

**Stage 1 Background Study of Bacher Construction Aggregate Pit
Part Lots 11, & 12 Concession 2, former Township of McClintock,
Township of Algonquin Highlands, County of Haliburton
P335-0046-2016**

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Executive Summary

This report describes the methodology and results of the Stage 1 Archaeological Assessment of the Bacher Construction Aggregate Pit, Part Lots 11, & 12 Concession 2, former Township of McClintock, Township of Algonquin Highlands, County of Haliburton. This study was conducted under Professional Archaeological Consulting License P-335 issued to Dayle A. Elder by the Minister of Tourism, Culture and Sport for the Province of Ontario. This assessment was undertaken in order to recover and assess the cultural heritage value or interest of any archaeological sites within the project boundaries. All work was conducted in conformity with Ontario Ministry of Tourism, Culture and Sport (MTCS) *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011) and the Ontario Heritage Amendment Act (SO 2005).

Horizon Archaeology Inc. was engaged by the proponent to undertake a Stage 1 Archaeological Assessment of the study area and was granted permission to carry out archaeological fieldwork by the owner's representative. The study area was subject to a Stage 1 assessment on August 17th, 2016. This included a property inspection to observe the topography, current land use, evidence of human activity and to collect any available sources of local information concerning its past. A review of the available documents (MTCS database, all available local sources) and the property inspection identified areas that are of high archaeological potential.

Based upon the background research and the results of the property inspection, it is recommended that:

- 1) High Potential Areas 1, 2, and 4 are considered to have high archaeological potential and remain within the adjusted project borders and require Stage 2 Archaeological Assessment (**Map 8**).
 - a) High Potential Areas 1 and 4 are completely within areas where development is prohibited under the Endangered Species Act, owing to the presence of the threatened Blanding's Turtle. These areas are protected and will not be disturbed and therefore do not require further assessment at this time. If these areas are ever to be developed, they will require a Stage 2 Assessment.
 - b) A portion of High Potential Area 2 is outside of the protected zones, and will require a Stage 2 Archaeological Assessment prior to development (Map X).
- 2) As per Section 2.1.5.2 of the Standards and Guidelines for Consultant Archaeologists "Alternative Strategies for Special Survey Conditions: Test Pit Survey in Northern Ontario and Canadian Shield Terrain" the Stage 2 Assessment should:
 - a: space test pits at maximum intervals of 5m between 0 and 50 m from the feature of archaeological potential
 - b: space test pits at maximum intervals of 10m between 50 and 150m from the feature of archaeological potential
 - c: survey is not required beyond 150m
- 3) The rest of the Bacher Construction Aggregate Pit project area possesses low archaeological potential and should be considered free from further archaeological concerns.

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Project Personnel

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1.0 Project Context

1.1 Objectives

The objectives of a Stage 1 archaeological assessment, as outlined by the Standards and Guidelines for Consultant Archaeologists (2011), are as follows:

- 1) To provide information about the property's geography, history, previous archaeological fieldwork and current land conditions
- 2) To evaluate in detail the property's archaeological potential, which will support recommendations for Stage 2 survey for all or parts of the property
- 3) To recommend appropriate strategies for Stage 2 survey

1.2 Development Context

This report describes the methodology and results of the Stage 1 Archaeological Assessment of the Boucher Construction Aggregate Pit, a proposed aggregate mine expansion on Part Lots 10, 11, and 12 Concession 2, former Township of McClintock, now part of the Township of Algonquin Highlands, County of Haliburton (**Maps 1, 2, & 3**). This study was triggered by the Aggregate Act, and conducted under the Professional Archaeological Consulting License P-335 issued to Dayle A. Elder by the Ministry of Tourism, Culture and Sport for the Province of Ontario.

Horizon Archaeology Inc was engaged by the proponent to undertake a Stage 1 Archaeological Assessment of the study area and was granted permission to carry out archaeological fieldwork by the proponent's representative. The study area was subject to a Stage 1 site inspection on August 17th 2016. After completion of the Stage 1 Property Inspection, the proponent reduced the size of the project area. This report, for submission to the Ministry of Natural Resources and Forestry will cover only the area that is within the new boundaries. provided by the proponent represents the best available (MTCS 2011).

All records, documentation, field notes and photographs related to the conduct and findings of the these investigations are held at the office of the licensee with copies at the Horizon Archaeology Inc office in North Bay until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario. The documentary record generated in the field comprises of three pages of field notes and sketch maps, GPS points, and 27 digital photographs.

1.3 Historical Context

1.3.1 Historical Documentation

The Township of Algonquin Highlands possess a Municipal Cultural Plan. This plan focusses on built heritage, modern artistic industries (i.e. art potteries), and outdoor activities and ignoring archaeology.

The Algonquin Highland Official Plan, however deals with archaeology in Section 6.4 (Algonquin Highlands 2005: 36). In this section it states:

6.4.1 The Township recognizes the value of its cultural, heritage and archaeological resources. These resources shape the character of the municipality and contribute to the quality of life within the Township.

6.4.2 The Township's heritage and archaeological resources should be identified, conserved and enhanced wherever practical. Cultural heritage resources are those uses which have played a historic role in the development of the municipality in relation to early settlement and/or are culturally or architecturally significant. Cultural heritage resources include: archaeological resources, archaeological sites, cemeteries and burials, buildings and structural remains of historical, architectural and contextual value; and rural areas and villages or significant landscapes, ridgelines or vistas of historic interest.

6.4.3 The character and quality of life of the Township is enriched by its history and past traditions. This Plan will promote this history by ensuring the identification, protection and conservation of the Township's cultural heritage resources. Specifically, this Plan will:

- Encourage the development of a comprehensive inventory of the Township's cultural heritage resources;
- Use cultural heritage resources to attract additional economic development, increase tourism opportunities and enhance the character of the Township;
- Ensure that the nature and location of cultural heritage resources, including archaeological resources, are documented and considered before land use decisions are made;
- Ensure that historic portages are identified and protected; and,
- Encourage development that is adjacent to cultural heritage resources to be appropriate in scale and character.

6.4.4 The Ontario Heritage Act provides the framework for the conservation of cultural, heritage and archaeological resources within communities in Ontario. The Heritage Act may be used to conserve, protect and enhance the cultural heritage in the municipality through the designation,

by by-law, of individual properties, conservation districts, heritage areas, and archaeological sites. A Municipal Heritage Committee may also be established pursuant to the Heritage Act to advise and assist Council on conservation matters related to cultural heritage resources.

6.4.5 A Municipal Heritage Committee pursuant to the Ontario Heritage Act, may be established by Council to provide advice on matters relating to the historical, cultural and architectural significance of cultural heritage resources.

6.4.6 Where heritage resources are designated under the Ontario Heritage Act, no alteration or demolition shall be undertaken which would adversely affect the reason(s) for designation except in accordance with the Ontario Heritage Act.

6.4.7 Council will seek to conserve cultural heritage landscapes and built heritage resources when making development and infrastructure decisions which may affect those resources. Council will have regard for cultural heritage resources in the undertaking of municipal public works. When necessary, Council will require satisfactory measures to mitigate any negative impacts on significant heritage resources.

6.4.8 The Township recognizes that there may be archaeological remnants of prehistoric and early historic habitation within the Township, as well as areas exhibiting archaeological potential. Council may, in cooperation with the Ministry of Culture and the Ministry of Consumer and Business Services, require archaeological impact assessments, surveys and/or the preservation on-site, or rescue excavation of, significant archaeological resources by archaeologists licensed under the Heritage Act that might be affected by any future development.

6.4.9 Council shall ensure adequate archaeological assessment and consult appropriate government agencies, including the Ministry of Culture and the Ministry of Consumer and Business Services when an identified marked or unmarked cemetery is affected by land use development. The provisions under both the Cemeteries Act and the Heritage Act shall apply where appropriate.

6.4.10 Council recognizes that archaeological potential will be determined for individual development applications and building permits through the use of provincial screening criteria, or qualified mapping developed based on the known archaeological records within the Township. Archaeological potential criteria include features such as proximity to water, current or ancient shorelines, rolling topography, unusual landforms, any locally known significant heritage areas such as portage routes or other places of past human settlements.

6.4.11 Council may seek to undertake the preparation of a Cultural Heritage Master Plan which will identify and map known land-based cultural heritage resources and areas of potential for archaeological resources. The Master Plan will outline policies, programs and strategies for the purpose of conserving significant cultural heritage resources, and will promote, educate and

involve the community in the Township's cultural heritage.

6.4.12 Council may choose to maintain a cultural heritage resource database for land use planning purposes, resulting in inventories of any significant provincial registered archaeological sites, mapped archaeological potential areas, heritage buildings, heritage districts and/or cultural heritage landscapes located within the Township.

6.4.13 Council may maintain the integrity of archaeological resources by adopting zoning by-laws under Section 34 of the Planning Act, to prohibit any land use activities or the erection of buildings or structures on land which has been identified as a site of significant archaeological resources.

6.4.14 To ensure a greater degree of protection to designated heritage resources, Council may enter into agreements with property owners, or may attempt to secure conservation easements, in order to protect those features of a building or structure deemed to have particular heritage value.

In 2015 the County of Haliburton updated their official plan policies with regards to archaeology and cultural heritage (County of Haliburton 2015). In it the County states its supporting of measures to preserve and protect on its own property, and supports similar efforts of municipalities within the County (County of Haliburton 2015: 2). There is an intention on behalf of the County to establish a cultural heritage database (County of Haliburton 2015:1). Archaeological assessments will be triggered for developments that County staff deem to be required based upon "Criteria for Determining Archaeological Potential: A Checklist for the Non-Specialist", which they encourage other municipalities to use as well (County of Haliburton 2015:2).

To a great extent it is placing parts of the Ontario Heritage, and Cemeteries Acts within the official plan, and stating the County is . However, it names a specific First Nation, the Algonquins of Ontario as the only First Nation to be contacted with regards to archaeology in the county (County of Haliburton 2015:1).

1.3.2 Pre-Contact Period

Palaeo-Indian sites date 10,000 to 5,000 B.C. , and inhabited a tundra like environment as the glaciers retreated northward. In such an environment, fruits, nuts and other sources of food harvested from trees or other plants are rare, and it is thought that the Palaeo-Indians subsisted largely by hunting, trapping and fishing (Ellis 2013: 36). Palaeo-Indian sites are most often located on relic beach ridges associated with glacial lakeshores (Stork 1984). They have also been located at ancient river crossings, places where modern caribou hunters often assemble as the animals my slow and file through a narrow area making them easier to hunt (Ellis 2013: 36). The predominance of sites being located on ancient strandlines may be more indicative of the

survey methodology employed to find them rather than an actual preference for site situation on the part of the Palaeo-Indian peoples of Ontario, as a number of sites have been recovered away from ancient shorelines (Ellis & Deller 1990: 50)

Most Palaeo-Indian sites are small, indicating campsites that were inhabited briefly as its occupants followed the seasonal routes and cycles of their prey. Larger sites seem to be associated with animal migration routes, primarily at river crossing as mentioned above (Ellis 2013: 35-6).

Large, fluted spear points define an Early Palaeo-Indian site. While one of the earliest artefacts in North America, they are also one of the most technologically advanced stone tools on the continent (Ellis 2013: 37-8). Other artefacts encountered include hammerstones, and large choppers, knives / cutting tools, lunate bifaces, and piece esquillee's, possibly employed as wedges for wood or bone working, unifacial triangular end scrapers, beaked scrapers, spokeshaves, burins or gravers (Ellis & Deller 1990: 43, 47-9).

Late Palaeo-Indian points do not exhibit the same fluting that is present on Earlier assemblages. Two point types are found on Late Palaeo-Indian sites, one group having a concave base with either rounded or pointed ears, and the other group comprising lanceolate forms (Ellis 1990: 57-8). Most of the lithic tool kit continues from the Early Palaeo-Indian Period, however there a few new forms or tools that appeared, including: drills, and small thumbnail or fan shaped end scrapers replace the unifacial triangular end scraper (Ellis & Deller 1990: 59).

The toolstone recovered from Palaeo-Indian sites in Ontario has been sourced to have been quarried from sites up to 200 km away. The tool stone was likely at least roughed out at the quarry site and carried to the site on seasonal routes. Other sources originated further afield from sources in Ohio or Michigan, and were likely obtained through trade (Ellis & Deller 1990: 43).

The Archaic peoples were still nomadic hunter-gatherers, however the greater range of tools has caused some to hypothesise that this indicated a shift from exploiting large-game over a large area to a more extensive, localised range (Ellis et al 1990: 67). This could also be a factor of preservation of perishable materials, which is also a factor from the earlier Palaeo-Indian period.. There is also evidence, through presence of imported / exotic cherts, that great distances were still covered during seasonal rounds (Ellis et al 1990: 78).

In southern Ontario, the Archaic is subdivided into Early, Middle, and Late periods, which in turn are further subdivided into horizons based upon point types (Ellis et al 1990). In northern Ontario, there is no such subdivision and the entire period is known as the Shield Archaic (Wright 1972, Hamilton 2013). Areas around the north shore of the Great Lakes, and along the southern border between northwestern Ontario could possibly have been part of the Middle Archaic "Laurentian Archaic" group found in southern Ontario (Hamilton 2013, Ellis et al 1990).

The Archaic period also witnessed the rise of the “Old Copper” culture centred around Lake Superior. “Old Copper” culture is a name given to the people from this area who exploited the available copper veins or outcroppings, and not a distinct Archaic group separate from others based upon material culture, settlement patterns etc. Copper artefacts from this area have been recovered from sites in Southern Ontario, west to into Saskatchewan, and south of Lake Michigan into Illinois (Hamilton 2013: 89). Copper artefacts include spear points, knives, chisels, and celts (Dawson 1966). Most of these artefacts have been found by collectors or out of context and their role in society is open for debate.

A major change in the Archaic tool-kit from that of the Palaeo-Indian period is the appearance of smaller, notched points that replace the large lanceolate forms. This has been thought to indicate a technological advance; the adoption of the spear-thrower, or *atlatl*. Other artefacts typical of the Archaic period include those associated with wood-working such as axes, gouges and adzes (Ellis et al 1990: 65). These woodworking tools have been thought to indicate that the dug-out canoe was introduced during this period.

Archaic houses are rare, however, the Davidson Site (AhHk-54) along the Ausable River inland from Lake Huron has revealed a number of features that have been identified as pit-houses, dating to the Late Archaic, predating 3000 BP based upon dates from carbonised remains found in flood deposits above the floor (Ellis et al 2010).

The house was circular, approximately 5 metres in diameter, had a sloping entrance, interior hearth, posts, and a bench surrounding the edges of the structure, and likely possessed a soil or sod roof. It was hypothesised that this structure was a cold weather domicile, owing to the greater insulating properties of pit-houses (Ellis et al 2010: 10). The labour involved in construction of such a house is also believed to indicate a more-or-less sedentary lifestyle, those occupying it relying on stored foodstuffs (Ellis et al 2010: 10).

Burials from southern Ontario date to the Late Archaic, and have been divided into two complexes, the Haldimand and Glacial Kame. While it has been hypothesised that the Haldimand Complex groups interred their dead in what could be the first cemeteries in the province, it is fairly certain that the Glacial Kame culture had deliberate cemeteries to bury their deceased, possibly in an annual ritual or celebration (Ellis et al 1990: 116-8). Haldimand Complex burials included projectile points, chert bifaces, red ochre, copper artefacts including beads and awls, and beaver incisor grave goods (Ellis et al 1990: 116). Glacial Kame burials were composed both of inhumations as well as cremations. Grave goods were rather elaborate, and included bannerstones, bird stones, stone pipes, copper artefacts including adzes, awls and beads, bear maxilla masks, exotic sea shells, and gorgets (Ellis et al 1990: 116-8).

In southern Ontario the Woodland, like the Archaic period, has been subdivided into three phases, Early, Middle and Late, dating between ca. 1000-900 BC to and AD 1650-1700. This

period is marked by the introduction of pottery. The Late Woodland period begins ca. AD800 with the widespread adoption of agriculture.

The Early Woodland people still maintained seasonal routes similar to those from the preceding period. The adoption of pottery seem to indicate an increasing exploitation of plant resources (Williamson 2013: 48). These seasonal rounds were likely focussed around watersheds with families living separately in autumn and winter, coming together in the spring and summer to exploit seasonal resources such as fish spawning. While these larger groups had their own territories, they were not isolated and did not isolate themselves.

Across most of southern Ontario, Quebec and western New York State the people of the Early Woodland shared a similar culture known as “Meadowood”. Common artefacts from this time period include: Vinette 1 ceramics, distinctive side-notched “Meadowood” projectile points, and the “Meadowood Cache Blades”, trapezoidal gorgets, and bar and expanded bodied pop-eyed birdstones. Also common on Meadowood sites are drills and scrapers made from Meadowood preforms, other gorget types, pendants, copper beads and awls, and fire making kits of iron pyrite. These artefacts are believed to have developed from the preceding Glacial Kame culture of the Late Archaic (Spence et al 1990: 128-9). This could be indicative of the extension or continuance of the Archaic period type lifeways into the Early Woodland in the region like has been hypothesised for other regions of northern Ontario.

Most of what is known about the Meadowood culture stems from cemeteries, domestic sites often yield little in the way of house plans, often only hearths and pits are recovered. People were buried in individual graves, often coated with imported red ochre with varying quantities and types of grave goods. Long-distance trade items recovered from both cemetery and domestic sites are numerous, but also less so compared to the preceding period (Spence et al 1990: 136).

The Early Woodland Middlesex Complex indicates increasing influence from Adena and Hopewell Complexes in the mid-west United States, what is now Ohio and Indiana. These include both finished artefacts and raw material that originate in this area. Burial mounds also appear on the Ontario landscape, and are also believed to be a result of influence or increasing contact from this region (Spence et al 1990: 138-42).

The Middle Woodland period in southern Ontario has revealed three separate complexes or cultures: the Couture in the southwest, the Saugeen in the northwestern portion of southwestern Ontario, and Point Peninsula in the central and eastern parts of southern Ontario. Owing to the still nomadic nature of these groups, ‘borders’ are not clearly defined, and within these groups there is still variability. There is also the possibility that there exist other complexes that owing to the lack of research that have so far been classified as belonging to Point Peninsula and Saugeen especially (Spence et al 1990: 143-8).

Common Middle Woodland artefacts include pseudo-scallop shell followed by dentate stamp decorated ceramics, and Vinette 2 ware. Other artefacts recovered from Middle Woodland sites include bone and antler harpoons, antler combs with incised decorations, antler hafted beaver incisors, bone fish hooks, and a wide variety of projectile point forms (Spence et al 1990: 158). The construction of burial mounds continued into the Middle Woodland period.

Settlement patterns indicate a gathering of family groups between the spring and autumn at or near river mouths to fish, then to harvest wild rice, hunt deer and gather nuts. In the winter, the groups would disperse and travel inland to each families' winter camping territory (Spence et al 1990: 164).

In northern Ontario, the Woodland period has been divided into 2 periods, known as Initial and Terminal Woodland. The Initial Woodland period coincides with the Middle Woodland of southern Ontario. Laurel Tradition artefacts define the Initial Woodland period in northern Ontario. Early and Late manifestations of this tradition have been identified, the early phase dating between 200 BC and 500 AD, and the late 500 to 1000 AD. The Laurel Tradition occupies nearly all of the northern parts of the province, save for the very far north, and as far south in Ontario as Lake Nipissing and the French River. The Laurel Tradition spans north and eastern Manitoba, and a small part of Saskatchewan in the west, and extends into northern Quebec to the east, and into northern Minnesota and Wisconsin. Initial Woodland sites are often located along river banks or on the shores of lakes.

Burial mounds were constructed in the Middle/Initial Woodland period throughout. The best known and most researched group is the Manitou Mounds near Rainy River. The mounds were constructed of relatively clean fill or sod over top of wooden cribbing or scaffold that contained the initial burials (Dawson 1981: 34, Wright 1986: 63-4). Remains of birch bark baskets have been recovered from the mound fill (Dawson 1981: 34, Wright 1986: 34). Subsequent burials, either primary inhumations or secondary burials, interred alone or in a mass burial have been recovered from the mound, and at its base (Wright 1986: 63). Some of the burials were coated with powdered red ochre, and grave goods included such items as lithic bifaces, ceramics, and exotic imports such as a monitor pipe, and an Ohio pipestone sucking tube (Dawson 1981:34, Wright 1986:64). Closer to the project area, a burial ground containing artefacts from the Meadowood Complex was excavated near Kilarney on the north shore of Lake Huron (ASI 1994: 8).

Laurel ceramics were produced from either a single lump of clay or by coil manufacture, grit tempered, a smoothed exterior, rims relatively straight with the lip either flattened or rounded (Wright 1967, Wilford Laboratory of Archaeology 2012). There are a variety of decorative techniques utilised on these vessels including a variety of incised, stamped, punctated, embossed, and cord-wrapped stick decorations (Wright 1967, Wilford Laboratory of Archaeology 2012).

Early in the Laurel sequence, projectile points continue to resemble the notched points of the Archaic period (Dawson 1981:3). These are later superseded by stemmed points (Dawson 1980: 55). Side scrapers dominate scraper types in the early phases, and end scrapers assume prominence in the later phases (Dawson 1980: 33). Other typical tools include stone biface blades, abraders, pottery decorating tools, and net sinkers, copper beads, awls, barbs, fragments, nuggets, pendants, projectile points, chisels, and bone awls, needles, knives which are usually manufactured from beaver incisors, pottery decorating tools, and beads (Wright 1967: 152, Dawson 1980:33, 1981: 34).

The Late Woodland period in southern Ontario saw the widespread adoption of agriculture and increasing sedentarisation. This period has numerous cultural and temporal subdivisions within it: commencing ca. AD 600 with the Princess Point complex, and culminating with the Huron, Neutral, Petun, Odawa and other groups encountered by explorers, missionaries and traders.

Settlement size increases in southern Ontario, especially in the later Late Woodland period, with people living in large palisaded villages in locations that may have been chosen with defence at least partly in mind. Ossuary burials become common, where the dead were communally interred in pits along with grave goods.

The Late (Terminal) Woodland in Northern Ontario is composed of numerous ceramic assemblages; Blackduck, Selkirk Composite, and the Sandy Lake /Psinomani Complex. Blackduck, being the most widely distributed of these Late Woodland groups is likely to be found in Haliburton.

Blackduck ceramics are globular, and are more rounded than the other Late Woodland ceramics from northern Ontario, with a more constricted neck, and often have out-flaring rims. They are produced by the paddle and anvil technique, and tempered with grit. Decoration is usually limited to the interior and exterior of the rim, and the exterior neck. Decorative techniques include cord-wrapped stick stamping, “comb” stamping, punctuations of various kinds, and vertical brushing on the exterior rim surface. Distinctive of early Blackduck vessels is bossed decoration, a motif that appeared late in the Laurel sequence (Wilford Laboratory of Archaeology 2010, Wright 1967). Pottery of typical Blackduck manufacture but with Laurel design motifs have been recovered, and these have been dated to very early in the sequence, as early as 700 AD (Dawson 1982:32).

Non-ceramic artefacts considered typical of the Blackduck people include: clay pipes, stone oval and lunate chipped knives; side scrapers; trapezoidal, oval, and thumbnail end scrapers; tubular-shaped drills; steatite pipes; bone awls and needles; unilaterally barbed harpoon; spatulas antler flakers; beaver incisor knives; bear canine ornaments; and native copper fishhooks, gorges, and beads (Gibbon & Anfinson 2008).

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The first known archaeologist to undertake work applicable to Haliburton was David Boyle, on Baptiste Lake in Hastings County in 1890 (Ballantine 2008: 1). The headwaters of this lake are located within Haliburton County. Kenneth Kidd conducted excavations at Rocky Lake, in a part Algonquin Park that was formerly part of Haliburton County on the eve of the Second World War. No further archaeological investigation was conducted in Haliburton County until the 1950's (Ballantine 2008: 2).

The “Farquhar Lake Cache”, from eastern Haliburton County was comprised of a cluster of Pre-Contact copper artefacts. In 1957 cottage construction severely damaged a burial mound on the narrows at Lake Kashagawigamog. Subsequent investigation revealed a multi-component site and included the recovery of a bag of French gunflints (Ballantine 2008:2).

Most archaeological investigation of Haliburton County involved land that was located in Algonquin Park. This included William Noble at Rock Lake, Selwyn Dewdney and K. Kidd who investigated pictograph sites, and William Hurley who recorded 21 sites within Haliburton County sections of Algonquin Park during archaeological surveys in the 1970's (Ballantine 2008:2).

Outside of park boundaries, Wm. Fox excavated a site on Drag Lake at the headwaters of the Burnt River, Wm. Ross recorded 16 sites in Haliburton while working in the vicinity of the Leslie Frost Centre, Thor Conway recorded a site on Gull Lake, Roberta O'Brien and Annie Gould conducted a survey around Kawagama Lake, including “several” sites at narrows providing access to Algonquin Park (Ballantine 2008: 2-3).

Studies in settlement patterns in Haliburton County, appear to show sites centred around larger interconnecting bodies of water that would permit ease of travel and resource exploitation (Ballantine 2008: 7). This could be survey bias, where smaller bodies of water have not been investigated, and the potential for these sites to be very small (Ballantine 2008: 7). Archeological sites recovered in Haliburton have been small sites, referred to as “arrowhead re-sharpening stations” (Ballantine 2008: 8)

While modern consulting archaeologists will undoubtedly recover sites from projects in Haliburton County, currently it is accidental finds that are increasing information on the area's past. Roto-tilling a garden by a cottager revealed the multi-component BfGp-2 site (Ballantine 1993: 66). The Curtin Site was discovered by a land owner who was excavating a trench to improve drainage. This site, after testing, turned out to be the largest yet recovered in Haliburton County (Ballantine 2008: 8).

Artefacts recovered included pottery that most resembled that recovered from the Benson Site in Victoria County, the nearest Iroquoian site. There was also pottery recovered that could be classified as “Iroquoianesque”, and was likely a regional variation created by the local Algonkian

pottery. Similar pottery has been recovered from sites in central and eastern Ontario (Ballantine 2008: 10). Research seems to indicate that sites on the Gull and Burnt River systems which allow the easiest access to Victoria County possess the greatest amount of chert, while those to the northeast especially have the highest amounts of quartz or quartzite tools (Ballantine 1992: 88).

Modern dams, whether constructed for the generation of hydro-electricity, or to artificially maintain water levels for logging and most recently, recreation, have eroded and covered archaeological sites during high water periods, then revealed them when water levels are allowed to drop. Owing to these artificial water levels, it has been stated that archaeological investigation would not be as successful in the summer (high tourist / boating season), as it would be later in the year when levels are allowed to drop to a more “natural” level and sites are either exposed, or erode from the water’s edge (Ballantine 2008: 7).

Investigations on Farquahar Lake, the location of the previously mentioned copper cache during a period of low water, revealed two previously unrecorded sites, one undetermined Pre-Contact, and one Late Woodland A third site was discovered on Lake Oblong Lake which revealed a variety of relatively local, as well as more exotic chert types, as well as quartz flakes (Ballantine 1993: 65).

1.3.3 Post-Contact

Exploration and mapping of Haliburton commenced as early as 1814, by members of the British military who were searching for transport routes that would avoid the need to travel close to the border with the United States. Lt. J.P. Catty, who explored the region in 1814, was not favourably impressed by the land and terrain he encountered. This sentiment was echoed by the second exploration party when two members of the British Navy, Lt. Henry Briscoe, and Ensign Durnford described the land they encountered in Haliburton as “generally bad”. In 1826 the two travelled from Holland Landing on the south shore of Lake Simcoe, to Fort Coulonge on the Ottawa River through Haliburton, via the Muskoka River, Lake of Bays, and the Oxtongue and Petawawa Rivers (Cummings 1961: 3-6).

The first non-military exploration of the region was Alexander Sheriff, who, in 1829, travelled from Ottawa to Penetanguishene via the Petawawa River, McIntosh Lake, and the Muskoka River. He called the area “fine habitable country”, a description that was at odds with the earlier explorers, and those who followed. It is possible that Sheriff was looking more at the timber rather than the poor quality soil (Cummings 1961: 6).

While exploration, mapping, and surveying were taking place throughout the region, the Bigwin family, members of the Mnjikaning First Nations from Rama on Lake Couchiching were utilising Lake of Bays near the project area as part of their traditional land during their seasonal rounds,

having summer settlements at what is now Dorset, and Bigwin Island, which also was the site of a burying ground. The area was used for trapping, trading, and red ochre was gathered from Paint Lake. Guides from Mnjikaning were in great demand for 19th and early 20th Century Euro-Canadian hunters, trappers, and tourists in Haliburton, owing to their familiarity with the area (ASI 1994).

As grant lands in south and southwestern Ontario began to fill, what would become the County of Haliburton was looked at as one of the next areas to be opened for agricultural settlement. In preparation for settling the area, Robert Bell was sent to survey it in 1847. Starting from the Madawaska River, Bell entered Haliburton on September 23rd 1847 at the line that would form the border between Bruton and Clyde Townships. In February 1848, he reached the western border of Haliburton, at the eastern border of the Home District. He described the land encountered in Haliburton as “worst sort to get through”, but the stands of timber and the soil were of the “finest quality” (Cummings 1961: 8-12).

In order to open the area to settlement, the Bobcaygeon Colonization Road was began in 1856, and reached the Oxtongue River in 1863. The agent for this area was located at the beginning of the road in Bobcaygeon, and began his duties in 1858 (Ontario Heritage Trust 2016). Squatters were noted to have followed close on to the construction crews, and occasionally, even settling lands before their arrival (Cummings 1961: 34).

The first township to be surveyed in Haliburton, was Sherborne, in 1861, followed by surveys of Stanhope, Dysart, Guilford, Dudley, Harburn, Bruton, Harcourt and Snowden Townships in 1862. All these townships were eventually granted to the Canadian Land and Emigration Company Ltd, that formed in London, England in 1861. This company, headed by T.C. Haliburton, sold the land under its control to settlers for 50 cents an acre. While the company was charged with settling its own lands, the Provincial Government was also involved with settling the region, to the chagrin of the company’s investors (Cummings 1961: 17-27). Eventually controlling a total of 364,000 acres, in 20 years of operation, the Canadian Land and Emigration Company Limited managed to only sell between 30- and 35,000 acres (Cummings 1961: 169).

The earliest settlement was Minden, which was settled as early as 1858, and followed by the Village of Haliburton, in 1864. By the date of the founding of Haliburton, Minden possessed a post office, hotel, blacksmith, a number of merchants, grist and a saw mills (Robinson 1884: 469-70, 482).

The Provisional County of Haliburton was created in 1874 out of the northern townships of Peterborough and Victoria Counties. Twenty townships were separated from Peterborough County, including McClintock Township, and three from Victoria County. Residents of these northern townships had petitioned for separation from their home counties owing to their refusal to assist in funding the Victoria Railway that was hoped to open the area to increased settlement

and industry . One of the new County's first actions was to "gift" the Victoria Railway Company \$55,000 (Robinson 1884:464-66).

The Victoria Railway began construction in 1874, reaching Haliburton in 1878. Any plans to extend it further north never came to fruition, but the rail line did contribute to the settlement of the region. It mostly served to transport timber and iron ore out of Haliburton.

From its inception, the population of Haliburton was relatively low compared to its size. In 1874, fifteen of the townships were organized for settlement, and only six of these formed the County Council. The expected increase in settlement did not occur with the formation of the new County, it decreased, with as many as 1,000 families vacating their land and moving to northwestern Ontario, Manitoba, or the Dakota's in the United States (Robinson 1884:464-69).

1.3.4 Study Area Specific History

McClintock township was named after Capt. Sir Francis Leopold McClintock, leader of the Arctic expedition to find Sir John Franklin, and was first surveyed in 1862 as Free Grant Land. This survey involved land on the east border of the township, along the Bobcaygeon Colonization Road. These lots, are oriented to the road, and perpendicular to other lots in the township, are known as "Concession A" . The remainder of the township, west of the Bobcaygeon Road, was surveyed in 1876.

When the first meeting of Haliburton County was convened, the townships of Stanhope, Sherborne, and McClintock were represented by Joseph Beatty of Stanhope (Roberston 1884: 465). McClintock never had its own township government, it being joined with Sherborne as Sherborne-McClintock, and later as Sherborne-McClintock, Livingstone, Lawrence and Nightingale Township, also known as the Township of Sherborne et al. The Township of Algonquin Highlands was formed out of these, or parts of these townships in 2001. Parts of Nightingale and Livingstone Townships are now part of Algonquin Provincial Park.

The 1901 census was the first to differentiate between the townships. McClintock Township had 40 families living within its borders, most were farmers, but lumber labourers, merchants, a teacher, and a fire ranger were other listed occupations.

Population of McClintock decreased by 1911, and only 5 families were enumerated as living within the township, with a population of thirty. Farming, or working on a farm (for the children of head of household) was the dominant occupation, but two people worked as timber industry labourers, and one as a professional guide. None lived on property within the project area.

1.3.4.1 Maps

Maps of any sort that give information beyond Lot and Concessions for McClintock Township are rare. A Crown Lands Map of McClintock from 1888 does not add any information, while there are notations on other properties, there are none on or in the vicinity of the project area. The map even omits Harvey Lake (**Maps 4 & 5**).

Another undated map of the south half of McClintock Township depicts a road or path that is in the approximate location of the modern McClintock Road that forms the north border of the project area (**Map 6 & 7**). As this road terminates near some cottage lots on Fletcher Bay on Lake Kawagama, and references on this map would date it to after 1950, the “historical” nature of this road seems to be open to debate. The road may have been cut in the 19th Century to haul timber but equally may have been a more recent development of the tourism industry.

1.3.5 Summary of Historical Context

Haliburton was surveyed in response to the decreasing amount of farm land available in southern and southwestern Ontario. Early explorers, even though focussed on other matters, were unimpressed with the quality of agricultural land in the area. What would become Haliburton County was surveyed in 1847-8, and townships were laid out beginning in 1861.

McClintock Township was surveyed between 1862 and 1876. The earliest lots surveyed were those along the Bobcaygeon Road, other lots were laid out in 1876. McClintock Township never had its own municipal government; from its inception, it was joined with at least one other township, and up until 2001 it formed part of the United Townships of Sherborne-McClintock, Livingstone, Lawrence and Nightingale. In 2001 this township grouping became known as the Township of Algonquin Highlands. Early settlers of McClintock Township attempted to farm the land, however between 1901 and 1911 the population had dropped dramatically, coming close to being uninhabited.

1.4 Archaeological Context

1.4.1 Current Conditions

The current project area is located on Part Lots 11, & 12 Concession 2 former Township of McClintock, Township of Algonquin Highlands, County of Haliburton, and comprises an area of 21.85 hectares. The project area is composed of an existing aggregate pit and disused/overgrown bush access roads, forest with areas of bedrock outcroppings, steep slope and low-lying and wet areas (**Figures 1, 2, 3, & 4**). McClintock Road forms most of the northern border of the project area, save where there is a small water body bordering the project area on the northwest edge (**Figure 5**). A creek and marsh-land form the boundary on the east, as does another low-lying and

wet area on the southwest corner (**Figures 6, 7**). A small water course flows through the southeast project area corner, and eventually joins with the creek on the east side before emptying into Harvey Lake to the southeast of the project area (**Figure 8**). All other borders are forest. Owing to the lack of obvious property boundaries, the proponent supplied GPS co-ordinates, and the site limits were flagged.

1.4.2 Physiography

The project area is part of the Grenville Province of the Pre-Cambrian Shield, with bedrock predominantly granite or granitic-gneisses. Also present in small percentages are crystalline limestone, quartzite, and amphibolite and paragneiss, these respectively being from the metamorphism of limestone, sandstone, and various limey and sandy shales (Chapman 1975: 3).

The project area is comprised of shallow till and rock ridges, in this area bare rocks comprising less than 5% of the area. The till is usually sandy with stones, that follows the contour of the bedrock (Chapman 1975: 5). The soils are unsuitable for agriculture owing to their high stone content, numerous rock outcrops, as well as its general shallowness (Chapman 195: 20).

1.4.3 Previous Archaeological Assessments

No previous archaeological assessments have taken place on or within 50 metres of the project area.

1.4.4 Registered Archaeological Sites

A request of the MTCS data base showed that the nearest archaeological site to the project area was 5km north.

2.0 Field Methods

Stage 1 assessment included a site inspection, but no ground was disturbed, nor collection of archaeological resources if any were encountered. Aside from the review of the available literature to discern archaeological potential and previous historic land use, the assessment hoped to determine the areas which may have been too badly disturbed to still potentially contain cultural values. This information was used to determine what survey strategies would be appropriate for a Stage 2 assessment, should it be required.

Using supplied GPS co-ordinates, and flagging taped boundaries, the site inspection systematically covered the entirety of the project area on August 17th 2016, and was sufficient to identify any archaeological potential. As per Section 1.2.2 of the Standards and Guidelines for

Consultant Archaeologists, conditions permitted good visibility of land features during the site inspection. The temperature during on the day of the site inspection was 27°C, with light cloud and wind. No restrictions were placed on the fieldwork. All photographs and reference points were recorded using a WAAS enabled Magellan eXplorist 610 GPS, using the NAD 83 datum.

The project is seeking an expansion of limits for existing aggregate operations, which have previously disturbed a portion of the northeastern project area, and is visible on aerial or satellite images (**Map 2**, see Figure 1). The project area was predominantly composed of ridges along its north, east and west margins, and the northern half was relatively flat, sloping to a low-lying and wet area in the south. Four areas of high potential were identified during the site inspection.

Within the original project boundaries, four areas of high archaeological potential were identified. With the reduction in project size, two areas are completely within the reduced boundaries, and a portion of a third remain.

2.1 Areas of High Potential

2.1.1 High Potential Area 1

The first area of high potential is located on the eastern side of the project area, adjacent to the creek and marsh lands that run along this border and empty into Harvey Lake. It is composed of a long ride ridge, running nearly the length of the project area, and a flat area of varying widths separated the ridge from the creek. At the ridge's southern edge, it slopes to another flat area, which is turn bordered by marsh (**Figure 9**).

2.1.2 High Potential Area 2

High Potential Area 2 is a ridge separated from Area 1 by a the small water course running to the southeast. To the north of the water course, the two ridges are separated by relatively flat, terrain. The entirety of the ridge is approximately 270m long, and runs in a northwest-southeast direction (**Figure 10**)

2.1.3 High Potential Area 4

The final area of high potential comprises the parts of the project area that are close to the water body on the northwest corner of the project area. A ridge runs roughly parallel to the water running nearly the full length of the northern project border (**Figure 11**). Due to the disturbance in and around the existing pit, it is difficult to tell how close it would have been to the first ridge discussed (**Figure 12**). This ridge could be a relatively direct route between the two water sources even with the existing distance between the two ridges. The area surrounding the waterbody that is on the project area is relatively flat, and also should be classified as high

potential. Only the extreme eastern edge of this area remains within the current project limits

All other areas of the project were low potential, or over 150 metres away from other features of potential. This includes approximately 25% of the project area that was classified as low-lying and wet, 25% that was steeply sloped, and 15% disturbed. The property was almost completely forested, save in the area of the existing pit. The four areas of high potential in the property, comprise approximately 30% of the project area.

According the Standards and Guidelines for Consultant Archaeologists, Section 2.1.5, Standard 1, no assessment is required beyond 50 metres of a modern water source and Standard 2, which states that in areas where the potential is other than a modern water source, such as glacial shorelines, test pitting must be performed up to 150 metres from the feature of potential. Beyond a 150 metres, no survey is required (MTCs 2011). All High Potential Areas are within 50 metres of a modern water source, and are composed of ridges, another feature of high potential that is not a modern source of water.

Subsequent to the completion of the Stage 1 Property Inspection, at the beginning of September, the project area was decreased in size by the proponent, and the completion of environmental assessments identified a number of areas that serve as habitats for the threatened Blanding's Turtle. While not endangered they could become so owing to predation, collection for pets, and the destruction of habitat. Therefore, all Blanding's Turtle general habitat is automatically protected (MNRF 2015). This protected habitat coincides with much of the High Potential Areas outlined above.

A portion of High Potential Area 4 remains outside the protected areas, and will require a Stage 2 Archaeological Assessment (**Map X**).

3.0 Analysis and Recommendations

3.1 Features Indicating Archaeological Potential

A number of factors are employed in determining archaeological potential. Criteria for pre-contact archaeological potential is focussed on physiographic variables that include distance from the nearest source of water; the nature of that source; distinguishing features in the landscape (e.g., ridges, knolls, eskers, wetlands); the types of soils found within the area of the assessment and resource availability. Also considered are known archaeological sites within or the vicinity of the study area.

There are three areas of the project that are within 50 metres of a modern source, and comprised of another feature of high potential, in this case high ridges bordering water sources. Only a portion of High Potential Area 2 is not within zones that are protected under the Endangered Species Act.

There are no sites within the project area, the closest being approximately 5 km north.

Land registry records, assessment rolls, census, historic maps and aerial photographs as well as a property inspection all assist in determining historical archaeological potential. Additionally, the proximity of historic transportation corridors such as roads, rail and water courses also affect the historic archaeological potential.

There is no known early Euro-Canadian settlement within the project area.

3.2 Conclusions

The Boucher Construction Aggregate Pit contains four areas of archaeological potential, within the original project area, and three within the revised project border. Only a portion of High Potential Area 2 will require a Stage 2 Archaeological Assessment prior to development as it lies outside the protected Blanding's Turtle zones. All other areas of High Potential are within areas protected under the Endangered Species Act, or have been removed from the project area.

4.0 Recommendations

Based upon the background research and the results of the property inspection, it is recommended that:

- 1)
- 1) High Potential Areas 1, 2, and 4 are considered to have high archaeological potential and remain within the adjusted project borders and require Stage 2 Archaeological Assessment (**Map 8**).
 - a) High Potential Areas 1 and 4 are completely within areas where development is prohibited under the Endangered Species Act, owing to the presence of the threatened Blanding's Turtle. These areas are protected and will not be disturbed and therefore do not require further assessment at this time. If these areas are ever to be developed, they will require a Stage 2 Assessment.
 - b) A portion of High Potential Area 2 is outside of the protected zones, and will require a Stage 2 Archaeological Assessment prior to development (Map X).
- 2) As per Section 2.1.5.2 of the Standards and Guidelines for Consultant Archaeologists "Alternative Strategies for Special Survey Conditions: Test Pit Survey in Northern Ontario and Canadian Shield Terrain" the Stage 2 Assessment should:
 - a: space test pits at maximum intervals of 5m between 0 and 50 m from the feature of archaeological potential
 - b: space test pits at maximum intervals of 10m between 50 and 150m from the feature of archaeological potential
 - c: survey is not required beyond 150m
- 3) The rest of the Bacher Construction Aggregate Pit project area possesses low archaeological potential and should be considered free from further archaeological concerns.

5.0 Advice on Compliance with Legislation

This report is filed with the Ministry of Tourism, Culture, and Sport as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Ministry, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matter 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.

It is an offence under Section 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 a 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 unknown or deeply buried archaeological resources be uncovered during development, 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 archaeologists to carry out archaeological fieldwork, in compliance with Section 48 (1) of the Ontario Heritage Act.

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.

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.

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7.0 Images



Figure 1: Bacher Construction Aggregate Pit, Existing Pit. Facing Northeast.



Figure 2: Overgrown Bush Road. Facing South.

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Figure 3: Exposed Bedrock and Steep Slope. Facing Northeast.



Figure 4: Low-Lying and Wet Conditions in Project Area. Facing Northwest.

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Figure 5: Waterbody at Northwest Corner of Bacher Construction Project Area. Facing Southeast.



Figure 6: Low-Lying and Wet Area on Eastern Project Area Boundary. Facing Southeast.

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Figure 7: Low-Lying and Wet Area, Southwestern Project Boundary. Facing West.



Figure 8: Creek in Southeastern part of Project Area. Facing Northwest.

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Figure 9: High Potential Area 1. Facing East.



Figure 10: High Potential Area 2. Facing Northeast.

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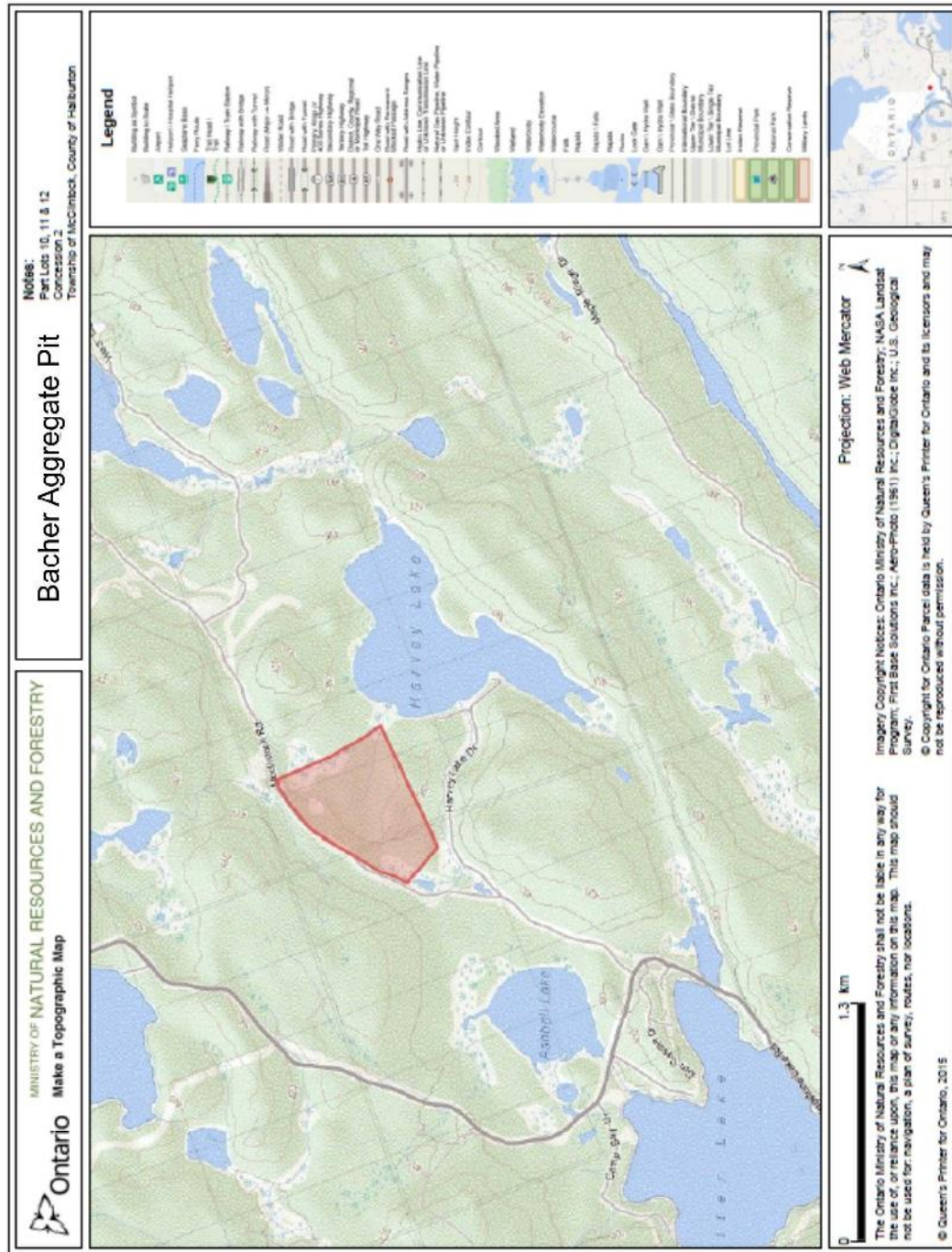


Figure 11: High Potential Area 4. Facing Northeast.

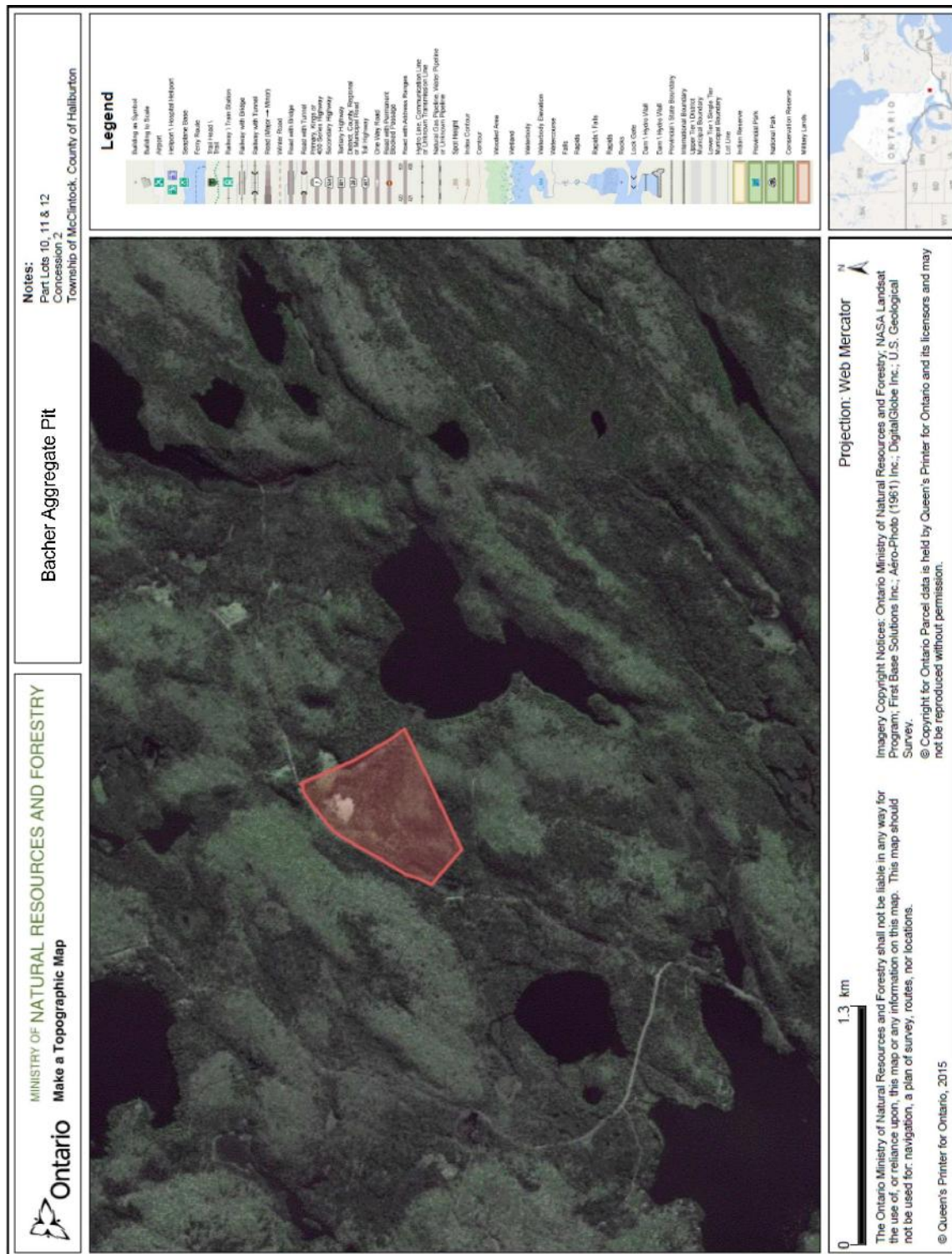


Figure 12: High Potential Area 4, Disturbed. Facing Northeast.

8.0 Maps

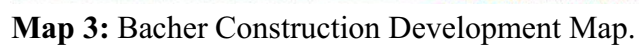


Map 1: Bacher Construction Pit Project Area Location.

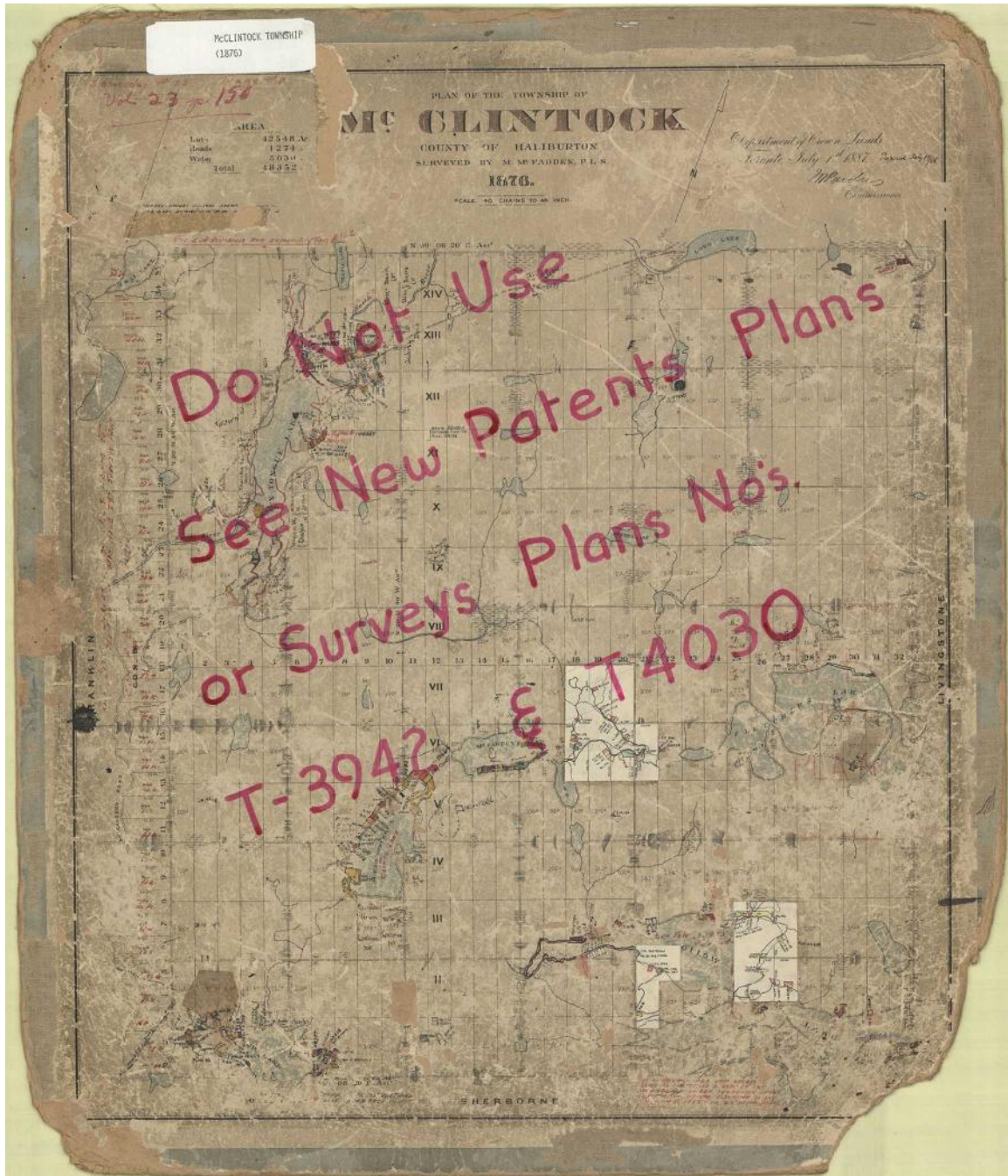


Map 2: Bacher Construction Pit Satellite Image of Project Area.

Bacher Construction Limited McClintock Quarry / Pit



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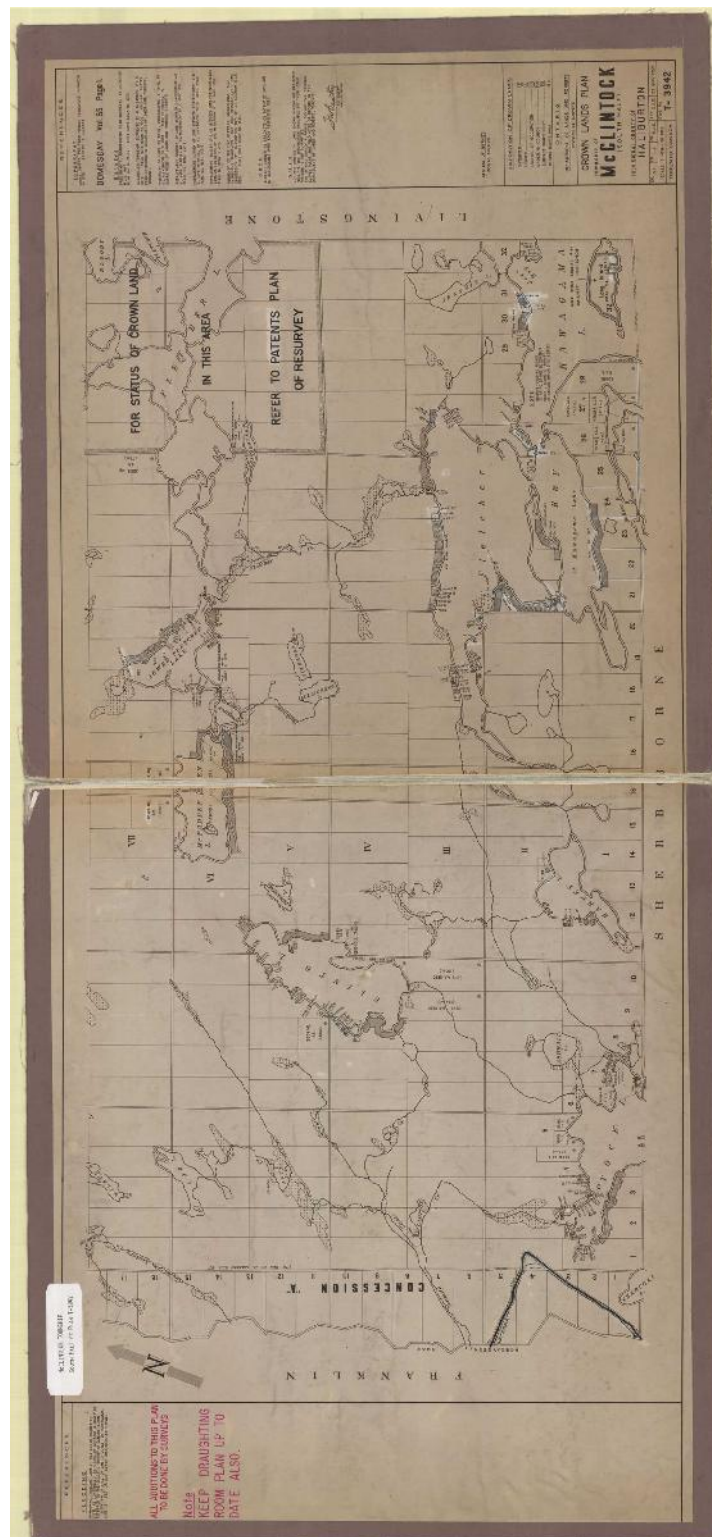
Map 4: 1888 Crown Land Map of McClintock Township.

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Map 5: Segment of 1888 McClintock Township Crown Land map showing Project Area Location.

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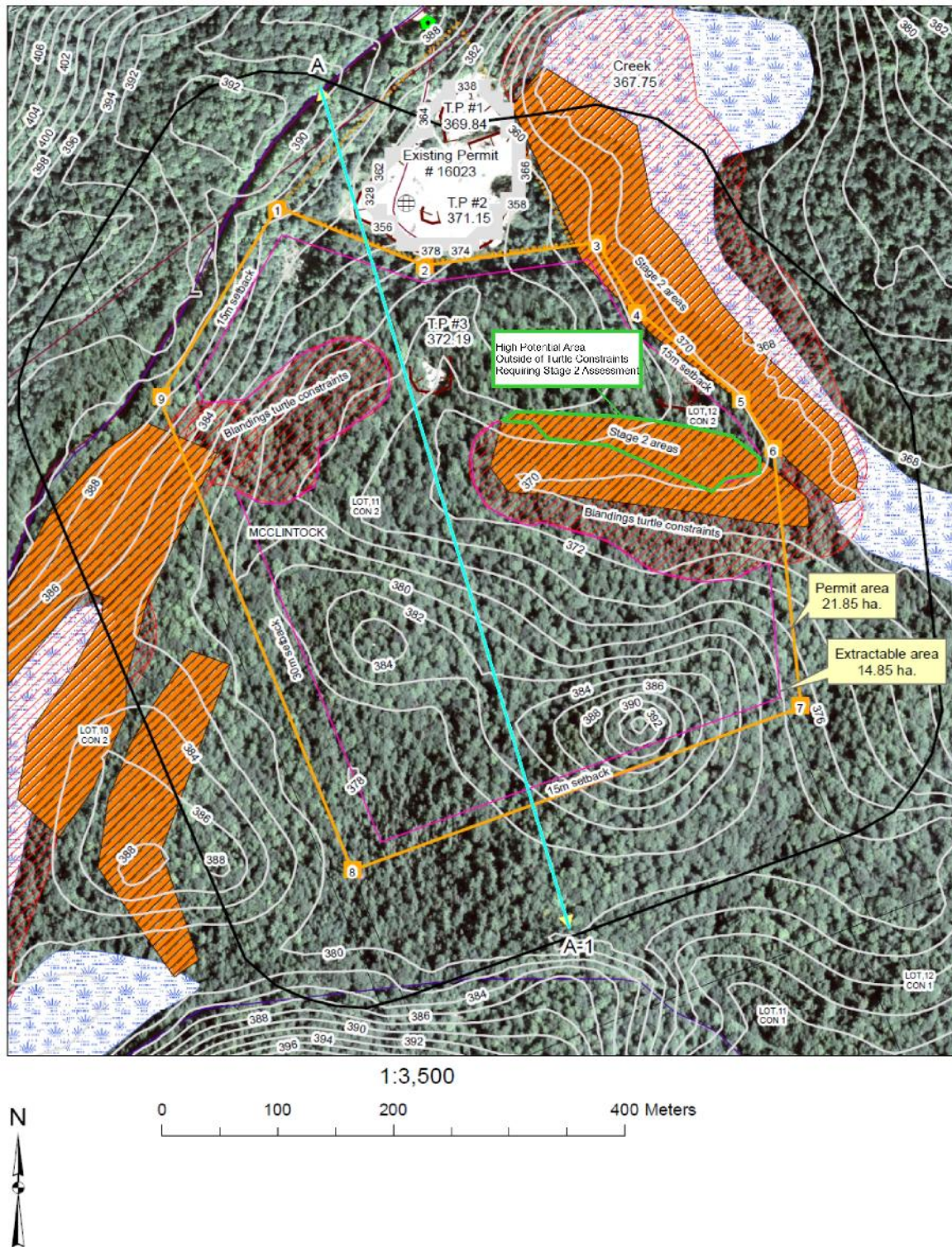
Map 6: Map of South half of McClintock Township.

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Map 7: South half of McClintock Township Map Segment showing Project Area Lots 10, 11, & 12.

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Map 8: Bacher Construction Revised Project Area, Stage 1 Results.