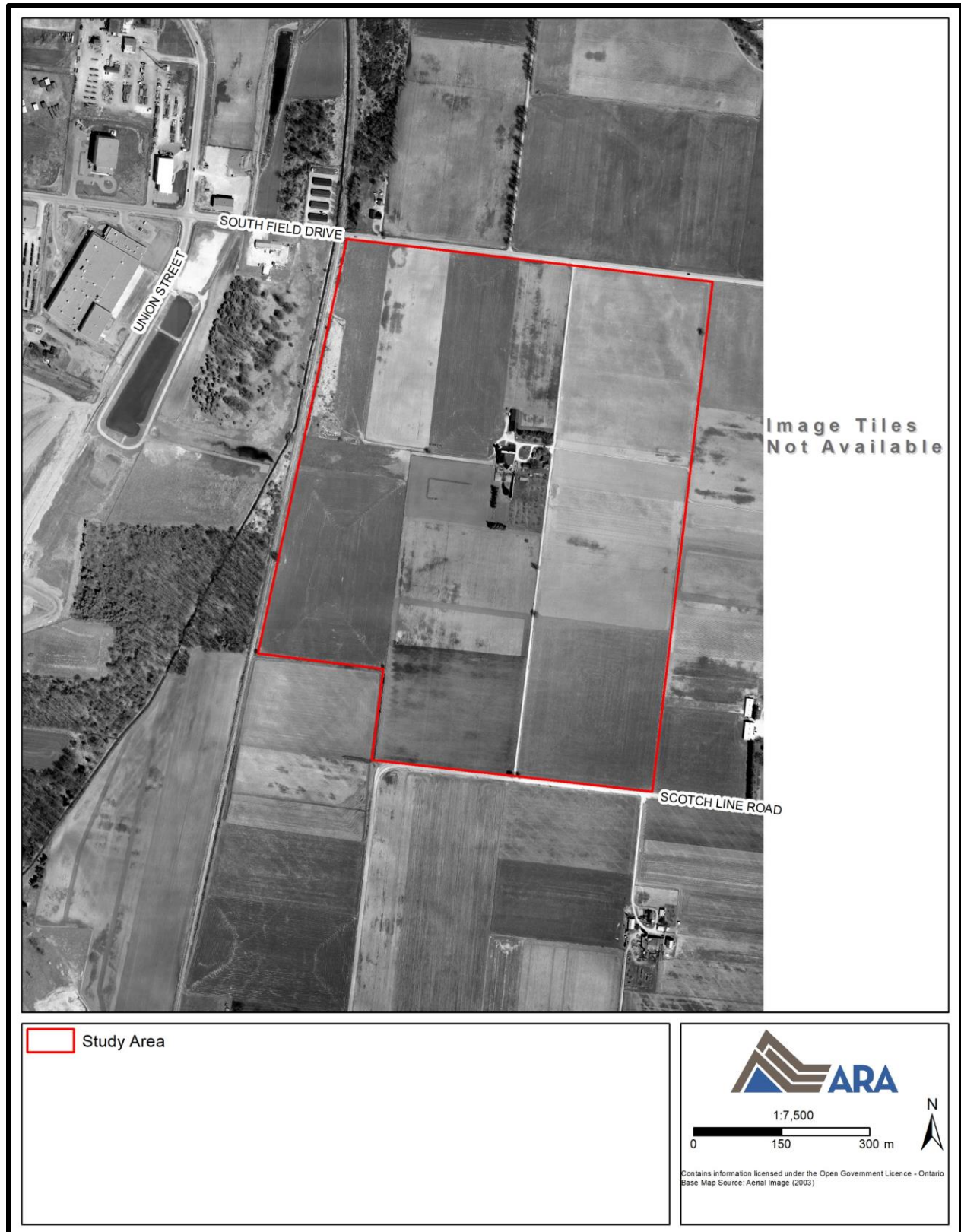
Map 6: Aerial Image (1955)
(Produced under licence using ArcGIS® software by Esri, © Esri; UW 2024)



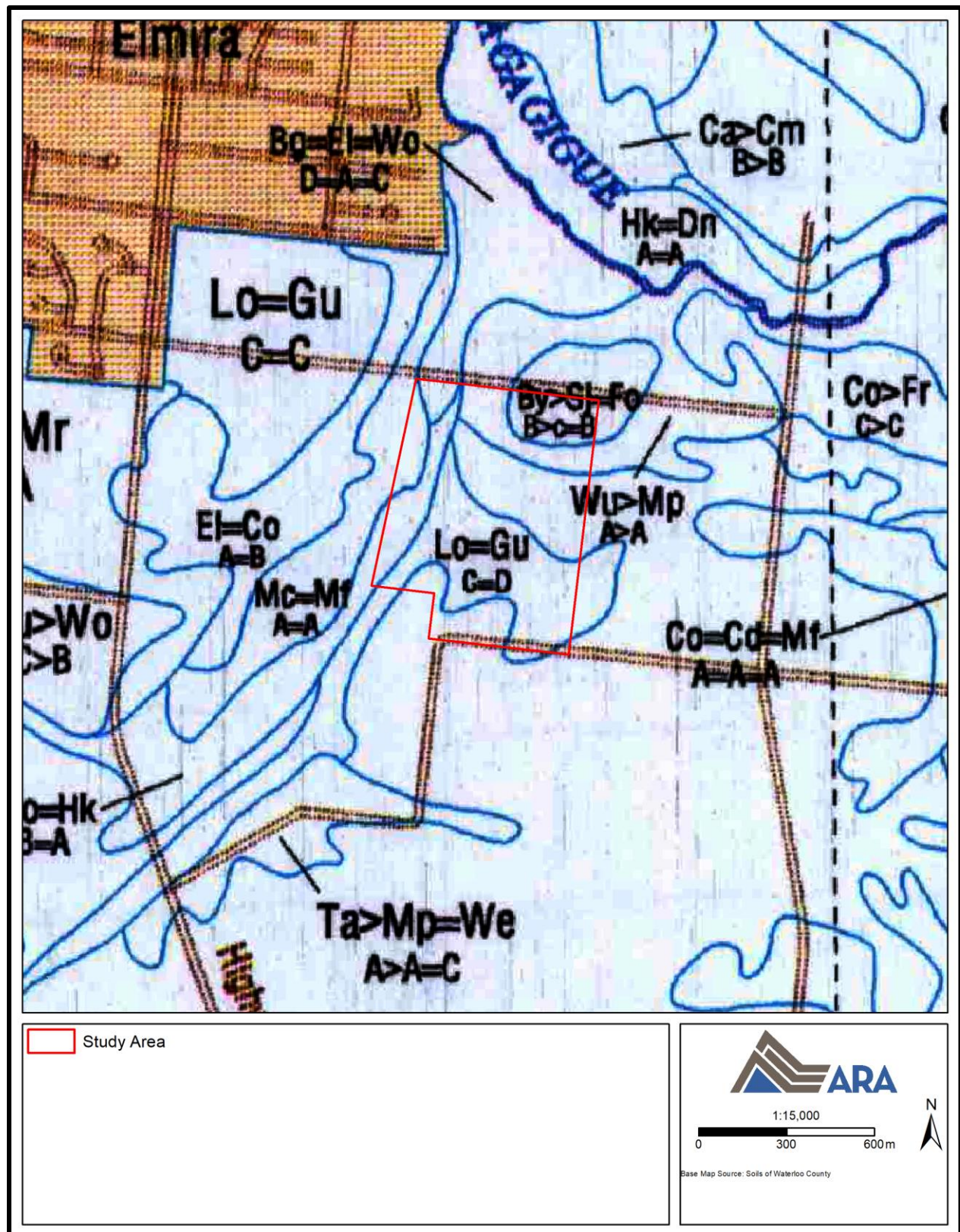
Map 7: Aerial Image (1993)
(Produced under licence using ArcGIS® software by Esri, © Esri; RW 2023)



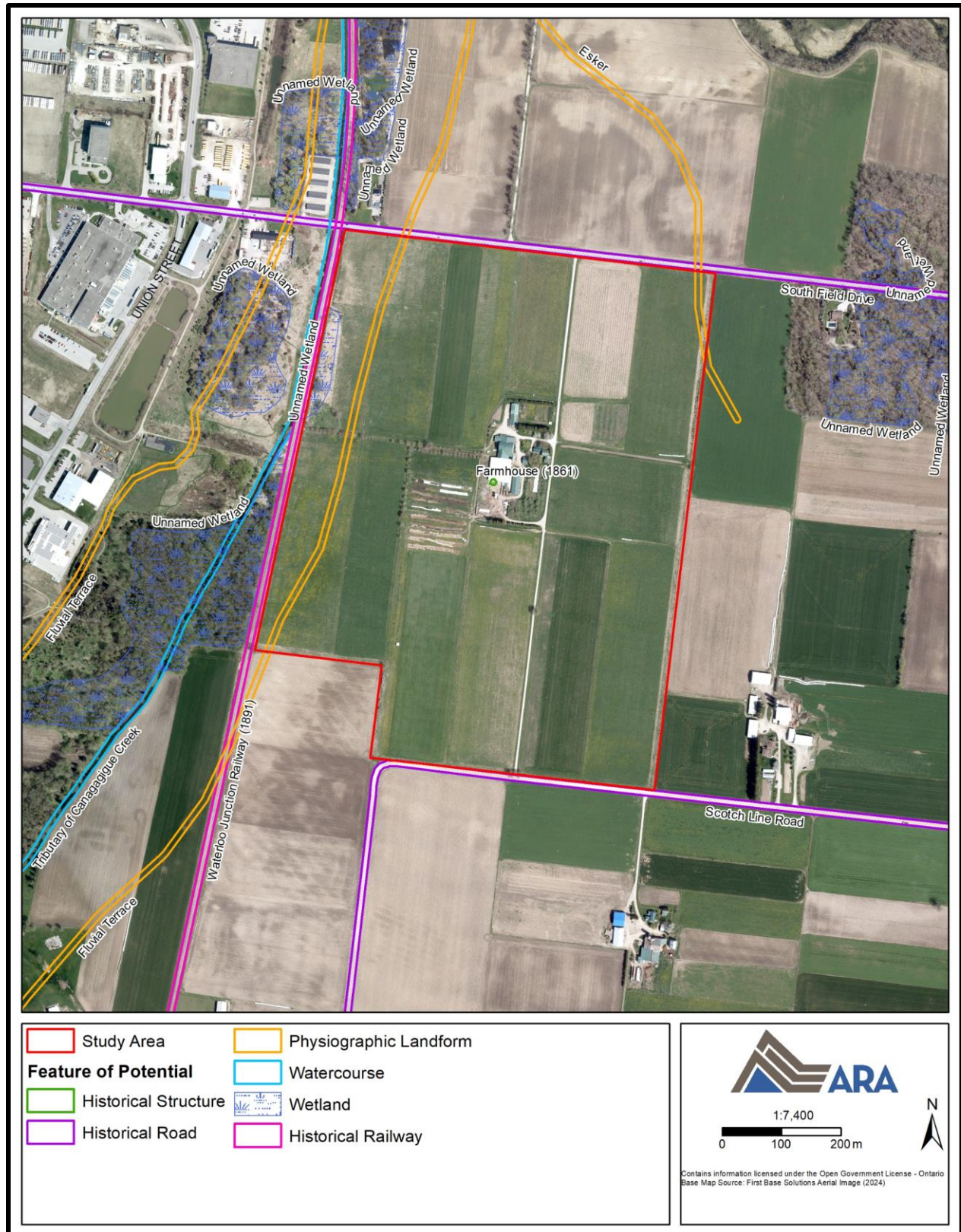
Map 8: Aerial Image (2000)
(Produced under licence using ArcGIS® software by Esri, © Esri; RW 2024)

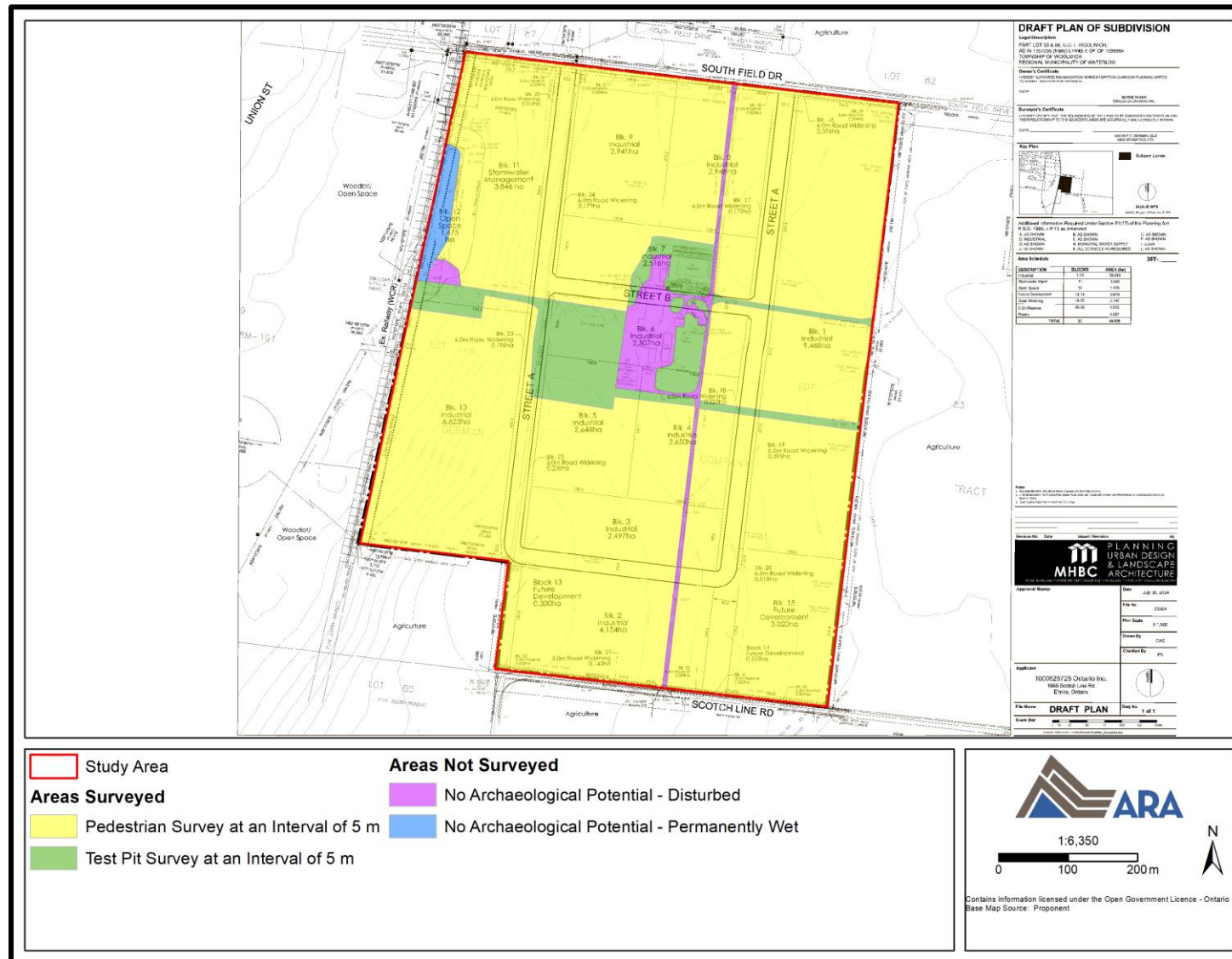


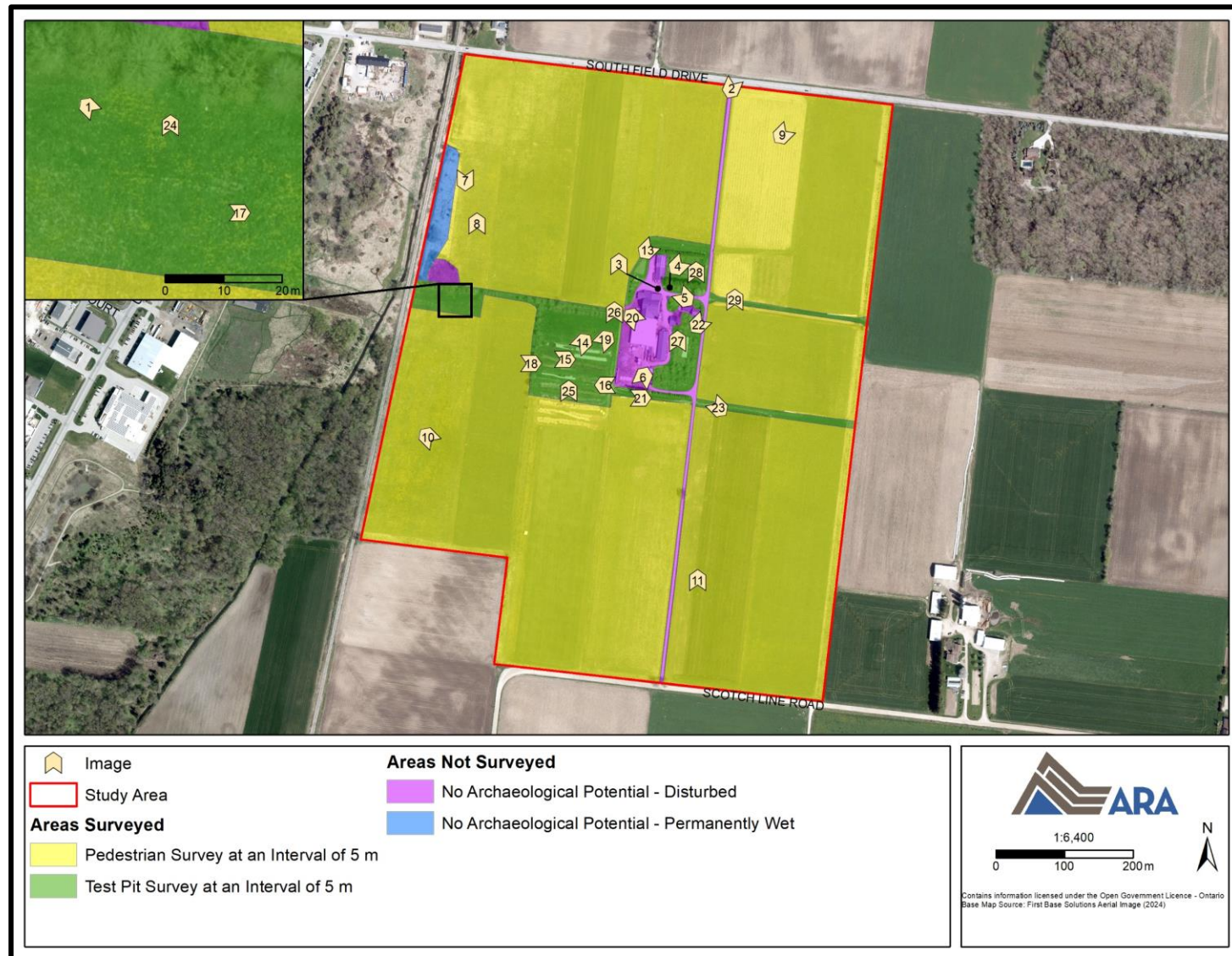
Map 9: Aerial Image (2003)
(Produced under licence using ArcGIS® software by Esri, © Esri; RW 2024)



Map 10: Soil Map
(Produced under licence using ArcGIS® software by Esri, © Esri; Cressman 1996:Sheet 4)







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APPENDICES

Appendix A: First School in Waterloo Reunion (Waterloo Region Generations, 2024a)



Appendix B: Archaeological Materials Catalogue																
Record	Site	Provenience	Lot	Location	Count	Class	Material	Object Group	Object Name	Dateable Attribute	Date Range	Reference	Comments	Heat Altered	Box	
1	1	Surface	Surface	100	1	Indigenous	Onondaga Chert	Lithic Debitage	Flake (Biface Thinning)					No	A1215	
2	2	Surface	Surface	101	1	Indigenous	Onondaga Chert	Formal Lithic	Point (Side Notched)	Meadowood	ca. 900–400 BC	Spence et al. 1990:125	Wide, shallow biface thinning scars with careful marginal retouch / Basal thinning / Shallow notches low on blade / Impacted base causing fragmentation	No	A1215	
3	3	Surface	Surface	102	1	Indigenous	Onondaga Chert	Formal Lithic	Biface (Fragment)				Thin with fine bifacial thinning and retouch / Marginal retouch to form fine serrated sections of blade	No	A1215	
4	4	Surface	Surface	103	1	Indigenous	Onondaga Chert	Formal Lithic	Biface (Fragment)				Fine bifacial thinning and retouch / Impacted lateral edge	No	A1215	
5	5	Surface	Surface	106	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
6	5	Surface	Surface	107	1	Foodways	Ironstone	Tableware	Flatware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
7	5	Surface	Surface	108	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	Transfer (Brown)	ca. 1840s–20th century	Miller 2016a:41; Samford 2016:32; Samford and Miller 2015; Kenyon 1991:10	Indeterminate motif	No	A1215	
8	5	Surface	Surface	109	1	Foodways	Whiteware	Tableware	Flatware (Ind.)	Transfer (Continuous Repeating Linear)	1820–1891	Samford 2016:30	Brown line and stipple	No	A1215	
9	5	Surface	Surface	110	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	Transfer (Brown)	ca. 1840s–20th century	Miller 2016a:41; Samford 2016:32; Samford and Miller 2015; Kenyon 1991:10	Handle / Floral	No	A1215	
10	5	Surface	Surface	111	1	Foodways	Porcelain	Tableware	Saucer				Moulded scroll motif	No	A1215	
11	5	Surface	Surface	112	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	Transfer (Brown Line and Stipple)	1840s–early 1900s	Samford 2016:35–36; Samford and Miller 2015	Floral and scroll	No	A1215	
12	5	Surface	Surface	113	1	Foodways	Porcelain	Tableware	Hollowware (Ind.)					No	A1215	
13	5	Surface	Surface	114	1	Foodways	Whiteware	Tableware	Hollowware (Ind.)	Sponge (All-Over)	ca. 1830–20th century	Kenyon 1980:7	Pink	No	A1215	
14	5	Surface	Surface	115	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	Transfer (Brown Line and Stipple)	1840s–early 1900s	Samford 2016:35–36; Samford and Miller 2015	Floral and scroll	No	A1215	
15	5	Surface	Surface	116	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
16	5	Surface	Surface	117	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
17	5	Surface	Surface	118	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
18	5	Surface	Surface	119	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015	Partial printed makers mark / Royal Coat-of-Arms	No	A1215	
19	5	Surface	Surface	120	1	Foodways	Whiteware	Tableware	Hollowware (Ind.)	Sponge (Cut or Stamped)	ca. 1840s–early 20th century	Samford and Miller 2015; Kenyon 1980:8	Purple foliage	No	A1215	
20	5	Surface	Surface	121	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
21	5	Surface	Surface	121	1	Foodways	Ironstone	Tableware	Plate	W. & E. Corn (Ribbed Floral)	ca. 1870	Dieringer and Dieringer 2001:120		No	A1215	
22	5	Surface	Surface	122	1	Foodways	Whiteware	Tableware	Flatware (Ind.)	Transfer (Continuous Repeating Linear)	1820–1891	Samford 2016:30	Brown line and stipple	No	A1215	
23	5	Surface	Surface	123	1	Foodways	Whiteware	Tableware	Tableware (Ind.)	Transfer (Blue)	ca. 1820–present	Miller 2016a:41; Kenyon 1991:9		No	A1215	
24	5	Surface	Surface	123	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	Plain and Rounded	1870s–early 1900s	Samford and Miller 2015		No	A1215	
25	5	Surface	Surface	124	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	W. & E. Corn (Sea Shore)	1868–1883	Dieringer and Dieringer 2001:144		No	A1215	
26	5	Surface	Surface	125	1	Foodways	Ironstone	Tableware	Flatware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
27	5	Surface	Surface	126	1	Recreational	Porcelain	Leisure	Toy (Tea Set)				Cup fragment	No	A1215	
28	5	Surface	Surface	127	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	Transfer (Brown Line and Stipple)	1840s–early 1900s	Samford 2016:35–36; Samford and Miller 2015	Floral and scroll	No	A1215	
29	5	Surface	Surface	128	1	Foodways	Coarse Red Earthenware	Storage Container	Storage Container (Ind.)				Yellow glazed interior	No	A1215	
30	5	Surface	Surface	129	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015	Indeterminate moulded motif	No	A1215	
31	5	Surface	Surface	130	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	Transfer (Brown Line and Stipple)	1840s–early 1900s	Samford 2016:35–36; Samford and Miller 2015	Floral and scroll	No	A1215	
32	5	Surface	Surface	131	1	Foodways	Ironstone	Tableware	Hollowware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015	Indeterminate moulded motif	No	A1215	
33	5	Surface	Surface	132	1	Foodways	Whiteware	Tableware	Hollowware (Ind.)	Sponge (Multi-Coloured)	ca. 1830–20th century	Samford and Miller 2015; Kenyon 1980:7	Brown and green	No	A1215	
34	5	Surface	Surface	133	1	Unclassifiable	Glass	Storage Container	Storage Container (Ind.)				Aqua / Characteristics similar to mould blown or early machine made / Base	No	A1215	
35	5	Surface	Surface	134	1	Unclassifiable	Stoneware (Fine)	Storage Container	Bottle (Ind.)	Derbyshire-Style	ca. 1800–1930s	Richardson 2019; Gusset 1984:2; Oswald et al. 1982:140		No	A1215	
36	5	Surface	Surface	135	1	Foodways	Whiteware	Tableware	Flatware (Ind.)	Shell-Edge (General)	ca. 1820–1890s	Miller 2016a:41; Miller 2016b:240; Samford and Miller 2015		No	A1215	
37	5	Surface	Surface	136	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
38	5	Surface	Surface	137	1	Foodways	Whiteware	Tableware	Tableware (Ind.)	Sponge (All-Over)	ca. 1830–20th century	Kenyon 1980:7	Blue	No	A1215	
39	5	Surface	Surface	138	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
40	5	Surface	Surface	138	1	Foodways	Ironstone	Tableware	Flatware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
41	5	Surface	Surface	139	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
42	5	Surface	Surface	140	1	Foodways	Whiteware	Tableware	Tableware (Ind.)	Transfer (Flow Mulberry)	ca. 1851–1868	Samford and Miller 2015; Kenyon 1987:25		No	A1215	
43	5	Surface	Surface	142	1	Foodways	Ironstone	Tableware	Tableware (Ind.)	General	ca. 1840s–20th century	Samford and Miller 2015		No	A1215	
44	5	Surface	Surface	142	1	Furnishings	Glass	Hollowware	Hollowware (Ind.)	Solarized	ca. 1865–early 1930s	Lockhart 2016:203, 212	Pressed ribbed motif	No	A1215	
45	5	Surface	Surface	143	1	Foodways	Whiteware	Tableware	Hollowware (Ind.)	Sponge (Multi-Coloured)	ca. 1830–20th century	Samford and Miller 2015; Kenyon 1980:7	Green and blue	No	A1215	
46	5	Surface	Surface	144	1	Foodways	Whiteware	Tableware	Hollowware (Ind.)	Sponge (Cut or Stamped)	ca. 1840s–early 20th century	Samford and Miller 2015; Kenyon 1980:8	Pink and green	No	A1215	
47	6	Surface	Surface	141	1	Indigenous	Onondaga Chert	Formal Lithic	Biface (Fragment)				Large, thick biface with wide, shallow thinning scars and discontinuous marginal retouch	No	A1215	
48	7	Surface	Surface	145	1	Indigenous	Haldimand Chert	Informal Lithic	Rough Biface (Fragment)				Manufactured from large primary flake / Coarse bifacial flaking	No	A1215	
49	8	Surface	Surface	146	1	Indigenous	Onondaga Chert	Informal Lithic	Utilized Flake (Primary)				Wear along straight lateral margin	No	A1215	
50	9	Surface	Surface	147	1	Indigenous	Onondaga Chert	Lithic Debitage	Flake (Biface Thinning)				Two pieces mend	No	A1215	
51	10	Surface	Surface	148	1	Indigenous	Onondaga Chert	Lithic Debitage	Flake (Fragment)					No	A1215	
52	10	Surface	Surface	149	1	Indigenous	Onondaga Chert	Lithic Debitage	Flake (Biface Thinning)					No	A1215	
53	11	Surface	Surface	150	1	Indigenous	Onondaga Chert	Lithic Debitage	Flake (Fragment)				Discolouration, scaling, and potlidding	Yes	A1215	
54	12	Surface	Surface	151	1	Indigenous	Onondaga Chert	Informal Lithic	Utilized Flake (Primary)				Wear along convex lateral margin	No	A1215	
55	12	Surface	Surface	152	1	Indigenous	Onondaga Chert	Lithic Debitage	Flake (Fragment)					No	A1215	
56	12	Surface	Surface	152	1	Indigenous	Onondaga Chert	Formal Lithic	Scraper (End and Side)				Manufactured from primary flake / Continuous marginal retouch of convex lateral and distal margins to form steeply beveled ventral edge / Unmodified proximal end	No	A1215	
57	13	PTP 1	1: 0-35		1	Indigenous	Onondaga Chert	Lithic Debitage	Flake (Edge Trimming)					No	A1215	

Appendix C: Supplementary Analysis of Formal Lithic Artifact

Record	Site	Object Name	Length (mm)	Width (mm)	Thickness (mm)	Completeness	Cross-Section	Blade Length (mm)	Lateral Edge Shape	Stem Length (mm)	Base Width (mm)	Haft Width (mm)	Notch Width (mm)	Basal Edge Shape
2	2	Point (Side Notched)	36.6+	29.1	5.4	Missing partial base and tip	Plano-Convex	24.1	Convex	10.3	16.6+	15.1+	5.1	Convex
3	3	Biface (Fragment)	32.3+	20.3+	4.2+	Medial blade portion	Biconvex	33.8+	Straight	Indeterminate	Indeterminate	Indeterminate	Indeterminate	Indeterminate
4	4	Biface (Fragment)	42.9+	30.8+	7.8+	Medial blade portion	Biconvex	41.2+	Convex	Indeterminate	Indeterminate	Indeterminate	Indeterminate	Indeterminate
47	6	Biface (Fragment)	55.1+	48.7+	12.6+	Distal portion	Biconvex	62.1+	Convex	Indeterminate	Indeterminate	Indeterminate	Indeterminate	Indeterminate
56	12	Scraper (End and Side)	31.8	18.3	6.7	Complete	Trapezoidal	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix D: Documentary Record

Category	Total	Nature	Location
Field notes	9	Digital	50 Nebo Road, Unit 1, Hamilton
Maps	2	Digital	50 Nebo Road, Unit 1, Hamilton
Photographs	76	Digital	50 Nebo Road, Unit 1, Hamilton