Lower Churchill Hydroelectric Development Project 2017 Historic Resources Assessment and Recovery Program Permit # 17.15

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Executive Summary

The 2017 Historic Resources Management Field Program for the Lower Churchill Project commenced in June 2017 and was completed in September 2017.

Stage 2 assessment in 2017 was relatively limited and focused primarily on verifying the nature and significance of cultural material at two sites, one a registered archaeological site (FgCh-06), and the other an unanticipated find-spot of quartzite shatter encountered north of FgCh-06 during routine Historic Resources Management work. The metal detector survey at FgCh-06 indicates that the site is of late 20th-century date and that no further work is warranted. The quartzite scatter identified to the north was assessed by subsurface shovel-testing which indicated that the scatter was a recent product of heavy equipment traffic along the forwarder path. Again, no further work appears to be warranted.

Stage 3 Systematic Data Recovery (SDR) operations were completed at six sites on Gull Lake and a seventh at the bottom of Gull Rapids. The six sites on Gull Lake yielded quartzite-dominated collections of artifacts and debitage comparable to assemblages excavated previously at sites within the Muskrat Falls reservoir area. Artifacts recovered from these precontact occupation areas included projectile points, bifacial knives, scrapers, preforms, linear flakes and retouched/utilized flakes, with large quantities of primary, secondary, and tertiary debitage from quartzite knapping. Some sites and site loci appear to have served primarily as lithic reduction areas (e.g., FgCh-02, possibly FgCh-03, FgCh-05 Locus B, and FfCh-02 Locus C). The remainder (FgCh-01, FgCh-05 Locus A, FfCh-02 Locus A and Locus B and FfCi-01) also contained evidence for hearths, indicating settlement and food-processing activities along the north shore of Gull Lake. This area has been identified as a traditional Innu harvesting area for migratory waterfowl, along with fish and small game, in spring and fall. One of these sites (FgCh-01) is situated in an unusual location 300 m from the present lakeshore.

On two precontact sites (FgCh-01 and FfCh-02), the outlines of dwelling structures are evident around the hearths. The remarkably clear structure at FgCh-01 is defined by a hard-edged polygonal debitage scatter enclosed within an apparently circular ring of tent-pole emplacements approximately 6 m in diameter. The more complex evidence from FfCh-02 (Locus A) suggests a palimpsest of structures of similar size, but with earth-walled perimeters. This latter site also yielded a large collection of precontact ceramics. Precontact ceramics have now been recovered from ten sites between Muskrat Falls and Gull Lake, but the assemblage from FfCh-02 represents the most significant collection of decorated (dentate-stamped) ceramics yet recovered from the Churchill Valley. Two other sites (FgCh-05 and FfCi-01) additionally yielded Palaeo-Eskimo artifacts, presumably collected by Amerindian peoples from Palaeo-Eskimo sites on the coast of Labrador.
The westernmost precontact site recovered in 2017 was FfCi-05, situated west of Gull Lake at the bottom of Gull Rapids. The collection recovered from this site was unique and did not resemble the quartzite-dominated assemblages collected from other sites within the Muskrat Falls reservoir area, being dominated by sharpening flakes of vari-coloured fine-grained cherts. The collection of slender, finely-worked lanceolate points associated with this site has no close parallels with other sites in the Churchill Valley, and few with other Intermediate or Late Precontact Period Amerindian sites in Labrador.

Relatively few historic-period artifacts were recovered in 2017, but the small historic-period artifact assemblage collected from FfCi-01 suggests that this location served as a hunting stand, not only in the precontact period, but in the 20th century as well.

The archaeological sites assessed and recovered along Gull Lake in 2017 represent the last of the known sites scheduled for recovery within the Muskrat Falls development and reservoir areas.
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AFR</td>
<td>Alternative Field Recording</td>
</tr>
<tr>
<td>AMS</td>
<td>Accelerator Mass Spectrometry</td>
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<tr>
<td>asl</td>
<td>Above sea level</td>
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<td>BP</td>
<td>Before present</td>
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<td>ca.</td>
<td>Circa</td>
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<td>cm</td>
<td>Centimetre</td>
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<tr>
<td>CPT</td>
<td>Cone Penetration Test</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System or Geospatial Information System</td>
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<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<tr>
<td>HBC</td>
<td>Hudson's Bay Company</td>
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<tr>
<td>HVac</td>
<td>High Voltage Alternating Current</td>
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<tr>
<td>HVdc</td>
<td>High Voltage Direct Current</td>
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<tr>
<td>Km</td>
<td>Kilometre</td>
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<tr>
<td>kV</td>
<td>Kilovolt</td>
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<tr>
<td>m</td>
<td>Metre</td>
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<tr>
<td>m²</td>
<td>Square metre</td>
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<td>PAO</td>
<td>Provincial Archaeology Office of the Government of Newfoundland and Labrador</td>
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<td>ROW</td>
<td>Right of Way</td>
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<tr>
<td>SDR</td>
<td>Systematic Data Recovery</td>
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<tr>
<td>SFR/SS</td>
<td>Systematic Field Recording and Subsurface Sampling</td>
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<td>TL</td>
<td>Transmission Line</td>
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# Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>A or Ae Horizon</strong></td>
<td>Soil horizons are specific layers in the soil. The A Horizon is the topmost level of sediment beneath the organic (e.g., moss, leaf litter) layer. There are many variations but in northern forest soils a common type is “Ae,” a leached grey horizon. The B Horizon lies beneath the A Horizon.</td>
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<tr>
<td><strong>Aboriginal</strong></td>
<td>A broad term referring to those peoples who have inhabited North America since before European contact.</td>
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<tr>
<td><strong>Accelerator Mass Spectrometry (AMS)</strong></td>
<td>A form of radiocarbon dating that gives more precise results than conventional radiocarbon dating and can be employed using smaller samples of carbon.</td>
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<tr>
<td><strong>Adze</strong></td>
<td>A bladed woodworking tool similar to an axe, but with the blade edge mounted perpendicular to the handle.</td>
</tr>
<tr>
<td><strong>Alternative Field Recording (AFR)</strong></td>
<td>Detailed photographic, videographic and illustrative recording of a site, possibly also including the collection and conservation of visible artifacts. AFR is normally implemented at sites, such as historic sites, where features and artifacts are located on the surface and excavation is not required.</td>
</tr>
<tr>
<td><strong>Amerindian</strong></td>
<td>A broad term sometimes used to refer to the aboriginal inhabitants of North America, excepting the Arctic-adapted Inuit and Palaeo-Eskimo peoples. In Newfoundland and Labrador, it may refer to the Maritime Archaic, Intermediate and Late Precontact occupations, as well as to the historic Beothuk and the historic and contemporary Innu and Mi'kmaw people.</td>
</tr>
<tr>
<td><strong>Archaeological Site</strong></td>
<td>A location which contains the material remains of human land use in the past. Technically, only those sites which date to the historic or precontact periods and which are assigned Borden numbers are true archaeological sites. Sites with more recent remains are considered ethnographic sites and are assigned Ethno numbers by the PAO.</td>
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<tr>
<td><strong>Archaic</strong></td>
<td>In Labrador, the initial period of Amerindian occupation, dating from approximately 8,000 – 3,700 BP. In Newfoundland and Labrador, generally synonymous with Maritime Archaic.</td>
</tr>
<tr>
<td><strong>Arris</strong></td>
<td>In precontact lithic technology, the ridge or ridges running parallel to the edges of a blade or linear flake. These ridges mark the edges of blades or linear flakes previously removed from the core.</td>
</tr>
</tbody>
</table>
Artifact  A discrete object deliberately manufactured or modified by human activity.

Auger  tool with a screw-like thread used for drilling

Awl  A pointed instrument used to pierce cloth or leather.

Bedrock  A general term for the rock, usually solid, that underlies soil or other unconsolidated superficial material.

Before Present (BP)  In radiocarbon dating, “Present” is arbitrarily fixed at the year 1950 AD.

Berm  A low raised earth ridge. In this study, the term refers to the ridge which flanks the foundation of a building.

B Horizon  A soil horizon is a specific layer in the soil. The B Horizon lies beneath the A Horizon and is commonly referred to as ‘subsoil’. It may be characterized by concentrations of minerals. In northern forest soils, the B Horizon is often rich in iron and is orange, red or reddish-black in colour.

Blade  In precontact archaeology, a type of stone tool consisting of long, narrow, parallel-sided flake deliberately detached from a prepared stone core, generally for use as an expedient disposable cutting tool. Blades exhibit one or more arrises, resulting from the repeated removal of blades from the core. See also Linear Flake.

Blank  A very early stage in the manufacture of a flaked stone artifact, usually a partly-worked piece of chert or other stone, made at a quarry for later use elsewhere. A blank can resemble a thick, wide biface and may serve as the basis for manufacturing almost any type of stone tool.

Biface  In precontact archaeological sites, a lithic artifact chipped on both opposite sides is referred to as a biface, or bifacially-flaked tool.

Bodkin  A thick needle, often with a blunt tip and a large eye.

Borden Number  Archaeological sites in Canada are registered under a nationwide site registration system known as the Borden System, which assigns each site a unique Borden number. In Newfoundland and Labrador, the PAO assigns these numbers. Only true archaeological sites (those predating the mid-20th century) receive a Borden number. More recent ethnographic sites are assigned an Ethno number.
Caplock Firearm  A muzzle-loading firearm in which the main charge is ignited by means of a percussion cap rather than a flint and steel (i.e. a flintlock).

Charles Complex  A culture-historical unit representing an early-middle period in the Intermediate Period of central Labrador, ca. 3000 BP to 2700 BP. Characterized by triangular and linear flakes, bifaces, and formal scrapers, many fashioned of banded rhyolite.

Chert  A fine-grained silica-rich sedimentary rock, often selected by precontact peoples for manufacturing chipped stone tools.

Circa (ca.)  Approximately (literally “around”).

Cladonia  A white, moss-like lichen which grows abundantly on sandy soils in Labrador and serves as an important winter food source for caribou. See lichen woodland.

Clinker-built  A boat-building method in which the bottom edges of the external planking (or strakes) overlap the top edges of the planks immediately below (similar to clapboard cladding). This method of boat-building (also referred to as lapstrake) is in contrast to carvel construction, whereby all the external planks butt edge to edge.

Cone Penetration Test  A geotechnical investigation method in which a cone-tipped probe is inserted into sediments in order to determine the bearing capacity or other properties of soils.

Component  In an archaeological site, a component is a period of occupation. A site occupied at various times, for example, once 3,000 years ago and again less than 25 years ago, may be said to have a precontact component and a contemporary component.

Contemporary Site  A location which contains the material remains of human land use in the recent past (by convention, post-dating the mid-20th century). As a category of land use sites, “contemporary” may be used interchangeably with “ethnographic.” Contemporary sites may be important in interpreting the history of human land use in a region, but are not considered true archaeological sites, and are not assigned Borden numbers. Contemporary/recent sites are assigned Ethno numbers by the PAO.

Core  A piece of knappable stone used as the basis for producing flakes or blades for use as tools. Cores may be deliberately prepared to produce flakes of specific types. For example, blade cores are cores specifically prepared for the production of narrow, straight-sided blades.
Cortex
The naturally-weathered outer surface of a rock, particularly a beach cobble.

Cortical Flake
A flake of stone whose dorsal surface is partly or entirely cortex. See also Primary Flake and Secondary Flake.

Corner-Notched
In precontact archaeology, a descriptive term applied to bifaces modified for hafting by chipping notches into the basal corners, forming drooping shoulders and an expanding base.

Cow Head Complex
A culture-historical unit representing the first period in the Late Precontact Period on the Island of Newfoundland, ca. 2000 BP to 1000 BP.

Cultural-Historical Sequence
In archaeology, the human history of a region, defined as a series of culture-historical units, each characterized by distinctive artifact styles.

Cultural-Historical Unit
In archaeology, a division of the human history of a region. It consists of a period of time defined by diagnostic artifact and feature styles that distinguish it from earlier and later periods in a cultural-historical sequence. Culture-historical units are equated with past human cultures and given distinctive names. They may be broad periods of time (e.g., Intermediate Period or Late Precontact Period) or finer chronological subdivisions (e.g., Daniel Rattle Complex, North West River Phase).

Daniel Rattle Complex
A culture-historical unit representing the first period in the Late Precontact Period of coastal Labrador, ca. 2000-1000 BP. Characterized by moderately large projectile points and large triangular-lanceolate bifaces fashioned almost exclusively of Ramah.

Dart
In precontact archaeology, a dart is a projectile larger and heavier than an arrow but shorter than a spear, usually projected using a spear-thrower.

Debitage
In precontact sites, the lithic waste flakes and shatter left over from the manufacture of stone tools.

Diagnostic Tool Type
A class of artifact with stylistic features that allow it to be assigned to a culture-historical unit.

Dorsal Surface
For precontact lithics, the “back”, generally the most convex or most flake-scarred surface, on a flake or stone tool.

Dorset
The final period in the Palaeo-Eskimo occupation of the Island of Newfoundland and the Labrador coast, dating approximately 2,500 to 550 BP.
Duff: The layer of organic, and partly-decayed organic material, on the floor of a forest, overlying the mineral sediment.

Ethnographic site: A location that contains the material remains of human land use in the recent past (by convention, post-dating the mid-20th century). As a category of land use sites, “ethnographic” may be used interchangeably with “contemporary.” Ethnographic sites may be important in interpreting the history of human land use in a region, but are not considered true archaeological sites, and are not assigned Borden numbers. Ethnographic sites are assigned Ethno numbers by the PAO.

Ethno Number: The registration number assigned to an ethnographic site by the PAO.

Event: In an archaeological context, an activity, action or process, whether cultural or natural, that leaves recognizable physical evidence in the archaeological record (e.g. the deposition of horizontal soil layers).

Expedient Tool: In precontact archaeological sites, a retouched or utilized flake, or other stone tool that has been minimally-worked. Expedient tools were often disposable implements, intended to be used for very short periods of time and then discarded.

Feature: In archaeology, a feature is a group of related objects, which may include artifacts, and which reflect past human activity. Features differ from artifacts in that they are an assemblage of objects. As a result, while the individual objects within a feature may be collected and physically removed, the feature itself is a set of relationships between those objects, which can only be recorded in the field. An example would be a hearth, composed of interrelated rocks, artifacts, and soils.

Flake: In precontact archaeological sites, a flake is a sharp-edged piece of fine-grained rock left over from making stone tools. See debitage.

Flakepoint: A projectile point made from a flake, generally shaped with minimal retouch.

Friable: Easily crumbled or reduced to powder.

Grit Temper: Coarse sand added to the paste of precontact Aboriginal ceramics in North America to strengthen clay vessels and prevent cracking during firing.
Groswater  
A period in the Palaeo-Eskimo occupation of the Island of Newfoundland and the Labrador coast, dating approximately 2,800 to 2,100 BP.

Gunflint  
An artifact found on historic sites. A gunflint is a prepared square or oval of flint used to strike the spark that ignites the powder in a flintlock musket. European flint is a type of chert but is readily distinguishable from the North American cherts employed by precontact peoples in Labrador for the manufacture of stone tools.

Hearth  
A campfire feature. In central Labrador archaeology, these generally take the form of distinct clusters of firecracked rocks and charcoal. However, sand-mound hearths and pit hearths are also known.

Historic Site  
In Newfoundland and Labrador, an archaeological site dating between the initial period of European contact with Aboriginal peoples (approximately 500 BP) but before the mid-20th century.

Historic Resources  
In the context of environmental assessment, these include palaeontological, architectural and archaeological resources, but may also include ethnographic sites or other material evidence of past human land use.

Ice-Push Ridge  
A ridge of sediment formed along the beach of a river, lake, or bay, when ice creeps shoreward and pushes rock and sediment into linear mounds.

Illuviation  
In a soil layer, this refers to the percolation of water leaching out particles from one layer (e.g. the Ae Horizon) and redepositing them in an underlying soil layer (e.g. the B Horizon).

In situ  
Literally “in place”. In situ archaeological remains are those which are undisturbed and still found in the same place as when they were originally deposited through past human activities.

Intermediate Period  
The middle period of the Amerindian occupation of Labrador, including the interior, from approximately 3,500 to 2,000 BP.

Kaolin  
A soft, white clay employed in the manufacture of porcelain, and also for the manufacture of clay tobacco pipes found on historic sites in North America.

Knapping  
The chipping of fine-grained stone such as chert to fashion tools and other objects.

Labrador Trough Cherts  
A group of cherts with highly variable colours and flaking properties derived from the iron-bearing sedimentary and volcanic rocks of the Labrador Trough in western Labrador.

xvi File No: 121414600
Lanceolate  In precontact archaeology, a descriptive term applied to narrow, lance-shaped bifaces.

Late Precontact  The final precontact Amerindian occupation of Newfoundland and Labrador after the Intermediate period, beginning approximately 2,000 BP. This period is also referred to as “Recent Indian” in some archaeological literature. The Late Precontact period arbitrarily ends at the time of European contact, approximately 500 years BP, but the same people continued to inhabit Labrador and are directly ancestral to the Innu, while Late Precontact people on the Island of Newfoundland were ancestral to the Beothuk.

Ledum  The genus commonly known as “Labrador Tea.” An ericaceous shrub now classified within the genus Rhododendron.

Lichen Woodland  An open woodland vegetation community which, in Labrador, generally consists of black spruce widely-spaced over a ground cover of Cladonia. This vegetation pattern is common in central Labrador and often associated with nutrient-poor, well-drained sandy terraces.

Line-Cutter  A deeply-notched cutting tool used for quickly cutting line or cordage. Deeply-notched unifacial stone tools may have been employed for this purpose.

Linear Flake  A flake with some attributes of a blade but lacking one or more of the attributes associated with blade technology, including evidence for the use of deliberately prepared blade cores.

Lithic  Literally, a term referring to stone. In the context of historic resources, lithic usually refers to stone tools and debitage found on archaeological sites once occupied by precontact peoples.

Loam  A soil composed of a mixture of sand and silt, possibly also containing smaller amounts of clay.

Locus (pl. Loci)  Literally a “place”. In archaeological literature a locus is a discrete concentration of artifacts and features that forms one part of a larger archaeological site.

Macroblade  In precontact lithic technology, a large blade more than 11 mm wide.

Maritime Archaic  The first major period in the Amerindian occupation of the province, dating approximately 8,000 to 3,700 BP in Labrador, and from ca. 6,000 BP to 3,200 BP on the Island.
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<tr>
<th>Term</th>
<th>Description</th>
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<tr>
<td>Metamorphic</td>
<td>In geology, normally refers to recrystallized minerals; rocks which have been transformed in the past by extreme temperature and/or pressure.</td>
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<tr>
<td>Microblade</td>
<td>In precontact lithic technology, a small blade less than 11 mm wide. Normally associated with Palaeo-Eskimo archaeological sites.</td>
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<tr>
<td>Midden</td>
<td>A deliberate, often concentrated, deposit of discarded waste, which may include animal bone, plant waste, and/or shell, along with tools, clothing, containers, and other artifacts. See also Sheet Midden.</td>
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<tr>
<td>Mistassini Quartzite</td>
<td>A very fine-grained, semi-translucent, waxy-finished quartzite derived from the Colline Blanche on the Témiscamie River in Québec and widely-used for stone tool manufacture in the northern Québec interior.</td>
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<tr>
<td>Mokoshan</td>
<td>A spiritually-important Innu communal feasting ceremony.</td>
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<tr>
<td>Mugford Chert</td>
<td>A semi-translucent stone from the Cape Mugford area of the north-central Labrador coast, south of Ramah Bay. Mugford, or “Cod Island Chert” often resembles Ramah but may have a greener colour. Widely used for stone tool manufacture in north-central Labrador.</td>
</tr>
<tr>
<td>North West River Phase</td>
<td>A culture-historical unit representing the final period in the Intermediate Period in Labrador, ca. 2000 BP. Characterized by ovate and leaf-shaped bifaces and preforms bifaces fashioned almost exclusively of local quartzite.</td>
</tr>
<tr>
<td>Ordovician Chert</td>
<td>On the Island of Newfoundland, Ordovician cherts are particularly abundant in the Cow Head Group of western Newfoundland. These cherts, often green, tan, or brown in colour, were widely used by precontact peoples on the island of Newfoundland for stone tool manufacture. In Labrador, Ordovician cherts from western Newfoundland were widely used in the Strait of Belle Isle in all periods, and, in sites of the Groswater Palaeo-Eskimo period are commonly found as far north as the north-central Labrador coast.</td>
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<tr>
<td>Palaeo-Eskimo</td>
<td>A term referring to a series of occupations of Newfoundland and Labrador by Arctic-adapted peoples arriving from the north. Although also deriving from the north, the Palaeo-Eskimo peoples were not directly ancestral to the later Inuit occupation.</td>
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<tr>
<td>Palimpsest</td>
<td>In archaeology, refers to a distribution of cultural materials that reflects multiple successive occupations and depositions of cultural material within a single location.</td>
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<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>Paste</td>
<td>In ceramic technology, the clay mixture used to form the body of a ceramic vessel.</td>
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<tr>
<td>Point Revenge Complex</td>
<td>A culture-historical unit representing the second and final period in the Late Precontact Period of coastal Labrador, ca. 1000 BP to 500 BP. Characterized by small projectile points and triangular bifaces fashioned almost exclusively of Ramah.</td>
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<tr>
<td>Podzol/Podzolic</td>
<td>Refers to the typical soil associated with coniferous forest in the subarctic, including central Labrador. Podzols are formed through the process of podzolisation, whereby organic material and soluble minerals (particularly iron) are leached from the upper levels of sediment, forming a white or grey A Horizon, and redeposited below, forming an orange, red or maroon B horizon.</td>
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<tr>
<td>Porcelain</td>
<td>In North American archaeology, a high-fired, hard, vitrified and translucent historic Chinese or European ceramic ware containing a high proportion of kaolin.</td>
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<tr>
<td>Portage</td>
<td>The practice of carrying boats or supplies around an obstacle to water travel, such as a falls or rapids. Also refers to the route or trail followed when doing so.</td>
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<tr>
<td>Precontact</td>
<td>The period of Aboriginal occupation in Newfoundland and Labrador that occurred before significant contact with Europeans, approximately 500 years BP.</td>
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<tr>
<td>Preform</td>
<td>An early stage in the reduction and manufacture of a flaked stone artifact. A preform may resemble a finished biface but will be larger, thicker and more roughly-worked.</td>
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<tr>
<td>Primary Flake</td>
<td>A flake of stone on which the dorsal surface is entirely cortex. See also Cortical Flake.</td>
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<tr>
<td>Primary Reduction</td>
<td>The initial removal of cortical flakes from a beach cobble or other cortical piece of fine-grained stone. The first stage in manufacturing stone tools.</td>
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<tr>
<td>Projectile point</td>
<td>The cutting and piercing end of a projectile, such as a spear, harpoon, dart or arrow. In precontact archaeological sites, projectile points are normally made of chert or other fine-grained stone.</td>
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<tr>
<td>Provincial Archaeology</td>
<td>The office of the Government of Newfoundland and Labrador which regulates and oversees the protection of historic resources within the province.</td>
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<td>Office</td>
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<tr>
<td>Quartz</td>
<td>An extremely common clear, glassy silicate occurring naturally in many forms. Both massive and crystalline varieties were used by precontact people in Labrador to make chipped stone tools.</td>
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<tr>
<td>Term</td>
<td>Description</td>
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<tr>
<td>Quartzite</td>
<td>A granular metamorphosed quartz which, despite its relatively coarse grain, is adequate for the manufacture of chipped stone tools. Quartzite is readily available in cobble form on beaches in the Muskrat Falls area.</td>
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<tr>
<td>Radiocarbon Dating</td>
<td>An absolute dating technique that dates the age of organic materials such as wood, bone, and charcoal by measuring the relative frequency of carbon isotopes present in a sample.</td>
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<tr>
<td>Ramah</td>
<td>A metamorphosed quartzite found on the Tomagt coast of Labrador. Prized by precontact peoples for manufacturing chipped stone tools and widely traded across eastern North America in the precontact period.</td>
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<tr>
<td>Réappropriation du Littoral</td>
<td>A culture-historical unit in the Strait of Belle Isle, equivalent to the Intermediate Period in central Labrador, ca. 3500 BP to 2500 BP.</td>
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<tr>
<td>Red Ochre</td>
<td>A bright or rich red friable mineral soil composed of hematite-rich or dehydrated iron oxide. In powdered form it has been widely used as a pigment from antiquity down to the present day. In eastern North America, red ochre pigments were used by Amerindian people in the contact period as body paints, as well as to paint clothing, canoes, and other objects.</td>
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<tr>
<td>Reduction (Lithic)</td>
<td>The process of chipping stone to produce stone tools, blanks, and preforms. Lithic reduction produces large quantities of debitage. See also Knapping.</td>
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<tr>
<td>Refined Earthenware</td>
<td>A broad category of historic ceramic wares originally developed in England in the eighteenth century, and including creamware, pearlware, and “whiteware”.</td>
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<tr>
<td>Retouch</td>
<td>The deliberate removal of flakes along the edge of a roughed-out stone tool or flake to produce a bifacial or unifacial working edge.</td>
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<tr>
<td>Rhyolite</td>
<td>A silicate-rich igneous rock. Fine-grained varieties are particularly suitable for manufacturing stone tools. Rhyolites visually identical to those found in central Labrador archaeological site have been identified in river cobble form on the upper-middle Churchill River upstream of Minipi Rapids, and as small cobbles in the Muskrat Falls area. Associated with sites of the Intermediate Period in general and the Charles Complex in particular.</td>
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<tr>
<td>Sand</td>
<td>A granular sediment in which individual grains range from 0.0625 mm to 2 mm in size.</td>
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Saunders Complex: A culture-historical unit which comprises much of the Intermediate Period on the north-central Labrador coast, ca. 3500 BP to 2800 BP. Characterized by a wide variety of artifact types fashioned from Saunders Chert, rhyolite, and quartzite.

Saunders Chert: A colourful fine-grained opaque chert, generally pink, salmon-pink, red or purple in colour, derived from an as-yet unknown source, likely in the north-central Labrador interior. Widely used for stone tool manufacture in the Intermediate Period in central Labrador, but not normally common on sites of other periods.

Schist: A medium-grained metamorphic rock.

Scraper: In archaeology, a unifacially-chipped stone tool generally employed for hideworking or woodworking.

Secondary Flake: A flake of stone on which the dorsal surface is partly a cortical surface.

Settler: In 19th century historic sources, “Settler,” and more rarely “Planter” are terms used to refer to people of European or mixed descent who came to settle permanently in central Labrador. Their modern descendants may nowadays affiliate politically with Nunatsiavut, NunatuKavut, or neither.

Shaputuan: A large feasting tent erected by the Innu for performing mokoshan. Other neighbouring peoples, such as the Cree of Québec, also build Shaputuan structures.

Shatter: Irregular thick or blocky lithic debris produced during the making of stone tools.

Side-Notched: In precontact archaeology, a descriptive term applied to bifaces modified for hafting by chipping notches into both sides near the base, generally forming straight shoulders and a rectangular or semi-circular base.

Silt: A fine granular sediment in which individual grains range from 0.0039 mm to 0.0625 mm in size.

Siltstone: A fairly fine-grained sedimentary rock composed of silt-sized particles.

Slate: A very fine-grained metamorphosed sedimentary rock which tends to fracture into sheets. In Labrador precontact archaeology, slate was most commonly used for making ground and polished stone tools such as axeheads, and adzes.
Soil Development

**Horizon**

A recognizable soil layer formed by one or more of the principal soil horizon development processes: addition, transformation, translocation, and removal. All of these may act on soils, but in typical podzolic soils the most conspicuous process is transformation, creating distinctly coloured A and B horizons. In Labrador, these are often not separately-deposited layers, but rather a single sediment column transformed differently at higher and at lower levels by chemical processes. See Podzol/podzolic.

Sphagnum

A genus of green mosses particularly associated in Labrador with spruce-sphagnum forests and peat bogs.

Spokeshave

A concave-edged planning tool used to form and smooth wooden shafts, such as arrow or spear-shafts.

Sprue

A piece of metal that has solidified in the pouring channel for a mold. For example, a strip of lead from resulting from pouring into a mold forming shot.

Stage 1 Historic Resources Assessment

The initial step in the historic resources assessment process in Newfoundland and Labrador. Typically involves background research and may involve a preliminary field study. The Stage 1 Assessment is intended to serve as the basis for determining if any additional research is required.

Stage 2 Historic Resources Assessment

The second stage in the historic resources assessment process in Newfoundland and Labrador, following the Stage 1 Assessment. Stage 2 Assessment involves a more detailed and extensive field study to gain a thorough understanding of the historic resources within a defined study area and any interactions that may result from any proposed development.

Stage 3 Historic Resources Assessment

Stage 3 Assessment follows directly from previous assessment studies and may include a broad range of activities and mitigation measures, including site avoidance, or scientific recovery (excavation) of archaeological sites. Stage 3 Assessment constitutes the management of any historic resources that may be present within a Project Area and its objectives are to protect resources and mitigate potentially adverse effects to sites of cultural and/or spiritual importance.

Stoneware

In North American archaeology, a high-fired, hard and vitrified historic European ceramic ware type.

Stratigraphy

In archaeology, the study of soil layers undertaken in order to understand the processes by which archaeological sites are formed and transformed over time.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stream Swamp</td>
<td>Periodically-flooded terrain on the margins of a waterway, generally characterized in Labrador by reworked unstable sediments and dense alder growth.</td>
</tr>
<tr>
<td>Systematic Data</td>
<td>The scientific and systematic excavation and recording of historic resources using accepted data recovery techniques. Generally synonymous with archaeological excavation.</td>
</tr>
<tr>
<td>Recovery</td>
<td>Systematic Field Recording and Subsurface Sampling Assessment of a known historic site by means of visual inspection of surface-visible cultural materials and subsurface sampling to determine whether the site contains additional evidence for undetermined historic or older occupation(s).</td>
</tr>
<tr>
<td>Terrace</td>
<td>An area of level terrain bordered by a slope, in Labrador generally formed by riverine erosion or by falling sea levels.</td>
</tr>
<tr>
<td>Tertiary Flake</td>
<td>A flake of stone on which the dorsal surface exhibits no cortex.</td>
</tr>
<tr>
<td>Testpit</td>
<td>In archaeological assessment, a testpit is usually a small pit excavated by shovel and hand tools. Large number of testpits may be excavated within a single testing location. Testpitting is usually the only way to locate those archaeological sites which are not visible on the surface.</td>
</tr>
<tr>
<td>Tilt</td>
<td>A small, single-roomed, log-built hut employed by trappers as temporary accommodation while trapping. Tills may include “main cabins” used throughout the trapping season, and also “line tilts” used for overnight stays along trap lines.</td>
</tr>
<tr>
<td>Total Station</td>
<td>An electronic/optical survey instrument comprising an electronic theodolite (transit) integrated with an electronic distance meter to read slope distances from the instrument to a particular point.</td>
</tr>
<tr>
<td>Treethrow</td>
<td>The depression, often flanked by a mound, that results when a tree falls and its rootmass and associated soils are pulled from the ground, generally as a result of wind action.</td>
</tr>
<tr>
<td>Uniface</td>
<td>In precontact archaeological sites, a lithic artifact chipped on a single side is referred to as a uniface, or unifacially-flaked tool. Unifaces are often assumed to have served as scraping or planning tools.</td>
</tr>
<tr>
<td>Usewear</td>
<td>Flaking scars, often quite small, that are not produced by deliberate retouch but represent wear damage resulting from the use of an unmodified flake as a cutting or scraping tool.</td>
</tr>
<tr>
<td>Utilized Flake</td>
<td>A flake which has not been retouched or otherwise deliberately shaped, but which has been used as a scraping or cutting tool, leaving minute flake scars as evidence of usewear.</td>
</tr>
</tbody>
</table>
Ventral Surface For precontact lithics, the “bottom,” generally the flattest and/or smoothest surface, on a flake or stone tool.

Whiteware Refined earthenware of European origin with a white paste and clear lead glaze, dating primarily after the 1820s.

Zone In the context of this study, a zone is a landform with particular slope, vegetation and drainage features, and specifically one that has been identified and mapped within the Survey Area. The characteristic features will determine which zone type a zone belongs to and this will determine its archaeological potential rating. These will also determine whether testing locations will be chosen within that zone as part of the archaeological assessment.

Zone Type All of the zones which share certain characteristics of slope, or drainage, or vegetation, are assigned to a particular zone type. Zone types are assigned archaeological potential ratings, based on the probability of finding archaeological sites within zones of that zone type.
1.0 INTRODUCTION

1.1 Project Works in Labrador

Nalcor Energy (Nalcor) is constructing extensive infrastructure at Muskrat Falls, central Labrador, as part of the development of the lower Churchill River for hydroelectric power. The principal works in Labrador required for the development (hereinafter referred to as the “Lower Churchill Project” or “LCP”), include: extensive tree and brush clearing at Muskrat Falls and within the upstream reservoir; stabilization of the North Spur; bulk excavation of earth and rock from the south side of Churchill River; and construction of the dam itself, as well as access roads, accommodations camp and office complex. Key LCP components required for transmission of power include construction of a high voltage alternating current (HVac) transmission line (TL) from Muskrat Falls to Churchill Falls, a high voltage direct current (HVdc) transmission line from Muskrat Falls to Forteau Point on the Strait of Belle Isle, southern Labrador, a transition compound and associated cable infrastructure at Forteau Point, and an electrode site at L’Anse au Diable (Figure 1-1). Pre-flooding of the Muskrat Falls reservoir commenced in October 2016, and flooding to the full supply level is scheduled to occur after 2019. The 2017 Historic Resources Management Program, undertaken by Stassinu Stantec in support of the Lower Churchill Project, is the subject of this report.
Figure 1-1  Project components in Labrador
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1.2 Historic Resources Assessment and Management

The overall goals of the Historic Resources Management Program are to identify and manage the impact of the development on any archaeological or cultural resources located within the Project Area to achieve a mutually acceptable balance between the development and the provincial historic resource legislation and management requirements. Regarding the latter, emphasis is usually directed toward efforts to conserve and protect the resource. In accordance with these regulations (Government of Newfoundland and Labrador 1992), historic resources assessment and management for the Project required one or more of the following three stages.

1.2.1 Stage 1 Historic Resources Overview Assessment

A Stage 1 Historic Resources Overview Assessment (Stage 1 Assessment) is normally the initial step in the provincial historic resources assessment process and typically involves background research and, frequently, a preliminary field study. The Stage 1 Assessment is intended to serve as the basis for determining if any additional research is required under the Historic Resources Act (1985) of Newfoundland and Labrador.

1.2.2 Stage 2 Detailed Impact Assessment

For many development projects, Stage 2 Assessment is the standard procedure following the Stage 1 Assessment and, in most cases, involves a more detailed and extensive field study to gain a thorough understanding of the historic resources within a defined study area and any interactions that may result from the proposed development. Stage 2 assessment may include a combination of visual surface inspection and subsurface testing (shovel testing).

1.2.3 Stage 3 Historic Resources Assessment

Stage 3 Assessment follows directly from previous assessment studies and may include a broad range of activities and mitigation measures, including site avoidance, capping (i.e. securing materials and features in such a way as to ensure their long-term integrity) or systematic data recovery/excavation. By acting upon results and recommendations of the previous stages of assessment, Stage 3 Assessment involves the effective, professional management of any historic resources that may be affected within the Project Area. In sum, the priority of historic resources management is to protect resources and mitigate potentially adverse effects to reduce loss or disturbance of sites, objects or materials, and places of cultural and/or spiritual importance.

1.3 2017 Historic Resources Assessment and Recovery Program

1.3.1 Permitting and Study Area

The 2017 Historic Resources Management Program for the Lower Churchill Project was undertaken under Archaeological Investigation Permit #17.15 issued to Dr. Fred Schwarz by the PAO. This permit encompassed Stage 2 and Stage 3 Historic Resources Management activities within the
Muskrat Falls reservoir area of the Churchill Valley, central Labrador (Figure 1-2). This report summarizes the methods and results of the 2017 historic resources assessment and recovery program conducted in relation to reservoir preparation in the Churchill Valley.

1.3.2 2017 Study Objectives

Previous archaeological work at the Muskrat Falls dam site was completed in 2012-2013 and involved the recovery of 32 archaeological sites at Muskrat Falls (Stantec 2014a, 2014b). Subsequent recovery work beginning in 2014 has focused on the proposed Muskrat Falls Reservoir area between Lower Brook and Gull Rapids, where Stage 1 and Stage 2 assessments had identified 23 registered archaeological sites (Stantec 2015; 2016; 2017). Although preparation activities (mechanical tree-felling) commenced within the Muskrat Falls Reservoir area in 2013-2014, 50 m buffer zones were defined around these known sites and, within these buffers the natural vegetation was left standing.

Stage 3 mitigation is required at these sites before creation of the Reservoir. Required mitigation varies according to site type: precontact and historic-period sites with subsurface remains require Systematic Data Recovery (SDR), consisting of conventional archaeological excavation, while historic sites composed of surface-visible remains and/or standing structures require Alternative Field Recording (AFR) by other means such as surface feature inventory, photography, and videography.

Stage 3 mitigation in the Muskrat Falls Reservoir area first commenced in 2014. The objective of the 2017 historic resources management program was to complete the Stage 3 mitigation of remaining archaeological sites in the reservoir area prior to flooding of the reservoir to full supply level.

The work required in 2017 to achieve the objectives therefore focused on the completion of Stage 3 mitigation at seven archaeological sites, all situated in the Gull Lake-Gull Rapids area.
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2.0 APPROACH AND METHODS

A program of this nature follows a logical assessment sequence. The approach and methods employed for each assessment stage are summarized in Sections 2.1 through 2.4 and the personnel makeup and training are discussed in Sections 2.5 and 2.6.

2.1 Stage 1 Background Research

Extensive background research has been conducted for the entire Project Area, including the Churchill River Valley in central Labrador, the central interior south of Muskrat Falls, and the Strait of Belle Isle region in southern Labrador (see Thurlow et al. 1974; Tuck 1981; IED/JWEL 2000; JWEL/IELP 2001a; JWEL/IELP 2001b; JWEL/IELP 2001c; Minaskuat 2008a; Stantec 2014a; 2014b; 2015). Stage 1 background research in 2017 consisted primarily of reviewing site record forms and other data on known archaeological sites to ensure that previously-assessed locations were correctly relocated.

2.2 Stage 2 Field Assessment Methodology

Stage 2 Field Assessment was focused primarily on delineating the distribution of cultural materials at sites during Stage 3 Recovery (see below) to facilitate comprehensive recovery from these sites. Assessment methods employed during the recovery process included visual inspection for surface-visible remains, inspection of treethrows, and subsurface shovel testing around the margins of excavated areas.

In addition, two testing locations which were not subjected to Stage 3 Recovery were nevertheless targeted for Stage 2 Field Assessment. Two distinct Stage 2 Assessment methods were employed to identify and delineate possible cultural materials at these two sites.

One was a registered archaeological site (FgCh-06). The site was initially identified in 2006 as the site of a contemporary camp dating to the 1980s or 1990s backed by regenerating clearings that appeared to be anthropogenic and were potentially several decades older than the contemporary camp. Since historic occupation may be characterized by very sparse artifact scatters not readily identifiable in testpitting, a metal detector survey was undertaken at the site to determine whether or not archaeologically-significant remains were present. The assessment was completed using a Schonstedt GA-52Cx magnetic locator set at sensitivity 3, one level above “normal.” The entire upper terrace within the forested buffer corresponding to the site was surveyed in eight transects oriented parallel to the shoreline of Gull Lake.

The second site consisted of a scatter of quartzite shatter noted on the surface of a forwarder path not far from FgCh-06 during travel to and from other sites. Subsurface testing was undertaken along the undisturbed margins of the path to determine whether this material derived from an archaeological site or was a product of heavy equipment breaking up quartzite cobbles during
travel along the path. Testpits were excavated in two rows flanking the path at 4 m intervals, and more intermittently between boulders further from the path. Testpits consisted of 30 cm x 30 cm shovel-tests excavated with shovel and trowel into the B Horizon or until rock was encountered. Sediments recovered in testing were screened using ¼-in (.635 cm) mesh screens.

2.3 Stage 3 Recovery Program Methodology

The Stage 3 Systematic Data Recovery (SDR) of subsurface precontact and historic archaeological remains was completed by teams of field technicians supervised by Team Leads and by the permit holder. Unlike previous years, access for most sites recovered in 2017 was primarily by ground vehicle, with helicopter access reserved for deploying heavy materials and equipment, and for accessing more remote sites. Excavations consisted of 2 m x 2 m units, separated by 20 cm-wide baulks and excavated by natural and, where indicated, cultural layers. This grid pattern of excavation allows sufficient areas to be uncovered in order that spatial patterns of archaeological features and cultural debris may be easily discerned, while the continuous baulks enable stratigraphic control to be maintained at all times. This method is preferred over trenching or checkerboard excavation, since site significance depends in part on the presence or absence of significant archaeological features (such as hearths), and broad simultaneous areal exposure is the most effective way of identifying and recording these in deposits anticipated to have relatively simple soil stratigraphy.

During reservoir clearing in 2013-2014, wooded buffers had been maintained around all identified archaeological sites. Preparation of these sites for recovery, by manual woodcutting using chainsaws to remove trees from the excavation areas within these buffers, was completed in 2014-2015. Further preparation for excavation activities at each site in 2017 was required to remove recently-downed trees, and to permit the expansion of excavation areas as required. Battery-powered reciprocating saws, as well as hand saws and shears were employed during the excavation process to remove roots and stumps. This was followed by laying out the site grids using total stations. Key grid points were subsequently georeferenced by professional surveyors using high-precision GPS with <5 cm accuracy. All units were excavated by trowel and all soils gathered from excavation units were screened using ¼-in (.635 cm) mesh screens. Point provenience was recorded in three dimensions for historic and lithic artifacts, including debitage, bone, and soil and charcoal samples, using total stations. Total stations were also employed to map rocks, features, and soil lenses, and to develop local contour mapping for each recovered site.

Regarding stratigraphic recording for the Churchill Valley precontact sites, the vertical excavation was typically conducted by natural soil development horizons ("Levels"). Virtually all cultural materials were recovered from the illuviated A Horizon, normally found directly beneath the duff, although in places cultural material was found to extend into the underlying iron-enriched B Horizon.

Recording methods included field notes and a digital photographic and video record of the excavation and features. Excavation areas, point elevations, and cultural features were mapped
using total stations and the data collected with the total station, including artifact distributions, were later downloaded and converted into detailed site plans by Stantec GIS personnel. Representative baulks and sidewalls were manually profiled at a scale of 1:10. Sites and cultural materials were catalogued on PAO-compliant digital site and artifact record forms.

Progress reports summarizing key findings were submitted to Nalcor and the PAO on a weekly basis over the course of the 2017 Historic and Heritage Resources Assessment and Recovery Field Program.

### 2.4 Artifact Processing and Conservation Methodology

The division of processing activities between Happy Valley-Goose Bay (HVGB) and St. John’s was a necessary outcome of several challenges, including the large volume of recovered material, timely catalogue processing, and preventive preservation measures. In order to protect the integrity of the collection while minimizing potential data error during processing, procedural guidelines were followed for artifact recovery, collections management/processing, and stabilization as designed by the Project Conservator. These guidelines outlined a clear division of processing activities and responsibilities in the field and cataloging office, required preparatory work and coordination of cataloging activities in HVGB and subsequently the analysis and final submissions work in St. John’s. Unlike the previous treatment-heavy 2016 season that required extensive stabilization, specialized recovery techniques, and remedial treatment of complex historic materials, the substantial yield of lithic material in 2017 demanded a focus primarily on effective cataloguing efforts.

#### 2.4.1 Artifact Processing and Collections Management

In HVGB, the cataloging team members’ responsibilities included sorting all artifacts by material type (e.g., bone, lithic, metals) while maintaining intellectual control of field information (i.e., excavation field tags). The few metal artifacts recovered were stabilized and packaged according to the requirements of the Project Conservator and catalogued prior to being shipped to St. John’s as part of the overall collection.

All material was measured, weighed, identified at the basic level, assigned an identifier (catalogue number), and entered into the designated site-specific spreadsheet (Specimen Record Form). Further field specific information unique to each artifact was provided separately by the Archaeology Leads. Total Station coordinates were then matched to their corresponding artifact and also entered into the record.

Data entry including the assigning and coordinating of catalogue numbers and identification of Total Station information was the responsibility of the cataloging team lead in HVGB with oversight by the Project Conservator. Clear procedural delineations, regular coordinated checks, and the prearrangement of spreadsheets were made in order to eliminate the risk of information loss and/or error.
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The cataloging, packing, and shipment of the HVGB component of the 2017 collection was completed on February 23, and the collection was received in St. John’s on February 26, 2018. Site-specific Specimen Record databases were distributed to the archaeologists approximately a week in advance to assist in analysis preparations.

During analysis, the conservator was charged with supporting the Archaeology Team Leads on an on-call basis. Post-analysis activities included reviewing and incorporating each Team Lead’s spreadsheet with their edits/comments into one final copy for each site.

2.4.2 Conservation Methodology

The 2017 field season saw conservation activities implemented for the full duration of the field season on the excavation site by all team members responsible for artifact recovery. In the field, attention was given to maintaining intellectual control of the field data with the recovered objects and confirming that the collection was protected from damage during handling, packing, and transport activities.

2.5 Training Program Methodology

Relevant training for field work is important to the success of the program. All field technicians involved in the 2017 recovery program (Table 2.1) had previous experience in archaeological recovery work on this project. Nevertheless, a one-day course of refresher training was delivered to the field team prior to the commencement of recovery work. One artifact processing specialist (along with one Field Team Lead) had also previously received a two-day training course in field stabilization and conservation of artifacts delivered by the Canadian Conservation Institute in 2014, and an artifact processing orientation delivered by the Project Conservator.

2.6 Project Personnel

The 2017 historic resources assessment and recovery program was conducted by Stassinu Stantec. Project personnel included Project Managers, Technical and Field Leads, Field Technicians, Data Analysts and Report Writers, and GIS Specialists. All principal project personnel have in-depth knowledge and experience in their fields of expertise and a broad general knowledge of the work conducted by other experts in related areas of the program. Brief biographical statements for the principal archaeological team members are provided below.

Fred Schwarz, Ph.D. (Senior Archaeologist and permit holder) holds a BA in Anthropology from Memorial University, an MA in Archaeology from the University of Calgary and a Ph.D. in Archaeology from the University of Cambridge. He specializes in the archaeology and pre-history of the Newfoundland and Labrador interior. His research interests include predictive modelling and field investigation of precontact interior settlement in Newfoundland and Labrador, settlement patterns and the interpretation of interior adaptations and culture history in the region. Dr. Schwarz has been directing field research projects in Newfoundland and Labrador, Nova
Scotia, and Latin America for 31 years. His work in Labrador has included scientific management of the Stage 1 Historic Resources Overview Assessment of the Churchill River Power Project from 1998 to 2006, which included a series of three training programs for Innu researchers. In addition, he has worked on numerous projects with and for Innu organizations and companies. In 1996, he directed the Regional Context Component of the Voisey’s Bay Historic Resources Impact Assessment for the Mushuau Innu Band Council (in conjunction with the Labrador Inuit Association and Jacques Whitford Ltd). In 1997, he served as field consultant to the Innu History Commemoration Project for the Department of Canadian Heritage and directed the Archaeological Resource Inventory of Akamiuapishku Proposed National Park for Innu Nation and Parks Canada, eventually preparing the Human History Study of the proposed park in 2001. Since that time, he has also completed major assessments for Ielp, including the Historic Resources Study of Phase III of the Trans Labrador Highway, as well as assessments and research in the town of Sheshatshiu for the Sheshatshiu Innu Band Council. More recently, since 2006 he has undertaken several projects with Minaskuat Limited Partnership and Stantec, including archaeological potential mapping and field assessment of the LabMag Iron Ore project in western Labrador, and scientific management of historic resources assessment of the Lower Churchill Hydroelectric Generation Project and the Labrador – Island Transmission Link. Dr. Schwarz held the Archaeological Investigation Permit issued by the Provincial Archaeology Office (PAO) for the Lower Churchill Project Historic Resources Management programs in 2017. Dr. Schwarz co-directed the background and field research programs and co-authored this report.

Corey Hutchings, BA, MA (Archaeologist), has worked in cultural resource management for the past Ten years and participated in additional archaeological and heritage research since 2002. Mr. Hutchings holds a BA in anthropology and a Master’s degree in archaeology from Memorial University. His research interests have primarily been the archaeology of the Arctic’s prehistoric people with a focus on the Labrador Archaic. He has participated in various cultural resource management and academic research projects on the Island of Newfoundland, Labrador, Baffin Island and Aleutian Islands. Mr. Hutchings’ work in Labrador has included multiple years as a field supervisor for the Porcupine Strand Archaeology Project based in Cartwright Labrador. Over 2011 and 2012 he worked with local people in assessment and mitigation for the Baffinland Iron Ore Company. This work consisted of assessments and excavation of sites that fell in the footprint of the ore loading area as well as the route of a 150 km railway. He has had multiple archaeology reports approved by the Newfoundland Provincial Archaeology office, the Alaskan Department of the Interior and most recently an ethnographic report approved by the Nunatsiavut Government. Mr. Hutchings co-directed the background and field research for the 2017 Historic Resources Management Program and co-authored the required reporting on this work.

Vincent Bourgeois, MA, (Archaeologist) has 25 years’ experience in archaeology and cultural resource management in both public and private sector capacities. He completed a Master’s degree in Anthropology from the University of New Brunswick with a focus on the study of precontact Aboriginal ceramics in the Northeast. He has participated in numerous field projects in New Brunswick, Nova Scotia, Prince Edward Island, Labrador, Ontario, and New Jersey. His primary areas of expertise include historical and pre-contact archaeology, and archaeological
impact assessments including shovel testing, excavation, mitigation, and historical research. He also has practical laboratory experience that includes both historic and precontact artifact analysis and cataloguing. During this time, he has had the opportunity to excavate numerous First Nations Pre-contact archaeological sites from the Paleo-Indian, Archaic and Woodland Periods as well as Euro-Canadian archaeological sites dating to the protohistoric, early French, Acadian, Scottish, Loyalist, and 19th century industrial periods. Mr. Bourgeois is bilingual. Mr. Bourgeois co-directed the field research for the 2016 Historic Resources Management Program and co-authored this report.

Miki Lee, (Conservator) is an associate of Stantec Consulting Ltd. with over 15 years' experience in conservation treatment and preservation consulting for an extensive range of municipal, provincial, and federal institutions. Ms. Lee has trained and directed teams in both archaeological and historical conservation treatment, collections management, and preventive conservation. Accredited through the Canadian Association of Professional Conservators (CAPC) in 2007, Ms. Lee's areas of specialty include preventive conservation, archaeology, archives, mixed collections, collections management, and education. Ms. Lee served as Project Conservator, designing the artifact processing, shipping, and conservation procedures, and establishing the artifact processing facilities for the Project. Ms. Lee also prepared the description of conservation methodology for this report.

Table 2.1 lists the complete historic resources team as well as their identified roles.
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**Table 2.1 2017 Historic Resources Assessment and Recovery Personnel**

<table>
<thead>
<tr>
<th>Role</th>
<th>Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Management</strong></td>
<td>Diane Ingraham (Senior Project Manager), Wayne Tucker (Project Manager)</td>
</tr>
<tr>
<td><strong>Technical and Field Archaeology Leads</strong></td>
<td>Fred Schwarz, Corey Hutchings, Vincent Bourgeois, Colin Varley, Tony Parr, Stacey Camus, Mary Ann Aylward</td>
</tr>
<tr>
<td><strong>Project Conservator</strong></td>
<td>Miki Lee</td>
</tr>
<tr>
<td><strong>Manual Tree-Felling - Team Leads and Wilderness First-Aiders</strong></td>
<td>Corey Hutchings, Stacey Camus, Tony Parr, Randy Best, Chris White, Fred Schwarz</td>
</tr>
<tr>
<td><strong>Data Analysis and Report Preparation</strong></td>
<td>Fred Schwarz, Corey Hutchings, Vincent Bourgeois</td>
</tr>
<tr>
<td><strong>Senior Technical Review</strong></td>
<td>Chris Blair</td>
</tr>
<tr>
<td><strong>Field Technicians</strong></td>
<td>Mary Ann Aylward, Randy Best, Dorman Campbell, Marjorie Campbell, Margie Clarke, Amy Goodyear, Bradley Guy, Judy Guy, Jonathan Holley, Robert Holwell, Stephen Holwell, Kelly Hopkins, Roslyn Hunter, Scott Kautjasak, Caitlin Pardy, Lewis Penney, Taylor Noseworthy-Pilgrim, Tony Noseworthy-Pilgrim, Jamie Rose, Chris White,</td>
</tr>
<tr>
<td><strong>Health &amp; Safety</strong></td>
<td>Caroline Hong, Kyle Ferguson</td>
</tr>
<tr>
<td><strong>Artifact Cataloging Packaging and Shipping</strong></td>
<td>Charlene Clark, Margie Clarke, Mary Ann Aylward, June Flowers, Chris White, Barry Keough, Jessica Steffler, Patrick Oliver</td>
</tr>
<tr>
<td><strong>GIS</strong></td>
<td>Heather Ward, Neil Mackey</td>
</tr>
<tr>
<td><strong>Project Support and Controls</strong></td>
<td>Mary Ann Aylward, Victoria Greeley, Barry Keough, Wayne Tucker, Lois Strangemore, Patrick Oliver,</td>
</tr>
</tbody>
</table>
Stage 2 assessment in 2017 was relatively limited and focused primarily on verifying the nature and significance of cultural material at two sites, one a registered archaeological site, and the other an unanticipated findspot encountered during routine Historic Resources Management work (Figure 1-2, Photo 3-1):

- The first location was FgCh-06, the site of a contemporary campsite and potentially older clearings, originally recorded in 2006.
- The second is a previously unrecorded scatter of quartzite shatter observed on the surface of a forwarder path not far from FgCh-06 in 2017.
3.1 FgCh-06

As noted above, FgCh-06 was initially identified in 2006 as the site of a contemporary camp dating to the 1980s or 1990s backed by regenerating clearings that appeared to be anthropogenic and were potentially several decades older than the recent campsite. Testpitting within the clearings in 2006 did not yield any artifacts, historic or otherwise. Since historic occupation may be characterized by very sparse artifact scatters not readily identifiable in testpitting, a metal detector survey was undertaken at the site to determine if archaeologically-significant remains were present. The area subjected to metal detector survey was the terrace behind the contemporary camp; the wooded buffer (Photo 3-1) corresponds to the area of clearings identified in 2006.

Five metallic anomalies were detected and (if subsurface) were excavated with shovel and trowel: a paint can, a cluster of three tin cans, a fragment of a fuel drum, a large rectangular can with a circular opening (Photo 3-2), and another tin can were found. All findspots were aligned along the edge of the terrace behind the previously-recorded contemporary camp and appear to be of recent date. The clearings have substantially regenerated in the 11 years since the site was first recorded, and it now appears likely that the clearings too are of relatively recent date.
The recovery teams accessed FgCh-02 and FgCh-03 daily on foot by walking a forwarder path that led across the mulch field from a parking area near FgCh-01. Cracked and split cobbles of various rocks, including quartzite, were present along the path and these appeared to have been fragmented by the passage of heavy equipment. However, in one location midway along the path, the recovery team observed five much smaller pieces of quartzite shatter within a 3 m diameter area on the surface of the path. None exhibited any features diagnostic of deliberate flaking (e.g. prepared striking platforms or bulbs of percussion) and these were potentially another product of heavy equipment traffic along the path. Nevertheless, these finds raised the possibility that there was a previously undiscovered precontact site in this location. Fourteen testpits were excavated in undisturbed former lichen woodland alongside the path in this area to determine whether quartzite shatter or flakes were also present in sediments that had not experienced heavy
equipment traffic. No flakes or quartzite shatter were encountered during testing, indicating that the pieces observed along the trail were not archaeological materials.

Photo 3-3  View Southwest of Quartzite Scatter along a Forwarder Path near FgCh-06

Summary

The artifacts identified during metal detector survey of FgCh-06 do not appear to be archaeologically-significant, and all appear to be debris associated with the contemporary camp. Assessment of the site is considered to be complete, and no further work is recommended at FgCh-06.

The quartzite scatter assessed to the north of FgCh-06 does not appear to be cultural, but rather, a recent product of heavy equipment traffic along the forwarder path. Assessment is considered to be complete, and no further work is recommended at this location.
Stage 3 recovery was completed at seven archaeological sites in the Muskrat Falls reservoir area in 2017. Six of these sites were situated along the north shore of Gull Lake, and the seventh just below Gull Rapids (Figure 1-2).

All of these sites were initially recorded during Stage 2 assessment on the Churchill River in 1998, 2000, and 2006 (IED/J WEL 2000; J WEL/I ELP 2001b; Minaskuat 2008a).

Photo 4-1 View South across the Archaeological Sites Recovered in 2017 on the North Shore of Gull Lake. Note the small sandbar offshore of FgCh-02 and FgCh-03, and the extensive sandbars at the southwestern end of Gull Lake left of FfC-01.

The six sites recovered on Gull Lake (FgCh-01, FgCh-02, FgCh-03, FgCh-05, FfCh-02 and FfC-01) belong to a notable cluster of precontact sites on the north shore of Gull Lake (Photo 4-1), one of three precontact archaeological site clusters identified along the Churchill River below Gull Rapids. These clusters are regularly-spaced at intervals of approximately 25 km, at Gull Lake, Sandy Banks, and Muskrat Falls. Sites of the Muskrat Falls cluster were previously recovered in 2012-2013 (Stantec 2014a; 2014b), and those at Sandy Banks in 2014-2016 (Stantec 2015; Stantec 2016;
Stantec 2017). Recovery work at the sites on Gull Lake, the westernmost of the three clusters, was largely deferred until 2017, in part because these sites lie at elevations above the planned pre-flooding level for the Muskrat Falls reservoir. However, the largest of the Gull Lake sites (FfCi-02) was recovered in 2015 (Stantec 2016).

The seventh site recovered in 2017 (FfCi-05) was the easternmost site of another precontact site cluster situated at Gull Rapids; the remainder of the sites in this cluster lie outside the Muskrat Falls reservoir area and are not presently scheduled for recovery.

Gull Lake itself is the largest and westernmost of the chain of connected “ponds” or widened, branching channels, that characterize the broad, wandering reach of the Churchill River below Gull Rapids (JWEL 2000). The lake is noteworthy for the extensive flats and shoals at its western end, which trap grounded ice into the early summer and which, along with the lowlands on the south shore, also provide staging areas for ducks and geese in the fall and spring. Gull Lake is identified in Innu Nation land use data as a harvesting area for fish, small game, furbearers and migratory waterfowl (Armitage 1990).

Recovery results for the sites recovered in 2017 are described in the following Sections (Sections 5.0 - 11.0).
5.0 STAGE 3 RECOVERY RESULTS: FgCh-01

FgCh-01 (the “Kaku Site;” Kaku means “porcupine” in Innu-aimun) is situated in a rather unusual location in that it is distant from the present bank of the Churchill River: approximately 300 m from the north shore of Gull Lake, on the northern margin of a small brook which appears to follow a relict river channel (Photo 4-1, Figure 5-1). The site location is relatively level, with vegetation cover of black spruce, lichen and Labrador tea, sloping gently to the south and grading to a stream-swamp of sphagnum moss and scattered alders toward the edge of the stream.
Figure 5-1  LIDAR Imagery Showing Excavation Units at FgCh-01
The site was first recorded in 1998 (see IED/J WEL 2000) when over 600 quartzite flakes and artifacts were observed in three small surface exposures and six of the thirteen test pits excavated in the vicinity of the original surface discovery location.

In 2017, an area of 32 m² was initially opened in an unsuccessful effort to relocate the site; subsequently, the original 1998 testpits were relocated 20 m to the south and the remainder of the recovery effort was focused on a 99 m² area around these testpits, close to the edge of the stream (Photos 5-1, 5-2). The outlines of the 1998 testpits were clearly recognizable during excavation (see Photo 5-5).

### 5.1 Site Stratigraphy and Features

![Photo 5-1](view-south-across-fgch-01-excavated-to-top-of-a-horizon-gull-lake-300-m-away-is-barely-visible-in-the-distance-through-the-trees)
The basic stratigraphy at FgCh-01 (Figure 5-2) resembled the typical soil development profiles encountered at precontact archaeological sites previously recovered in the Churchill Valley, but differed considerably in detail. The topmost layer of sphagnum moss, lichen and Labrador Tea roots achieved thicknesses of 25 cm, particularly near the edges of the excavation area. This duff generally overlays a gray-white illuviated clayey-silt A Horizon which varied in thickness from 2-5 cm to occasionally as much as 9 cm. To the western end of the excavation area, the illuviated silt was interrupted, and partly underlain, by a darker, mottled grey-tan, clayey silt 5-15 cm in thickness. In this same portion of the site, the grey-white and darker silts were both underlain in turn by a mottled grey/tan/red silt with lenses of friable bog-iron concretions up to 10-15 cm thick. Toward the opposite (eastern) edge of the site, the grey-white illuviated silt was underlain by discontinuous 3-8 cm-thick lenses of darker tan-grey silt with bog-iron concretions. These horizons were themselves underlain by the iron-enriched B Horizon, which, like the overlying pale illuviated, darker and mottled silts, varied in character across the site. Toward the eastern and western margins of the site, the basal horizon consisted of a black-brown friable B Horizon with bog-iron concretions. Within the central portion of the site, a laminated mottled sandy red-orange B Horizon 10-20 cm thick was underlain by a more uniform red orange sand. One other lens observed at FgCh-01, again confined to the central portion of the site, was a small but thick (8-12 cm) mottled silt and sand with lenses of charcoal staining and sparse firecracked rock beneath the pale
illuviated A Horizon. This lens corresponds to the center of the Feature 1 hearth (see below). Cultural material was recovered from all horizons, excepting the basal black-brown friable B Horizon (at the margins of the site) and the basal uniform red-orange sandy B Horizon (toward the center of the site).

Although the basic natural sequence of horizons, evident at the far eastern and western edges of the site, is a typical podzolic profile, the sediments at FgCh-01 are atypical in character. While most precontact sites excavated in the Churchill Valley to date have been situated on well-drained landforms with sandy or silty-sand sediments, the soils at FgCh-01 were unusually clayey, with numerous small lenses of bog-iron, reflecting poor drainage at the site. Poor drainage at FgCh-01 was not unexpected, given the vegetation cover, and the site location adjacent to a stream in the swale of a relict river channel, and in fact, it was found that the southern 2-2.5 m of the excavation area required repeated bailing during recovery work. However, the relatively poor drainage is yet another atypical aspect of the unusual location of FgCh-01.

The slightly more complex stratigraphy evident in the central portion of the site reflects the construction and use of the mounded hearth feature designated Feature 1, described in more detail below. In all, four cultural features (Figures 5-2, 5-3, 5-4, Photos 5-3, 5-4) were recorded at FgCh-01. All four of these features pertain to a single unusually well-defined precontact dwelling structure, designated Structure 1.
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STAGE 3 RECOVERY RESULTS: FgCh-01
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Figure 5-2  FgCh-01 East-West Profile
Figure 5-3 Plan of Excavations at FgCh-01
5.1.1 Feature 1

Feature 1 was a low, subtle mound feature situated near the center of the artifact scatter at FgCh-01 (Figure 5-3, Photos 5-2, 5-3). The mound itself was roughly triangular and measured approximately 2 m in diameter, with a shallow central depression approximately 75 cm in diameter and approximately 12 cm in depth. This depression was filled with a shallow (12 cm thick) deposit of mottled illuviated silt and sand enriched with lenses of charcoal staining. A diffuse scatter of firecracked rock was noted both atop and within the mound, although in no notable concentration. However, both the mound deposit and the enriched illuviated deposit at the center did yield an extremely high density of quartzite debitage, shatter, and artifacts. The distribution of firecracked rock, including firecracked quartzite fragments, along with quartzite split cobbles, extended south of Feature 1, toward the southern edge of the site (Figure 5-4). As a result of the density of debitage in the site centre, an additional 1 m x 1 m unit (E21N4) was excavated in the northwest corner of the site to ensure that the scatter, and its edges, were defined in their entirety (this unit was excavated in the final days of excavation, after the site photographs were taken and does not appear in Photos 5-1, 5-2, or 5-3).

Although associated firecracked rock was sparse and diffuse, Feature 1 is interpreted as the remains of a low mounded-sand hearth.
5.1.2 Feature 2

Feature 1 was surrounded by a level area 1.5 – 2 m wide, sloping very gently to the west, and this was in turn encircled to the north, east and south by Feature 2, a 60 cm-wide subtle ring of low, irregular hummocks rising from the top of the A Horizon (Figure 5-3). Feature 2 is interpreted as the subtle remains of a structure perimeter surrounding the Feature 1 hearth. Although this perimeter was slightly mounded, it was not underlain by a buried sod deposit. Consequently, it cannot be said to represent an “earthwalled” tent ring as such, but rather a ring of disturbance resulting from the emplacement of tent poles. One postmold was associated with Feature 2 (see Feature 3 below). Feature 2 is interpreted as the remains of a (likely) circular tent perimeter enclosing an interior space approximately 5.5 m in diameter. Feature 2 does appear to be interrupted on the western side, and it is possible that the dwelling entry was situated somewhere along this side.
5.1.3 Feature 3

Feature 3 was a small localized deposit of distinctive coarse loose grey sand, lined, especially at the bottom, with a thin organic layer (Figure 5-3, Photo 5-4). Feature 2 measured 12 cm in diameter and extended from the top of the A Horizon to a depth of 9 cm into the underlying tan-grey silt with bog iron concretions. Feature 3 was situated on the outer edge of the northeastern portion of Feature 2. Feature 3 is interpreted as a shallow postmold, and its placement is consistent with the interpretation of Feature 2 as the remains of tent pole emplacements, although no other postmolds were identified at FgCh-01.

5.1.4 Feature 4

Feature 4 consists of the dense scatter of lithic (principally quartzite) debitage and artifacts at FgCh-01. There is one such scatter at the site, oriented NE-SW and measuring approximately 6.75 m by 5.5 m (Figure 5-4). Most precontact sites recovered in the Churchill Valley contain one or more...
discrete lithic scatters, and each generally presents as a circular or oblong “point-cloud,” with a high-density central concentration of lithics, gradually petering-out toward the margins (Stantec 2014a, 2014b, 2015, 2016). The lithic scatter at FgCh-01, however, although particularly dense within a 2 m diameter area centered on Feature 1, continues at high densities to its margins, which are unusually “hard-edged” and well-defined, particularly toward the northeast (note that the apparent voids in the lithic scatter correspond to the testpits excavated in 1998: Figure 5-4, Photo 5-5). The hard-edged lithic scatter at FgCh-01 is consistent with lithic deposition occurring within an enclosed space such as the interior of a dwelling structure.

Interestingly, this lithic cluster is not circular, but rather appears to be polygonal, with three well-defined, straight edges to the northwest, northeast and southeast. The margins are less clearly defined to the southwest, but the hard edge of the lithic scatter in the northeast quadrant appears to terminate in a straight line, some 1.5 m inside the structure perimeter defined by Feature 2. It is possible that the circular outer wall defined by Feature 2 enclosed a slightly smaller polygonal interior wall.
Figure 5-4 Site Plan showing the Distribution of Artifacts (Feature 4). The voids in the south-central portion of Feature 4 correspond to the 1998 testpits.
5.2 Cultural Materials

FgCh-01 contained only precontact cultural material, with no evidence for later historic occupation. The site yielded a large collection of 9,670 lithic pieces of quartzite, chert, rhyolite and quartz, weighing over 48 kg, the overwhelming majority (9,509 pieces, or 98.3%) being knapping debitage. The remainder (161 pieces) are finished or utilized artifacts.

5.2.1 Debitage

The debitage assemblage consisted almost entirely of quartzite, with rhyolite (37 pieces), chert (13 pieces), and quartz (2 pieces) present in only trace frequencies. The few pieces of rhyolite were notably concentrated within and around the Feature 1 hearth (see Figure 5-1). Particularly common is a translucent moderately-coarse grey quartzite shot through with occasional clouds, bands and streaks of red (e.g. Photo 5-7: M); many natural cobbles of this material were observed along the beach of Gull Lake some 300-500 m away near FgCh-05, and it is likely widely available all around the eastern outflow of Gull Lake. While the small debitage collection of chert, rhyolite and quartz consists entirely of small sharpening and repair flakes, the quartzite assemblage includes a wide diversity of debitage, including cobble fragments, shatter, and primary, secondary and tertiary flakes. The abundance of large split cobbles and chunks, some of them firecracked, account for the substantial weight of the quartzite assemblage, and attest to the importance of primary reduction of locally-available quartzite cobbles at the site.

5.2.2 Artifacts

FgCh-01 yielded a moderately large collection of 161 finished artifacts. Raw material frequency was similar to that of the debitage, with 159 of these (98.75%) being of quartzite, and two of chert. They included three projectile points, 28 biface fragments, 5 scrapers, 10 preforms, 11 cores, 60 linear flakes, 40 retouched and utilized flakes, one hammerstone, one drill or pick, and two worked split cobbles (Tables 12.1, 12.2; Photos 5-6 – 5-13).

The three projectile points recovered from FgCh-01 (Photo 5-6) vary widely in form. One, of quartzite, is represented only by a midsection fragment and appears to be from a triangular-bladed point (Photo 5-6: B). The hafting modification is unknown. A second, of light grey chert, is also triangular-bladed, and is pentagonal in form, with subtle shoulders and a wide, or slightly-waisted, stem (Photo 5-6: A); the very end of the base is missing. The third is a flake point, somewhat irregular in form but originally leaf-shaped, with a convex-sided blade and a rounded base (Photo 5-6: C). The hafting modification consists of broad, asymmetric corner notches. Corner-notched points have been encountered previously at precontact sites in the Churchill valley, including FgCg-01 Locus D (Stantec 2015) and FfCi-02 (Stantec 2016) but are generally rare, the vast majority of points being stemmed.
Twenty-eight bifaces and biface fragments were recovered during excavation at FgCh-01 in 2017 (Photo 5-7), representing 17% of the artifact assemblage. All were fashioned from local quartzite. The majority were tip or lateral fragments from broad-bladed bifaces of either indeterminate form, or with convex margins that appear to have been leaf-shaped in form (e.g. Photo 5-7: B, D). At least two of the lateral fragments (e.g. Photo 5-7: J) exhibit plunging fractures indicating breakage resulting from errors during thinning or sharpening. Larger pieces (e.g. Photo 5-7: G, H, I, N, O) and complete specimens (Photo 5-7: L, M) are clearly leaf-shaped in form. Basal fragments, which often preserve the striking platform of the flake from which the biface was made, are rather more diverse. Some (e.g. Photo 5-7: A, K) are rounded and likely again from leaf-shaped bifaces. Two basal corner fragments (e.g. Photo 5-7: E) may be from lanceolate bifaces, and one (Photo 5-7: F) is an unusual stemmed biface base which appears to form an asymmetric stem, one side straight, the other concave, curving outward to form a shoulder.
STAGE 3 RECOVERY RESULTS: FgCh-01
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Photo 5-7  Selected Bifaces Recovered from FgCh-01
Five scrapers were recovered at FgCh-01 (Photo 5-8), and these conform to a single type. All are flake end scrapers fashioned from quartzite, with more-or-less parallel sides, and convex distal ends exhibiting extensive steep unifacial retouch.

Photo 5-8  Scrapers Recovered from FgCh-01
Two unique items recovered from FgCh-01 include a slender split cobble that exhibits no battering wear but may represent the proximal end of a hammerstone (Photo 5-9: A), and an unusual thick quartzite T-shaped biface, worked along all edges, and tapering to a blunt point (Photo 5-9: B). This piece is interpreted as a drill, pick, or punch.
FgCh-01, yielded a collection of 10 preforms, all of quartzite. Two complete specimens include one roughly lanceolate in form and another leaf-shaped (Photo 5-10: E and F, respectively). A third complete example is a thick, ovate cobble spall which exhibits initial marginal retouch but was not subsequently worked (Photo 5-10: G). The remainder are lateral fragments from preforms of indeterminate form (e.g. Photo 5-10: A), or basal fragments of preforms that appear to be ovate or leaf-shaped (e.g. Photo 5-10: B-D).

**Photo 5-10  Selected Preforms Recovered from FgCh-01**

The collection of 11 cores and core fragments recovered from FgCh-01 represents 7% of the precontact assemblage, an unusually high percentage compared to most sites previously recovered in the Churchill Valley.

Four (Photo 5-11: A-D) are small fragments, one (Photo 5-11: C) unusual in that it was subsequently retouched to form one light but well-defined unifacial convex scraping edge, and one unifacial
spokeshave notch. Five are large split cobbles and cobble fragments with considerable cortex remaining (e.g. Photo 5-11: F, G, I), from which flakes have been removed, in one case large flakes probably for fashioning preforms and bifaces (e.g. Photo 5-11: I). All are fragmentary or amorphous with the exception of one large split cobble which has been extensively worked to form a turtle-backed core (Photo 5-11: H; this piece may have been ultimately intended to serve as a blank). Three of these cores exhibit broad parallel flaking scars resulting from the removal of large linear flakes (Photo 5-11: B, F, G).

Photo 5-11 Selected Cores Recovered from FgCh-01
The 60 linear flakes recovered from FgCh-01 (Photo 5-12) comprise the largest single artifact class at the site. All are quartzite. As is normally the case at precontact sites in the Churchill Valley, the overwhelming majority (58) are single-arris linear flakes, with only two (Photo 5-12: AA, CC) exhibiting two parallel arrises. The linear flakes from FgCh-01 vary widely in size. There are no particular modes evident in the length/width distribution of these pieces, but there is a relatively high frequency of large examples (e.g. Photo 5-12: Z-EE), with 32 (53%) being more than 13 mm wide, and 13 (22%) exceeding 20 mm in width. The larger linear flakes tend to be broad in relation to their length, and in many cases the single arris bifurcates to form a “Y” at the distal end (e.g. Photo 5-12: U, W, Z, BB, DD), indicating that the linear flakes previously detached from the core were shorter. It thus appears that linear flakes detached from linear flake cores became progressively wider, longer, and wider in proportion to their width as the core was reduced. This may explain the relative scarcity of clear linear flake cores at these sites, since such cores will not exhibit the narrow fluting associated with true blade cores, but merely a small number of relatively broad parallel flake scars.
Photo 5-12  Selected Linear Flakes Recovered from FgCh-01
The 40 retouched and utilized flakes recovered from FgCh-01 (Photo 5-13) comprise the second-largest single artifact class at the site. All are quartzite except for one small retouched flake of black chert (Photo 5-13: F).

As on most precontact sites recovered in the Churchill Valley, the majority exhibit unifacial usewear or light retouch along straight or convex edges and appear to have served as expedient scraping tools. However, one (Photo 5-13: G) has been retouched bifacially along one gently convex edge. Two (Photo 5-13: D, F) show usewear along shallow notches, and may have served as expedient spokeshaves. In many instances, usewear along straight and convex margins has produced a jagged edge that may result from use as scraping tools on relatively rigid surfaces (e.g. Photo 5-13: I, T, V), and such jagged usewear appears to be more prevalent at FgCh-01 than at other sites excavated previously in the Churchill Valley. In some instances (e.g. Photo 5-13: U), jagged and spurred saw-toothed edges reflect deliberate retouch.

Photo 5-13  Selected Retouched and Utilized Flakes Recovered from FgCh-01
5.3 Interpretation and Summary

FgCh-01 is interesting for a number of reasons, not least being the presence of four features that combine to delineate one of the best-defined precontact dwelling structures encountered in the Churchill Valley to date. Structure 1 at FgCh-01 is centered on an approximately triangular sand-mound hearth with a shallow central charcoal-stained depression (Feature 1). Firecracked rock is present, but the hearth is defined more by mounded sand than by firecracked cobbles. The central hearth is surrounded by a relatively level circular area 5.5 m in diameter surrounded to the north, east, and south by an annular perimeter of subtle but noticeable relief 60 cm wide (Feature 2). The perimeter is not underlain by a recognizable buried sod and cannot be clearly shown to comprise a definable earthen wall but appears to reflect a ring of tent pole emplacements; the entry is not clearly definable but was likely situated to the southwest. Only one postmold (Feature 3) was identified along this perimeter. The lithic artifact scatter (Feature 4), particularly dense within the central hearth (Feature 1), is entirely confined within Feature 2, and exhibits hard-edged boundaries consistent with deposition inside a confined structure. However, this scatter appears to be polygonal in outline, and terminates within the interior edge of the structure perimeter. Structure 1 is interpreted as an approximately circular dwelling constructed of tent poles enclosing an interior space centered on a sand-mound hearth and measuring 5.5 m in diameter. It is possible that the exterior circular tent ring enclosed a polygonal interior wall.

A compactly distributed but large artifact assemblage recovered from FgCh-01 includes various bifaces generally comparable in style and form to those recovered from other quartzite-dominated assemblages recovered to date in the Churchill Valley. The projectile points include one corner-notched example, and one pentagonal, with subtle shoulders and a wide, or slightly-waisted, stem. The most unusual artifact recovered from FgCh-01 is a heavy quartzite drill. The collection also included a small collection of thumbnail flake scrapers. The raw materials, bifaces, and preform styles are compatible with a North West River Phase cultural affiliation.

With regard to site function, the lithic assemblage at FgCh-01, as with most quartzite-dominated sites in the Churchill Valley, contained numerous primary flakes, split cobbles, quartzite chunks, and preforms, all reflecting the importance of primary reduction of locally-available quartzite at the site. In most respects, the relative frequencies of the major artifact classes are comparable to those noted at other sites in the Churchill Valley. Linear flakes are the most frequent class, numbering 30-40% of the assemblage, with retouched and utilized flakes also well-represented in the collection. This, along with the relatively high frequency of flake and linear flake cores, speaks to the importance of the manufacture and use of expedient tools at the site. The remaining functional categories, such as projectile points and scrapers, are generally rare. In general, the assemblage suggests that the working of local quartzites was an important activity at the site, although the high frequencies of linear flakes, bifacial knives, and retouched and utilized flakes indicate a range of domestic activities including food processing around the central hearth.

The unusual site location of FgCh-01 300 m from the shore of Gull Lake raises additional uncertainties about site function. Initially, it was hypothesized that the site was established to
access good quality quartzite cobbles exposed along the stream bed south of the site, and the
large size of some worked and split cobbles indicates that quartzite material was indeed sourced
and reduced in the immediate vicinity of the site. However, the quartzites worked at FgCh-01 were
of varieties readily available on the present beach on the north shore of Gull Lake, near FgCh-05.
It does not appear to have been necessary to move hundreds of meters inland simply to access
these materials. Moreover, the well-defined structural remains and the conventional artifact class
frequencies imply a site that was primarily domestic in function, and not simply a cobble quarry.

Alternatively, FgCh-01 may have been occupied when the swale to the south was an active river
channel. Certainly, sites have been identified during the course of the project along former
riverfront landforms no longer close to active shorelines (e.g. IED/JWEL 2000; JWEL/IELP 2001a,
2001b), although the majority of sites identified in the Muskrat Falls reservoir are more-or-less
oriented to the present riverbanks.
6.0 **STAGE 3 RECOVERY RESULTS: FgCh-02**

FgCh-02 (Gull Lake 1) is one of a pair of adjacent sites (the other being FgCh-03) situated on the northern shore of Gull Lake, approximately 800 m above the outflow (Figure 6-1, Photo 6-1 and 6-2). Both sites were discovered in 2000 (JWEL/IELP 2001b), and at the time, FgCh-02 appeared to be a relatively small site pertaining to the Intermediate Period. One test pit yielded a single small quartzite flake approximately 10 cm below surface, and a second produced a tiny flake of patinated chert.

The site location is broadly strategic, in proximity to the narrows at the outflow of Gull Lake and the Porcupine Rapids just below. Some 300 m offshore, a low sandbar in the lake serves as a staging area for ducks and geese in the fall (Photo 6-3). Both sites exhibited poorly-drained clayey soils with sinuous subsurface drainage channels, which contrast with the well-drained sandy sites more characteristic of precontact sites along the Churchill River.
STAGE 3 RECOVERY RESULTS: FgCh-02
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Figure 6-1  LIDAR Imagery Showing Excavation Units at FgCh-02 and FgCh-03
STAGE 3 RECOVERY RESULTS: FgCh-02
February 12, 2019

Photo 6-1  Aerial Photo Showing Excavation Units at FgCh-02 (top is north)

Photo 6-2  Oblique View towards Southwest of FgCh-02
6.1 Site Stratigraphy and Features

The basic stratigraphy at FgCh-02 was slightly more complex than the typical sediment development profile encountered at precontact archaeological sites previously recovered in the Churchill Valley (Figure 6-2). A thick (10-20 cm) layer of sphagnum moss and forest litter overlies various thin lenses of grey clay A Horizon which varied in thickness from 2 to 10 cm. These grey clay lenses terminated at a mottled and laminated red-brown to grey tan clay B Horizon. Material culture was recovered mostly in the A horizon, but a small number of artifacts (7%) were located within the B Horizon. The saturated clayey deposits and subsurface drainage channels at the site may account for the vertical postdeposition movement of artifacts into the normally sterile B Horizon.
In all, 176 m² were excavated at FgCh-02 (Figure 6-3), revealing two discrete scatters (Features 1 and 2) of quartzite cobble fragments, debitage and tools reflecting considerable primary reduction of quartzite at the site (Figure 6-4). Both scatters were ellipsoidal in outline, and oriented approximately perpendicular to the bank of the Churchill River. Firecracked rock was extremely sparse and there were no clearly-defined hearth features.
Figure 6-3  Plan of Excavations at FgCh-02
Figure 6-4 Plan of Excavations at FgCh-02 Showing Artifact Distribution
6.1.1 Feature 1

Feature 1 was the larger of the lithic scatters at FgCh-02, measuring approximately 4 m x 8 m. The scatter was extraordinarily dense and yielded one of the largest lithic collections recovered in 2017. Lithic material continued at some depth into the clayey subsoil, and many flakes were positioned vertically, suggesting some form of secondary deposition or re-working of the clay deposits on site. The scatter was most dense within the upper flat area of the site but continued down the gentle southern slope of the site terrace, likely the result of secondary outwash action. Most of the formal tools from FgCh-02 were recovered from Feature 1, including a precontact ceramic sherd (see below). Only a small sample (0.11 g) of charcoal was recovered from Feature 1.

6.1.2 Feature 2

Feature 2 located at the east end of FgCh-02, was the smaller of the lithic scatters, measuring approximately 4 m in diameter. Unlike Feature 1, Feature 2 was limited to the flat upper portion of the site. The lithic assemblage from Feature 2 consisted mostly of quartzite debitage. Only a modest number of formal tools were recovered from Feature 2. These include: a biface fragment, 5 retouched/utilized flakes, 10 linear flakes and a hammerstone.

6.2 Cultural Materials

FgCh-02 contained only precontact cultural material, with no evidence for later historic occupation. The site yielded a large collection of 11,767 lithic pieces of quartzite, chert, rhyolite and quartz, weighing over 59 kg, the overwhelming majority (11,538 pieces, or 98%) being knapping debitage (Figure 6-4). The remainder (229 pieces) are finished or utilized artifacts and a single precontact ceramic sherd (Figure 6-3).

6.2.1 Debitage

FgCh-02 contained a large collection of 11,538 pieces of lithic debitage, dominated by quartzite (99%), with chert (n=83), and quartz (n=5) recovered in trace amounts. As is typically the case in quartzite-dominated assemblages in the Churchill Valley, the quartzite assemblage at FgCh-02 includes a wide diversity of debitage, including cobble fragments, shatter, and primary, secondary and tertiary flakes. The abundance of large split cobbles and chunks, some of them firecracked, account for the substantial weight of the quartzite assemblage, and attest to the importance of primary reduction of locally-available quartzite cobbles at the site. Of note is the near absence of Ramah chert (n=6). A black to dark purple satiny chert is the more abundant chert recovered on site (n=77).

6.2.2 Artifacts

FgCh-02 yielded a large collection of 234 finished artifacts. Raw material frequency was similar to that of the debitage, consisting almost entirely of quartzite (n=219), with only a small occurrence
of a dark purple to black chert (n=10) (Figure 6-3). They included one projectile point fragment, 15 bifaces and biface fragments, 4 scrapers, 12 preforms and blanks, 9 cores, 75 linear flakes, 115 retouched and utilized flakes, 2 hammerstones, and 1 precontact ceramic sherd (Tables 12.1, 12.2; Photos 6-4 – 6-8). Virtually all were recovered from Feature 1, with the smaller and sparser Feature 2 yielding only a single preform, a hammerstone, a flake core, several linear flakes (n=8) and utilized/retouched flakes (n=5).

A total of 16 quartzite bifaces (Photo 6-4) were recovered from FgCh-02, including a well formed and somewhat asymmetrical and ovate shaped projectile point with a rounded base (Photo 6-4: C). The remaining bifaces and biface fragments appear similar in form; however, these lack the finishing flake removal of a formal point.

Photo 6-4  Biface Fragments Recovered from FgCh-02
Of the twelve quartzite preform/blanks (Photo 6-5) recovered from FgCh-02, only one is unbroken (Photo 6-5: F). The late stage unbroken preform was likely abandoned due to inability to further thin into a formal biface. The remaining preforms appear to have been broken during early stages of manufacture.
A total of 4 scrapers were recovered from FgCh-02 (Photo 6-6). Two are made on large quartzite flake spalls and exhibit steep unifacial retouch along the distal edge (Photo 6-6: A, B). One of the scrapers is made from a black satiny chert flake and exhibit similar steep unifacial retouch (Photo 6-6: C). The fourth example is a finely flaked end scraper made on a linear flake with a single arris line running along the longest axis (Photo 6-6: D).
A total of 75 linear flakes were recovered from FgCh-02 (Photo 6-7). All are made of quartzite except for four of purple chert (Photo 6-7: T). They vary in shape and size with some being small enough to be considered microblades.
A total of 36 retouched flakes and 79 utilized flakes were recovered from FgCh-02 (Photo 6-8). Combined, these represent the largest artifact class from the site. These are for the most part expedient tools which exhibit unifacial retouch or use wear along convex, concave and straight margins. All are made of quartzite with the exception of one retouched flake which was of black satiny chert (Photo 6-8: Q).
A single ceramic sherd was recovered from FgCh-02 (Photo 6-9). It consists of a thin, grit tempered rim sherd recovered in the western portion of the site, within Feature 1.

### Interpretation and Summary

The artifact assemblage of FgCh-02 is composed mostly of quartzite flakes, shatter, and cobbles. Formal artifacts include one projectile point fragment, 16 biface and biface fragments, 12 preforms/blanks, 4 scrapers, 115 utilized/retouched flakes, 75 linear flakes, 2 hammerstones, and a single undecorated ceramic rim sherd. Aside from the ceramic sherd, none of the formal tools recovered are particularly diagnostic. The assemblage of lithics suggests that this site was primarily used for the production of stone tools. The abundance of fire cracked cobbles suggest heat treating activities despite the absence of formal hearths. The number of linear flakes as well as the presence of scrapers and Pre-contact ceramics suggest some domestic activities. This expression suggests that FgCh-02 was a short-term encampment that engaged in intensive preparation of quartzite for the production of tools.
7.0 STAGE 3 RECOVERY RESULTS: FgCh-03

FgCh-03 (Gull Lake 2) was situated immediately adjacent to FgCh-02, and the two sites were excavated using a common grid (Figure 7-1). The initial testing of FgCh-03 in 2000 recovered 15 flakes of Ramah Chert, two flakes of quartzite, and one fragment of a unifacially-retouched tool of Ramah Chert. The material was recovered from within and just beneath a gray/white illuviated lens, which sits atop a clay/sand layer, and underlies 9 cm of peat/duff. The illuviated layer was loose, very wet and had some sand content.
Figure 7-1   LIDAR Imagery Showing Excavation Units at FgCh-03 and Adjacent FgCh-02
STAGE 3 RECOVERY RESULTS: FgCh-03
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Photo 7-1  Aerial Photo Showing Excavation Units at FgCh-03 (top is north)

Photo 7-2  Oblique View towards Northwest of FgCh-03
7.1 Site Stratigraphy and Features

The basic stratigraphy at FgCh-03 conformed more or less to the typical sediment development profile encountered at precontact archaeological sites previously recovered in the Churchill Valley (Figure 7-2). A thick (5-20 cm) layer of sphagnum moss and forest litter overlays a grey silty clay A Horizon which varied in thickness from 2 to 10 cm. The A horizon terminated at reddish clay sand B Horizon. Pockets of grey marine clay were observed along the flat part of the terrace, between the moss and silty clay. A mix of degraded organic charcoal staining was present along the southern slope of the site, above the A Horizon. Several large boulders, including one huge immovable glacial erratic, were present throughout the western half of the site.

Material culture was recovered mostly in the A horizon, however a sample of artifacts (9,594 pieces or 38%) were located at the top of and within the B Horizon. Like FgCh-02, the clayey deposits and saturated nature of FgCh-03 may account for the vertical postdeposition movement of artifacts into the normally sterile B Horizon.

In all, 128 m² was excavated at FgCh-03 in 2017 (Figure 7-3), and like FgCh-02, FgCh-03 presented as a pair of relatively discrete ellipsoidal scatters of quartzite cobbles, debitage and tools oriented approximately perpendicular to the riverbank (Figure 7-4). As at FgCh-02, the yield of quartzite pieces was extremely high. In contrast with FgCh-02, however, the quartzite scatters at FgCh-03 were clearly associated with features. Both features are tentatively interpreted as features related to heat-treating quartzite during or prior to primary reduction.
Figure 7-2  FgCh-03 North-South Profile
Figure 7-3 Plan of excavations at FgCh-03
Figure 7-4  Plan of excavations showing artifact material distribution at FgCh-03
7.1.1 Feature 1

Feature 1 appears to be the remains of a hearth only visible as a cluster of fire cracked cobbles and quartzite measuring approximately 80 cm by 80 cm (Photo 7-3; Figure 7-4). No charcoal suitable for dating was observed or collected. Artifacts associated with the hearth include debitage, a linear flake and a retouched flake, all of quartzite with the exception of two rhyolite flakes.

Photo 7-3 Feature 1 Fire-Cracked Rock Cluster Located on Left Side of Baulk at FgCh-03

7.1.2 Feature 2

Feature 2 consists of a 2 m x 5 m lithic scatter at the eastern end of the site, associated with Feature 1. Lithic material from this scatter was primarily composed of blocky quartzite shatter, with formal tools only present near the hearth itself.
7.1.3 Feature 3

Feature 3 consists of a larger (4 m x 10 m) and denser lithic scatter at the western end of the site adjacent to the large erratic boulder. It contained quartzite debitage representing all stages of tool production and some quartzite shatter and was associated with a series of well-defined buried burn layers alongside a large immovable boulder. A charcoal sample (0.59 g) was collected.

Most of the formal tools from FgCh-03 were recovered in association with Feature 3. These include virtually all biface and biface fragments (n=75), all scrapers and preform/blanks, 111 linear flakes, and 64 utilized/retouched flakes.

7.2 Cultural Materials

The assemblage of cultural materials from FgCh-03 included a very large precontact component of 25,325 pieces of debitage and 270 finished or utilized artifacts, along with a small historic component consisting of three pieces.

7.2.1 Historic Component

Three kaolin tobacco pipe bowl fragments were recovered from FgCh-03. These cannot be dated precisely, but likely date to the late 19th or early 20th century. Otherwise no evidence for historic activity or occupation was encountered at the site.

7.2.2 Precontact Component

FgCh-03 contained primarily precontact cultural material. The site yielded a large collection of 25,325 lithic pieces of quartzite, Ramah, quartz, and rhyolite, weighing over 33 kg, the overwhelming majority (25,055 pieces, or 98.9%) being knapping debitage. The remainder (270 pieces) are finished or utilized artifacts.

7.2.2.1 Debitage

The debitage assemblage consisted almost entirely of quartzite, with Ramah (18 pieces), quartz (11 pieces), and rhyolite (8 pieces) present in only trace frequencies. The majority of the quartzite pieces were of the same moderately coarse-grained, grey-tan, grey-pink and grey-red semi-translucent quartzites generally found on precontact sites in the Churchill Valley, although other colour varieties, including black, purple, and dark red, were also present in smaller quantities. As is typically the case in quartzite-dominated assemblages in the Churchill Valley, the quartzite assemblage at FgCh-03 includes a wide diversity of debitage, including cobble fragments, shatter, and primary, secondary and tertiary flakes. The abundance of large split cobbles and chunks, some of them firecracked, account for the substantial weight of the quartzite assemblage, and attest to the importance of primary reduction of locally-available quartzite cobbles at the site. Blocky, opaque white quartzite chunks with burnt reddened cortex, most
showing little evidence for subsequent working, were also common at the site and these unworked chunks are likely rejected material, a by-product of heat-treating and heat-splitting quartzite cobbles.

7.2.2.2 Artifacts

FgCh-03 yielded a large collection of 270 finished artifacts. Raw material frequency was similar to that of the debitage, consisting almost entirely of quartzite, with one piece of Ramah and two of rhyolite. They included two (cross-mending) projectile point fragments, 76 bifaces and biface fragments (nearly a third of which also cross-mend), 5 scrapers, 15 preforms and blanks, 5 cores, 103 linear flakes, 58 retouched and utilized flakes, and 6 hammerstones (Tables 12.1, 12.2; Photos 7-4 – 7-12). Virtually all were recovered from Feature 2, with the smaller and sparser Feature 1 yielding only four linear flakes and one utilized flake.
The projectile point class at FgCh-03 is represented by two fragments of a single quartzite point (Photo 7-4) with weakly-defined rising shoulders and a slightly-expanding “waisted” wide stem. Wide- and waisted-stemmed projectile points have previously been encountered on quartzite-dominated precontact assemblages in the Churchill Valley (e.g. Stantec 2016: Photo 10, Photo 54).

The unusually large collection of 76 bifaces and biface fragments from FgCh-03 (Photos 7-5, 7-6,) constitutes the second-largest class of artifacts recovered during excavation at the site, representing 28% of the artifact assemblage. All were fashioned from local quartzite.

The 16 lateral, corner and midsection fragments recovered from the site (e.g. Photo 7-5: H) are generally of indeterminate form. The 18 tip fragments (e.g. Photo 7-5: A-G) are similarly of indeterminate form in most instances, although some larger examples (e.g. Photo 7-5: F, G)
appear to be from broad, and likely ovate or leaf-shaped bifaces; substantially-complete specimens lacking only their bases (e.g. Photo 7-5: S, T, U) similarly appear to be from bifaces of broad, leaf-shaped form. Basal fragments come in two forms: relatively narrow tapered, straight, or slightly-concave bases likely from lanceolate bifaces (e.g. Photo 7-5: I-L, R); and broad, rounded or straight asymmetric bases likely from leaf-shaped bifaces (e.g. Photo 7-5: M, N). One of the latter (Photo 7-5: N) exhibits a single shallow side-notch.

Few complete bifaces were recovered. One is a somewhat irregular, small, wide convex-bladed triangular biface (Photo 7-6: C). The second is a thin, leaf-shaped biface with a tapered base (Photo 7-6: H), and the third is a small, thick, round-based biface. Particularly noteworthy was the number of cross-mending biface fragments, all recovered from within Feature 3. Although not tightly-clustered, all of the cross-mending pieces were recovered from an approximately 8 m² area southeast of the large boulder in Feature 3. The two joining fragments of the stemmed projectile point described above (Photo 7-4) were also recovered from this area.

All twelve of these cross-mending biface fragments (Photo 7-6: A, B, D-G, I-N) are in two parts, and all but one (Photo 7-6: I) join to form complete, or substantially complete, tools. Two are relatively thick and roughly-worked (Photo 7-6: B, L), and a third exhibits a thick dorsal irreducible bump encircled by step-fractures (Photo 7-6: F), but the majority are thin and well-finished. The forms are variable; three have slender lanceolate blades and narrow, slightly-tapering stems (Photo 7-6: L, M, N), and one is triangular, with a slightly asymmetric base (Photo 7-6: A). The remainder are more broad-bladed with approximately leaf-shaped blades, in some cases with markedly asymmetric bases (Photo 7-6: F, I, K). Both are forms characteristic of the precontact sites previously recovered in the Churchill Valley. Rather more distinctive and less typical are three (Photo 7-6: D, G, and possibly J) that exhibit weakly-defined shoulders, concave bases, and slightly-concave or “waisted” basal lateral margins.
STAGE 3 RECOVERY RESULTS: FgCh-03
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Photo 7-6  Complete and Cross-Mending Bifaces Recovered from FgCh-03
Five scrapers were recovered at FgCh-03 (Photo 7-7). None are formal endscrapers with any characteristic attributes, and as a result there is little clear distinction between scrapers on the one hand, and retouched flakes with scraping edges on the other. Two of these (e.g. Photo 7-7: A) appear to be cobble spall endscraper fragments, while another two (Photo 7-7: B, C) are sidescrapers.

Photo 7-7 Selected Scrapers Recovered from FgCh-03
FgCh-03 yielded a collection of 15 preforms, all of quartzite. Some (e.g. Photo 7-8: D, E, G) are leaf-shaped or ovate in form, but the majority are fragmentary and of indeterminate form. One thick example with extensive cortex (Photo 7-8: H) was only minimally worked prior to abandonment. Two additional examples are large, heavy, and primarily unifacially-worked (e.g. Photo 7-8: I). These appear to be blanks but may initially have been worked as flake cores.

Photo 7-8  Preforms and Blanks Recovered from FgCh-03
A relatively large collection of six hammerstones was recovered from FgCh-03 (Photo 7-9). All exhibit battering wear on at least one end, and one spherical example is battered around much of its equator (Photo 7-9: D). Although most are quartzite, one (Photo 7-9: C) is of rhyolite.

![Selected Hammerstones Recovered from FgCh-03](image)
STAGE 3 RECOVERY RESULTS: FgCh-03
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Five cores and core fragments were recovered from FgCh-03. Two are linear flake core fragments exhibiting parallel flaking scars resulting from the removal of linear flakes (Photo 7-10: A, B). A further two are large split cobbles fragments with considerable cortex remaining (e.g. Photo 7-10: D, E), from which large flakes have been removed.

Photo 7-10  Cores and Core Fragments Recovered from FgCh-03
The 103 linear flakes recovered from FgCh-03 (Photo 7-11) comprise the largest single artifact class at the site. All are quartzite. As is normally the case at precontact sites in the Churchill Valley, the overwhelming majority (97) are single-aris linear flakes, with only six (e.g. Photo 7-11: A, M) exhibiting two parallel arisises. The linear flakes from FgCh-03 vary widely in size, with virtually all (85%) being between 8 mm and 23 mm in width. Two of the larger examples (Photo 7-11: O, P) show clear evidence of unifacial usewear along one lateral edge.

Photo 7-11  Selected Linear Flakes Recovered from FgCh-03
The 58 retouched and utilized flakes recovered from FgCh-03 (Photo 7-12) comprise the third-largest single artifact class at the site. All are quartzite except for one small utilized flake of rhyolite (Photo 7-12: K) and one relatively large flake of Ramah with extensive unifacial retouch along one straight edge, which may have served as an expedient sidescraper (Photo 7-12: M).

As on most precontact sites recovered in the Churchill Valley, the majority exhibit unifacial usewear or light retouch along straight or convex edges and appear to have served as expedient scrapers. Twelve cortical flakes are either cobble-spall scraper fragments, or expedient cobble-spall scrapers (e.g. Photo 7-12: R, S). Two pieces (e.g. Photo 7-12: Q) exhibit bifacial retouch and usewear. Eight show unifacial retouch and/or usewear along concave working edges (e.g. Photo 7-12: H); one of these is not a “flake” as such, but rather, appears to be a re-purposed biface fragment (Photo 7-12: I). In three cases, the concave working edge forms one or more distinct notches, indicating use as expedient spokeshaves (e.g. Photo 7-12: A, P).
7.3 Interpretation and Summary

The artifact assemblage from FgCh-03 represents one of the largest collections recovered in 2017, including 25,325 pieces of debitage and 270 finished or utilized artifacts, along with a small historic component of three historic pieces. As at FgCh-02 nearby, the abundance of quartzite debitage in two discrete clusters, (Features 2 and 3), suggest that the primary activity at the site was the production of stone tools. Nevertheless, the number of linear flakes as well as retouched and utilized flakes suggests some domestic activities. The unusually high frequency of bifaces and biface fragments is consistent with this interpretation. The large number of snapped bifaces is unusual, although some are irregularly-formed and may have broken during manufacture.
STAGE 3 RECOVERY RESULTS: FgCh-05
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8.0 STAGE 3 RECOVERY RESULTS: FgCh-05

FgCh-05 (Tshiashkunish 6) was situated on the north shore of Gull Lake, overlooking the Gull Lake outflow. The beaches below the site are characterized by an abundance of large quartzite cobbles. Initial testing in 2006 (Minaskuat 2008a) indicated that the site may be composed of two discrete loci situated approximately 20 m apart (Locus A and B). Based on the previous shovel testing results in 2006, two separate excavation areas sharing a common grid were staked out to encompass the two discrete locations (Figure 8-1).