

**Lower Churchill Hydroelectric
Development Project Historic
Resources Assessment and
Recovery Program**



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**LOWER CHURCHILL HYDROELECTRIC DEVELOPMENT PROJECT HISTORIC RESOURCES
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1.0 INTRODUCTION

This document represents an overview and interpretive summary of the results of the Historic Resources Management Program, primarily consisting of Stage 3 assessment and recovery (mitigation) of archaeological resources situated within the Muskrat Falls hydroelectric development of the Lower Churchill Project (LCP), conducted between 2012 and 2017. During the course of this work, archaeological excavation and/or surface-recording were completed at 56 archaeological sites identified within the footprint of the Muskrat Falls generating station and reservoir area on the lower reaches of the Churchill River in central Labrador. The recovery program implemented between 2012 and 2017 followed a multi-year program of Stage 1 and Stage 2 assessment (background research and field survey) undertaken between 1998 and 2012 to identify archaeological resources within the Project Area. Targeted Stage 1 and Stage 2 assessment continued throughout the Stage 3 recovery work. Detailed results of Stage 1, Stage 2 and Stage 3 assessments have already been presented in previous reports (e.g., IED/JWEL 2001d, Minaskuat 2008a), and are only briefly summarized here. The purpose of this report is to provide a synthesis of these results and their implications for further archaeological research and cultural resource management in Newfoundland and Labrador.

1.1 Lower Churchill Project Description

The Churchill River is the largest river in Labrador, and its hydroelectric potential has been recognized for decades. On the Upper Churchill, the Churchill Falls hydro development was undertaken between 1966 and 1974, resulting in the construction of the largest hydroelectric plant in Canada at Churchill Falls, and the creation of the Smallwood Reservoir. Further development of the Lower Churchill, including generating stations at Gull Island and Muskrat Falls, and a transmission line to the Island of Newfoundland, was proposed and assessed in the 1970s but was not pursued to completion at that time.

Following discussions between the Government of Newfoundland and Labrador and the Government of Quebec in 1997, Newfoundland and Labrador Hydro and Hydro-Quebec were asked to renew negotiations on further hydro development on the Churchill River, to be termed the "Churchill River Power Project" (CRPP). Environmental and feasibility studies commenced in the summer of 1998.

The Project initially proposed to develop up to 4,000 megawatts (MW) of additional power from the Churchill River system. Proposed project components at the commencement of Stage 1 and Stage 2 assessment in 1998 included:

- expanding the existing Churchill Falls project by partially diverting two rivers in Quebec (Saint Jean River and Romaine River);
- constructing a new generating station with two 500 MW turbines at Churchill Falls;
- developing a 2,200 MW generating facility at Gull Island;
- developing an 824 MW generating facility at Muskrat Falls;



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- constructing two 735 kilovolt (kV) transmission lines, one from Gull Island to Churchill Falls and a second from Gull Island to the Montagnais station in Quebec;
- constructing a 235 kV transmission line from Muskrat Falls to Gull Island (pending the outcome of the feasibility study for the Muskrat Falls component);
- constructing a submarine cable across the Strait of Belle Isle; and
- constructing a 800 MW high voltage direct current (HVDC) transmission line from Gull Island to Soldiers Pond near Holyrood.

Planned project components were subsequently modified significantly, until by 2012, the focus was on development of the Muskrat Falls component alone, along with its associated infrastructure (Figure 1-1). The principal works for this development (the "Project"), include:

- stabilization of the North Spur at Muskrat Falls;
- bulk excavation of earth and rock from the south side of Churchill River at Muskrat Falls and construction of the dam and generating station, as well as access roads, an accommodations camp and office complex;
- vegetation clearing and creation of a reservoir area upstream of Muskrat Falls, between Muskrat Falls and Gull Rapids; and
- power transmission infrastructure, including a high voltage alternating current (HVac) transmission line (TL) from Muskrat Falls to Churchill Falls; a high voltage direct current (HVdc) TL from Muskrat Falls to Forteau Point on the Strait of Belle Isle, southern Labrador; a switchyard and associated cable infrastructure at Forteau Point, and an electrode site at L'Anse au Diable; submarine cables across the Strait of Belle Isle to Shoal Cove on the island's Great Northern Peninsula; an HVdc TL from Shoal Cove to Soldier's Pond on Newfoundland's Avalon Peninsula; and an electrode site at Dowden's Point, Conception Bay.

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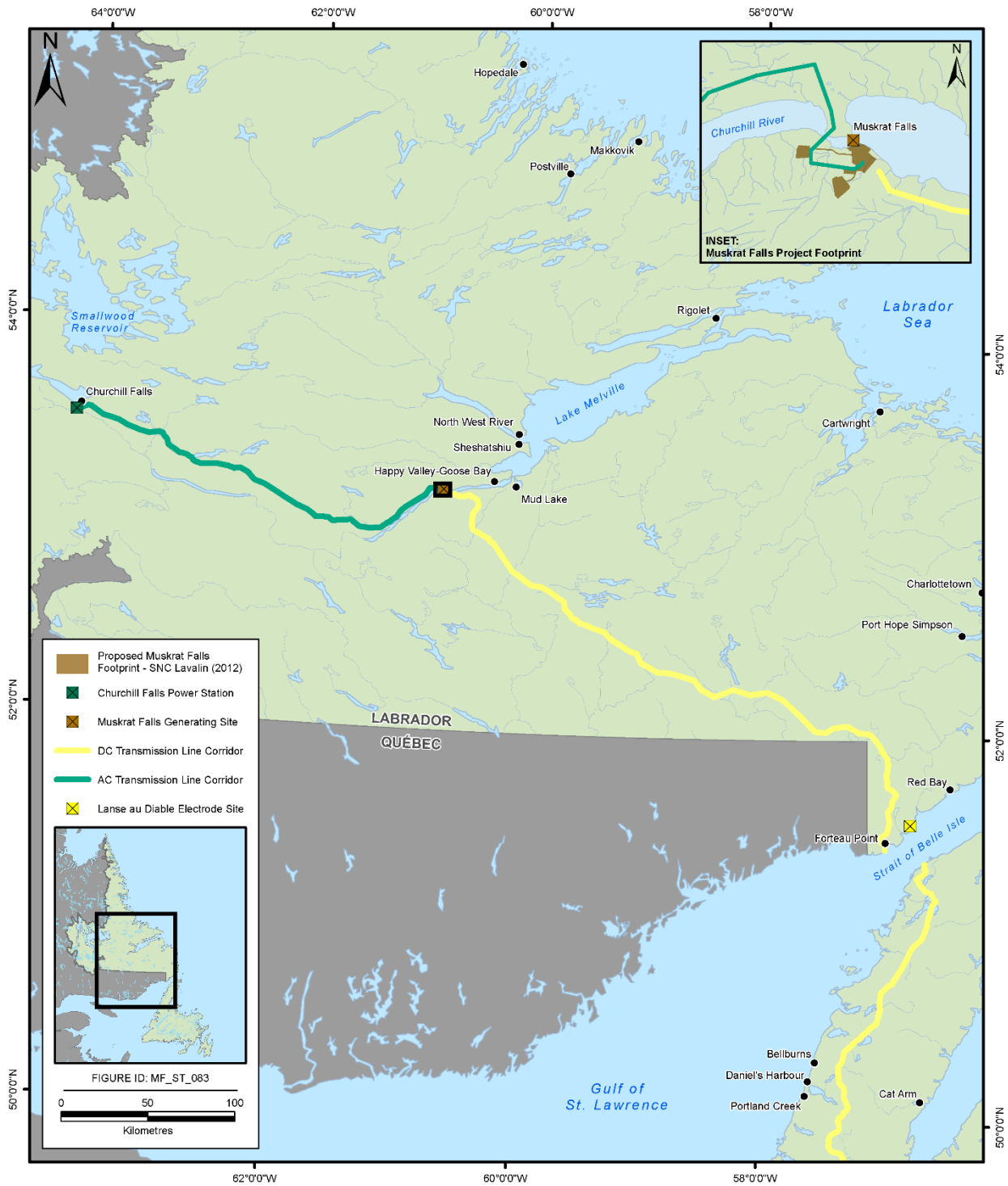


Figure 1-1 Project Components in Labrador

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1.2 Culture-Historical Background

The Stage 3 mitigation work for the Lower Churchill Project undertaken between 2012 and 2017 has generated significant data bearing on the history of precontact, historic, and 20th century human occupation of the lower reaches of the Churchill River, and these data bear on the land-use history of diverse cultural groups, including Amerindian, Euro-Canadian, and Labrador Settler. In this report, detailed discussion of these diverse cultural contexts is elaborated in later sections (Section 3.0 for precontact Amerindian, Section 4.0 for historic Euro-Canadian, Section 5.0 for historic Innu, and Section 6.0 for historic Labrador Settler). However, the broad culture-historical framework for all of these occupations may be summarized as follows:

Previous archaeological fieldwork in Labrador-Ungava, particularly in Labrador, has generally focused on the coast, where work has established that archaeological sites are rich and abundant, and the culture-historical sequence long and complex, extending over approximately 7,500-8,000 years. The sequence begins with an initial late Palaeo-Indian/early Maritime Archaic Amerindian occupation in the Strait of Belle Isle (McGhee and Tuck 1975; Pintal 1998; Schwarz 2010). The early Maritime Archaic (also known as *Tshiash Innu*; Loring and Jenkinson 2018) people gradually spread north along the coast to central and then northern Labrador by 7,000 years before present (BP) (Fitzhugh 1972, 1978a; Loring and Jenkinson 2018).

The post-Archaic sequence in central Labrador, including upper Lake Melville and the coast, begins with a series of Intermediate-period (also known as *Shashish Innu*) occupations. Intermediate assemblages are characterized by small collections of finished tools representing a variety of artifact styles and use of a range of lithic raw materials, principally quartzite, Saunders Chert, and rhyolite. Between 3500 BP and 2000 BP these variations in artifact styles and raw material use patterns do not seriate clearly, suggesting either discontinuous occupations, highly-variable material culture styles, poorly-defined culture-historical units, or a combination of all three factors. In many cases, these sites appear to be palimpsests rather than discrete single-component occupations, making the culture-historical sequence difficult to construct. Structural remains are limited to cobble hearths, sometimes in linear alignments of two or three features, generally lacking in evidence for dwelling perimeters, with few or sparse faunal remains.

The Intermediate period is followed by a late-precontact (or *Ancestral Innu*; Loring and Jenkinson 2018) occupation characterized by a small but well-defined and well-patterned lithic toolkit based on the near-exclusive use of Ramah chert. Artifact styles clearly seriate through the period from ca. 2,000 BP to the Contact period. In rare instances, grit-tempered ceramics are found in late precontact contexts on the Labrador coast. Associated structural remains are not well attested but include small circular or oval hearths, occasionally with perimeter hold-down stones, and also long linear hearth features likely associated with communal feasting. Continuity between the late-precontact period and the historic ancestors of the Innu is generally accepted, although clear contact-period sites remain elusive; continuity from the preceding Intermediate period remains to be established.



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After 4,000 BP, coastal Labrador was also populated by Arctic-adapted Pre-Inuit peoples from the north (Cox 1978). Thereafter, the Precontact Period in Labrador (*i.e.*, the period prior to the arrival of Europeans in North America and contact with Indigenous people) is complex, as Intermediate Amerindian (Nagle 1978) and Late Precontact Amerindian occupations interdigitated with occupations by Pre-Inuit peoples (Pre-Dorset, Groswater, Dorset), culminating with the arrival of the Thule, ancestors of the modern Labrador Inuit, approximately 700 BP (Kaplan 1983; Fitzhugh 1994). It may be noted that evidence for Pre-Inuit occupation in the interior has been limited, including in upper Lake Melville and its hinterland.

After approximately 500 BP, Labrador and the lower north shore of Québec became the focus for European activities, initially whaling by Basques in the 16th century (Tuck and Grenier 1989) and fishing, sealing and fur trading by people from other European countries (Kennedy 1995). In the mid-17th century, Innu/European contact began in earnest through the fur trade, with the establishment of the Postes du Roy and the Seigneurie de Mingan on the Québec north shore. Although the Innu of Hamilton Inlet were clearly in contact with Europeans by this time (Tanner 1977: 9-10), the earliest close contact, documented specifically for the upper Lake Melville area, occurred when Louis Fornel established a trading post at North West River in 1743. This post was operated by a series of Québec-based and English merchants until 1837, when the Hudson's Bay Company (HBC) acquired the North West River properties. The HBC maintained a monopoly on the fur trade in the area until 1901, when Revillon Frères Trading Company Limited established a competing post on the south side of the river, opposite the HBC post (Zimmerly 1975).

It is clear that through most of the historic fur trade period, the Churchill River valley was part of the hunting and trapping grounds of the Innu, and that they spent most of each year moving through it. Throughout this period, the interior remained remote and relatively unknown to Europeans. Initially, the parties involved in the fur trade consisted primarily of European traders on the one hand, and Innu hunters and trappers on the other. However, by the closing years of the 19th century, the Settler population became increasingly involved in fur trapping for trade, and by the early 20th century had largely usurped Innu trapping grounds along the Churchill River and elsewhere (Tanner 1947, Tanner 1977; McGee 1961; Ames 1977; Kennedy 1995). Through the 20th century, trapping in the hinterland of upper Lake Melville, and along the Churchill River in particular, was dominated by Labrador Settler families, although trapping declined in importance by the 1940s, as fur prices declined and families came to pursue wage labour opportunities at the newly-constructed military base at Goose Bay.

1.3 Definition and Description of the Study Area

The natural landscape and resource distribution are important determinants of past and present human subsistence and settlement patterns. Previous research in Labrador and northern Quebec has shown that archaeological sites tend to occur on specific landforms and sediment types such as river terraces and raised shoreline features. Thus, physiography in conjunction with other factors such as resource distribution and land use data can be useful for predicting archaeological potential (JWEL 1998a).



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The Churchill River, the largest river system in the Province of Newfoundland and Labrador, is situated in central Labrador and debouches at the western end of Lake Melville. The Study Area for this report consists of the Project Area of the Lower Churchill Project (LCP), including Muskrat Falls (the location of the Muskrat Falls Hydroelectric Generation Station) and the Muskrat Falls Reservoir (the reaches of the Churchill River between Muskrat Falls, and the western end of Gull Lake).

1.3.1 Physiography and Hydrology

The Churchill River valley lies within the Grenville Province of the Precambrian Canadian shield. This immense and stable land mass is made of crystalline metamorphic and igneous rocks that have been eroded by rivers and ice sheets over millions of years. The receding Pleistocene glaciers left a variety of glacial and glaciofluvial deposits on the plateau. Surficial deposits in this area consist of alternating ribbed moraine and patchy moraine veneer and eskers over bedrock. Surficial deposits in the area east of Muskrat Falls on the Churchill River include marine sands and silt (Thurlow and Associates 1974: Map 2).

Along its lower reaches, within the Study Area between Gull Island and Muskrat Falls, the valley of the Churchill River is broad, and the river is flanked by extensive sandy marine and riverine terrace systems extending above 90m above sea level (asl). Terraces above 90m asl are characterized by extensive dunefields formed shortly after deglaciation and marine regression (see below), and it is along this stretch of the river that the former marine character of the valley is most evident. It should be noted that though the valley once constituted a long narrow embayment, virtually all of the terrace edges, even at the highest elevations, have been river-cut, and ancient marine shorelines, as such, are generally not preserved.

Between Gull Island and Muskrat Falls, the river itself is broad and does not meander, but instead consists of alternating braiding and wandering reaches. In places the river flows along a single channel then splits into two channels, separated by shifting sandbars or, more rarely, by stabilized wooded islands. Thus, this stretch of the river sometimes resembles a chain of connected "ponds," of which Gull Lake is the largest. Riverbanks alternate between low, stable sections along inside curves, and high, eroding exposures of sand and marine clay. Slope failures, both recent and ancient, are common (JWEL 2000).

In addition to these broad "ponds," the most notable features of this section of the river are the tributaries and the falls.

There are four principal tributaries: Pinus River, Edwards Brook (*Etuat-shipiss*), *Tepiteu-shipiss* (identified as "Upper Brook" on NTS topographic maps), and Lower Brook.

The eastern and western ends of this stretch of the river are defined by falls. Muskrat Falls, to the east, situated 30km west of the mouth of the Churchill River at Happy Valley-Goose Bay, is spectacular, but not high (15 m). At the falls, the river descends in two cascades, an upper falls and a lower falls, separated by half-kilometer stretch of relatively quiet water. The falls are flanked



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to the south by low, level terrain underlain by bedrock of the Mealy Mountain Intrusive Suite, and to the north by a prominent rocky hill, an outcrop of bedrock belonging to the Dome Mountain Intrusive Suite, connected to the north bank of the Churchill River by a high (62m) sandy marine terrace (JWEL 2000). Historically, two portage trails skirted the falls. The trail on the south side is 3km long but traverses gentle, level terrain on the edge of the 15-19m asl terrace on the south side. The trail on the north side is relatively short but extremely steep, rising to the top of the 62m asl terrace on the north side. The hill on the north side of Muskrat Falls is known to the Innu as *Manitu-utshu*, a term which is also applied more generally to the falls themselves. The Innu believe the hill on the north side to be the dwelling place of giant otter- or seal-like beings called *Uenitshikumishiteu* (Wolverine and Associates 2007). It is reasonable to infer that this distinctive and prominent topographic feature has always held some spiritual significance to Indigenous people in the region.

Gull Rapids, at the western end of Gull Lake, lies near the point above which the Churchill Valley narrows, and the river runs through a deep, V-shaped valley. Gull Rapids, a significant barrier to canoe travel requiring a lengthy portage, extends along a narrow stretch of the river approximately 3km long. The western end of the present Study Area lies at the base of these rapids.

Between Gull Rapids and Muskrat Falls there are smaller rapids, including Porcupine Rapids (*Kak^u-paushtik^u*) at the outflow of Gull Lake, and another rapids situated downstream from the mouth of Edwards Brook. In recent years, these rapids are evident only in periods of significantly reduced water levels, but they are referenced in 19th century HBC records and may once have been more conspicuous, before completion of the Upper Churchill hydroelectric project in 1974.

1.3.2 Holocene Geomorphology

In early postglacial times, the lower Churchill River consisted of a series of narrow lakes connected by graded streams without large rapids or interruption as far upstream as Bowdoin Canyon and Twin Falls. Sea level was higher, and the river was accessible to anadromous fish. The Churchill River valley was potentially available for human occupation 7,500-10,000 years BP (before present). However, climatic conditions immediately following deglaciation were rigorous (JWEL 2000: 75).

Following deglaciation, the Churchill Valley was partly flooded by marine waters coming westward, reaching elevations of 135m above present sea level. Subsequent isostatic rebound has led to a progressive regression of the sea since that time, forming a series of glaciomarine, glaciofluvial, and fluvial terraces along the lower stretches of the valley. The dating of these terraces is somewhat problematic, especially for the high 62m terrace on the north side of Muskrat Falls, which appears to have a minimum age between 7,500 and 5,500 BP (Before Present). The 18m terrace below Muskrat Falls can be correlated to the 12m terrace at North West River (exposed by c. 3,000 BP), and the 12-13m terrace below Muskrat Falls to the 9.7m terrace at North West River, tenuously dated to ca. 2,000 BP (JWEL 2000). It would appear that Muskrat Falls



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emerged as a falls (and therefore as a strategic settlement location) between 3,000 and 3,500 years ago (JWEL 2000; Norm Catto pers. comm.), and that the 15-19m terrace along the south side portage trail became available for settlement around this same time. We might expect as well that the upper cascade at Muskrat Falls emerged prior to the lower falls.

1.3.3 Climate and Vegetation

The Churchill Valley extends through two broad Ecoclimatic Provinces, subarctic and boreal. Factors such as forest fires and soil moisture conditions result in a variety of vegetation patterns. White spruce, birch and a variety of berries are present at drier sites (Ecoregions Working Group 1989: 20). There are two regional variants of the Boreal Ecoclimatic Province within the Study Area. Perhumid High Boreal conditions prevail in the Churchill River valley, from Winokapau Lake to the Lake Melville area. Black spruce and balsam fir are the dominant species, but occasional white spruce with lichen and birch occur at typical sites (Ecoregions Working Group 1989: 28-29). Vegetation in the Churchill River valley includes large stands of black spruce and balsam fir where, on some sites, the trees reach large diameters. As well, lichen woodlands and numerous bogs with larch muskegs and barrens are present (LCDC 1980).

In the lower reaches of the valley, between Muskrat Falls and Gull Lake, vegetation is generally comparable to that found elsewhere in the Churchill valley, with alder stream-swamp along the riverbank, and spruce-sphagnum, lichen woodland, or mixed fir, aspen and birch forest above.

Noteworthy here is the size of the trees, with mature fir, birch and aspen reaching good height and girth on favourable sites, particularly along the margins of the river and in the deltas of the major tributaries. Higher up, well-drained marine and riverine terraces often support only lichen woodland. On the highest elevations, extensive dunefields are found under lichen woodland cover, though the dunes themselves, particularly on the crests, are often pockmarked with blowouts. Some of these higher terraces have been burned over relatively recently. Elsewhere, sphagnum bogs mark the locations of former river channels. Stands of birch are extensive on south-facing hills flanking the valley.

Winters in the region are long and cold and the summers are short (June to August) and often hot. Mean January and July temperatures are -18°C and 15°C for Happy Valley-Goose Bay respectively and -22°C and 14°C for Churchill Falls. Spring and autumn are brief and often stormy. Persistent high humidity and cloud cover with frequent precipitation are typical. The total annual precipitation is 926.4mm in Churchill Falls and 949mm in Happy Valley-Goose Bay. The growing season is 100 days and extends from mid-June to mid-September (PRL 1980: 15-16).

Generally, in the region, consolidated ice is established in Goose Bay by the first week of December, and in Lake Melville by the end of the month. Ice cover persists until the spring break-up, which begins in May and is complete by early- to mid-June (Hatch and Minaskuat 2007). However, *ashkui* (an area of open water surrounded by ice in the spring or fall) may be open on the Churchill River as early as March. Innu often established their spring camps near *ashkui* in order to take advantage of the relative abundance there of certain game species, including *amishku*



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(beaver), *utshashku* (muskrat), *nitshiku* (otter), *namesh* (fish), and *shiship* (migratory waterfowl) (Wolverine and Associates 2007). One such *ashkui* is situated between the upper and lower cascades at Muskrat Falls. Spring and fall ice conditions can also influence travel along the river: the cove on the north side below Muskrat Falls, whence the north-side portage commenced when traveling upstream, is regarded by the Innu as a very dangerous place in the spring, when the ice is packed downstream of the falls, and this area was generally avoided in the spring (Wolverine and Associates 2007). These hazardous ice conditions result from frazil ice passing over the falls from the river upstream, creating a hanging dam and an “ice rose” (an accumulation of ice at the foot of the falls); this accumulation can be so thick that it raises water levels high enough to allow ice accumulation above the lower falls as well (Hatch and Minaskuat 2007). The distinctive spring ice conditions in the Muskrat Falls area have likely prevailed throughout the historic period. The extent to which they may have obtained in the precontact period is uncertain.

1.3.4 Wildlife and Other Natural Resources

Numerous terrestrial mammals are present in the Study Area, although some species undergo fluctuations in density from year to year. Among 34 species reported by LCDC (1980: 142), many contribute to the Indigenous and Settler diet and economy, including caribou, moose, black bear, porcupine and several furbearers such as lynx, beaver, river otter, mink, least weasel, ermine, marten, fox, wolf, muskrat and snowshoe hare.

There is a high-density summering area for caribou in the interior region southeast of Goose Bay (the Mealy Mountains herd) and two smaller high-density wintering areas in the deep interior region of south-central Labrador. Historically, a portion of the Red Wine Mountains caribou herd of central Labrador was known to winter in the Churchill River valley (Brown and Theberge 1985), particularly between Sandy Banks and Gull Lake, and west to Winokapau Lake. In late winter (March-April), the winter range would contract to the tundra habitat of the Red Wine Mountains, dispersing in May to the lower plateau in the pre-calving, calving, and post-calving periods until the October rut, which appeared to occur primarily in the southeastern part of the range, along and to the south of the Churchill River (Schmelzer 2004).

Moose have been present in Labrador since the 1950s, when they expanded into western Labrador from Quebec, and were deliberately introduced in southeastern Labrador (Chubbs and Shaefer 1997). River valleys represent important overwintering locations for moose (Northland 1980) and they have been regularly observed in the Churchill River valley during the winter and spring period.

Furbearers such as beaver, mink and otter have historically been common along the Churchill River, although populations were estimated to be low to modest within the limits of the Study Area during previous work by Northland (1980: 24-25). Porcupine are also relatively common. Wolverines have not been seen in the Study Area since 1950. However, they were an important part of the economy in the past (wolverine was also a key character in the Innu mythology: Turner 1894).



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Among the sea mammals present in the Goose Bay Estuary/Lake Melville sub-region, ringed seal, harbour seal and harp seal were of primary importance in the traditional economy (Ames 1977: 285). It is not unusual to observe seals in the water or hauled out on sandbars below Muskrat Falls.

Bird species important in Indigenous and Settler subsistence activities include Canada goose, common merganser, spruce grouse and rock ptarmigan (LCDC 1980: 161-162). Migratory waterfowl are found along the river in spring and fall, and large numbers of Canada geese and other migratory waterfowl were observed along various sections of the Churchill River in 1998 and 1999.

A total of 20 fish species are present in the Churchill River and include salmonids such as brook trout, lake trout, Atlantic salmon (sea-run and resident ouananiche) and lake whitefish (Anderson 1985: 163, 175). Burbot, white sucker, longnose sucker, northern pike and three spine stickleback are also reported. Few sea run species are present west of Muskrat Falls which is a major obstruction to upstream movement (LCDC 1980: 171-179). Fish species captured in gillnets during a 1975-1976 survey were, in order of relative abundance by weight, northern pike, lake whitefish, longnose sucker, brook trout, burbot, lake trout and ouananiche.

Along the lower reaches of the Churchill River, particular locations of species abundance (*ushak-*) identified in Innu traditional knowledge (Wolverine Associates 2007) include:

- the area around the mouth of *Tepiteu-shipiss* (an expanse of grassy flats and an ashkui serving as a staging area for migratory waterfowl in spring and fall), along with beaver, willow ptarmigan, and various fish species;
- The mouth of *Etuat-shipiss* (Edwards Brook), and also *Uapushkakamau-shipu* (Pinus River), both suitable locations for fishing; and
- *Tshiashku-nipi* (Gull Lake), rich in migratory waterfowl, particularly ducks in the spring.

In addition to faunal resources, lower reaches of the Churchill River valley offer a number of resources potentially significant in the historic and precontact past including, cobbles of workable stone, particularly quartzite, which are abundant on beaches along the rivercourse. Although this resource is hardly unique to the Churchill River valley, locally available grey, white, and honey-coloured quartzites identical to those found along the river have been found at many precontact sites in central and southern Labrador. Banded rhyolite has also been encountered in quantity at several sites in the region and this material appears to be present as large cobbles on beaches upstream from Gull Lake, between Beaver Brook and Cache River. This material has only been observed in the form of small pebbles along the riverbanks between Muskrat Falls and Gull Lake. Cobbles of red quartzite are locally available as near as North West River, though they have not been observed on Churchill River beaches. Basalt cobbles have been observed along the river, though this material is rare in cultural contexts. Other lithic materials observed at sites in the region, including Ramah metaquartzite, "Saunders Chert," and other fine-grained cherts and quartzites, appear to derive from much more distant sources in northern Labrador, western Labrador, Québec, and the Island of Newfoundland.



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A second resource of potential significance is birchbark for fashioning canoes and containers; the section of the river within the Study Area supports remarkably large stands of large birch.

1.4 Initial Stage 1/Stage 2 Archaeological Assessment (1998-2013)

Previous archaeological assessment of the Lower Churchill Project actually began in the 1970s (Thurlow et al. 1974; Tuck 1981). As a result of this work, precontact sites were identified on both the north and south sides of Muskrat Falls, and the site on the north side was excavated (Tuck 1981). In addition, seven trappers' tilts and cabins were recorded between Muskrat Falls and Gull Lake (Tuck 1981). Subsequent Stage 1 and Stage 2 Overview Assessment within the Study Area resumed in 1998 and continued throughout the project including after Stage 3 recovery had commenced. However, the most intensive and extensive Stage 1 and Stage 2 assessment effort was undertaken in 1998-2000 and in 2006. Stage 1/Stage 2 assessment between 2010 and 2013 was more targeted, and particularly focused on Muskrat Falls itself. After 2013, Stage 1/Stage 2 assessment was limited, and primarily directed toward delineating known sites and assessing localized development features within the Muskrat Falls reservoir area and the Strait of Belle Isle. Stage 1/Stage 2 assessment activities completed between 1998 and 2017 are summarized in Table 1.1. Subsequent Stage 3 Recovery Activities completed between 2012 and 2017 are summarized in Tables 2.1 and 2.2.

Table 1.1 Stage 1/Stage 2 Archaeological Assessment Activities for the LCP (1998-2017).

Year	Component(s) Assessed	Permit Number	Reference
1998	Churchill River (Gull Island and Reservoir)	98.22	IED/JWEL 2000
	Churchill River (Muskrat Falls and Reservoir)	98.22	IED/JWEL 2000
	Churchill River (Muskrat Falls to Happy Valley)	98.22	IED/JWEL 2000
	Churchill Falls II Hydro Development	98.22	IED/JWEL 2000
	Transmission Line (Gull Island-Churchill Falls)	98.22	IED/JWEL 2000
	Transmission Line (Gull Island-Strait of Belle Isle)	98.22	IED/JWEL 2000
	Transmission Line (Gull Island-Montagnais)	98.32	IED/JWEL 1999d
	Atikonak Lake Diversion	98.25	IED/JWEL 1999c
	Training Program at Sheshatshiu/ North West River	98.23	IED/JWEL 1999e
1999	Churchill River (Gull Island and Reservoir)	99.35	JWEL/IELP 2001a
2000	Churchill River (Gull Island Reservoir)	00.32	JWEL/IELP 2000c
	Churchill River (Gull Island)	00.32	JWEL/IELP 2000c
	Churchill River (Muskrat Falls and Reservoir)	00.32	JWEL/IELP 2000c
2000	Churchill River (Muskrat Falls to Happy Valley)	00.32	JWEL/IELP 2000c
	Transmission Line (Gull Island-Churchill Falls)	00.32	JWEL/IELP 2000c



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Year	Component(s) Assessed	Permit Number	Reference
2006	Churchill River (Muskrat Falls and Reservoir)	06.34	Minaskuat 2008a
	Transmission Line (Muskrat Falls - Gull Island)	06.34	Minaskuat 2008a
	Transmission Line (Gull Island-Strait of Belle Isle)	06.34	Minaskuat 2008a
2008	Transmission Line (Gull Island - Soldiers Pond)	08.47	Stantec 2010a
2009	Transmission Line (Strait of Belle Isle)	09.37.01	Stantec 2010a
2010	Muskrat Falls	10.45	Stantec 2010
	Muskrat Falls	10.46	Stantec 2012
2011	Transmission Line Electrode Sites	11.21	Stantec 2012
	Muskrat Falls	11.42	Stantec 2012
2012	Muskrat Falls (South Side)	12.25	Stantec 2014a
2013	Muskrat Falls (North Spur)	13.20	Stantec 2014b
	Muskrat Falls (North Spur)	13.29	Stantec 2014b
	Transmission Line (Muskrat Falls - Churchill Falls) and Muskrat Falls Reservoir	13.37	Stantec 2014b
	Strait of Belle Isle (Forteau Point)	13.42	Stantec 2014b
	Transmission Line (Gull Island-Strait of Belle Isle)	13.49	Stantec 2014b
2014	Strait of Belle Isle (L'Anse au Diable)	14.36	Stantec 2015b
	Muskrat Falls Reservoir	14.39	Stantec 2015a
	Strait of Belle Isle (Forteau Brook)	14.51	Stantec 2015c
2015	Muskrat Falls Reservoir (delineation of known sites)	15.09	Stantec 2016
2016	Muskrat Falls Reservoir (delineation of known sites)	16.09	Stantec 2017
2017	Muskrat Falls Reservoir	17.15	Stantec 2018

1.4.1 Narrative of Stage 1/Stage 2 Archaeological Assessment (1998-2013)

When Historic Resources Overview Assessment (HROA) of the Lower Churchill Project resumed between 1998 and 2000, extensive Stage 1 background research on historic resources in Labrador was undertaken to support Stage 2 field assessment primarily focused on the Gull Island Generation Facility and Reservoir area, and transmission infrastructure associated with the proposed Gull Island development. Overview Assessment culminated in 2000 with a mapping project to systematically characterize the survey effort and archaeological potential within the project area.

Stage 1 assessment (background research) was broad in scope and encompassed all of Labrador south of the Fraser River, extended to include portions of adjacent Quebec. Background research involved an extensive review of ethnographic, historical, and archaeological sources. This work

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was undertaken to identify and predict potential archaeological site locations within the Study Area and included reviews of Hudson's Bay Company archives to determine the locations of HBC posts within the Study Area. The strategy for Stage 2 assessment was to preselect testing locations, based on air photo analysis and land use data, and to target those locations for intensive subsurface testing. General pedestrian survey played a relatively small role in the Historic Resources Overview Assessment (HROA). Stage 2 assessment included the investigation of Innu land use locations recorded during previous ethnographic mapping research (Innu Nation 1999) both to inform the assessment of archaeological potential, and to assist Innu Nation in ground-truthing its land-use datasets.

The Muskrat Falls project had been removed from the work scope in 1999 in favour of the Gull Island Project, but assessment along the Churchill River resumed in 2006 to focus specifically on the proposed Muskrat Falls generation project and reservoir and associated transmission infrastructure. Since it was already known that sites were present at the falls, assessment effort in 2006 was primarily directed at the previously little-investigated reservoir area.

Further field assessment in 2010 and 2011 (Stantec 2012) focused specifically on the Muskrat Falls area, including some of the Early Works infrastructure to be further assessed in 2012. Continuation of this assessment in 2012, and 2013 was aimed at delineating the extent of archaeological remains associated with finds previously reported in the 1970s, and included investigation of further reports of archaeological lithic finds from the western beach on the north side of Muskrat Falls (which were determined to have deflated from a site or sites situated on the terrace top above; Nalcor 2011), and from along the portage trail on the south side of the falls (which were found to derive from extensive *in situ* archaeological sites; see Stantec 2012, 2014a).

1.4.2 Results of Stage 1/Stage 2 Archaeological Assessment (1998-2013)

The results of Stage 1 and Stage 2 archaeological assessment for the Lower Churchill Project between 1998 and 2013, including both the Gull Island and Muskrat Falls developments, are reported in detail in the 1998, 1999, 2000, 2006, and 2008 mapping project and field program reports (IED/JWEL 2000; JWEL/IELP 2001a; JWEL/IELP 2001b, JWEL/IELP 2001c, Minaskuat 2008a; Stantec 2010a, 2010b, 2011, 2012; 2014a, 2014b).

HROA conducted between 1998 and 2013 led to the identification of over 300 sites of all periods (precontact, historic and contemporary). The majority were located within the Churchill Valley, between the Churchill Falls tailrace and the mouth of the Churchill River at Happy Valley, but many of these were situated upstream from Gull Lake or downstream from Muskrat Falls, and therefore lay outside the Muskrat Falls Study Area. In addition, the majority of the sites recorded pertain to contemporary land use (within the past 50 years); contemporary sites are recorded as evidence of contemporary land use, but normally only registered archaeological sites more than 50 years old are subject to Stage 3 recovery, either by Systematic Data Recovery (SDR) or by Alternative Field Recording (AFR) as appropriate. Thus, within the Muskrat Falls Study Area, 64 archaeological sites have been registered since the 1970s (see Table 2.2). Fifty-one of these



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contained evidence of precontact occupation, and 19 contained historic components (six of these sites yielded evidence for both precontact and historic occupation).

Prior to completion of the recovery program, initial Stage 2 assessment results suggested the following patterns in the data (for a more detailed review of initial interpretations of the data, see JWEL/IELP 2001d).

- With the exception of one Maritime Archaic site east of Mud Lake and one possible Late Precontact site on Gull Lake, all precontact sites appeared on typological grounds to date to the Intermediate Period. None appeared to contain evidence of Pre-Inuit or historic Inuit occupation. The lack of evidence for Pre-Inuit occupation was not unexpected and the scarcity of evidence for Maritime Archaic settlement was also potentially explicable; the scarcity of Late Precontact sites, however, was not a predicted result.
- Precontact sites in the Churchill Valley were found to be strongly clustered, particularly within and downstream of the Muskrat Falls Study Area (Figure 2-1). Significant site clusters were found at approximately 25-30km intervals at Happy Valley, Muskrat Falls, Sandy Banks (midway between Muskrat Falls and Gull Lake), and at Gull Lake/Gull Rapids. Upstream of Gull Rapids, precontact sites were less frequent and not obviously clustered. The spacing of these site clusters suggested that these site clusters represented travel stops, and the association of the Muskrat Falls cluster with a forced portage appeared to be consistent with this interpretation. While the results offer support for the notion that the Churchill River served as a travel route in antiquity, there are also indications that settlement along the river was not confined to travel stops. Gull Lake yielded evidence for a particularly large cluster of particularly large precontact sites, and the area was identified in Innu Nation land use data as a harvesting area for fish, small game, furbearers and migratory waterfowl (Armitage 1990); consequently, this site cluster, at least, may have seen prolonged seasonal settlement and resource harvesting, particularly in the spring and fall. In this regard it is noteworthy that above Muskrat Falls itself, all but four precontact sites recorded are situated on the north shore of the Churchill River, sheltered to the north and east.
- Historic archaeological sites included sites of three distinct types: historic HBC posts; historic Innu (or in some cases, possibly Settler) campsites; and historic Settler trapping tilts and cabins. Background research commencing in 1998 identified three HBC posts along the Churchill River, all outposts of the North West River Post: Sandy Banks, Gull Island, and Winokapau. Both Sandy Banks and Winokapau were identified during Stage 2 assessment. Sandy Banks, which was operated between approximately 1836 and 1876, is located within the Muskrat Falls Study Area. Historic Innu campsites clearly predating the middle of the 20th century have been identified in the Churchill Valley, but the sample is relatively small, in contrast with the results of archaeological surveys in north-central Labrador (e.g., Loring 1992), where numerous historic Innu campsites have been recorded, and where such sites may often be both large and conspicuous. It is hypothesized that sites of this period have a much lower level of archaeological visibility in the forested interior than they do in the more sparsely-forested north (for a more detailed discussion of this issue, see JWEL/IELP 2001d). Historic tilts associated with



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Settler trapping activities since at least the 1890s have been identified along the Churchill River, including the Muskrat Falls Study Area. Ethnohistoric evidence and information from local informants in most cases allow these to be linked with specific individual trappers or trapper families.

- Large numbers of contemporary sites were recorded, including traps, campsites, tilts, cabins, and locations of industrial activity. As noted, sites less than 50 years old were not subject to Stage 3 recovery, although the length of the assessment process (nearly 20 years between 1998 and 2017) meant that in a few instances, sites originally recorded as contemporary were subsequently registered as archaeological sites during the Stage 3 recovery process.



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2.0 STAGE 3 RECOVERY 2012-2017: OVERVIEW AND METHODOLOGY

Stage 3 recovery methods employed on archaeological sites during the Historic Resources Management Program between 2012 and 2017 varied according to the nature of the sites and the remains encountered, and to some extent evolved over the course of the program. In addition, Stage 1 and Stage 2 assessment work continued alongside the recovery efforts, along with artifact processing and conservation, and reporting.

It should be noted that in the province of Newfoundland and Labrador, archaeological sites (defined as physical evidence of land use more than 50 years old) are recorded, inventoried and assigned numbers under the Borden System (the Canadian registry for archaeological materials) in accordance with the provincial Historic Resources Act (1985). As well, under current regulatory policy for Labrador, all material evidence of contemporary land use (defined as land use occurring within the past 50 years) is recorded, inventoried and assigned ethnographic numbers. Contemporary sites can include, for example, remains of campsites or tilts (*i.e.*, small, rough-constructed cabins), or other physical evidence of hunting, fishing or trapping. Moreover, if distinct 'cultural indicators' are present, such as the manner in which a tent and/or stove was set or the type of trap used for harvesting a particular species, it is sometimes possible to determine the cultural affiliation of the find. A detailed recording of contemporary sites has value not only because such materials can serve as proxy indicators of archaeological potential, but because physical evidence of land use within the past 50 years, used in conjunction with written and/or oral information, can broaden a picture of land use patterns and activities within a region.

Though recorded by the PAO, contemporary sites are not assigned numbers under the Borden System, are not classified as archaeological sites, and are not normally the subject of Stage 3 recovery work. However, contemporary sites are inventoried in a database for ethnographic remains compiled by the PAO.

2.1 Overview of Recovery Effort

Stage 3 recovery work for the Lower Churchill Project (Tables 2.1, 2.2, Figure 2-1) began in 2012 when Nalcor Energy (Nalcor) commenced construction of Early Works infrastructure associated with hydro development for power generation at Muskrat Falls. By the beginning of the 2012 field research season, 34 archaeological sites had been inventoried along the Churchill River within the Muskrat Falls Study Area (six of them originally recorded as ethnographic sites but subsequently assigned Borden numbers by the Provincial Archaeology Office). Eleven of these were located at Muskrat Falls itself. Completion of Stage 2 assessment on the south side of Muskrat Falls in 2012 brought the total number of known precontact sites on the south side of Muskrat Falls to 25 (two of which were located below the falls, outside the proposed development area). Stage 3 recovery work in 2012 focused on the Systematic Data Recovery (SDR; see below) at 15 of these precontact sites situated within the area of bulk excavation for the generating station, scheduled for the fall and winter of 2012-2013.



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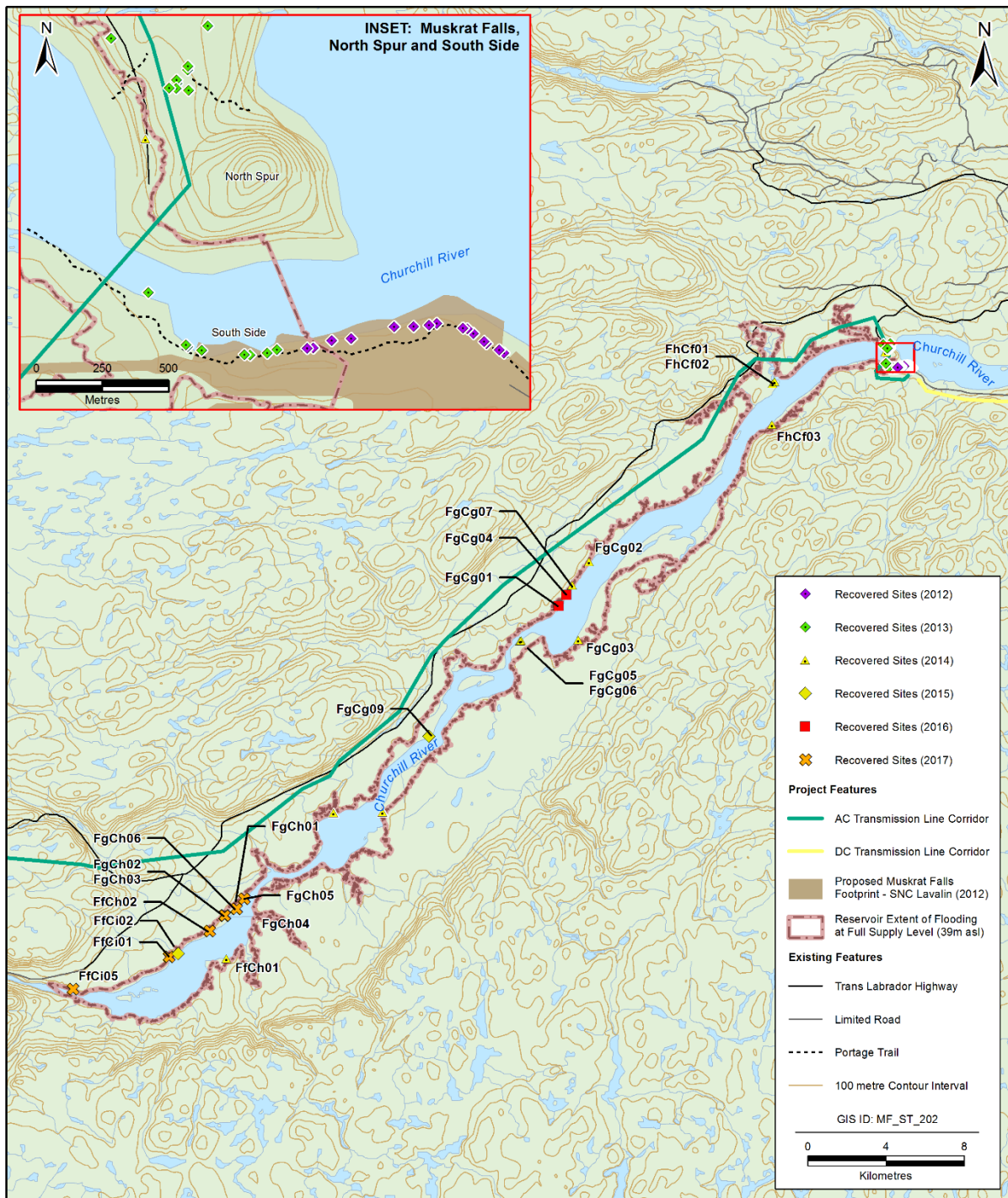


Figure 2-1 Churchill Valley Historic Resources Management Program, 2012-2017

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Table 2.1 Overview of Stage 3 Recovery Activities for the LCP (2012-2017).

Year	Component(s) Recovered	Permit Number	Reference
2012	Muskrat Falls (South Side)	12.31	Stantec 2014a
2013	Muskrat Falls (North Spur)	13.29	Stantec 2014b
	Muskrat Falls (South Side)	13.35	Stantec 2014b
2014	Muskrat Falls Reservoir	14.39	Stantec 2015a
2015	Muskrat Falls Reservoir	15.09	Stantec 2016
2016	Muskrat Falls Reservoir	16.09	Stantec 2017
2017	Muskrat Falls Reservoir	17.15	Stantec 2018

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Table 2.2 Archaeological Sites Recovered for the LCP (2012-2017).

Borden Number	Year First Reported	Location	Site Type/Component(s) Present	Year Recovered	Recovery Method	Remarks
FfCh-01	1980	Muskrat Reservoir, Gull Lake Area	Historic Tilt	2014	AFR	
FfCh-02	2006	Muskrat Reservoir, Gull Lake Area	Precontact	2017	SDR	
FfCi-01	1998	Muskrat Reservoir, Gull Lake Area	Precontact	2017	SDR	
FfCi-02	1998	Muskrat Reservoir, Gull Lake Area	Precontact, Historic Campsite	2015	SDR	
FfCi-05	2000	Muskrat Reservoir, Gull Rapids Area	Precontact	2017	SDR	
FgCg-01	1998	Muskrat Reservoir, Sandy Banks Area	Precontact, Historic HBC Post, Historic Tilt	2014-2016	SDR	
FgCg-02	2006	Muskrat Reservoir, Sandy Banks Area	Precontact	2014	SDR	
FgCg-03	2006	Muskrat Reservoir, Sandy Banks Area	Precontact	2014	SDR	
FgCg-04	2006	Muskrat Reservoir, Sandy Banks Area	Historic Tilt	2016	SDR	
FgCg-05	2006	Muskrat Reservoir, Sandy Banks Area	Precontact	2014	SDR	
FgCg-06	2006	Muskrat Reservoir, Sandy Banks Area	Precontact	2014	SDR	
FgCg-07	2006	Muskrat Reservoir, Sandy Banks Area	Historic Midden	2014	AFR	originally recorded as an Ethno site
FgCg-08	1980	Muskrat Reservoir, Sandy Banks Area	Historic Tilt	2014-2016	AFR	originally recorded as an Ethno site, Re-designated FgCg-08, then finally re-designated FgCg-01 Locus C
FgCg-09	1980	Muskrat Reservoir	Historic Tilts	2015		not relocated at reported coordinates
FgCh-01	1998	Muskrat Reservoir, Gull Lake Area	Precontact	2017	SDR	
FgCh-02	2000	Muskrat Reservoir, Gull Lake Area	Precontact	2017	SDR	
FgCh-03	2000	Muskrat Reservoir, Gull Lake Area	Precontact	2017	SDR	
FgCh-04	2006	Muskrat Reservoir, Gull Lake Area	Precontact	2014		not relocated, presumed deflated by erosion
FgCh-05	2006	Muskrat Reservoir, Gull Lake Area	Precontact	2017	SDR	
FgCh-06	2006	Muskrat Reservoir, Gull Lake Area	Potential Historic Campsite	2017	Stage 2 Assessment	originally recorded as an Ethno site; redesignated FgCh-06, then subsequently determined to be Contemporary
FhCe-01	1971	Muskrat Falls (North Spur)	Precontact	1979	SDR	
FhCe-02	1998	Muskrat Falls (South Side)	Precontact, Historic	2012	Stage 2 Assessment	Determined to be deflated by erosion
FhCe-03	n/a	Muskrat Falls (South Side)	Historic Portage Trail	2012	AFR	Site registered as distinct site by PAO in 2010
FhCe-04	2010	Muskrat Falls (South Side)	Precontact	2013	SDR	coordinates indicate pertains to FhCe-32 or FhCe-33
FhCe-05	2010	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-06	2010	Muskrat Falls (North Spur)	Precontact	2010-2012	Stage 2 Assessment	Determined to be deflated from the terrace above
FhCe-07	2011	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-08	1980	Muskrat Falls (North Spur)	Historic Portage Trail	2012-2013	SDR	Site registered as distinct site by PAO in 2012
FhCe-09	1980	Muskrat Falls (South Side)	Precontact	2012-2013		No precise location, presumably corresponds to one of the sites recovered in 2012-2013
FhCe-10	1980	Muskrat Falls (South Side)	Precontact	2012-2013		No precise location, presumably corresponds to one of the sites recovered in 2012-2013



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Borden Number	Year First Reported	Location	Site Type/Component(s) Present	Year Recovered	Recovery Method	Remarks
FhCe-11	1980	Muskrat Falls (North Spur)	Historic/Contemporary Cabin	2014	AFR	
FhCe-15	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-16	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-17	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-18	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-19	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-20	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-21	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-22	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-23	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-24	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-25	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-26	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-27	2012	Muskrat Falls (South Side)	Precontact	2012	SDR	
FhCe-28	2012	Muskrat Falls (South Side)	Precontact	2013	SDR	
FhCe-29	2012	Muskrat Falls (South Side)	Precontact	2013	SDR	
FhCe-30	2012	Muskrat Falls (South Side)	Precontact	2013	SDR	
FhCe-31	2012	Muskrat Falls (South Side)	Precontact	2013	SDR	
FhCe-32	2012	Muskrat Falls (South Side)	Precontact	2013	SDR	
FhCe-33	2012	Muskrat Falls (South Side)	Precontact	2013	SDR	
FhCe-34	2012	Muskrat Falls (South Side)	Precontact	2013	SDR	
FhCe-35	2012	Muskrat Falls (South Side)	Precontact	2013	SDR	
FhCe-36	2013	Muskrat Falls (North Spur)	Historic Campsite, Precontact	2013	SDR	
FhCe-37	2013	Muskrat Falls (North Spur)	Precontact, Historic	2013	SDR	
FhCe-38	2013	Muskrat Falls (North Spur)	Potentially Historic	2013	SDR	determined to be contemporary
FhCe-39	2013	Muskrat Falls (North Spur)	Precontact	2013	SDR	
FhCe-40	2013	Muskrat Falls (North Spur)	Precontact, Historic	2013	SDR	
FhCe-41	2013	Muskrat Falls (North Spur)	Precontact	2013	SDR	
FhCe-42	2013	Muskrat Falls (North Spur)	Precontact	2013	SDR	
FhCe-43	2013	Muskrat Falls (North Spur)	Precontact	2013	SDR	
FhCe-44	2013	Muskrat Falls (North Spur)	Precontact	2013	SDR	
FhCf-01	1980	Muskrat Falls Reservoir, Lower Brook area	Historic Tilt	2014	AFR	originally recorded as an Ethno site
FhCf-02	1980/1998	Muskrat Falls Reservoir, Lower Brook area	Historic Cabin	2014	AFR	originally recorded as an Ethno site
FhCf-03	2006	Muskrat Falls Reservoir, Lower Brook area	Historic	2014	SDR	originally recorded as an Ethno site



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Continuation of Stage 3 recovery in 2013 included SDR at the remaining eight precontact sites along the south side of the falls. In addition, completion of Stage 2 assessment on the North Spur of Muskrat Falls led to the recording of nine new sites in addition to the four previously recorded. All nine of the newly inventoried sites were recovered by means of SDR in 2013.

In 2014, Stage 3 recovery efforts turned to the proposed reservoir area upstream of Muskrat Falls itself. Stage 3 recovery in 2014 was particularly focused on the cluster of sites near Sandy Banks, midway between Muskrat Falls and Gull Lake. Five sites were recovered by SDR and SDR commenced at a sixth, the very large multi-component precontact and historic site at Sandy Banks (FgCg-01). In addition, nine historic sites along the Muskrat Falls reservoir were recovered by means of Alternative Field Recording (AFR; see below).

In 2015, SDR recovery work focused on the two largest sites inventoried within the Study Area: recovery work (SDR) continued at FgCg-01 and was completed at another large multi-component site, FfCi-02 on Gull Lake.

Recovery work in 2016 was entirely focused on the Sandy Banks area, with the completion of SDR at FgCg-01 (at Locus D, the HBC component at the site) and at a smaller historic site nearby (FgCg-04).

Finally, recovery work concluded in 2017 with the excavation of the remaining seven sites situated at the southwestern end of the reservoir area in the Gull Lake-Gull Rapids area.

2.2 Methodology

The Historic Resources Management Program between 2012 and 2017 involved multiple phases of assessment and recovery activities, including:

- Stage 1 Assessment (documentary and archival background research);
- Stage 2 Assessment (field testing to locate or delineate archaeological sites);
- Stage 3 Recovery (Systematic Data Recovery);
- Stage 3 Recovery (Alternative Field Recording); and
- Artifact Processing and Conservation.

The methodologies employed in each phase are summarized below.

2.2.1 Stage 1 Assessment

Stage 1 background research was broad in scope and encompassed a defined "Study Area", which included all of Labrador south of the Fraser River and extended to include portions of adjacent Quebec. Stage 1 assessment included research on primary archival sources and archaeological site inventory data, as well as review of archaeological, historical and ethnohistorical and ethnographic literature.



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The majority of the Stage 1 research was undertaken between 1998 and 2001 in support of Stage 2 assessment and focused on predicting archaeological site locations and archaeological potential in order to identify suitable testing locations for Stage 2 field testing (see IED/JWEL 2000; JWEL/IELP 2001d).

Background research in support of Stage 2 assessment included:

- reviewing previous archaeological work within the Study Area and adjacent Quebec (e.g., MacLeod 1967, 1968; Fitzhugh 1972; McGhee and Tuck 1975; Nagle 1978; Samson 1975; Denton 1989; Nolin 1989; McCaffrey 1989; Loring 1992; Pintal 1998) , including analysis of the site inventories for Labrador and adjacent Quebec to determine site location criteria;
- reviewing archival and documentary sources (principally the HBC journals for North West River post), but also including explorers' accounts (e.g., Low 1896);
- reviewing existing ethnographic, historic and ethnohistoric literature (e.g., Mailhot 1997; Anick 1976; Armitage 1990; Kennedy 1995; V. Tanner 1947; A. Tanner 1977; Zimmerly 1975);
- reviewing contemporary and historic land use, principally Innu land use data, previously compiled and digitized by Innu Nation and made available to the study team under license. These data were based on informant interviews and primarily attest to recent land use activities occurring over the past 10-70 years. The methodology consisted of deriving browser and graphical outputs on documented land use features, such as campsites and travel routes, and making these available to the field research teams to ground check and to investigate for possible earlier archaeological components;
- conducting informant interviews to the extent agreed upon by local stakeholder groups; and
- analyzing geomorphological literature (e.g., Clark and Fitzhugh 1992; JWEL 2000) and Project air photo coverage.

Stage 1 background research subsequently undertaken during Stage 3 recovery between 2012 and 2017 was more limited and focused on specific research questions arising from Stage 3 recovery results. Ongoing background research (Figure 2-2) included:

- updating the review of archaeological literature to incorporate new archaeological data from elsewhere in Labrador, including Sheshatshiu (Neilsen 2010, 2011, 2017), and Kamistastin (Loring 2001; Loring and Jenkinson 2009; Jenkinson 2011; Jenkinson and Loring 2012; Arbour, Jenkinson and Loring 2013);
- detailed comparative review of previous literature to assist in the interpretation of Stage 3 recovery results (e.g., Madden 1976; Pintal 1998; Denton 1989; Nolin 1989; Loring 1992; Nagle 1978);



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- review of archaeological literature bearing on precontact ceramics in Labrador and elsewhere in the far northeast (e.g., Stapelfeldt 2013; Loring 2013; Petersen and Sanger 1991, Bourgeois 1999);
- continued review of the HBC journals and correspondence for North West River Post, particularly to clarify questions of supply and construction techniques; and
- review of historic, ethnohistoric and ethnographic sources pertaining to the 19th and 20th century history of Settler trapping along the Churchill River (e.g., V. Tanner 1947; Fitzhugh 1999; Zimmerly 1975; Merrick 1933; Plaice 2002; Cotter 1922; Them Days 2013).



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Figure 2-2 Archaeological Sites and Research Areas Reviewed During Background Research (Stantec 2014a)



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2.2.2 Stage 2 Assessment

The majority of the Stage 2 assessment was undertaken between 1998 and 2006 and was aimed at sampling a variety of landforms and elevations and compiling an inventory of archaeological (and ethnographic) sites within the Study Area. The basic methodology involved pre-selecting testing locations based on predicted site location criteria, land use data and aerial photograph analysis, and then targeting these testing locations with intensive subsurface shovel-testing (see IED/JWEL 2000; JWEL/IELP 2001d).

Field survey teams of 3-4 individuals were deployed to these preselected testing zones, generally by helicopter. The zones were surveyed by surface inspection and/or subsurface testing; in the forested interior, where precontact and historic site visibility is extremely low, visual inspection was less commonly employed on its own, although contemporary sites were often identified on the basis of surface-visible remains, and surface exposures such as eroding banks and tree-throws were inspected for cultural materials.

Subsurface testing programs were generally conducted along linear features, such as riverbanks and terrace edges. The objective of subsurface testing was to test areas lacking surface exposures by sampling subsurface deposits at close and regular intervals, to a depth of several centimeters below the A horizon, below which no cultural remains were anticipated. This rarely required test excavation more than 30cm below the surface, and in most instances testing required depths of no more than 20cm below surface. Test pits were excavated in 1-3 rows along linear features, at 5-10m intervals according to the degree of forest cover. Testing at close and regular intervals was easiest in open lichen woodland or in burnt-over areas. In denser forest, test pit spacing was somewhat wider and less regular. Test pits consisted of 20cm to 30cm square shovel-tests, excavated by shovel and trowel through the illuviated A Horizon (if present) and into the B Horizon (generally 20-30cm below surface). Subsurface cultural material, if present, was normally encountered on the top of the A Horizon. When cultural remains were encountered, a record was made of the unit profile and the nature of deposits and, rarely, the initial, positive unit was expanded to 50cm x 50cm. Otherwise, additional test pits were excavated at 5-10m intervals around the first positive test pit in order to define site size. The testing strategy was by intent a "low-impact" one, aimed at excavating the minimum required to identify, date and define site deposits. The approach used was suitable for identifying multiple-locus sites, but not necessarily for identifying all the loci present. It should also be noted that subsequent recovery work indicated that this "low-impact" testing approach tended to underestimate the horizontal extent of cultural remains at most sites. It did, however, leave the sites virtually undisturbed for later recovery.

Testing zone locations were recorded using the GPS units, while observations and survey activities were recorded and photographed. Cultural remains encountered during the course of the survey were recorded, photographed and/or sketched. Recorded site positions were marked on the ground using plastic markers supplied by the LCP and/or by flagging in the surrounding area, to facilitate relocation. It should be noted that site markings on sites recorded in 2006 often survived

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and were visible in 2012-2017. Site markings rarely survived on sites marked in 2000 or earlier, and additional testing was generally required to relocate these sites.

Stage 2 assessment undertaken concurrently with the Stage 3 recovery program between 2012 and 2017 followed a similar general methodology. For example, subsurface testing along the south side of Muskrat Falls was focused on high-potential linear features (the edges of the first terrace overlooking the falls and the less clearly-defined terraces rising behind it), and the approach was identical to that followed in previous years. However, methods varied in some instances since the primary objective of Stage 2 assessment at this point was generally to relocate, further delineate, or characterize sites that had already been identified. Subsurface testing at known sites was generally not linear in scope but focused on specific coordinates. In addition, in two instances metal detector surveys were undertaken; one was at FgCh-06, where a Schonstedt GA-52Cx magnetic locator was employed to identify metallic anomalies which were then shovel-tested to determine whether cultural materials at that site were contemporary or historic. The second case was at FgCg-01 Locus D, where metal detector surveys were employed to assist in determining the horizontal extent of excavations required at the historic HBC component at the site.

2.2.3 Stage 3 Recovery (Systematic Data Recovery)

The principal element of the Historic Resources Management Program between 2012 and 2017 was the Stage 3 Recovery of 48 precontact and historic archaeological sites by means of Systematic Data Recovery (SDR). This consisted of controlled archaeological excavation. Recovery of archaeological sites by excavation was completed by teams of 4-5 field technicians, each team supervised by a qualified archaeologist. Recovery teams were deployed to their worksites by helicopter, and in some instances, by truck. In general, smaller sites were excavated by single teams, while larger sites were excavated by 2-5 teams. Excavations consisted of 2m x 2m units, separated by 20cm-wide baulks (*i.e.*, unexcavated portions of units) and excavated by both natural and cultural layers. This pattern of excavation allowed sufficient areas to be uncovered so that spatial patterns could be discerned, while the continuous baulks enabled 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 of anticipated simple stratigraphy.

The first phase of Stage 3 SDR consisted of manual tree-felling to clear the sites of vegetation. Although reservoir preparation activities (mechanical tree-felling) had already commenced within the Muskrat Falls reservoir area, 50m buffer zones had been defined around these known sites and, within these buffers, the natural vegetation had been left standing. Prior to excavation, sites scheduled for Stage 3 SDR were revisited, relocated, and perimeter-marked. Trees and brush present within the excavation areas were manually felled using chainsaws, and then stacked or discarded in accordance with Project protocols and with the provisions of the cutting and operating permits. Manual tree-felling was also employed to create or enlarge helicopter landing



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pads to provide site access. Tree-felling teams included two wilderness first-aiders per chainsaw operator, and all required emergency firefighting equipment. Cutting and clearing proceeded in alternating shifts to ensure that clearing personnel did not operate in proximity to cutting personnel. For further cutting during the excavation process, battery- and generator-powered reciprocating saws, as well as hand saws and shears, were employed during the excavation process to remove roots and stumps.

Site clearing was followed by laying out the site grid. All excavation units were excavated by trowel to sterile. Sediments were screened during excavation, using ¼" (6.35mm) mesh. Point provenience was recorded in three dimensions for all lithic artifacts, including debitage, and also for bone, soil, and the charcoal samples retrieved for subsequent carbon dating. Soil samples were treated as artifacts and collected in large zip-closure bags with provenience labels. Optically-Stimulated Luminescence (OSL) samples (from FgCg-01 Locus B) were collected by driving opaque plastic pipe couplings into profile sidewalls and sealing the ends with duct tape. In one case (Feature 6, the privy at FgCg-01 Locus D) it proved necessary to recover fragile materials (textiles embedded in a clay matrix) by means of a block-lift. In this instance, the clay deposit was pedestalled and isolated, then undercut with sheet metal and stabilized with cling-wrap. The stabilized block was put inside a helicopter and flown to Goose Bay, then to St. John's for controlled excavation. In St. John's, the delicate textiles were removed from the clay matrix, and in addition, the clay matrix was subjected to froth flotation for recovery of palaeo-botanical and micro-faunal remains. Block-lifting was also employed for recovery of fragile artifacts, as at FfCi-02 Locus D, where two sand deposits containing fragile artifacts (soft-paste grit-tempered ceramics) were pedestalled and isolated with plastic, then undercut with sheet metal and stabilized with a layer of plaster-impregnated gauze and then with expanding polyurethane foam poured into a cardboard form. The stabilized blocks were put inside a helicopter and flown to Goose Bay for controlled excavation in the artifact processing area of the Stantec office in Goose Bay. The pH of soils at three sites was tested to support treatment of organic materials, and chloride levels in metal objects from one site were tested to determine the scope of treatment required for iron artifacts. The results of this testing indicated the presence of mildly acidic soils, and of relatively low chloride levels in the metal objects; nevertheless, metallic artifacts were kept wet whenever possible.

Between 2012 and 2015, provenience recording at the majority of sites and site loci was achieved with tapes and line levels. In 2014 a surveyor's level was employed to record depth below datum at one site (FgCg-01 Locus A and B), and from 2015 to 2017, point provenience was recorded using total stations. At FgCg-01 Locus D (the historic HBC post site), where complex anthropogenic stratigraphy was present, vertical provenience of artifacts was recorded by Event and Lot. Vertical provenience on other less-complex sites was recorded by assignment to a simple sequence of natural and cultural stratigraphic levels. Additional recording methods included field notes and a digital photographic record of the excavation, features and soil profiles. Excavation areas and cultural features were mapped, either on paper, or by total station, or by a combination of both methods, and representative baulks and sidewall profiles were drawn at a scale of 1:10. Site plans and artifact distributions were initially prepared graphically (in 2012) but beginning in 2013, artifact



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proveniences based on site grid coordinates were converted to UTM coordinates and site plans were prepared in GIS software. Sites and cultural materials were catalogued on PAO-compliant digital site and artifact record forms. Excavation control points were recorded by professional surveyors using high-precision GPS with < 5cm accuracy.

Progress reports summarizing key findings were submitted to Nalcor and the PAO on a weekly basis over the course of each field season, and an annual report was prepared and submitted for each year of the Historic Resources Management Program.

2.2.4 Stage 3 AFR

Historic tilts, middens, portage trails, and cabin sites (eight sites in all) were mitigated by means of data recovery and mitigation approaches applicable to sites that have no or few subsurface remains. These approaches included photographic and video recording, as well as documentation of surface-visible site artifacts and limited collection of significant objects.

2.2.5 Artifact Processing and Conservation

Most stages of artifact processing were undertaken at the Stantec offices in Goose Bay or in St. John's. The large collections of historic artifacts that were recovered from FgCg-01 Locus D and FgCg-04 in 2016 and that required stabilization were catalogued and conserved at the Rooms Museum Conservation Lab in St. John's with additional assistance from Memorial University's Archaeology Conservation Lab in St. John's.

The artifact processing methods were designed by the Project Conservator, who also laid out suitable work and storage spaces and designed a Project-specific artifact specimen record form. Artifacts were returned from the field daily in rigid containers, sorted by raw material, counted, catalogued, and, in the case of lithic debitage, were placed in labelled Ziploc bags. Finished artifacts were placed in rigid plastic boxes, with foam support as required. Lithic materials were not wet-washed. One full-time cataloguer, trained by the Project Conservator, served as cataloguing and artifact processing team lead concurrently with excavation, supported by two assistants. The cataloguing and artifact processing team lead was solely responsible for assigning accession numbers during the cataloguing process.

Conservation planning envisioned a continuous process from artifact intake from the field to the processing facilities where prioritization of collections activities would be made between those artifacts requiring remedial or specialized treatment (High priority), and those considered stable (Lower priority). Those requiring remedial or specialized treatment were to be addressed first; stabilized, catalogued, provided support and specialized enclosures, packed and sent to St. John's immediately for treatment. Following this, activities were to be directed at continuing the collections requirements for stable artifacts; basic cleaning, labelling, cataloguing, data entry, monitoring, and eventual packing for shipment.

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Each year, the catalogued collection was then reviewed by the Project archaeologists in order to:

- ensure correct attribution of raw material types;
- correct any Type 1 errors (debitage incorrectly identified as tools);
- correct any Type 2 errors (tools incorrectly identified asdebitage);
- correct any provenience errors;
- write detailed artifact descriptions for finished artifacts; and
- photograph artifacts for the annual report.

In 2014, in anticipation of recovery of substantial and fragile historic artifact collections, one artifact processing specialist and two field team leads received a two-day training course in field stabilization, block-lifting, and conservation of artifacts delivered by the Canadian Conservation Institute, and an artifact processing orientation delivered by the Project Conservator.

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3.0 INTERPRETATION OF RESULTS: PRECONTACT PERIOD

The majority of the sites recovered between 2012 and 2017 in the Muskrat Falls Study Area pertain to the precontact period. (The period of Indigenous occupation in Newfoundland and Labrador that occurred before significant contact with Europeans at approximately 500 years BP.) In all, 50 of the sites recovered during this program date to the precontact period or contain precontact components (plus one additional site recovered in 1979: Tuck 1981). As noted, precontact sites within the Study Area are highly clustered, with 31 sites recovered between 2012 and 2013 at Muskrat Falls, (23 on the south side and 8 on the North Spur), 5 at Sandy Banks, and 9 on Gull Lake/Gull Rapids. No precontact sites have been identified between these clusters. In the following summary, the results of recovery of precontact sites is organized and presented by cluster, following a review of the regional precontact archaeological sequence.

3.1 The Regional Precontact Archaeological Sequence

The archaeological sequence for south-central Labrador was initially developed by William Fitzhugh based on his extensive research at North West River and elsewhere in Hamilton Inlet in the late 1960s (Fitzhugh 1972, 1974, 1975, 1977, 1978a, 1978b). This sequence provided the basic culture historical and culture-processual framework for all subsequent archaeological work in Labrador north of the Strait of Belle Isle. As most of the research subsequently undertaken by Fitzhugh and his associates has focused on coastal regions to the north, this remains the definitive sequence for south-central Labrador. Fitzhugh located and excavated sites in many locations in Hamilton Inlet along a lengthy east-west transect stretching from the coast at Groswater Bay to the interior at North West River, and recorded evidence for significant differences in the occupation histories of Groswater Bay and North West River. Various sites in Groswater Bay showed evidence for a lengthy occupation by coastal-adapted Maritime Archaic (Amerindian), Pre-Inuit, and Inuit cultures. North West River, on the other hand, had a briefer sequence composed entirely of Amerindian occupations. Some of these groups exploited coastal resources to some degree, but others seemed to be restricted to interior fishing and hunting activities.

3.1.1 South-Central Labrador

3.1.1.1 Maritime Archaic

The earliest well-defined human occupation in Hamilton Inlet was not actually represented at North West River. Maritime Archaic sites were identified only at the eastern end of Hamilton Inlet, on the northern shore of Groswater Bay. Although Maritime Archaic sites were not identified in the vicinity of North West River, models of Maritime Archaic subsistence settlement systems include hypothesized inner bay settlement in the autumn, and interior hunting camps in winter. Subsequently, a late Archaic projectile point was recovered near Mud Lake during assessment for the LCP in 1998 (IED/JWEL 2000), and more recently, sites potentially of Maritime Archaic date have been identified at high elevations in the community of Sheshatshiu (Schwarz 2004a, 2014b;



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Jenkinson 2017, 2018), but evidence for Archaic occupation in upper Lake Melville remains extremely sparse.

3.1.1.2 Intermediate Period

The subsequent Intermediate Period in Labrador (ca. 3,500 to 2,000 BP) was originally defined on the basis of sites identified around the present community of North West River at the western end of Hamilton Inlet. The North West River sites are situated at elevations of up to 78' above sea level (Fitzhugh 1972: 31) and are widely distributed throughout the modern community of North West River. Many of these sites were already disturbed at the time of Fitzhugh's study, and many have been further disturbed or destroyed by construction and road-building. These sites exhibited a wide variety of artifact styles and raw material types, leading Fitzhugh to postulate a series of discrete, sequential discontinuous occupations, punctuated by periodic abandonments and re-occupations of the region. Thus, the prehistory of the Labrador interior is interpreted as a series of repeated waves of Indian hunting cultures, each migrating into the area from the south or west, and each ending in extinction due to unstable and fluctuating resources (particularly caribou populations; Fitzhugh 1972; 1977).

The earliest occupation recognized at North West River is the Little Lake Component (3,600-3,200 BP), represented by a small collection of quartzite, quartz and purple chert tools found at a site 68' (~21 m) asl. The assemblage includes a projectile point similar to late Archaic styles in New England and the Maritimes. The date of the Little Lake Component is derived from the site's elevation, and from the style of the one projectile point. A similar point has also been found on the northern Labrador coast (Fitzhugh 1972: 75, 115, 163).

This component is followed by sites of the Brinex Complex (3,200-3,000 BP), found at elevations of 21-24m, and the Charles Complex (3,000-2,700 BP) at elevations of 13-18m (Fitzhugh 1972: 114-115). As a result of subsequent work on the coast (Nagle 1978), the dating of these closely-related complexes has been modified, and the two have been collapsed into a single unit, the Saunders Complex (3,500-2,800 BP), although this scheme appears too simple to encompass the complexity of the North West River collections. While structural remains had been rare at North West River, the central coast sites excavated in later years were larger and better-preserved. Sites of the Saunders Complex are characterized by hearth features composed of large cobbles, measuring 1-2m in diameter, sometimes with large quantities of charcoal. Artifacts of this period are made of a variety of materials, including local red and white quartzites and quartz, and "Saunders Cherts:" colourful pink, tan, purple and red cherts originally thought to derive from sources in the Seal Lake region; their source is presently unknown, but their distribution in Labrador archaeological sites suggests a source area in the north-central Labrador interior. The blue-grey "banded lava" associated with the North West River sites, and particularly with the Charles Complex, is not commonly encountered on the coast. Artifacts include side-notched, convex-based points, along with convex-based, squared, single-shouldered and triangular bifaces. Scraper forms include small endscrapers, and, toward the end of the period, distinctive large circular and oval scrapers. The large scrapers, and the use of Saunders Cherts are highly diagnostic, however, it must be



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noted that diagnostic finished artifacts are scarce on many sites, and without the distinctive patterns of raw material use it would be difficult to confidently assign sites to this period. As will become clear, this is commonly the case with interior sites, particularly in the Intermediate Period.

The Saunders Complex is documented at numerous sites; while their use of interior cherts implies a significant interior adaptation, many of their sites are found on the coast as well.

More recently, archaeological work in the North West River area has extended to the community of Sheshatshiu, revealing rich archaeological resources on this side of the river as well (Schwarz 2004a, 2004b; Neilsen 2010, 2011, 2013). As at North West River, these are found on former marine terraces, at elevations of 14m to 38m asl. Excavations at the very large site FjCa-51 in recent years (Neilsen 2010, 2011, 2013) have revealed a variety of hearth, mound and pit features, associated with debitage and artifacts of quartzite, with some fine cherts and rhyolite. Raw materials are occasionally discontinuously-distributed, as in the case of the discrete rhyolite and grey chert concentration recorded at one location (Neilsen 2010). Finished artifacts recovered during this work include some wide-side-notched projectile points (Neilsen 2010, 2013). As was apparent when the site was first reported (Schwarz 2004a, 2004b), the site appears to be a palimpsest of habitation areas, rendering interpretation difficult in some respects.

Further south in the town of Happy Valley – Goose Bay, two of the cluster of Intermediate Period sites identified during the 1998 assessment for the Lower Churchill Project (IED/JWEL 2000) have since been excavated, and another small precontact site recorded. Ushpitun (FhCb-04) proved to be a relatively small Intermediate-period site; cultural material recovered at this site included a debitage and artifact assemblage dominated primarily by multi-coloured cherts, particularly a pale pink Saunders chert. This was associated with an elongated pit interpreted as a pit-oven, and a radiocarbon date of 2810 ± 70 BP. The other excavated site, FhCc-01, at higher elevation, is inferred to be somewhat older. The assemblage consisted almost entirely of quartzites, especially red quartzite, with little rhyolite or chert. No specific features were identified at the site (Neilsen 2005a, 2005b, 2006).

Unlike the Brinex and Charles complexes, represented at numerous sites, the Road Component (2,700-2,300 BP) is known only from a single site, situated at 13m above sea level at North West River, and dated on the basis of elevation and typological parallels (Fitzhugh 1972: 115). Artifacts include side-notched, square-based points and thick, narrow flake scrapers. These are made from a variety of materials, including quartz, quartzite, chert, and also Ramah, known to derive from a single source on the northern coast of Labrador. The absence of coastal sites is thought to be related to the arrival of Pre-Inuit groups on the coast of central Labrador, though the use of Ramah implies at least trading contacts with the coast (Fitzhugh 1972: 115, 163). The David Michelin Component (2,300-1,800 BP) is also known from a single site at North West River (Fitzhugh 1972: 115), its date estimated from the site's elevation (9m). Artifacts from this site include wide-stemmed and tapered-stem points, large ovate bifaces, and flake scrapers. The range of raw materials used is similar to that of the Road Component.



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The final portion of the Intermediate Indian period is the North West River Phase (Fitzhugh 1972: 115-116), dated to the period 1,800-1,400 BP on the basis of site elevations between seven and eleven meters. Though it too was identified only at North West River, the sites there were both large and numerous. The artifact assemblage is characterized by highly variable lanceolate, leaf-shaped, bi-pointed and tapered-stem bifaces, and flake tools. These are almost exclusively manufactured of locally-available white-brown quartzite. Site features include cobble hearths.

Subsequently, a coastal site of the North West River Phase was identified at Flowers Bay-1, near Davis Inlet, though the reasons for including it in this phase are not clear (Loring 1983). This latter site yielded a radiocarbon date of 2520±65 BP (SI-5832), raising the possibility that the North West River Phase may follow fairly closely after the Saunders Complex (Loring 1989b). At Daniel Rattle, recovery of a cache of Saunders chert scrapers in Charles Complex style, with an unusual corner-notched biface resembling those from Early and Middle Woodland mortuary contexts in the Maritimes and the St. Lawrence valley (Loring 1989) raises further questions about the Intermediate sequence in central Labrador.

Thus, North West River has produced a lengthy sequence of Intermediate-period Precontact occupations which may aid in locating and classifying archaeological remains in the central Labrador interior. However, certain of the periods of occupation proposed by Fitzhugh, such as the Little Lake, Road, and David Michelin components, are based on small, poorly-dated collections composed of incomplete and stylistically variable toolkits with few diagnostic artifacts; these culture historical units are not reliably-defined, and may not even be valid. Others are better-defined but should perhaps be re-dated. The original dates estimated for the North West River Phase now clearly fall within the early Point Revenge period, and the date from Flowers Bay-1 (Loring 1989b) suggests that the North West River Phase may actually pertain to the period ca. 2600-1800 BP (throwing more doubt on the dating, and even the culture-historical reality, of the Road and David Michelin components).

Since the 1980s there has been little work to further refine our understanding of the Intermediate period in north-Central Labrador coast. However, recent years have also seen exciting discoveries (Loring and Jenkinson 2009; Jenkinson 2011, Jenkinson and Loring 2012; Arbour, Jenkinson and Loring 2013) in the north-central interior at Kamestastin and Ashuapun (Border Beacon). In general, work has focused on quartz-dominated assemblages assigned to the Archaic period, including some materials which appear to include some of the earliest Maritime Archaic occupations yet discovered north of the Strait of Belle Isle. One of these sites included a diffuse array of rocks some 6m in length, associated with quartz, slate debitage and red ochre, interpreted as the remains of a birchbark canoe-building activity area (Jenkinson and Loring 2012).

A few sites of the Intermediate period have been identified at Kamestastin, however, and excavations at one of these, Shanapeu Ushpisim (GICt-05), yielded what appears to be a linear alignment of three hearths (see Jenkinson 2011) oriented perpendicular to the edge of a riverbank, associated with an assemblage of unusual chalky white chert and a radiocarbon date of 1890 ± 40 (Beta 255664). Interestingly, some Archaic sites in the Kamestastin area (e.g., GICs-04;



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Jenkinson 2011) include debitage and implements of what appears to be Saunders chert, a material that elsewhere is strongly associated with the later Intermediate period. If the earliest exploitation of this material occurs in the Archaic period at Kamestastin, this may suggest the possibility that the Saunders Chert source may lie in the general vicinity of Kamestastin.

3.1.1.3 Late Precontact Period

The Intermediate Period at North West River is followed by the late precontact Point Revenge Complex, originally dated to after 1,000 BP. Even more than the Intermediate Period complexes, Point Revenge has since been recognized as a widespread culture-historical unit, with stylistically-consistent archaeological assemblages identified at sites in both coastal and interior regions. More recently, work on the north central coast of Labrador has led Loring (1989) to define the early, Late precontact Daniel Rattle Complex, which dates to ca. 1,800 to 1,000 BP, preceding the Point Revenge Complex (1,000-400 BP) These late precontact occupations are broadly contemporary with the Middle and Late Dorset Pre-Inuit occupation of the coast and, toward the end of the sequence, with the earliest sites of the Neo-Eskimo Tradition.

Sites of the Daniel Rattle complex and Point Revenge complex are often characterized by hearths composed of fire-cracked rocks, charcoal and calcined bone. At Daniel Rattle 1 (GICg-01) Area II, a pair of such hearths may represent a multi-hearth structure or may be a palimpsest (Loring 1992: 244). These hearths are generally circular or oval, but in some cases are elongated, measuring up to 5m long. These latter are interpreted as the remains of communal dwellings analogous to the *shaputuan* of the historic Innu (Loring 1985, 1992). Rarely, hearth features are found enclosed in an oval cobble tent-ring feature (*i.e.*, Fitzhugh 1978b) or subtle earthwalled tentring (Kamarsuk Area II: Loring 1992). Unlike the highly variable assemblages of the Intermediate Indian period, Point Revenge artifact types are highly standardized, are manufactured almost exclusively from Ramah chert and are easily recognized and dated. Artifacts include large bifacial wide-side-notched (generally dating to the earlier Daniel Rattle Complex), and later corner-notched flake points (generally dating to the later Point Revenge Complex), square-based lanceolate, pentagonal, and triangular bifaces, triangular scrapers, and flake tools. A rare occurrence, as at Kamarsuk (HbCj-01) and on Shipiskan Lake, are sherds of coarse, grit-tempered ceramics (Loring 1992; see also Stapelfeldt 2013; Loring 2013). Sites dating to the Late Precontact period are generally accepted to be ancestral to the historic and contemporary Québec-Labrador Innu and Naskapi peoples, although as noted above, clear contact-period sites demonstrating such continuity have not yet been identified.

Settlement patterns thus suggest a broad-based exploitation pattern of marine and terrestrial resources (Fitzhugh 1978b; Loring 1992), with a far greater maritime harvesting component than in the preceding period. In the central Labrador interior, sites of the Late Precontact period appear to be far less common than those of the Intermediate period.

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3.1.2 Regional Comparisons: Strait of Belle Isle and Côte-Nord

A long tradition of archaeological work in the Strait of Belle Isle has revealed a rich and long-lived human history, beginning with the earliest occupation of the province, by late Palaeo-Indian/Early Archaic hunters. The first important research-oriented archaeological investigation in that region was by Elmer Harp in 1949 (Harp 1963), followed by surveys and excavations in 1950 and 1961. Harp recorded 25 sites in the region between Forteau Bay and Pinware Bay, and introduced the idea of a Maritime Archaic culture, outlining its northward spread over time. Harp's identification of Dorset Pre-Inuit material led to the recognition of cultural links with the eastern Arctic and with sites on the island of Newfoundland, thus expanding the known territorial extent of the Dorset culture.

In the mid-1970s, McGhee and Tuck (1975) followed Harp's results in the southern Labrador region with the partial excavation of 14 sites between Forteau Bay and Pinware Bay. Chief among their contributions was identification of an Archaic occupation in the Strait of Belle Isle. Their revisit to Harp's previously recorded site of L'Anse Amour led to excavation of a spectacular Archaic burial mound. Following upon McGhee and Tuck's work were site-specific studies that refined the Archaic cultural sequence in southern Labrador (Madden 1976; Renouf 1976, 1977). Although this work and subsequent extensive surveys (e.g., Auger and Stopp 1986, 1989) have identified many post-Archaic sites to the existing inventory, the post-Archaic archaeology of southern Labrador and the Strait of Belle Isle has not been as extensively documented.

Madden's (1976) investigations at the Iceberg and Black Rock Brook sites yielded what are still the principal data bearing on the late Archaic – early post-Archaic period. Her results suggest general continuity of occupation in the Strait, in contrast to other parts of Labrador where there appears to be a sharp discontinuity between the Archaic and Intermediate periods. The collections from the Iceberg and Black Rock Brook sites included lanceolate and leaf-shaped bifaces, large broad triangular (almost "pentagonal") bifaces, linear flakes and formal thumbnail and triangular endscrapers, as well as wide side-notched, almost "waisted" projectile points similar to the late Archaic Graveyard form (dated ca. 4,000 BP; McGhee and Tuck 1975). These were associated with small round or oval shallow sand hearths and radiocarbon dates ranging from 3,500-2,100 BP. These two sites are therefore broadly contemporary with the Intermediate-period Saunders, Brinex and Charles Complexes in central Labrador. Although artifacts were made from a variety of local materials including Iceberg Chert, Ramah was predominant in some features and Madden concludes that this material was a significant component in local assemblages by 2900 BP.

The late precontact period has not been investigated intensively in southern Labrador (but see Stopp 2000; 2008) but the contact period in the Strait of Belle Isle is relatively well-documented archaeologically, in large part due to the extensive land and underwater excavations undertaken at the Basque whaling site at Red Bay (Stevens and Waddell 1986; Tuck and Grenier 1989). Of particular interest is the evidence for very recent Late Precontact or early Contact-period Innu or Beothuk occupation at Saddle Island West. Here, small stemmed and corner-notched projectile points, triangular bifaces and thumbnail scrapers of Ramah and fine Newfoundland cherts, along

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with unusual native ceramics and European artifacts, were associated with small cobble hearths (Tuck 1989).

While research on the Labrador side of the Strait of Belle Isle has focused largely on the early Archaic period, on the other side of the Quebec border, archaeological investigations along the Cote-Nord, particularly in the Blanc-Sablon area (Groison 1985; Taillon and Barré 1987; Pintal 1998), have yielded important data pertaining to the post-Archaic precontact period.

The late Archaic occupation is exemplified by the EiBk-09 site near Vieux-Fort, represented by Graveyard-form wide side-notched points and scrapers of Newfoundland cherts with some quartz, quartzite and Ramah along with ground stone implements (Pintal 1998). This is followed by a series of sites dated 3,500-2,500 BP, contemporary with the Intermediate period in Labrador. Sand mound and pit hearths are rare at these sites, where hearths more commonly take the form of oval cobble pavements 1-3m wide and 3-4m long. Associated artifacts include a variety of projectile points styles (expanding stem, waisted, and side-notched), and raw materials are a diverse mix of Newfoundland cherts, Ramah, and quartzite. At EiBg-43, each of the three hearth areas was associated with a distinct combination of these three primary materials (Pintal 1998).

The Late Precontact period (2,500-400 BP) is represented by sites with small round or oval sand-mound hearths within dwellings inferred to be 5-6m in diameter. One site, EiBg-1D, contained a 1m by 3m double hearth feature within a habitation area estimated at 5-6m in diameter (Pintal 1998). Associated artifacts include leaf-shaped, lanceolate and triangular bifaces and scrapers, and, toward the end of the period, small corner-notched points. It is in this period that ceramics appear in small quantities in sites on the lower Cote-Nord (McCaffrey et al. 2006). Again, the principal lithic raw materials are Newfoundland cherts, Ramah, and local quartzites, but the relative importance of these appears to vary widely through time. Pintal argues that the early Late Precontact material from the Blanc-Sablon area is not closely related to the contemporary Daniel Rattle Complex of Labrador; similarly, he proposes that toward the end of the period, when Newfoundland cherts predominate, that the inhabitants of the Blanc-Sablon area at contact were affiliated with the Beothuk of Newfoundland.

3.1.3 Regional Comparisons: Western Labrador and Caniapiscou-La Grande / Laforge

Caniapiscou Lake is situated near the geographic center of Labrador-Ungava, about 200km southwest of Schefferville, Quebec. Archaeological work was conducted in the area by a number of different agencies and companies between 1976 and 1979 (*cf.* Denton 1989). The impetus for this research came from the planned creation of a Caniapiscou reservoir at the eastern end of the La Grande hydroelectric development.

The Caniapiscou Lake sequence indicates that the earliest significant occupation of this portion of the central interior of Labrador-Ungava began in the Intermediate period, ca. 3,500 BP. This sporadic but archaeologically-visible "Early Precontact" occupation was followed by a more intensive "Recent Precontact" (*i.e.*, Late Precontact) occupation after 2,000 BP (a scarcity of sites dating to the period ca. 2,100-1,700 BP suggests that these two occupations may be separated



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by a brief period in which the region was virtually abandoned: Denton 1989). The most substantial occupation of the region appears to have occurred fairly recently, in the 19th and 20th centuries A.D. In a general way, this sequence of increasing human land-use is comparable to that observed in other interior regions in Labrador-Ungava. The work at Caniapiscou Lake also indicates a high degree of cultural complexity, particularly in the Late Precontact period. The variable distribution of exotic lithic materials and artifact styles in different sites suggests that the central interior may have served as an interior hunting territory for different cultural groups originating from southern Ungava, Hudson Bay, and Labrador.

The early precontact period at Caniapiscou (3,500-2,200 BP) corresponds chronologically to the Intermediate Period in Labrador. As in Labrador, this period of occupation is relatively poorly understood (McCaffrey 2006). The earliest date thus far in the Caniapiscou region (and the La Grande complex as a whole) comes from near Caniapiscou Lake (Denton 1989). The date of about 3,500 years ago was obtained from charcoal collected in a small pit feature on the multi-component site of GaEI-3. About 10 additional sites in the Caniapiscou region produced radiocarbon dates situating them in the Early Prehistoric period.

Sites of the early precontact period are relatively rare compared to central Labrador, where they appear to be the predominant period of precontact occupation. Sites are also small, suggesting intermittent, seasonal occupation by small and mobile hunting bands (Denton 1989: 59). Artifacts were manufactured almost exclusively of fairly good quality local quartz. Exotic materials are generally rare, though collections from three early precontact sites consisted almost entirely of Ramah. Apart from the general scarcity of Ramah in these collections, there are general typological similarities between the early precontact remains of Caniapiscou and the Intermediate-period materials from central Labrador. Structural remains are generally limited to circular or occasionally oval hearth features consisting of low raised sand mounds with small, highly-fragmented pieces of firecracked rock. Some habitation sites contain two associated hearths or a single extended hearth, probably signaling multi-family dwellings. One linear hearth feature suggesting a "longhouse" structure was dated to ca. 3,200 BP. This appears to be the oldest shaputuan-like structure yet found in Labrador-Ungava (see Denton 1989: 61-63).

Denton (1989) has suggested that the few bifaces and quartz points recovered, as well as the presence of Ramah, suggest similarities to assemblages of the Intermediate period on the Labrador coast. Nevertheless, the almost complete absence of characteristic Saunders chert on Québec sites complicates the matter, as does the presence of lithic materials from all parts of Québec-Labrador peninsula. In this regard we may note that fine chert encountered in varying quantities on sites in the region often derives from the Labrador Trough in western Labrador. At least two sites in the Labrador Trough are related to the Intermediate period. Among the lithic debris scattered across the surface of the site GfDs-1, situated close to chert outcrops north of Schefferville, was a cache of curated tools. Though no radiocarbon dates were obtained, certain diagnostic artifacts in the cache suggested an affiliation with the Saunders complex (Denton and McCaffrey 1988). In addition, a number of small, badly eroded sites at the headwaters of the McPhadyen River in Labrador produced artifacts diagnostic of the Intermediate period. One of

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these sites, GaDp-8, contained a hearth dated to 2810 ± 80 (Beta-30216) associated with a small collection of flakes and a large Ramah scraper (McCaffrey 1989).

In the Laforge region just to the west of Caniapiscou, six occupations have been radiocarbon dated to between 3,400 and 2,700 BP. At one of these, fifty-nine cache blades closely resembling Meadowood blades from more southern regions, as well as three scrapers, a drill, and a used flake had been intentionally burnt in a fire. Charcoal from the deposit produced a date of 2780 ± 110 (Cérane Inc. 1995).

3.1.3.1 Late Precontact Period (2000 BP-Contact)

Sites of the Late Precontact period in the Caniapiscou region (Denton 1989; Nolin 1989) are characterized by small oval (or more rarely, round) sand-mound hearths with firecracked rock (often in larger pieces than found on earlier sites), with charcoal and calcined bone. Similar features have been identified in excavations in western Labrador (Brake 2007; Neilsen 2016). Evidence for house perimeters is rare, but these hearths appear to be associated with dwellings 4-7m in diameter. However, elongated hearths, usually composed of two or more hearths in a line, have also been encountered. Illustrated examples with evidence for banked perimeters show these enclosing pairs of hearths (Denton 1989: fig 3, fig. 4). Both structural types are comparable to features found in Point Revenge sites in Labrador. Associated artifacts are manufactured from a variety of materials (Denton 1989: 65-69; Nolin 1989: 83-88). Local quartz predominates, as in the Early Precontact period, though the emphasis is on poorer quality material than that used previously; consequently, quartz once used for making bifaces is now used only for expedient tools. Ramah is also used (particularly early in the period) for fine bifaces, and it is the dominant material in some assemblages. Quartzite from the Lake Mistassini region to the southwest (see Denton and Pintal 2002) is also present in some assemblages. Fine cherts, presumably from the Hudson Bay region to the west (Denton 1989: 65) are common in some sites, and coarse black cherts from the Labrador Trough are predominant in two collections. All of these finer materials are disproportionately used for fine points, bifaces and scrapers. Finished tools are rare but seem generally comparable to some late precontact material from Labrador. For example, large lanceolate bifaces are similar to Daniel Rattle Complex materials from coastal Labrador, while small triangular bifaces and corner-notched flake points resemble those of middle-late Point Revenge. A third category of points consists of round-based corner-notched points, generally made of Mistassini quartzite or fine chert. These are more comparable to artifacts from sites to the west, near Hudson Bay. Similar points were also found in some collections from Indian House Lake (see Denton 1989: 65-72).

In summary, the Late Precontact period in Northern Québec, unlike in central Labrador, appears to represent the most intensive precontact period of occupation. The Late Precontact period, beginning after 2,000 BP, witnesses the initial occupation of the western sectors of the La Grande complex. By around 1,300 BP, a veritable florescence of eastern Subarctic interior adaptation is suggested by an increase in the number of sites, distinctive patterns of lithic raw material use suggesting far-ranging exchange, the appearance of pottery on numerous sites, and the frequent

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presence of large, shaputuan-type dwellings containing numerous hearths. Certain sites in the Caniapiscou and Laforge regions show affinities to the Point Revenge complex on the Labrador coast (Loring 1992) and to some Post-Archaic complexes on the Lower North Shore (Pintal 1989, 1998). Further west in the La Grande-3, La Grande-2, La Grande-1 and Grande Baleine regions, the amount of pottery on sites, combined with more intensive use of lithic materials from near the Hudson Bay, point to closer ties with western and southern regions. Northern Québec sites from this Recent period relate directly to the ancestors of the Cree, Innu and Naskapi.

3.2 Site Cluster 1: Manitu-Utshu (Muskrat Falls) South

Prior to the development of the power generation facility, Muskrat Falls was a 15m high waterfall on the Churchill River, situated 30km west of the mouth of the Churchill River at Happy Valley-Goose Bay. At the falls, the river descended in two cascades, an upper falls and a lower falls, separated by half-kilometer stretch of relatively quiet water. The falls were flanked to the south by low, level terrain underlain by bedrock of the Mealy Mountain Intrusive Suite, and to the north by a prominent rocky hill (the “North Spur”), an outcrop of bedrock belonging to the Dome Mountain Intrusive Suite, connected to the north bank of the Churchill River by a high (62m) sandy marine terrace (JWEL 2000). The natural setting of the lower Churchill River valley has been described in detail elsewhere (e.g., JWEL 2000; Hatch and Minaskuat 2007; Minaskuat 2008a) and will not be repeated here. However, we may highlight the following observations about the falls themselves, which may be potentially relevant to the history of contemporary, historic and precontact land-use.

The hill on the north side of Muskrat Falls is known to the Innu as *Manitu-utshu*, a term which is also applied more generally to the falls themselves. The Innu believe the hill on the north side to be the dwelling place of giant otter- or seal-like beings called *Uenitshikumishiteu* (Wolverine and Associates 2007). It is reasonable to infer that this distinctive and prominent topographic feature has always held some spiritual significance to Indigenous people in the region.

Until recently, two historic portage trails skirted the falls. The trail on the south side was 3km long but traversed gentle, level terrain on the edge of the 15-19m asl terrace on the south side. The trail on the north side was relatively short but extremely steep, rising to the top of the 62m asl terrace on the north side. The cove on the north side below the falls, whence the north-side portage commenced when traveling upstream, has been regarded by the Innu as a very dangerous place in the spring, when the ice is packed downstream of the falls, and this area was generally avoided in the spring (Wolverine and Associates 2007). These hazardous ice conditions resulted from frazil ice passing over the falls from the river upstream, creating a hanging dam and an “ice rose” (an accumulation of ice at the foot of the falls); this accumulation could be so thick that it raised water levels high enough to allow ice accumulation above the lower falls as well (Hatch and Minaskuat 2007).

Although spring ice accumulations below the falls were notoriously thick, and occasionally extended above the lower falls, the short stretch between the falls was normally an *ashkui* (an



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area of open water surrounded by ice in the spring or fall). Generally, in the region, consolidated ice is established in Goose Bay by the first week of December, and in Lake Melville by the end of the month. Ice cover persists until the spring break-up, which begins in May and is complete by early- to mid-June (Hatch and Minaskuat 2007). *Ashkui*, however, may be open on the Churchill River as early as March. Innu often established their spring camps near *ashkui* in order to take advantage of the relative abundance there of certain game species, including *amishku* (beaver), *utshashku* (muskrat), *nitshiku* (otter), *namesh* (fish), and *shiship* (migratory waterfowl) (Wolverine and Associates 2007).

The distinctive spring ice conditions in the Muskrat Falls area likely prevailed throughout the historic period. The extent to which they may have obtained in the precontact period is uncertain. Following deglaciation 7,500-10,000 years ago (JWEL 2000), the Churchill Valley was partly flooded by marine waters coming westward, reaching elevations of 135m above present sea level. Subsequent isostatic rebound has led to a progressive regression of the sea since that time, forming a series of glaciomarine, glaciofluvial, and fluvial terraces along the lower stretches of the valley. The dating of these terraces is somewhat problematic, especially for the high 62m terrace on the north side of Muskrat Falls, which appears to have a minimum age between 7,500 and 5,500 BP (Before Present). The 18m terrace below Muskrat Falls can be correlated to the 12m terrace at North West River (exposed by ca. 3,000 BP), and the 12-13m terrace below Muskrat Falls to the 9.7m terrace at North West River, tenuously dated to ca. 2,000 BP (JWEL 2000). It would appear that Muskrat Falls emerged as a falls (and therefore as a strategic settlement location) between 3,000 and 3,500 years ago (JWEL 2000; Norm Catto pers. comm.), and that the 15-19m terrace along the south side portage trail became available for settlement around this same time. We might expect as well that the upper cascade at Muskrat Falls emerged prior to the lower falls.

3.2.1 The Sites

The 23 precontact sites associated with the south side terrace and portage trail on the south side of Muskrat Falls were recovered during the 2012 and 2013 historic resources recovery programs. These sites were all aligned along the 15-19m asl terrace overlooking the falls and the river, in most cases 5m or less from the edge of the terrace. The south side portage trail also tracked the terrace edge in places. Although the recent portage trail likely corresponded in part to an historic and precontact portage route, it became apparent during recovery work that the trail was more than an overgrown footpath and had been graded and improved by heavy equipment in the mid-20th century to accommodate vehicle traffic. Sites closely associated with the trail had been wholly or partly disturbed by road-building; sites situated off the trail were generally undisturbed. Recovery results for these sites are reported in detail elsewhere (Stantec 2014a, 2014b).

3.2.2 Site Distribution and Settlement Patterns

Sites on the south side of Muskrat Falls were generally small (17 of the sites recovered were less than 60m² in area) and appear to represent a series of small dispersed campsites, widely distributed along the length of the trail from the upper falls to below the lower falls. However, some



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sites, particularly the largest, do appear to form distinct clusters, suggesting that particular locations along the portage were of particular strategic value. One small cluster consists of two adjacent sites, FhCe-16 (52m²) and FhCe-17 (36m²), situated 400m below the lower falls. Another notable cluster of larger sites, FhCe-05 (84m²), FhCe-20 (116.5m²), and Fhce-21 (96m²), is situated alongside and overlooking the lower falls, occupying both sides of a deep gully. The third cluster includes three of the largest sites recovered at the falls: FhCe-32 (196m²), FhCe-33 (248m²), and FhCe-34 (112m²). These larger sites revealed complex palimpsests of hearth features and large artifact collections, and are considered to represent a single large, repeatedly-occupied site complex overlooking the sandy crescent beach immediately downstream of the upper falls. The location of this important cluster along the quiet water between the upper and lower falls suggests that for the inhabitants of these sites, the portage around the two sets of falls was accomplished in two stages rather than a single move; in addition, resource harvesting opportunities at the *ashkui* between the falls may have provided incentive for a prolonged stop at this location. The easternmost excavated site (FhCe-07) lay 500m from the present eastern terminus, and may have lain at or close to the eastern terminus of the precontact portage trail, although it should be noted that two additional sites, which lie downstream of the Project and were not recovered (FhCe-13 and FhCe-14), were located even further downstream, near the recent terminus of the trail. The westernmost site recovered (FhCe-35) represents an isolated outlier, situated in an unusual and dramatic location immediately overlooking the upper falls. This site was not located far enough above the falls to represent the upstream terminus of any precontact portage route.

3.2.3 Site Features

The features most frequently encountered on the south side of Muskrat Falls were small hearths. At one site (FhCe-05) a dense cobble-pavement style hearth was recovered in association with reddish-pink Saunders chert debitage (Figure 3-1), but otherwise, the hearths encountered at these sites were represented by diffuse scatters of firecracked rock fragments, not the dense cobble pavements associated with the Intermediate Period occupation of the central Labrador coast (Nagle 1978), nor the sand-mound variety found in the Québec interior (Denton 1989). An unusual burnt-pebble pavement-like hearth was recovered at FhCe-17, and several sites contained possible small pit hearths (e.g., FhCe-33 Feature 9). However, the majority of the hearths from Muskrat Falls are oval firecracked rock scatters, and these are consistent in size with those reported from sites, particularly of the Late Precontact period, on the central Labrador coast, the Strait of Belle Isle, and the Québec interior.

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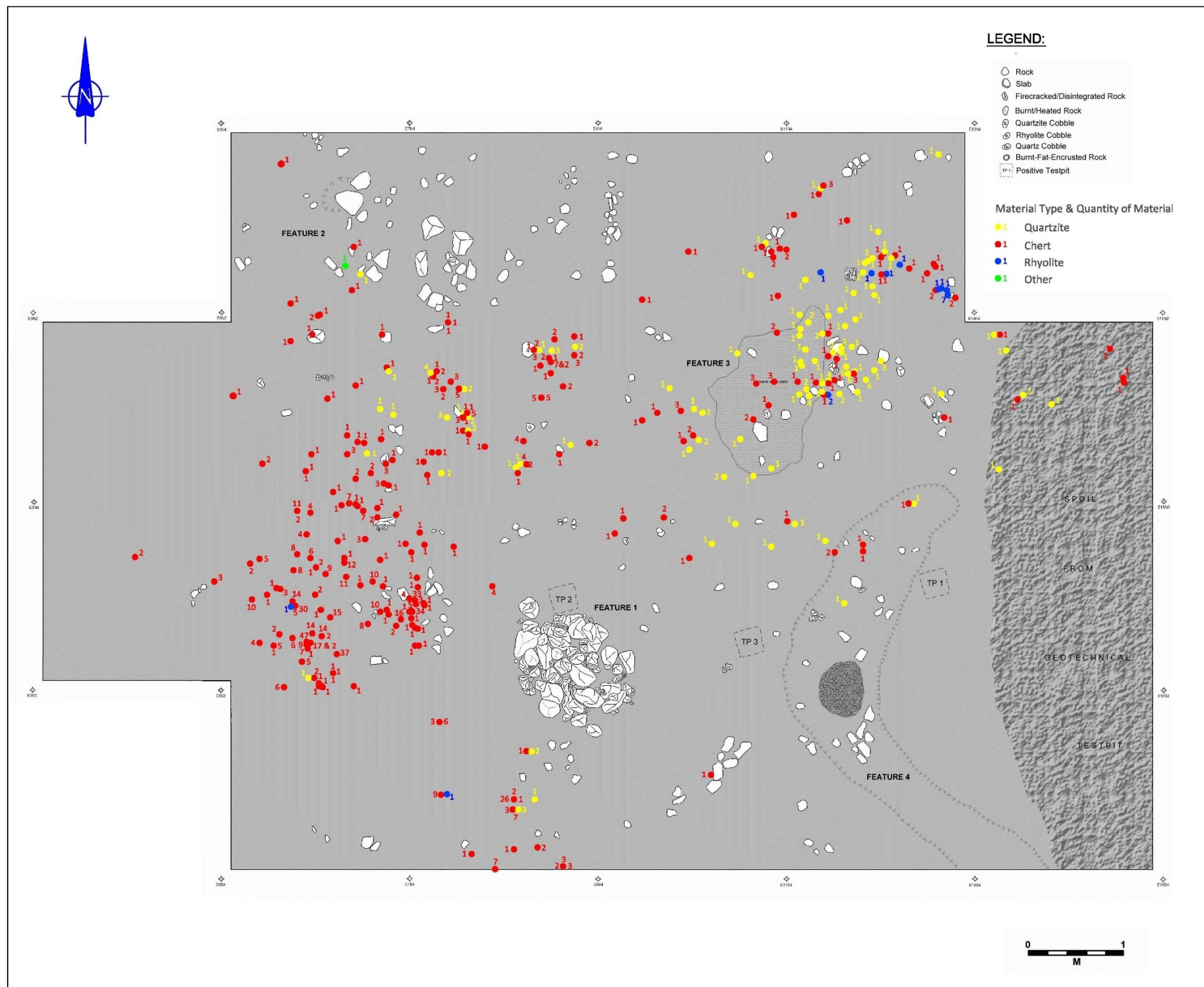


Figure 3-1 Cobble Pavement Hearth at FhCe-05 (Stantec 2014a)

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Sometimes these hearths were isolated single features (e.g., FhCe-07, possibly FhCe-20, FhCe-23, and probably FhCe-30 and FhCe-35), but often they were found in pairs (e.g., FhCe-17, FhCe-05, FhCe-22, FhCe-24, and FhCe-25), oriented at an angle to the edge of the terrace, either close enough to belong to a single multi-family dwelling, or widely-separated enough to suggest separate single-hearth dwelling structures (Figure 3-2). When situated close together, the diffuse rock clusters often appear blended, giving the impression of a rather foreshortened "linear hearth." Blended "double hearth" features have recently been reported from FjCa-51, the large Intermediate period site in Sheshatshiu (Neilsen 2017). Although not generally remarked upon, paired hearths are evident in site photographs from widely separated locations in Labrador, including Kamistastin in the north-central interior (Jenkinson 2012), Daniel Rattle (Loring 1992) and Thalia Point 5 (Nagle 1978) on the north-central coast, and possibly also in the Strait of Belle Isle (Madden 1976). Hearth pairs also appear to be common on Intermediate- and Late-Precontact Period sites in Québec (e.g., Pintal 1998; Denton 1989). This may well be a common pattern in the social structure of post-Archaic groups, whereby families travelled and harvested seasonally in pairs, whether structured around sibling pairs, or perhaps more likely, elder - adult child pairs. However, it does not appear to be universal, even within the present Study Area: paired hearths were not identified at sites on the North Spur at Muskrat Falls, nor are they clearly evident at precontact sites located further upstream within the Muskrat Falls reservoir area. Instead, hearth pairs appear to be a distinguishing feature of settlement on the south side of Muskrat Falls.

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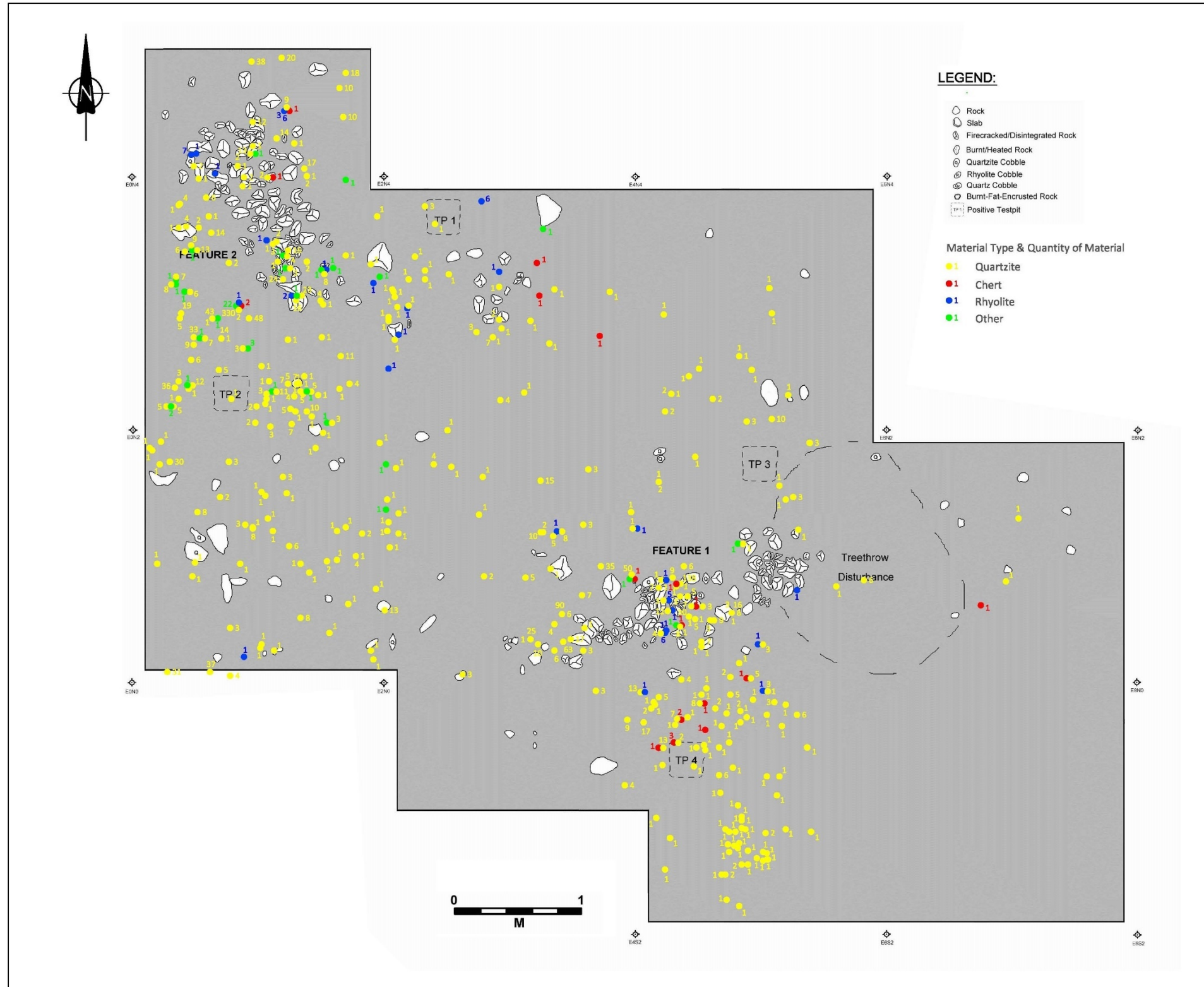


Figure 3-2 A Pair of Oval Diffuse Cobble Hearths at FhCe-25 (Stantec 2014a)

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Extended "linear hearths" have been encountered previously at precontact sites, particularly of the Late Precontact period, in Labrador and in the Quebec interior (see Loring 1992; Denton 1989). They are interpreted as the remains of communal feasting ceremonies, referred to by the Innu as *mokoshan*, and performed within elongated house structures known as *shaputuan*. Features of this type are not well-represented at Muskrat Falls. Aside from one possible disturbed linear hearth feature at FhCe-16, the only well-defined linear hearth feature encountered at Muskrat Falls was Feature 1 at FhCe-34 (Figure 3-3). Feature 1 was characterized by a dense, very well-defined linear concentration of rock, firecracked rock and charcoal (but no calcined bone), with an extraordinarily dense concentration of rhyolite debitage along with rhyolite, Ramah, and quartzite artifacts (principally bifaces, linear flakes, and projectile points). Feature 1 measured 4m long by 1m wide. It was oriented N-S at an angle to the edge of the terrace overlooking the Churchill River, and extended to the very edge of the terrace fall. In fact, Feature 1 appears to have been partly eroded and deflated in antiquity, although the reduced density of rock at its northern end suggests that virtually all of its original length survived to the present day. Feature 1 was surrounded by a band of reduced debitage density approximately 1.5m wide, then by a 1.5-2m wide "ring" of debitage. This delineates a perimeter for the enclosing dwelling structure, which would appear to have measured some 3.5m x 6m.

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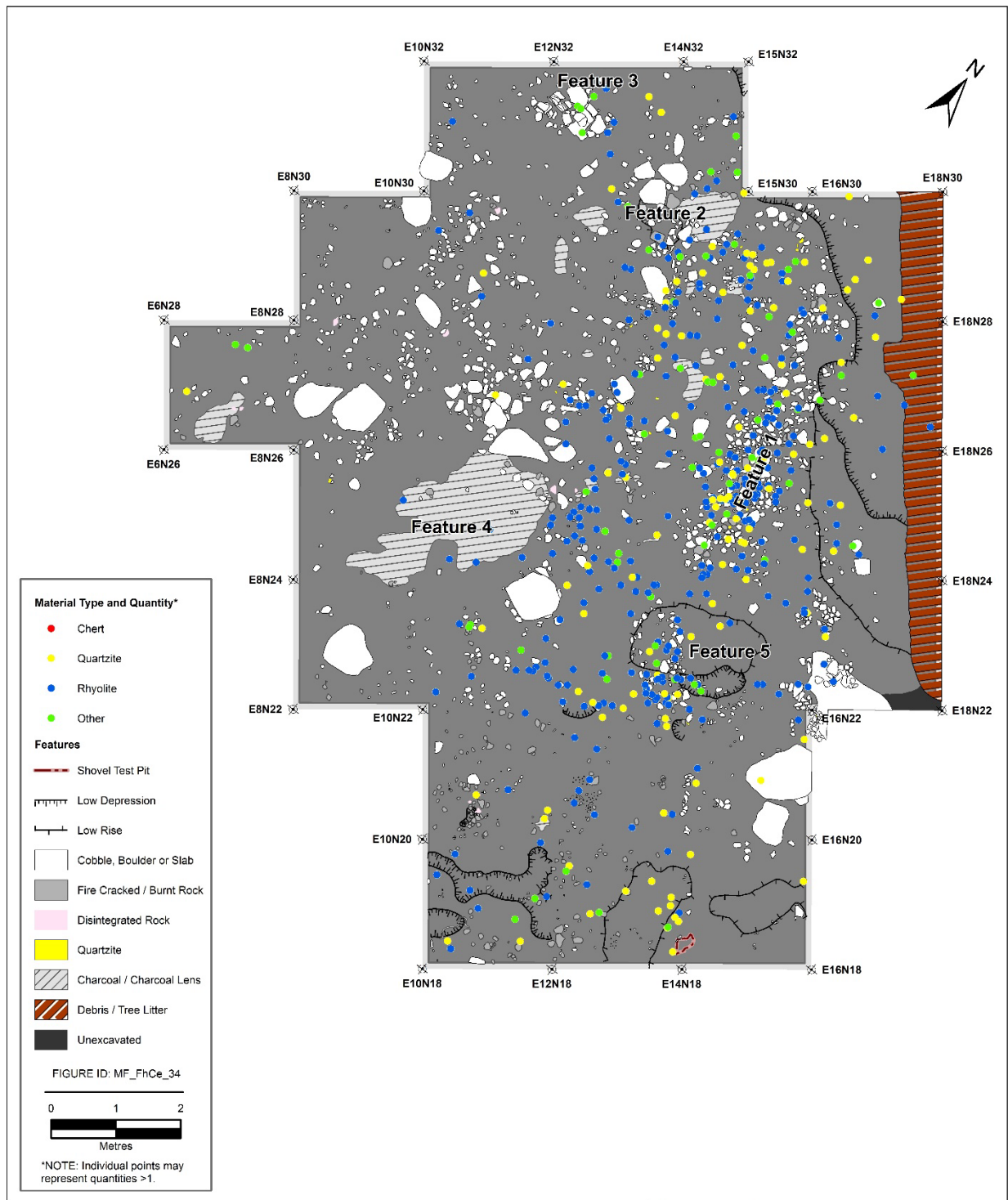


Figure 3-3 Linear Hearth Feature at FhCe-34 (Stantec 2014b)

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The two largest sites, FhCe-32 and FhCe-33, appear for the most part to be complex palimpsests reflecting multiple occupations and re-occupations in which archaeological features were repeatedly cleared and dispersed to prepare new campsites. This contrasts with the smaller, single component sites at Muskrat Falls, and made interpretation of hearth features more difficult. Among the features commonly observed at FhCe-33 and FhCe-32 were clusters of rock and firecracked rock interpreted as rock disposal piles created to clear occupation areas. At both sites, the distribution of rock disposal piles, boulders, and lithic scatters allows us to infer the dimensions of the dwelling structures that once enclosed some of these hearths. Feature 3 at FhCe-32 appears to have been enclosed by a structure 6m in diameter (or 6m x 9m if the nearby Feature 5 hearth was enclosed within the same structure), while Feature 9 at FhCe-33 appears to have been enclosed by a dwelling measuring 4m x 5m. Feature 9 at FhCe-33, a small pit hearth, also contained small patches of red ochre.

The frequency of hearths indicates that the sites recovered on the south side of Muskrat Falls were principally campsites, dwellings that saw a wide range of domestic activities such as cooking and food preparation. However, some features showed evidence of additional functions and on-site activities.

Scatters of lithic debitage resulting from the manufacture, repair, and resharpening of stone tools were one of the commonest features recorded at sites on the south side of Muskrat Falls. In comparison with sites recovered upstream in the reservoir area, lithic scatters were generally sparser and less well-defined, although generally more diverse, including a wide variety of raw material types (see Section 3.2.5 below). In most cases, diverse lithic materials were intermixed, but at FhCe-05, concentrations of quartzite and Saunders Chert were spatially distinct, while at FhCe-20, concentrations of rhyolite and vitreous smoky peloidal chert were similarly segregated, suggesting discrete lithic activity areas.

Where notably dense lithic concentrations were present, these were negatively associated with hearths at FhCe-05, suggesting outdoor activity areas, but at FhCe-20 and FhCe-25, on the other hand, lithic concentrations were clearly centered on hearth features. At FhCe-17, the distribution of lithic debitage, while not dense, appears to enclose and define a cleared area of unusual bilobate shape surrounding a “blended” hearth feature. In general, a wide range of flake sizes was observed in lithic scatters, indicating many stages of manufacture and repair, including, at FhCe-25, primary reduction of quartzite. At FhCe-35, overlooking the upper falls, debitage consisted primarily of fine resharpening flakes suggesting tool repair and rehabilitation.

Two of the sites situated alongside the lower falls contained unusual features. FhCe-17 (Figure 3-4) included Feature 7, a deep pit excavated, probably with considerable effort, into the underlying ironpan, filled with fire-shattered cobbles and large boulders and some charcoal. The boulders were firecracked and clearly intentionally-heated in the pit, but were much larger than normal hearth stones, and were too large to be moved when hot; it was therefore unlikely to be a feature associated with a sweatlodge.

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Another boulder feature at the site was Feature 8, a subtly-s-shaped alignment of very large boulders approximately 4.5m long, situated to the south of the other features at the site. Although this boulder array may have been impacted by road construction, the size and alignment of the boulders is broadly-consistent with the pattern that might be expected from the manufacture of birchbark canoes (as, for example, in the photograph at the McCord Museum of a Montagnais (Innu) man building a birchbark canoe at Lake St. John ca. 1898: <http://www.mccord-museum.qc.ca/en/collection/artifacts/VIEW-3205>). Evidence for canoe-building at precontact sites in Labrador is rare, but not unprecedented (Jenkinson and Loring 2012), and a boulder-filled pit similar to Feature 7 has recently been identified at FjCa-51 in Sheshatshiu (Neilsen 2017). Feature 8 at FhCe-17 is interpreted as the remains of canoe-building activity. We might expect that Feature 7, the other boulder feature at the site, is related to Feature 8 in some way, but it is neither necessary nor desirable to heat the boulders used in canoe construction.



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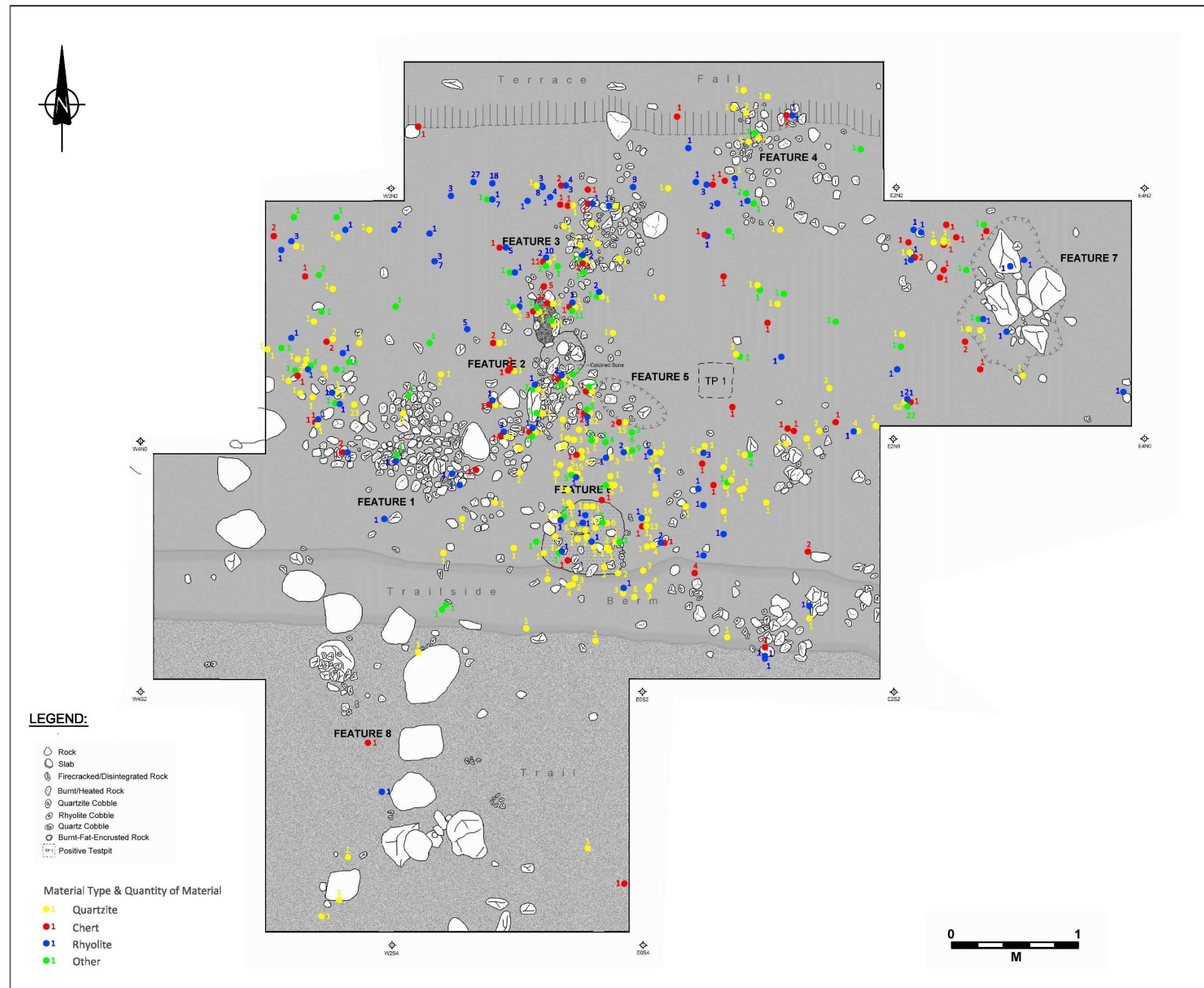


Figure 3-4 Plan of Features and Debitage at FhCe-17 (Stantec 2014a)



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FhCe-21 contained two similar features: Feature 8 was a boulder-filled pit, broadly comparable to Feature 7 at FhCe-17, but shallower and devoid of charcoal. Feature 8 at FhCe-21 was associated with Feature 9, a boulder alignment broadly comparable to Feature 8 at FhCe-17 but shorter. Feature 9 at FhCe-21 was paired with Feature 10, a cluster or short alignment of boulders that ran parallel to Feature 9.

Because of the boulder alignments, FhCe-17 and FhCe-21 are interpreted as staging-area sites used for canoe-making among other preparatory activities. Consultation with Innu elders suggested that this interpretation is indeed plausible, and that Muskrat Falls is a potential canoe-building location. The association with boulder-filled pits may be significant, but the role of such pits in canoe-building is unclear. It may be noted that a similar boulder-filled pit (Feature FA03-F1) was excavated at the Intermediate-period at FjCa-51 in Sheshatshiu (Neilsen 2017).

In addition, FhCe-21 contained Feature 1, a deep linear pit. In form it somewhat resembled the "bread-oven" reported by Neilsen from Ushpitun 2, near Happy Valley (Neilsen 2006), but Feature 1 at FhCe-21 differed in that it was hardly a clean pit, containing charcoal, lithic debitage and firecracked rock. It does not resemble the cobble hearths recovered from other sites in 2012, and its function is unclear, but it was associated with a severely burnt and heat-shattered biface and sherds of grit-tempered precontact ceramic (including numerous tiny sherdlets). It is possible that the ceramics from FhCe-21 were locally-made and that the unusual Feature 1 pit may have been employed in firing ceramics. It may be noted that ceramics were also recovered at FhCe-17, and initially it appeared that ceramic vessels may also be related to canoe-building in some way. However, precontact ceramics have since been recovered at sites elsewhere in the Churchill Valley, not associated with boulder-filled pits or boulder alignments, and the association between ceramics and canoe-building now seems less secure.

3.2.4 Site Function and Seasonality

The tool types represented in the collection include high frequencies of bifaces and biface fragments, linear flakes, scrapers and projectile points. The only evidence for more specialized site functions comes from FhCe-33, which produced an unusually large assemblage of formal scrapers. In general, the artifact assemblages reflect a wide range of domestic tasks, including hunting, hideworking, and food preparation, as well as tool manufacture. In several sites there appears to be an emphasis on tool blank preparation and tool sharpening. Local quartzite was clearly being worked, seemingly more to fashion blanks, preforms and finished tools, rather than to generate expedient tools for domestic tasks (except at FhCe-25, where quartzite linear flakes and retouched/utilized flakes were relatively common). In addition to the lithic artifacts, multiple sherds of thick, low-fired grit-tempered ceramics were found at five sites (FhCe-15, FhCe-17, FhCe-21, FhCe-32, FhCe-33). These sites are therefore interpreted as multi-purpose campsites established between the upper and lower falls, the sites of a wide range of domestic activities, including cooking and food preparation. One site, FhCe-17, yielded a small assemblage of calcined bone but in general, inferences on seasonality of occupation must be more indirect.



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Extrapolating from ethnographic patterns of land use, we might expect precontact settlement at Muskrat Falls to be oriented to two seasons in particular: the early fall, when families that summered in upper Lake Melville were beginning to move up the Churchill River to fall and winter harvesting areas in the deeper interior to the west; and the early-mid spring, when families that had wintered in the interior west or southwest of the Churchill River had almost completed their move to spring-summer gathering and fishing locations in upper Lake Melville. Overall, this complex of sites on the south side of Muskrat Falls is interpreted as a staging area for seasonal moves up and downstream. The sites are a mixture of those with evidence for stone-working indoors, close to hearths (e.g., FhCe-25) and those with evidence for lithic workshop areas outside of dwelling structures (e.g., FhCe-05). The former are consistent with occupation in colder seasons, the latter with occupation during milder weather. Since the southern portage around the falls is a lengthy one, and portages would be required in both directions at different seasons, it is likely that canoes were cached at either end of the portage. We may note that the dangerous spring ice conditions at the eastern end of the north side portage make the south side portage more attractive in spring. It is hypothesized that this location may have been used in the fall, but most intensively in the spring canoe-building season in preparation for summer travel in Lake Melville, during the seasonal move downstream along the Churchill River to upper Lake Melville.

3.2.5 Artifacts and Cultural Relationships

Approximately 41,000 artifacts and pieces of lithic debitage were recovered from the sites on the south side of Muskrat Falls.

3.2.5.1 Lithic Raw Material Types

The lithic debitage scatters associated with these campsites are primarily composed of three lithic types: quartzite, available locally and all along the Churchill River and upper Lake Melville, as well as rhyolite, known to be available in cobble form further upstream along the Churchill River. Less common but still present in quantity is Saunders chert, available from an as-yet unidentified source likely in the interior of northern Labrador. Also found were quartz, potentially available locally, Ramah from the Torngat coast of northern Labrador, smoky, peloidal vitreous chert that may derive from sources in western Labrador, small quantities of local quartz, and a few artifacts (although no debitage) of cherts from western Newfoundland, and what appears to be Mistassini quartzite. Certain minor lithic material types, such as the two unusual pink and white candy-striped scrapers from FhCe-33 (Photo 3), are of unknown origin. Sites vary widely in the relative importance of these materials, with one (FhCe-05) dominated by Saunders chert, three (FhCe-15, FhCe-25, and FhCe-31) by quartzite, and seven (FhCe-21, FhCe-22, FhCe-23, FhCe-26, FhCe-27, FhCe-28, and FhCe-34) by rhyolite. Rhyolite is the most-consistently well-represented material at individual sites.

The diversity of raw material types at these sites stands in sharp contrast to the group of sites on the north side of the falls, approximately a kilometer away (see below), and indeed, contrasts with all of the sites recovered between Muskrat Falls and Gull Lake, all of which were overwhelmingly



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wholly dominated by quartzite. The remarkable diversity of raw materials that is the hallmark of the sites on the south side of the falls suggests that these sites represent a lengthier period of occupation than seen elsewhere in the valley, or that they represent a gathering place for people arriving from a wider and more diverse territory, or a combination of the two.

Considering chronology first, the diversity of lithic materials, and the specific predominant types (rhyolite, Saunders Chert and quartzite) are generally considered to be diagnostic of occupation in the Intermediate Period (ca. 3,500-2,000 BP) than in the late precontact Period (2,000-500 BP).

The predominance of other materials is more consistent with a dating for the sites recovered in 2012 within the Intermediate Period than the Late Precontact Period, as presently understood in central Labrador. Wide and generally unexplained variation in lithic raw material use among contemporary sites is something of a hallmark of the Intermediate Period, in central Labrador, in the Québec interior, and in the Strait of Belle Isle/Côte-Nord.

As with the sites recovered at Muskrat Falls in 2012, the patterns of raw material use at these sites, which broadly emphasize the use of rhyolite, quartzite, and Saunders chert, are traditionally considered to be markers of occupation within the Intermediate Period, rather than the Late Precontact Period, at least as presently understood in central Labrador. Sites of the Late Precontact Daniel Rattle and Point Revenge complexes on the central Labrador coast (represented in upper Lake Melville only by the single small Point Revenge component at the Henry Blake 1 site: Fitzhugh 1972) are characteristically dominated by Ramah (Loring 1992), while sites of this period in the Strait of Belle Isle may be dominated by Newfoundland cherts (Pintal 1998), and those in western Labrador by the use of Labrador Trough cherts (McCaffrey 1989).

3.2.5.2 Artifact Styles

Stylistic analysis and seriation of finished artifacts is normally a critical element in culture-historical reconstruction. In the past, the Intermediate-Period sequence has always been considered poorly-defined in comparison to other periods in Labrador prehistory. Orderly seriation of Intermediate-Period sites within a firm culture-historical framework has been hampered by the fact that many of these sites appear to be multi-component palimpsests, while single-component sites, when identified, appear to be highly idiosyncratic and to vary widely between assemblages. This makes it difficult to define units of analysis which can then be seriated to trace patterns of chronological change. The difficulties experienced in reconstructing Intermediate-Period culture history contrast markedly with the subsequent Late Precontact Period on the central Labrador coast, where a relatively straightforward toolkit is repeated with considerable stylistic continuity from site to site, and where a pattern of chronological change has therefore been recognizable. The artifact classes characterized by the highest degree of stylistic control are bifacial knives and projectile points. The sites recovered on the south side of Muskrat Falls have yielded moderately large samples of both classes. Some of the sites had likely been occupied and re-occupied over time (most notably FhCe-32 and FhCe-33), but on the whole, they appear to be relatively small single-component sites with little sign that any are palimpsests. However, the idiosyncrasy that has



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been a hallmark of the Intermediate-Period sites excavated across the region is very much in evidence.

For example, broad, thin leaf-shaped and triangular bifaces (Photo 1, right) are present in low frequencies at many sites (e.g., FhCe-16, FhCe-33) and are comparable to biface forms commonly encountered on Intermediate-Period sites in the region (e.g., Nagle 1978; Madden 1976), as well as at Late Pre-contact Cow Head Complex sites in Newfoundland (Hartery 2007). However, the two drooping-shouldered bifaces, one complete, that were recovered from FhCe-05 (Photo 1, left) appear to be unique to that site, and to FhCe-35, where a single complete drooping-shouldered point was also recovered. The only comparable artifact known from the central Labrador coast is the unusual cache blade from Daniel Rattle, dated typologically to the Early Woodland period (Loring 1989), ca. 3000-2200 BP. Similarly, slender asymmetric knives, such as were recovered from FhCe-23, appear in no other site recovered in 2012. The triangular bifaces, mostly of rhyolite, from FhCe-20 appear to be classic Charles Complex implements unique to that site.



Photo 1 Selected Bifaces Recovered from Sites on the South Side of Muskrat Falls in 2012 (Stantec 2014a)

The projectile points recovered on the south side of Muskrat Falls are highly varied (Photo 2). Forms include small un-notched triangular and leaf-shaped types, some of which may be preforms, or even exhausted knives; true triangular points may relate to the triangular bifaces of the Late Precontact Period. Thin-stemmed round-based points with narrow, shallow side-notches may be unique to one site, FhCe-25. The commonest type found is the “waisted” form with very broad, shallow side notches, with or without well-defined shoulders. These resemble points found on many other Intermediate-Period sites in central Labrador (Nagle 1978), and also resemble the late Archaic/Early Intermediate-Period “Graveyard Form” of the Strait of Belle Isle (McGhee and Tuck 1975; Madden 1976).

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Photo 2 Selected Projectile Points Recovered from Sites on the South Side of Muskrat Falls in 2012 (Stantec 2014a)

Wide, straight-stemmed points were recovered from FhCe-30 and FhCe-32. As a type, this form is not well-documented at either Intermediate or Late Pre-contact Period sites in Labrador-Ungava, although there is a general resemblance to the “broad blade, straight-expanding stem” projectile points associated with the Cow Head Complex in Newfoundland, dated broadly to the early Late Pre-contact Period in Newfoundland, 2000-1000 BP (Hartery 2007).

Small, shouldered, corner-notched and side-notched points were also recovered from several sites, most notably FhCe-32, FhCe-33, and FhCe-34. These are broadly compatible with points recovered from a variety of Intermediate Period contexts in Labrador, but it should be noted that, were they fashioned from Ramah, some would not be out of place in sites of the early Late Pre-contact Daniel Rattle Complex (see Loring 1992) of the Labrador coast.

Formal scrapers are rarely a common artifact type, except at FhCe-33, where a large collection of 21 scrapers was recovered (Photo 3). Scraper forms encountered at these sites consist primarily of large, thick, formal scrapers, of discoidal, subrectangular, and teardrop-shaped form, generally of chert (especially pink Saunders Chert but also cherts of more exotic origin). These, particularly the discoidal specimens, most resemble the formal scrapers of the early Intermediate Period Charles Complex in central Labrador (3000-2600 BP; Fitzhugh 1972). While not unique to this period, these scraper forms are particularly characteristic of Charles Complex assemblages. The teardrop-shaped forms (also recovered at FhCe-16, FhCe-20, FhCe-21, FhCe-32, and FhCe-34) also resemble the broadly contemporary grattoirs-couteaux from EiBg-49 near Blanc-Sablon (Pintal 1998). A more expedient scraper type consists of large discoidal forms manufactured from quartzite cortical spalls. These cobble-spall scrapers (recovered from at FhCe-05, FhCe-22, FhCe-32, FhCe-33, and FhCe-34) may have analogues in the North West River Phase (Fitzhugh 1972: Plate 50n).

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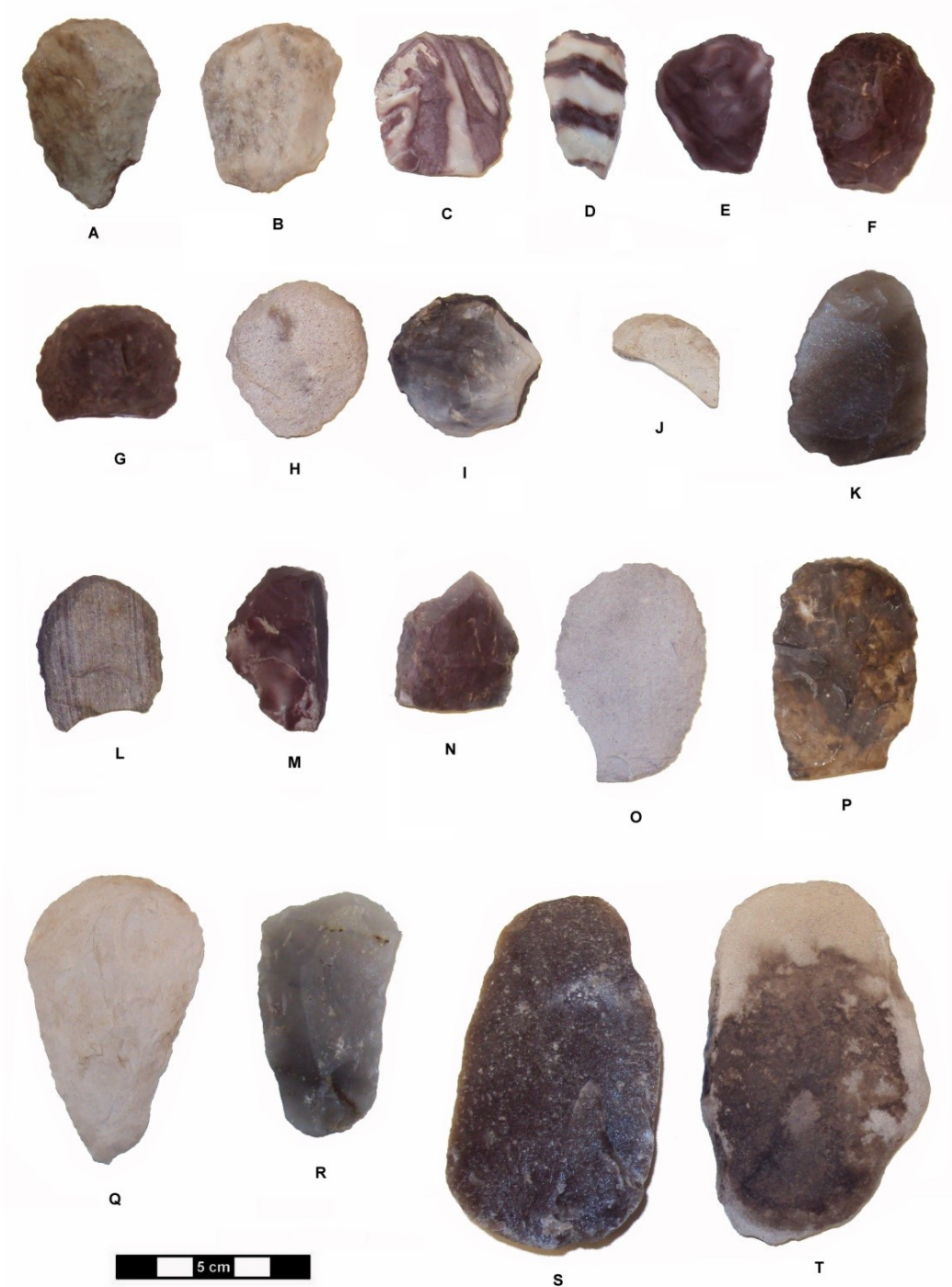


Photo 3 Selected Scrapers Recovered from FhCe-33 (Stantec 2014b)

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Precontact Indigenous ceramics were encountered, generally in small quantities, at five sites on the south side of Muskrat Falls (FhCe-15, FhCe-17, FhCe-21, FhCe-32, and FhCe-33). Indigenous ceramics are rare in Labrador, but to date have only been encountered in Late Pre-contact contexts. None of the sherds recovered at Muskrat Falls were decorated, but they combine coil-built manufacture, grit temper, and smoothed interior and exterior surfaces, suggesting a dating broadly in the Middle Woodland period (Côté and Inksetter 2001) and more specifically the early Middle Woodland Ceramic Periods 2-3 (ca. 2200-1300 BP) in the Maritimes (Petersen and Sanger 1991; Bourgeois 1999). This dating would make the ceramics at least partly contemporary with the North West River Phase in central Labrador or the Daniel Rattle Complex on the north-central coast.

Rare and unusual artifact types include an incised slate object from FhCe-23, and a small collection of enigmatic red quartzite triangular endblades recovered at FhCe-33 (see Stantec 2014b: Photo 54C, D, and G). Whether these last are of actual Pre-Inuit manufacture, or are Amerindian imitations of Pre-Inuit endblades, their triangular form corresponds to endblades of the Middle Dorset Period, dating ca. 2000 - 1500 BP, contemporary with the early Late Pre-contact Amerindian occupation in Labrador.

Stylistically, the artifact assemblages recovered from the south side of Muskrat Falls present with a diverse and somewhat incongruous combination of typological markers: patterns of raw material use traditionally associated with Intermediate Period sites, combined with a mixture of stylistic attributes, some consistent with the Intermediate Period, others with the Late Pre-contact Period. The association with Middle Woodland ceramics, and possible imitations of Middle Dorset endblades, are more compatible with early Late Precontact date. The triangular and lanceolate bifaces and some of the notched points suggest Late Precontact Period forms, manufactured from traditionally Intermediate-period materials. This is potentially important and may help demonstrate a local continuity of occupation from the Intermediate Period through the Late Precontact Period to the present-day Innu, a continuity that in its earlier stages has remained archaeologically-elusive (see Holly 2013).

3.2.5.3 Radiocarbon Dates

Typologically, especially in terms of lithic raw material use, all of these sites appear to belong to the Intermediate period, albeit with certain artifact types, including projectile point forms and Indigenous ceramics, that may be more consistent with the Late Precontact period. In this context, the suite of dates obtained from the sites excavated on the south side of Muskrat Falls (Table 3.1) is both tighter and somewhat later than expected, ranging from ca. 2,000 – 1,500 BP, corresponding to the very end of the Intermediate Period and the beginning of the Late Precontact Period (Table 3.1). All of these dates fall within, or close to, the 1800-1400 BP date range originally proposed for the terminal Intermediate North West River Phase in Labrador (Fitzhugh 1972; Nagle 1978). This period also overlaps with the time period proposed for the Late Precontact Daniel Rattle Complex on the coast (beginning ca. 1800 BP; Loring 1992) and could therefore be considered either terminal Intermediate or initial Late Precontact.



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Table 3.1 Accelerator Mass Spectrometry (AMS) Dates on Charcoal Obtained From Sites on the South Side of Muskrat Falls

Site	Conventional Radiocarbon Age BP	2 σ Calibration BP	Laboratory Number
FhCe-07	1610 \pm 30	1560-1410	Beta-373497
FhCe-16	1800 \pm 30	1820-1690 / 1670-1625	Beta-373498
FhCe-17	1900 \pm 30	1895-1815	Beta-373499
FhCe-20	1820 \pm 30	1825-1695 / 1650-1635	Beta-373500
FhCe-21	1950 \pm 30	1970-1960 / 1950-1860 / 1850-1825	Beta-373501
FhCe-05	1900 \pm 30	1895-1815	Beta-373496
FhCe-22	1980 \pm 30	1995-1875	Beta-373502
FhCe-23	1940 \pm 30	1945-1825	Beta-373503
FhCe-24	1940 \pm 30	1945-1825	Beta-373504
FhCe-25	1460 \pm 30	1400-1300	Beta-373500

The Muskrat Falls suite of dates is composed of three groups:

- an early series dating 1900-1980 BP (FhCe-05, FhCe-17, FhCe-21, FhCe-22, FhCe-23, FhCe-24);
- a middle series dating ca. 1800 BP (FhCe-16, FhCe-20); and
- a late series of two dates: ca. 1600 BP (FhCe-07) and ca. 1460 BP (FhCe-25)

The two sites in the late series are both somewhat distinctive. FhCe-07 is distinguished by a relatively high proportion of Ramah in the debitage, although it is not unique in this respect. FhCe-25, overwhelmingly dominated by quartzite, is the site that most closely resembles a true North West River Phase occupation.

Otherwise, there is relatively little indication of clear chronological trends in terms of raw material use or artifact styles among the dated sites in the “early series” or “middle series” at Muskrat Falls. These sites all date to the latter portion of the Intermediate Period or the initial portion of the Late Precontact Period (The North West River Phase) as traditionally-dated.

Two of these sites appear to be significantly later than expected:

- FhCe-05, the assemblage most dominated by Saunders Chert, and associated with tool types and a dense cobble pavement hearth (from which the dated charcoal sample was collected) diagnostic of the Saunders Complex, which we would expect to date to ca. 2500-3000 BP; and
- FhCe-20 Area A, a rhyolite dominated assemblage centered on a diffuse hearth feature (from which the dated charcoal sample was collected), associated with rhyolite chunky triangular

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bifaces, scraper and linear / triangular flakes clearly diagnostic of the Intermediate-period Charles Complex, which we would expect to date to 2800-2600 BP.

Since both sites exhibit clear and unambiguous diagnostics of the Intermediate Period, the later radiocarbon dates are considered to have been contaminated (perhaps by the introduction of charcoal from other, later occupations nearby) and unreliable. However, the remaining dates may well be accurate. While it is true that some of the sites alongside the falls, particularly the larger ones, may represent a palimpsest of occupations over a prolonged period of time, these dates are consistent with the presence of precontact Middle Woodland ceramics at five of the sites, and cannot be rejected out of hand. Instead, we must consider the possibility that patterns of raw material use once considered to belong solely to the Intermediate Period may in fact continue into the Late Precontact Period, at least at this particular group of sites.

3.2.6 Summary

The complex of 23 precontact sites excavated along the south side of Muskrat Falls is interpreted as a series of campsites that served as a staging area for travel between Lake Melville and in the central Labrador interior along the axis of the Churchill River. One activity associated with this travel, likely during downstream movements in spring, was canoe-building in preparation for summer travel in Lake Melville and beyond, to the coast.

Although the radiocarbon dates provide no support for early occupation, settlement on the south side of the falls appears to have begun in the Intermediate Period, between 2500 and 3000 BP, exemplified by classic Saunders Complex sites such as FhCe-05 (FhCe-20 Area B, which was undated, is also interpreted as a small Saunders Complex occupation), and the Charles Complex occupation at FhCe-20 Area A.

However, the most intensive period of occupation appears, on the basis of the radiocarbon dates, to have been between 2000 and 1500 BP. This corresponds to the North West River Phase in upper Lake Melville and the Daniel Rattle Complex on the north-central Labrador coast. However, only one of the sites on the south side of the falls (FhCe-25) appears to represent a pure North West River Phase occupation. The remainder of the sites here show no strong resemblance to the North West River Phase (unlike the majority of precontact sites recovered on the north side of the falls and further upstream along the Churchill River), nor to the Daniel Rattle Complex. Instead, these sites exhibit a unique combination of features, including the use of grit-tempered ceramics (apparently of late Precontact-period date), artifact styles resembling both Intermediate and Late Precontact forms, the use of lithic raw materials previously associated with the Intermediate period (Saunders Chert, rhyolite and quartzite), and the presence of small but significant quantities of lithic material from exotic sources, including Newfoundland and western Labrador cherts and others of unknown origin, and Mistassini quartzite. Local quartzite, characteristic of the North West River Phase, is abundant, but not predominant (except at FhCe-25), and Ramah, characteristic of the Late Precontact occupations of the Labrador coast, is a less-used and relatively exotic material. In contrast to sites of the North West River Phase or the Daniel Rattle Complex, most of

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the sites on the south side of Muskrat Falls show less tendency to rely on a single lithic raw material and greater use of lithic materials from distant sources.

3.3 Site Cluster 2: Manitu-Utshu (Muskrat Falls) North Spur

3.3.1 The Sites

Nine archaeological sites associated with the north side terrace and portage trail on the north side of Muskrat Falls were recovered during the 2013 historic resources recovery program. Of these sites, one (FhCe-36) was primarily an historic occupation with a small admixture of precontact lithics; one was determined to date within the past 50 years, two were primarily precontact sites with small admixture of historic artifacts, and the remaining five were single-component precontact sites. To these we may add FhCe-01, a concentration of quartzite flakes identified in the early 1970s (Thurlow et al. 1974; Fitzhugh 1977). This site was recovered in 1979 by James Tuck, who uncovered a localized concentration of quartzite debitage along with two bifacially-flaked stone tools (Tuck 1981) that have been assigned to the North West River Phase, ca. 2000 BP, the latest culture-historical unit in the Intermediate Period.

3.3.2 Site Distribution and Settlement Patterns

All of these sites were situated atop the high (62m asl) terrace on the North Spur, north of the rocky knoll named *Manitu-utshu*, and all but one are closely associated with the present route of the portage trail which leads around Muskrat Falls, ascending the steep slopes of the terrace edge to bypass the falls from the east to the west. The precise route of this portage trail has likely varied over time, as periodic slope failures, originating in antiquity and continuing to the present day, as recently as 1977, have modified the local slope characteristics along the terrace fall, and altered the location of the most convenient routes to the top of the terrace. At present, the eastern ascent of the portage trail (FhCe-08) follows the margins of an ancient slope failure and appears to be deeply entrenched, reflecting decades if not centuries of continual foot traffic along the route. This portion of the trail appears to be relatively ancient. The western ascent, on the other hand, appears to follow a more recent route.

Four of the sites with precontact components were situated close to the terrace edges: three on the east side of the North Spur and one on the west side. The remaining four sites were situated in the interior, in general proximity to the eastern terrace edge, and also to FhCe-01. In general, the precontact sites recovered in 2013, along with FhCe-01, form a site cluster associated with the eastern side of the North Spur, close to the top of the present-day eastern ascent of the portage trail. The one exception (FhCe-39) was located on the edge of a forested slope failure overlooking the beach on the west side of the North Spur. This site yielded very little cultural material (three pieces of debitage) and it appears to represent the surviving margins of a precontact site which has since been deflated by slope failure and erosion. Sites like FhCe-39 are almost certainly the source deposits for the scattered quartzite artifacts which may be observed periodically along the west-facing beach below (designated FhCe-06). Recovery results for these sites are reported in detail elsewhere (Stantec 2014b).



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3.3.3 Site Features

The features most frequently encountered on these sites were localized and more-or-less dense concentrations of quartzite debitage, including cobble fragments and shatter, as well as primary, secondary, and tertiary flakes. Eight of these scatters were recorded (not including the previously-excavated scatter at FhCe-01). Their dimensions range from 2-3m in diameter(at FhCe-40, FhCe- 42, and FhCe-43) , to 4m x 3m (two separate scatters at FhCe-40), 6m x 4m (at FhCe-41 and FhCe-44), and the largest (at FhCe-37) measured 5m x 8m.

This gives the impression that all of these sites are primarily lithic reduction areas, an impression reinforced by the frequency of preforms and preform fragments, some of them obviously fractured as a result of manufacturing errors. In this respect, the sites recovered on the North Spur in 2013 closely resemble FhCe-01, the small debitage scatter excavated by Tuck in 1979.

Well-defined hearths are lacking at all of the North Spur sites. Several small lenses of charcoal-stained sediment were noted (at FhCe-37, FhCe-40, FhCe-42, and FhCe-44); occasional burnt quartzite cobble fragments were noted (at FhCe-37, FhCe-40, and FhCe-44), and one small lens of fire-reddened subsoil was noted at FhCe-43, but the cobble scatters we would expect to see associated with hearth features are largely lacking. The scarcity of firecracked cobbles is initially puzzling, but the large quantity of quartzite shatter, including cortical shatter, some showing evidence of burning, suggests that the quantities of quartzite cobbles have been heated, subsequently split and reduced to manufacture tools. Quartzite cobbles, although locally abundant and readily available for stone tool manufacture, are difficult to split for subsequent reduction. It is hypothesized that the inhabitants of these North Spur sites deliberately and specifically selected quartzite cobbles from the beaches below the terrace for use in their hearths, using the heat of the fire to split the cobbles and make them easier to work. This practice would effectively remove and destroy the cobbles from cobble hearths, leaving only charcoal stains and / or burnt subsoils to mark former hearth locations.

3.3.4 Site Function and Seasonality

Although the deliberate transformation of cobble hearths into lithic scatters would be an explicable behavior, it is not a practice previously noted for Intermediate Period (or Late Pre-contact) sites in Labrador. If this is a correct explanation for the patterns observed at these sites, it suggests that primary reduction of quartzite (including preparation of preforms) was a particularly and unusually important activity at the sites. That said, the high frequency of linear flakes (the most numerous artifact type recovered) and bifaces, suggests that food preparation and other domestic tasks were performed in these locations as well. This impression is reinforced by the relatively high frequency of re-purposed tools, particularly at FhCe-40.

The North Spur sites appear to represent a series of small, discrete, possibly short-term campsites, one of the primary functions of which was quartzite reduction and preparation of tools for future use. Overall, this complex of sites on the north side of Muskrat Falls, like those on the south side, is therefore interpreted as a staging area for seasonal moves up and downstream. No bone or



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calcined bone was recovered from any of these scatters, but since the spring ice conditions on the eastern side of the North Spur are notoriously dangerous (Stantec 2014), the sites are most likely to have been occupied in fall during travel upstream along the Churchill River.

3.3.5 Artifacts and Cultural Relationships

The seven sites on the North Spur of Muskrat Falls that yielded primarily or wholly precontact assemblages differed considerably from those recovered on the south side of Muskrat Falls, not only in the limited evidence for hearth features, but also in the lithic raw materials employed. In contrast to the diversity of lithic materials found on the south side of the falls, the nearly 28,000 lithic pieces recovered from the sites on the north side consisted overwhelmingly of quartzite, with only 145 pieces (0.5% of the total) of Ramah, rhyolite, quartz, and chert.

The 280 finished artifacts recovered from these sites (e.g. Photo 4) consist primarily of linear flakes (183 examples). Bifaces and biface fragments (46 pieces) included larger rounded-base lanceolate bifaces and smaller triangular and narrow-leaf-shaped forms, many with asymmetric bases. Only three projectile points were recovered, all from the largest site (FhCe-40). One was an asymmetric waisted and shouldered point, the other two (one of rhyolite) were small, thick triangular/leaf-shaped flake points. Preforms (24), often fragmentary, exhibited a variety of forms, as did retouched and utilized flakes (16). Four flake cores were recovered, as well as a preform repurposed as a linear flake core (from FhCe-40). Formal scrapers were not present in the assemblages, but FhCe-41 did yield one linear flake endscraper, and a discoidal cobble-spall scraper was recovered from FhCe-42.

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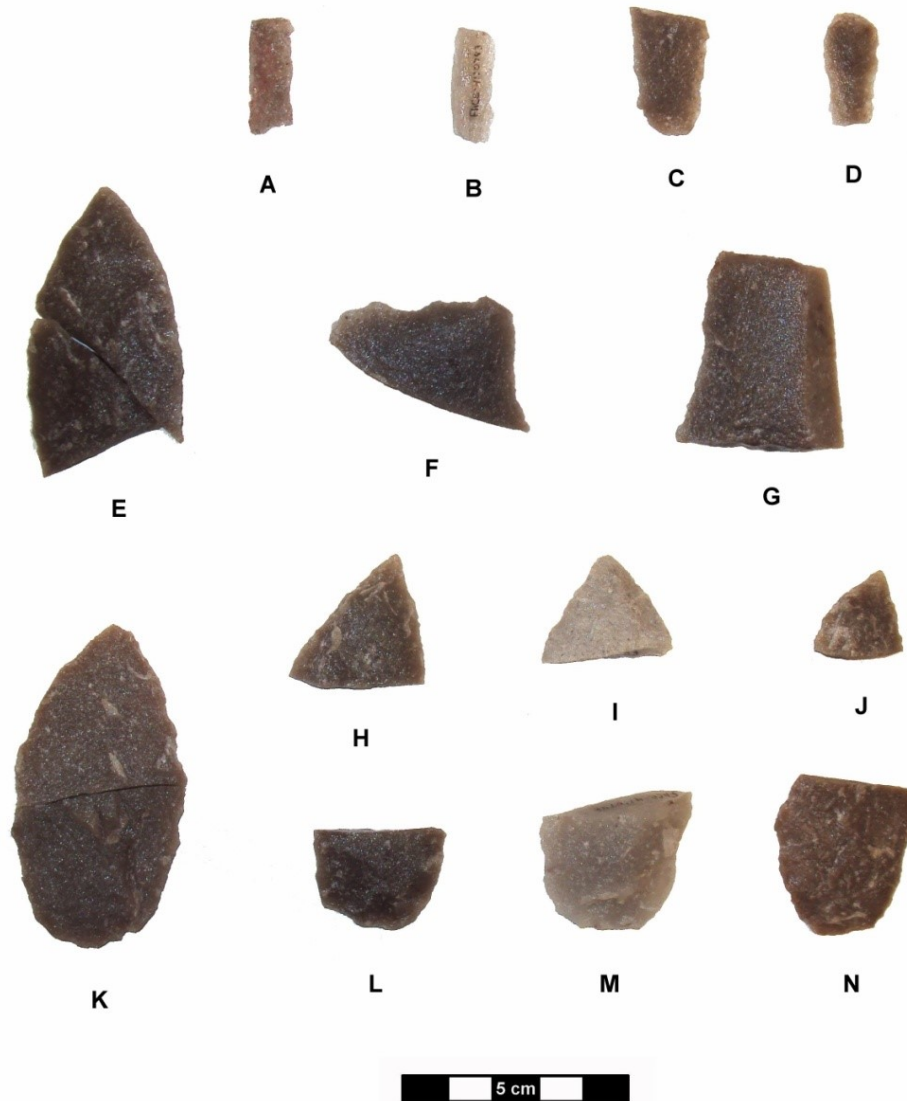


Photo 4 Selected Quartzite Artifacts Recovered from FhCe-41 (Stantec 2014b)

The quartzite-dominated assemblages, along with the specific artifact types recovered (the asymmetric bifaces, preforms, and the lack of formal scrapers and of notched projectile points) clearly indicates affiliation with the North West River Phase (Fitzhugh 1972). The only divergence from previously-known North West River Phase sites is the high frequency of linear flakes in the North Spur assemblages, a distinction which is likely functional rather than typological.

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3.4 Site Cluster 3: Mishta-Shipu (Sandy Banks)

Previous assessment work indicated that precontact settlement within the Project Area was strongly clustered in three locations: Muskrat Falls, the Sandy Banks area, and Gull Lake. The Sandy Banks site cluster was situated ca. 23km upstream of Muskrat Falls, midway between the Muskrat Falls site complex and the cluster of sites on the north shore of Gull Lake (IELP/JWEL 2001d; Schwarz 2007).

The Churchill River from Gull Island Rapids downstream to Muskrat Falls can be considered to be a straight-to-sinuuous, single-channel system varying from "stable" to "unstable," with characteristics intermediate between idealized "meandering" and "wandering" systems, with numerous indications of channel migration during the past 3,000 years, as well as recent changes in channel form (JWEL 2000). As a result, part of the reach of the Churchill River between Gull Island Rapids and Muskrat Falls presents as a string of small "lakes," some with a central sandbar or island, separated by relatively narrow channels. The Sandy Banks area is one such "lake," notable for its long, broad central sandbar.

The 23km distance from Muskrat Falls probably represents a (short) day's travel upstream from Muskrat Falls, whether upstream by canoe or either upstream or downstream on foot. Aside from its location midway between Muskrat Falls and Gull Lake and its suitability as a travel stop, the Sandy Banks area is not obviously a strategically-significant settlement location.

However, at the eastern (downstream) end of the Sandy Banks area is the mouth of *Tepiteu-shipiss*, where the broad, grassy flats and the *ashkui* formed by the early break-up of ice in the spring attract numerous waterfowl (and occasionally, caribou) in the spring and fall (Armitage 2007). The Sandy Banks area, particularly near *Tepiteu-shipiss*, also offers an abundance of fish, including lake trout, brook trout, pike, whitefish), suckers, cisco, and perhaps at times, burbot (Armitage 2007). To the west, the Sandy Banks area includes an historic minor rapids (not often evident in recent years), and a short, narrow channel (the narrowest below Gull Island) below the next "lake" upstream, where *Etuat-shipiss* (Edward's Brook) flows into the Churchill River from the north. Moreover, Brian Michelin, whose family maintained a cabin at Sandy Banks through much of the 20th century, recounted following "an old Innu route" leading from the south side of the Churchill River near Sandy Banks to the height-of-land overlooking the Gulf of St. Lawrence (Dawson 2013: 137); while we do not know the age of this travel route, it raises the possibility that Sandy Banks may once have served as a staging area for long-distance hunting trips, perhaps for caribou, and also as a junction of travel routes leading not only up and down the Churchill River, but south to the Côte-Nord.

3.4.1 The Sites

Five sites with precontact components were identified in the Sandy Banks area, all aligned along terrace edges overlooking the Churchill River. Three of these were situated on the south bank. One of these (FgCg-03) yielded no further cultural material during excavation and appears to have been a lithic stray find; the other two (FgCg-05 and FgCg-06) were located in close proximity



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to one another, on opposite sides of a small brook debouching on the south side of the river along the narrow channel separating the Sandy Banks area from the next river widening upstream at the mouth of Edward's Brook. The easternmost site in the Sandy Banks cluster (FgCg-02) was located on a high terrace on the north bank, upstream from the mouth of *Tepiteu-shipiss*, and FgCg-01 was located on the north bank, on a broad point of land.

Prior to the commencement of recovery work, it was anticipated that these sites would be relatively small, and essentially represent travel stops on the river route between the larger site clusters at Muskrat and Gull Lake. To some extent, this appears to be true. FgCg-02 and FgCg-05 were relatively small, and FgCg-06 only a little larger. However, FgCg-01, the central site in the Sandy Banks site cluster, proved to be a large site with evidence for multiple occupations and re-occupations. FgCg-01, the largest site recovered in the whole project, proved to be a multi-component site with four distinct site loci. Locus A consisted primarily of a series of historic (19th century) campsites (discussed in Section 5.2.1 below), presumably associated with the Sandy Banks HBC post. However, excavations did yield two small precontact features and a small assemblage of precontact lithics and also precontact ceramics. Locus B was the principal precontact occupation, defined by three separate concentrations of lithic debitage. Locus C consisted of a 20th century tilt (discussed in Section 6.2.1.1 below). Locus D was the site of the 19th century Sandy Banks HBC post (discussed in Section 4.0 below), however it did yield a sparse scattering of precontact lithics, along with one concentration of debitage that appears to have been largely unaffected by the larger and later historic occupation of the Post.

FgCg-02, FgCg-03, FgCg-05, and FgCg-06 were all recovered in 2014 (Stantec 2015). FgCg-01 Locus A was recovered in 2014 (Stantec 2015), Locus B in 2014 and 2015 (Stantec 2015, 2016), and Locus D in 2016 (Stantec 2017). Recovery results for these sites are reported in detail in the above-cited reports.

3.4.2 Site Distribution and Settlement Patterns

The precontact sites in the Sandy Banks area formed a distinct site cluster, situated ca. 23km upstream of Muskrat Falls, midway between the Muskrat Falls site complex and the cluster of sites on the north shore of Gull Lake (JWEL/IELP 2001d; Schwarz 2007). The 23km distance from Muskrat Falls probably represents a (short) day's travel upstream from Muskrat Falls, whether upstream by canoe or either upstream or downstream on foot. Prior to the 2014 recovery work, it was anticipated that these sites would be relatively small, and essentially represent travel stops on the river route between the larger site clusters at Muskrat and Gull Lake, likely occupied during travel up and down the river in the spring and fall. To some extent, this appears to be true. FgCg-02 and FgCg-05 are small sites consistent with short term, likely single-family travel stops. FgCg-06 is rather larger, but the focus of settlement in the Sandy Banks area appears to have been at the large site at FgCg-01.

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The Sandy Banks site cluster includes the only significant and preserved precontact sites (FgCg-05 and FgCg-06) identified on the south bank of the Churchill between Muskrat Falls and Gull Island rapids. It is not clear why significant settlement on the south bank occurred at Sandy Banks but not elsewhere above Muskrat Falls. However, even in the Sandy Banks area, the most substantial evidence for settlement occurs along the northern bank of the river.

3.4.3 Site Function and Seasonality

The two smallest sites, FgCg-02 and FgCg-05, were respectively the easternmost and westernmost sites in the Sandy Banks cluster. Each of these smaller outlying sites had a quartzite-dominated lithic assemblage, and evidence for a small cobble hearth (deflated in the case of FgCg-05) with no projectile points but a fairly high frequency of preforms and, in particular, expedient tools (linear flakes and retouched or utilized flakes) along with considerable debris from primary reduction of quartzite cobbles. Except for the presence of hearths, these sites are very similar to those recovered on the North Spur of Muskrat Falls in 2013 (Stantec 2014b) and likely served similar functions, with a full range of domestic tasks performed on-site, particularly lithic reduction, but representing short-term travel stops rather than longer-term encampments or gathering sites.

FgCg-06 is larger, however, and contains evidence for a highly-disturbed but apparently linear hearth feature.

FgCg-01 also yielded evidence for at least linear concentrations of lithic debitage and firecracked rock. The presence of linear hearth features suggests communal feasting activities, and by implication, the harvesting of a significant local food resource, and possibly occupations more prolonged than simply travel stops. Associated artifacts, fashioned primarily of quartzite, included a range of types, in frequencies most comparable to those noted in the quartzite assemblages on the North Spur of Muskrat Falls (Stantec 2014b): bifaces and preforms were recovered in comparable frequencies, and, as on the North Spur, the predominant artifact type in the assemblage were linear flakes, while projectile points and formal scrapers were relatively rare. The features and artifact frequencies suggest that FgCg-01 consisted of a series of multi-purpose campsites which saw a wide range of domestic activities, including, in part, the primary reduction of quartzite cobbles for the manufacture of both preforms and expedient tools. However, there is clearly some diversity in lithic raw material use at the site. The presence of exotic lithic raw materials at the two larger sites further raises the possibility that these larger sites, particularly FgCg-01, were gathering places for people arriving from a variety of distant areas, in particular from the lower Côte-Nord. In terms of seasons of occupation, the focus of settlement on the north bank of the river implies cold-season occupation (see Armitage 1990), at least at FgCg-01, either early winter, or early spring before break-up, most likely the latter. Recovery work at the linear features at FgCg-01 has yielded collections of highly-fragmentary calcined bone from precontact contexts, and smaller quantities were recovered from FgCg-06; the collections may include indicators of seasonality of occupation for these linear hearths.



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In sum, the precontact sites in the Sandy Banks area are interpreted as a mixture of short-term travel stops, and longer-term gathering and feasting sites, with occupation likely occurring primarily in the spring, but also, particularly at the smaller sites, potentially in the fall.

3.4.4 Site Features

FgCg-02 yielded two features, a pair of hearths, or possibly a “blended-hearth” pair: one included a scatter of heat-shattered quartzite cobbles with a thick lens of quartzite debitage, including large primary flakes and split cobbles, interpreted to result from heat treating of quartzite for tool production; and the second was a diffuse scatter of rocks underlain by charcoal and additional quartzite debitage, including a large number of preforms. The assemblage of lithics and potential heat-treating features suggests that this site was primarily used for the primary reduction of quartzite, and no projectile points were recovered, although the large number of linear flakes as well as the presence of scrapers suggest some domestic activities. FgCg-02 is interpreted as a short-term encampment in which hearth features composed of heated quartzite cobbles were subsequently worked to manufacture quartzite preforms and expedient tools.

Recovery work at FgCg-05 exposed an extremely dense concentration of quartzite debitage and tools located on the edge of the terrace alongside the river. The lithic concentration measured approximately 2m in diameter and contained large quantities of micro-debitage. This concentration was partly deflated on its northern edge, and continued as a sparser scatter of debitage, along with rock and firecracked rock, extending down the sloping front of the terrace. Despite the absence of a well-defined hearth feature, the tumble of firecracked rock fragments on the terrace slope at FgCg-05 clearly indicates that a hearth was once present at the site. The diversity of lithic tool types recovered from the site suggests a range of domestic activities, including food and hide processing, was performed here. Since the hearth was apparently deflated while the quartzite debitage concentration survives, we can infer that quartzite-knapping likely occurred outside the actual dwelling structure at FgCg-05. FgCg-05 is therefore interpreted as the deflated remains of a habitation site, likely a short-term campsite or travel stop.

FgCg-06 was relatively small like FgCg-02 and the nearby FgCg-05. However, in most other respects, FgCg-06 appears, functionally, to be an isolated, smaller version of FgCg-01. Although tree throw disturbance makes it difficult to determine whether the firecracked rock distribution at FgCg-06 reflects a linear array of three separate hearths, a linear array of three “blended” hearths, or a single long linear hearth feature, the linear alignment of hearths oriented perpendicular to the terrace edge suggests communal feasting activities. Associated lithic raw materials, some of which were of exotic origin. The high frequency of finished artifacts, including projectile points, finished scrapers, and, most notably, grit-tempered Indigenous ceramics, all invite comparisons with FgCg-01 and with the site complex on the south side of Muskrat Falls.

Locus A at FgCg-01, although primarily a 19th century historic occupation, did contain two small diffuse clusters of firecracked rock associated with small assemblages of precontact artifacts. Feature 1 yielded a small collection of precontact artifacts, primarily quartzite debitage but also



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including a side-scraper and a small core of exotic chert derived from the west coast of Newfoundland, along with 15 sherds of precontact ceramic. Feature 2, a somewhat linear array of firecracked rock measuring 1.5m x 4m long was associated with a small assemblage of quartzite and Ramah flakes. Neither feature contained charcoal.

Recovery work at FgCg-01 Locus B in 2014 and 2015 revealed three large cultural features dating to the precontact period (Features 7, 8 and 9), two of which (Features 7 and 8) appear to represent 4m-long linear hearth (or "blended" hearth pair) features, oriented perpendicular to the edge of the terrace and associated with extensive scatters of lithic debitage (Figure 3-5).

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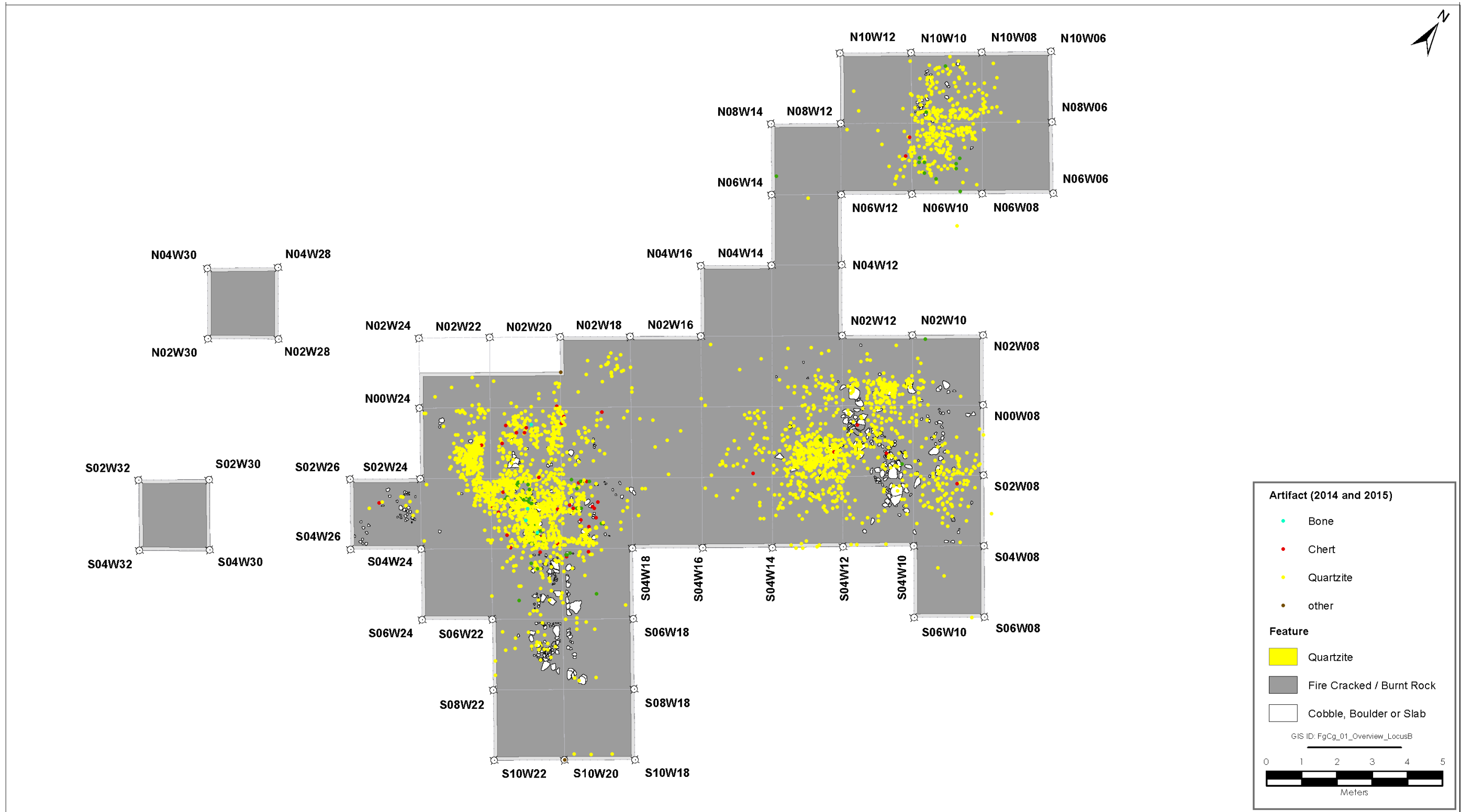


Figure 3-5 Plan View of Excavations at FgCg-01 Locus B (Stantec 2016)



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Feature 7 was a substantial rock hearth feature 1m wide by at least 4m long, oriented perpendicular to the terrace edge, containing calcined bone and precontact artifacts, and, to the north, a dense cluster of lithics, bone, and traces of red ochre over an area measuring approximately 8m x 4m. Whereas generally precontact cultural material at sites in the Churchill Valley was found primarily on and within the A Horizon, rarely extending more than 20cm below the surface, the cultural deposits in Locus B, especially in Feature 7, continued to unusual depths to 60cm below surface. and displayed unusual stratigraphy consisting of multiple alternating deposits of sand and clay. Inspection of recent slope failures elsewhere along the Churchill River indicated similar stratigraphy resulting from slopewash deriving from exposed sediments. This suggests that Feature 7 at Locus B may in fact have been occupied repeatedly and established on exposed sediment on a former slope failure. There are indications of stratigraphic variation in the cultural materials recovered from the feature: while quartzite debitage dominated the assemblage at all depths, the higher levels contained precontact ceramics, as well as slightly greater diversity of lithic material including a small collection of black chert bifaces. In 2016, five soil samples were collected from the sidewalls of the excavation for potential Optically-Stimulated Luminescence (OSL) dating of the age of exposure for the sediments associated with the precontact occupation.

Feature 8, located perpendicular to the terrace edge at the eastern end of Locus B, 10m northeast of Feature 7, was another substantial linear rock feature (or a "blended pair" of oval rock features) measuring 1.5m wide by 4m long, oriented approximately perpendicular to the terrace edge, and flanked by three dense clusters of lithic debris and artifacts, with small quantities of calcined bone extending across an area measuring approximately 8m x 6m.

Some 7m to the north of Feature 8, away from the terrace edge, another dense concentration of quartzite debitage (Feature 9) was encountered, one that contained relatively few finished artifacts and little firecracked rock was encountered; this lithic scatter measured approximately 2m wide x 4m long.

Although FgCg-01 Locus D consisted primarily of the 19th century HBC post, this locus did yield isolated precontact lithics (as well as a single sherd of grit-tempered ceramic) dispersed across the entire site. The principal evidence for precontact occupation, however, consisted of Feature 19, a localized concentration of rock and firecracked rock along with quartzite debitage and artifacts (and some admixture of historic artifacts) in an area approximately 2m in diameter and extending more sparsely another 2m downslope situated in the southwestern corner of Locus D, just beyond the margins of the later 19th century occupation area. This feature closely resembles other small quartzite-dominated precontact sites previously excavated in the Churchill Valley (see Stantec 2014a; 2014b; 2015) and is similarly interpreted as a hearth and associated lithic scatter representing a small precontact campsite.



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3.4.5 Artifacts and Cultural Relationships

Broadly-speaking, the quartzite-dominated precontact assemblages recovered in the Sandy Banks area in 2014, particularly the smaller sites (FgCg-02, FgCg-05, and FgCg-01 Locus D Feature 19), but also FgCg-01 Locus B Features 8 and 9, are comparable to the cluster of quartzite-dominated sites recovered on the North Spur of Muskrat Falls in 2013 (Stantec 2014b), and to some of the sites recovered on the south side of Muskrat Falls (e.g., FhCe-25; Stantec 2014a). These sites are characterized by large quantities of quartzite debitage, including cobble shatter, and lithic tool assemblages with high frequencies of linear flakes, preforms, large bifaces, and retouched and utilized flakes, along with cobble-spall scrapers. Typologically, these sites appear to pertain to the late Intermediate/Early Late Precontact North West River Phase at North West River (Fitzhugh 1972). The one contrast is the linear flake industry so prevalent at the quartzite-dominated sites in the Churchill Valley, which is not normally associated with the North West River Phase, although it is found in most Intermediate-period complexes (Fitzhugh 1972); it is also found in the Cow Head Complex in Newfoundland (at least, in the Spearbank Site; Hartery 2007: 15-16).

However, there are differences between some of these collections and those of the North West River Phase. At FgCg-06, while the majority of lithic debitage pieces (84.7%) consisted of quartzite, various cherts made up an unusually high 11% of the assemblage. (and rhyolite 3.6%). Most noteworthy is the unique collection of thin thumbnail scrapers of a black chert which may derive from the west coast of Newfoundland, along with four pieces of precontact ceramic. The black chert thumbnail scrapers are consistent with scraper forms of the latter half of the Late Precontact Period (Point Revenge on the north-central Labrador coast, the Anse Morel complex on the Québec lower Côte-Nord, and the Little Passage Complex in Newfoundland).

At FgCg-01 Locus A, precontact ceramics were also associated with a quartzite-dominated assemblage that included small but significant frequencies of Ramah and Newfoundland cherts, along with a significant collection of 15 sherds of precontact ceramic.

In the unusually deep deposits at FgCg-01 Locus B Feature 7, the lower levels yielded primarily quartzite artifacts compatible with the North West River Phase. Radiocarbon analysis of a charcoal sample taken from the lower levels of Feature 7 in 2015 yielded a date of 1900 ± 39 radiocarbon years BP (UOC-1134).

The upper levels of the assemblage yielded primarily a similar quartzite-dominated assemblage, but with significant minority frequencies of other lithic raw materials, principally chert, including Saunders Chert and cherts which appear to derive from the west coast of Newfoundland. The upper levels also yielded a small collection of three black chert notched projectile points and a triangular biface (Photo 5), all artifact types resembling those of the Late Precontact period in both Labrador and the Island of Newfoundland, most notably the small corner-notched projectile points and triangular biface from Feature 7, all fashioned from vitreous black cherts. These artifacts are stylistically-consistent with point forms from sites of the late-precontact Point Revenge Complex on the central Labrador coast (Fitzhugh 1978; Loring 1992), but they differ in raw material,



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being fashioned from opaque grey-black chert rather than the Ramah almost universally employed in sites of the Point Revenge Complex. Rather, the use of opaque cherts for these artifacts recalls Late Precontact artifact assemblages known from the Strait of Belle Isle at Blanc-Sablon (Pintal 1998), from Saddle Island West in southern Labrador (see Tuck 1989), and even the Little Passage Complex of the Island of Newfoundland (e.g., see Pastore 1992: 11), which date to, or after, 1000 BP. In this regard, it is noteworthy that FgCg-01 Locus B Feature 7, like FgCg-06, yielded trace frequencies of vitreous green, grey and tan cherts that clearly derive from the west coast of Newfoundland. The upper levels at Feature 7 also yielded 11 pieces of precontact ceramic. These sherds are all relatively thick-walled with a grey, low-fired paste, grit temper, and smoothed (but not burnished) interior and exterior surfaces. They all appear to be bodysherds, with no evidence of surface decoration. Analysis of two small sherds, one from Locus A Feature 1, and one from Locus B Feature 7, indicates that the Indigenous ceramics from that site are unlikely to have been manufactured in the Churchill Valley (Wilton 2016).

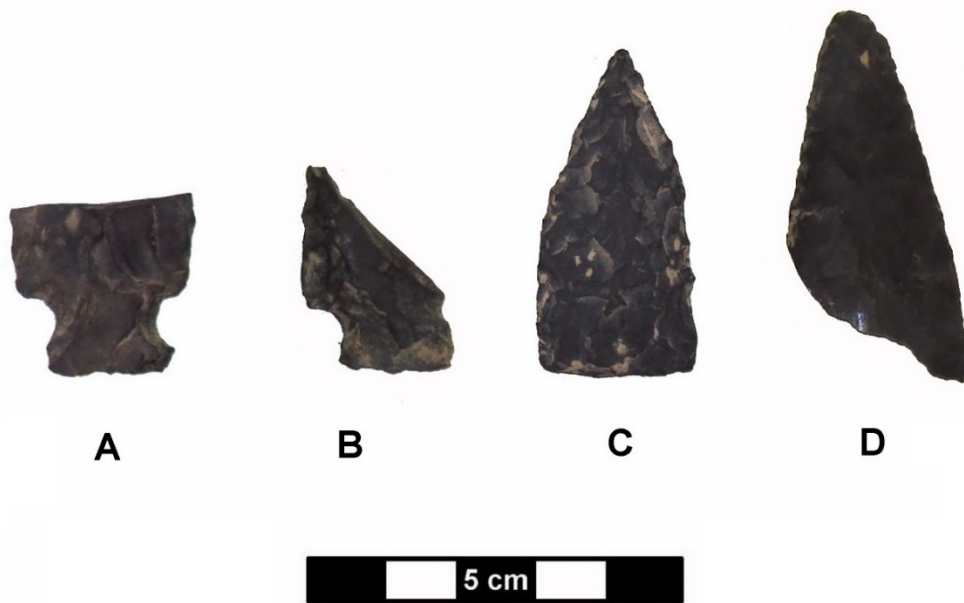


Photo 5 **Black Chert Bifaces Recovered from FgCg-01 Locus B, Feature 7 (Stantec 2015)**

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3.4.6 Summary

The precontact sites in the Sandy Banks site cluster appear to be a mixture of small components consistent with short-term travel stops, and larger, more prolonged occupations with linear hearths, representing more prolonged or intensive harvesting and communal feasting. The presence of precontact ceramics at these same sites may also reflect more prolonged seasonal occupation. Although all of the lithic assemblages are quartzite-dominated, lithic raw material diversity is greater than that seen at sites on the North Spur of Muskrat Falls, and most notably, includes a greater quantity of cherts that appear to derive from the west coast of Newfoundland. The larger sites in the Sandy Banks site cluster therefore show connections with Newfoundland, or, at least, with the Québec lower Côte-Nord, where Newfoundland cherts are found in high frequencies.

Broadly-speaking, the precontact sites within the Sandy Banks site cluster are quartzite-dominated assemblages containing artifact types consistent with the North West River Phase in upper Lake Melville. The smaller sites and site components such as FgCg-02 FgCg-05, and FgCg-01 Locus D Feature 19 yielded small but dense quartzite scatters consistent with individual families or family groups making short travel stops between the larger site clusters at Muskrat Falls and Gull Lake. However, the two larger sites (FgCg-06 and FcCg-01 Locus B) also yielded evidence for linear hearths indicating communal feasting and more prolonged or repeated periods of occupations. The lower levels of the hearth at FgCg-01 Locus B Feature 7 was dated to 1900 ± 39 radiocarbon years BP (UOC-1134). These same sites also contained precontact ceramics, and small collections of black chert thumbnail scrapers (FgCg-06) and notched projectile points and a triangular biface (the upper levels at FgCg-01 Locus B Feature 7). The combination of small notched points and small triangular bifaces is particularly reminiscent of the latter portion of the Late Precontact period, ca. 1000 BP (both the Point Revenge Complex in Labrador and the Little Passage Complex in Newfoundland). Ceramics and exotic lithic materials, including Newfoundland cherts, were also recovered from FgCg-01 Locus A.

The radiocarbon date from FgCg-01 Locus B Feature 7 is compatible with a North West River Phase affiliation, and with the majority of the quartzite artifacts recovered at all of these sites. The characteristics of the precontact ceramics, diagnostic of the Middle Woodland period in the Maritimes and Québec, are also consistent with this dating, although they do highlight the possibility that North West River Phase is contemporary with the Danial Rattle Complex on the coast, and therefore belongs as much, or more, to the Late Precontact period as to the Intermediate . However, the distinctive black chert artifacts from FgCg-06 and FgCg-01 Locus D are stylistically more consistent with Late Precontact complexes such as Point Revenge, and, in particular given the raw material, the Little Passage Complex in Newfoundland and the later precontact complexes from the Blanc-Sablon area. These artifacts may indicate additional, later occupations at FgCg-06 and FgCg-01 Locus B.

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3.5 Site Cluster 4: Tshiashkunish (Gull Lake)

Previous assessment work indicated that precontact settlement within the Project Area included a significant cluster of sites on the north shore of Gull Lake (IELP/JWEL 2001d; Schwarz 2007).

Gull Lake ("Tshiashkunish") 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). Above Gull Lake, the river narrows significantly at *Tshiashku-paushtik^u* (Gull Rapids), the next significant obstruction to travel southwest of Muskrat Falls. 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. There is also an apparent *ashkui* just east of the flats, a small cove that presently becomes ice-free relatively early in the spring (see Stantec 2016). Another smaller sandbar also emerges further east along the lake. The outflow at the eastern end of the lake is marked by a minor rapids (*Kaku-paushtik^u* or Porcupine Rapids), just upstream from the mouth of Pinus River. *Kaku-paushtik^u* is no longer a conspicuous rapids, but in the historic and precontact periods, it may also have been the site of an ice-free *ashkui*, attractive to migratory waterfowl in the spring, and an attractive area for fishing. The outflow of Gull Lake is also an attractive source of relatively high-quality quartzite cobbles (see Stantec 2018). Gull Lake is identified in Innu Nation land use data as a harvesting area for fish, small game, furbearers and migratory waterfowl (Armitage 1990).

3.5.1 The Sites

Eight sites with precontact components were identified in the Gull Lake area. Only one was situated on the south side of the lake. This site (FgCh-04) was originally identified on the basis of a sparse scatter of lithics on the beach (Minaskuat 2008a). Subsequent testing in 2014 (Stantec 2015) determined that no in situ cultural deposits were present, and that the site had apparently been deflated in its entirety. The remaining seven sites were located on the northern side of the lake. Six of these were aligned along terrace edges immediately overlooking the Churchill River. The seventh (FgCh-01) was situated 300m from the present lakeshore, along the margins of a former river channel. Of these sites, three (FgCh-01, FgCh-04, and FgCh-05) were located near the eastern end of the lake above the outflow at Porcupine Rapids, three (FgCh-02, FgCh-03, and FfCh-02) were distributed along the northern shore of the eastern portion of the lake (FgCh-02 and FgCh-03 were adjacent, only 2m apart), and two (FfCi-01 and FfCi-02) were located in close proximity to one another, in a small cove midway along the northern shore, just downstream of the extensive flats and sandbars at the western end of the lake. FfCi-02 was the largest single site in the cluster, and the largest precontact site recovered during the project, containing five separate precontact site loci.

FfCi-02 was recovered in 2015 (Stantec 2016). FgCh-01, FgCh-02, FgCh-03, FgCh-05, FfCh-02 and FfCi-01 were recovered in 2017 (Stantec 2018). Recovery results for these sites are reported in detail in the above-cited reports.



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3.5.2 Site Distribution and Settlement Patterns

The sites in the Gull Lake site cluster are clearly oriented toward taking advantage of the harvestable resources to be found at the westernmost potential settlement area below the lengthy portage at Gull Rapids. These sites are generally large (not as large as FgCg-01, but larger than most individual sites at Muskrat Falls) and the relative density and large size of the sites in the Gull Lake site cluster highlight the extent to which, even allowing for the possibility that FgCh-04 on the south side of the lake may once have seen significant occupation, the north shore of Gull Lake appears to have been a strategic site location which attracted repeated and prolonged settlement in the precontact period. Five of the sites are sited opposite offshore sandbars, but for the most part the distribution of sites in this cluster suggests a general orientation toward settlement on the north shore of the lake, but not necessarily focused on a particular strategic location. That said, there is one particularly large site complex, consisting of FfCi-01 and FfCi-02, located in the cove downstream of the extensive sand flats at the western end of Gull Lake.

3.5.3 Site Features

One feature all the precontact sites recovered on Gull Lake share in common is the presence of one or more lithic scatters, in all cases dominated by quartzite debitage. These vary widely in size, from as little as 2m in diameter, to as large as 4m x 10m. Many of these quartzite scatters are markedly elliptical and oriented perpendicular to the lake, including one scatter each from FgCh-02 and FgCh-05, and both scatters from FgCh-03. All of these are large, dense scatters, most measuring approximately 4m wide and 7-10m long. These dimensions are consistent with linear hearth features, although it should be noted that none are associated with clearly linear firecracked rock concentrations; one scatter at FgCh-03 and the linear scatter from FgCh-05 were both associated with clusters of firecracked rock and/or calcined bone, but these clusters were localized and measured less than 1m in diameter. All of these large linear scatters were associated with terrain that slopes gently down toward the lake. At FgCh-02 and FgCh-03, sediments were noticeably clayey and many lithic pieces were found on edge, suggesting that they had been redeposited.

In general, lithic scatters recovered from sites in the Churchill Valley are "soft-edged," the density of lithics decreasing gradually at the margins. However, the quartzite scatter at FfCi-02 Locus C, which measured 5m x 7m, was noticeably hard-edged, suggesting that it was deposited within a structure interior. Even more significant was the sharply-polygonal hard-edged quartzite scatter at FgCh-01, which similarly measured 6.75m x 5.5m and was centered on a sand-mound hearth 2m in diameter containing firecracked rock (Figure 3-6). Just beyond the edges of this scatter, total station level mapping revealed a 60cm-wide subtle ring of low, irregular hummocks encircling the hearth to the north, east, and south, associated with one post-mold (Figure 3-7). These features in combination provide the clearest evidence to date of a dwelling structure, interpreted as an approximately circular dwelling constructed of tent poles enclosing an interior space centered on a sand-mound hearth and measuring 5.5m in diameter. The debitage scatter suggests that the exterior circular tent ring enclosed a polygonal interior wall. Clear evidence for dwelling structure



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perimeters or construction techniques in sites of the Intermediate and Late Precontact periods in Labrador has been elusive. No structure outlines of any sort have been identified at sites of the North West River Phase in central Labrador, the culture-historical unit most closely related to the quartzite-dominated sites of the Muskrat Falls reservoir area. On the north-central Labrador coast, a small, subtly-defined shallow oval housepit of the partly-contemporary Daniel Rattle Complex was defined at Kamarsuk Area II, and at Daniel Rattle Area IV, a linear hearth feature was set within a surrounding structure estimated at 4m x 8m, based on artifact drop-offs (Loring 1992). At the later Point Revenge Complex (Late Precontact) site at Winter Cove 4 in Groswater Bay, a quite different structure was encountered: a 4m x 8m subrectangular stone tent-ring of almost bilobate form (Fitzhugh 1978; for a review of the structural evidence from these sites, see Hull 2002).



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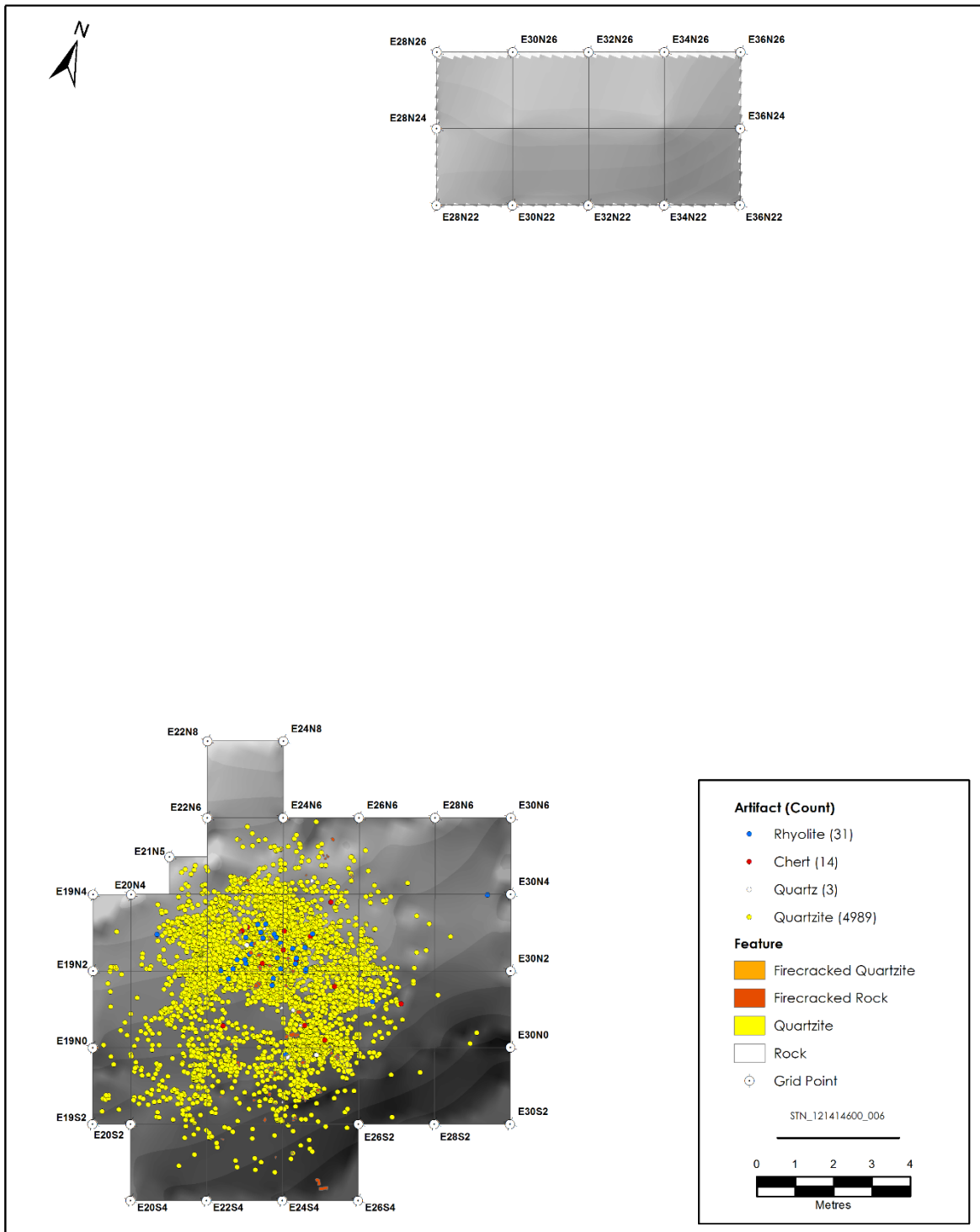


Figure 3-6 Plan of Excavations at FgCh-01 Showing the Distribution of Lithics (Stantec 2018)

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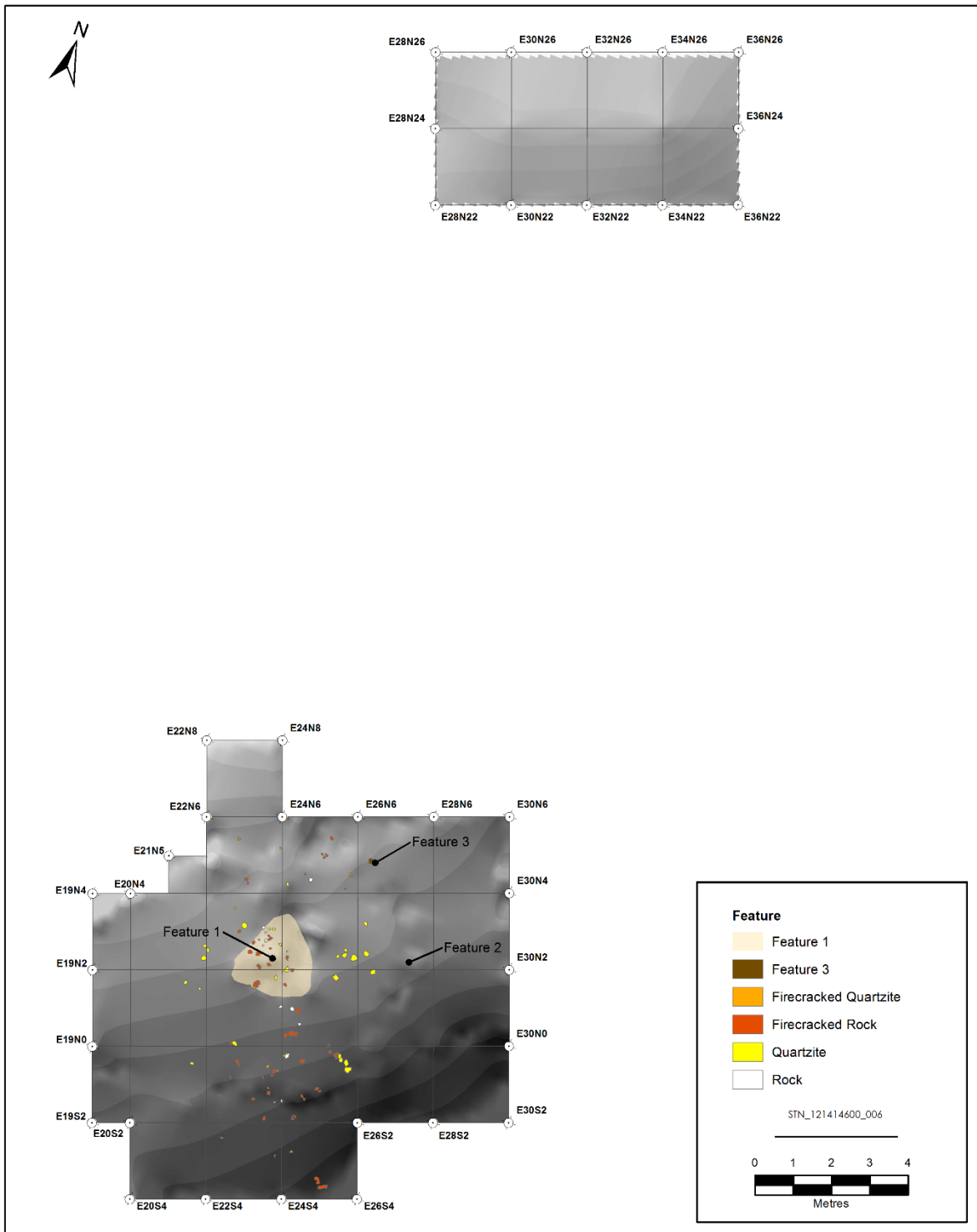


Figure 3-7 Plan of Excavations at FgCh-01 (Stantec 2018)

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Other evidence for a dwelling perimeter comes from FfCh-02 Locus A, where an unfortunately discontinuous earth-walled perimeter mound overlying buried sod partially enclosed a central space approximately 6m in diameter. The site may be a palimpsest of overlapping structures, and this structure is not as clearly defined as that at FgCh-01. Earthwalled tent-rings are a characteristic feature of historic 19th century Innu tent sites in northern Labrador and Quebec (see Lee 1966, 1967; Loring 1992), and a 19th century Innu earthwalled tentring was excavated on Gull Lake at the FfCi-02 site in 2015 (Stantec 2016). Earthwalled structures are also characteristic of historic Beothuk sites on the Island of Newfoundland (e.g., Pastore 1983). However, they are not normally associated with purely precontact Amerindian sites in Newfoundland and Labrador and have not previously been identified at precontact sites within the Churchill Valley.

In terms of archaeologically-documented precontact structures, both the earthwalled structure(s) at FfCh-02 and the subtle tentpole ring at FgCh-01 may find their closest parallels not in Labrador or Newfoundland but in the Late Precontact sites excavated in the Caniapiscou region of Québec in the deep interior of Labrador-Ungava, where late precontact structures are occasionally defined by low, subtle “bourrelets de tentes” (as at FgCh-01), and in places by earthen walls (“double couches noires”), as at FfCh-02 (see Denton 1989, especially Figures 3 and 4; for less clearly-defined examples from the Blanc-Sablon area, see Pintal 1998).

The sites on Gull Lake yielded evidence for a total of ten small circular hearth features generally measuring approximately 1m in diameter. All contained at least some firecracked rock, commonly quartzite, but as is commonly the case at precontact sites in the Muskrat Falls reservoir area, firecracked rock distributions around these hearths are sparse and very diffuse. In many cases, hearths were identifiable not by firecracked rock as such, but by underlying deposits, including small deposits of calcined bone (at FgCh-05 and FfCi-02 Locus C), sand mounds with small central depressions (at FgCh-01, FfCi-02 Loci A, D, and E, and FfCi-01 Feature 1, which also contained calcined bone), a charcoal-stained depression (FfCh-02 Locus B) or by burnt red subsoil (FfCi-01 Feature 5). As in other sites recovered in the Muskrat Falls reservoir area, the high frequency of split and/or firecracked quartzite cobbles associated with these hearths suggests deliberate selection of quartzite cobbles for hearth rocks, presumably to split them prior to reduction to form blanks, preforms, and both expedient and finished tools. This apparent subsequent use of hearth rocks for quartzite tool production may account for the diffuse nature of cobble hearth features at these sites.

Other features of note recorded at FfCh-02 Locus A include deposits of rock and firecracked rock containing little lithic debitage and no calcined bone or charcoal (e.g., FfCi-02 Locus C and Locus D, and FfCh-02 Locus A Feature 1), interpreted as secondary deposits of stones cleared to level a habitation floor. Similar rock discard piles have been encountered on the margins of occupation areas at other sites in the Muskrat Falls reservoir area, most notably at FhCe-32 on the south side of Muskrat Falls (Stantec 2014b).



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Also recorded at FfCh-02 Locus A was an unusual ochre-stained mound rich in artifacts, including 244 precontact ceramic sherds (FfCh-02 Locus A Feature 1), interpreted as another secondary deposit, again possibly related to clearing a habitation floor. Ochre-stained deposits are relatively rare at precontact sites in the Churchill Valley, but one (rather smaller) example was recorded within an inferred dwelling structure at FhCe-33, at Muskrat Falls (Stantec 2014b).

Another feature associated with precontact ceramics was a small pit and flanking sand mound recovered at FfCi-02 Locus D. This feature yielded hundreds of sherds and sherdlets that appear to belong to an incompletely-fired vessel that fragmented during firing (not only is the paste remarkably soft but these sherds contain very little temper, which might account for the failure of the firing). Both the state and the context of the Locus D sherdlets recall the ceramics recovered in 2012 from FhCe-21 at Muskrat Falls, where tiny sherdlets were also recovered from the vicinity of a pit feature (Stantec 2014a). The ware characteristics and context of the sherds from FfCi-02 Locus D raise once again the possibility that some ceramic wares recovered in the Churchill Valley may be of local manufacture.

3.5.4 Site Function and Seasonality

As noted above, Gull Lake offers access to fish and small game, and, most especially, to migratory waterfowl in the spring and fall. The sites on Gull Lake are relatively large and numerous, and appear to have been more than travel stops, but rather to have seen intensive settlement in the precontact period. This apparent redistribution of rock and firecracked rock at several of these sites is consistent with multiple re-occupations and site-clearing episodes. The southern exposures of most of these sites (except for the deflated site at FgCh-04), and their association with ice-free ashkui, would make most of these sites particularly suitable for occupation in spring. Access to local river cobbles for primary reduction of quartzite may have been a secondary factor influencing site locations in the Gull Lake area. The remainder of the recovered precontact sites (excepting the eroded site at FgCh-04, investigated in 2014), are distributed along the north shore of Gull Lake, a pattern that, based on historic Innu settlement, may reflect predominantly cold-season periods of occupation (see Armitage 1990). Faunal remains are not preserved in quantity at any of these sites, and are generally calcined and highly fragmented, but small collections were recovered at FgCh-05, FfCi-01 Locus A, and FfCi-02 Locus C and these may contain some indicators of seasonality.

Despite the evidence for intensive settlement, there is no firm evidence for linear hearth features at sites in the Gull Lake cluster. Linear lithic scatters are present, but not clearly associated with linear hearths, and these linear scatters may be wholly, or partly, a product of post-depositional slopewash.

Instead, the majority of hearths appear to be small circular or oval features consistent with single family dwellings; At FgCh-01, and possibly FfCh-02 Locus A, these dwellings appear to have measured approximately 6m in diameter.



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The lithic assemblages from these sites are, for the most part, broadly comparable in terms of relative artifact frequencies, with variable but generally high frequencies of linear flakes, retouched and utilized flakes, and bifaces. In this respect the assemblages resemble those from quartzite-dominated precontact sites recovered elsewhere in the Muskrat Falls reservoir area (e.g., Stantec 2015, 2016). Primary reduction of local quartzite cobbles for the manufacture of preforms and expedient tools was clearly an important activity, or at least one that produced most of the debitage. The preponderance of expedient tools (retouched, utilized and linear flakes) suggests a range of domestic food preparation and tool manufacturing tasks, and similar site functions. Although the lithic assemblages generally suggest similar activities at all of these sites, FfCi-02 did provide some evidence of specialization. Locus A, on the edge of the terrace, yielded an unusual number of small, stemmed projectile points (16 in all; Photo 6) and only four quartzite cobble-spall scrapers, while Locus E, only 4m behind Locus A, yielded 14 scrapers, including formal teardrop forms (Photo 7), but no projectile points. Elsewhere, the most conspicuous evidence of specialized tool discard was limited to FhCe-33 on the south side of Muskrat Falls, with its unusually large collection of scrapers.

Precontact ceramics were recovered from three sites in the Gull Lake site cluster: FgCh-02 (one sherd only), FfCh-02, and FfCi-02. Ceramics were certainly in use at these sites, presumably for cooking, or possibly food storage functions. However, the large collection of poorly-fired and untampered sherds from the sand pit feature at FfCi-02 additionally suggests the (in this case unsuccessful) local manufacture of ceramic wares.

3.5.5 Artifacts and Cultural Relationships

Broadly-speaking, the quartzite-dominated precontact assemblages recovered in the Gull Lake area are comparable to those recovered at the Sandy Banks area, at the North Spur of Muskrat Falls, and at certain sites on the south side of Muskrat Falls (e.g., FhCe-25). These sites are characterized by large quantities of local quartzite debitage, including cobble shatter, primary, secondary and tertiary flakes. Other lithic raw materials, including rhyolite, chert (Saunders Chert and more exotic materials from western Newfoundland, western Labrador, or unknown sources), Ramah, quartz, and non-local quartzites are present, but generally in low frequencies (less than 10% of the assemblage) or even trace frequencies (less than 1% of the assemblage). Rhyolite is normally the most common of these minority materials. These materials are generally encountered as finished artifacts or small thinning or resharpening flakes. Exotic materials were most notable at FgCh-05 Locus A, with its small collections of speckled chert and Ramah debitage, FfCh-02 Locus B with its small but distinctive frequencies of Newfoundland chert, FfCi-02 Locus F, with its small but significant proportion of rhyolite, and FfCi-01 Feature 4, where a sealed component included relatively high frequencies of chert debitage, including red, black, grey, and peloidal varieties, the last possibly derived from western Labrador, along with unusually fine-grained quartzites that were orange-stained from deposition in the B Horizon but nevertheless resemble Mistassini quartzite.

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Typologically, the lithic tool assemblages, with their high frequencies of quartzite preforms, large asymmetric-based bifaces, and retouched and utilized flakes, along with cobble-spall scrapers, compare closely to the late Intermediate/Early Late Precontact North West River Phase at North West River (Fitzhugh 1972). However, the sites from the Gull Island site cluster do add some new perspectives on this period.

First, the precontact sites in this cluster, as with all quartzite-dominated sites in the Churchill Valley, did yield relatively high frequencies of linear flakes, a tool type not originally documented at North West River. Second, while the sites at North West River lacked formal scrapers (Fitzhugh 1972), in the Churchill Valley, formal scrapers, particularly of the elongated teardrop shape, are clearly present. One particularly large sample was recovered at FfCi-02 Locus E (Photo 3.7), but isolated examples have also been recovered from FfCi-02 Locus D and elsewhere. Third, the sites in the Gull Lake cluster, particularly FfCi-01 Locus A, have yielded collections of projectile points that are stylistically-consistent enough to define a clear formal type. Projectile points exhibit wide to moderately-narrow stems, usually straight-sided but occasionally slightly tapered, with shoulders that are straight or slightly rising. Less commonly, the stem flares to create a “waisted” hafting modification. True corner-notched points are present but extremely rare. Examples with the wider stems resemble points of the rather poorly-defined David Michelin Complex at North West River (Fitzhugh 1972: 152; Plate 45). Unusually, two Pre-Inuit artifacts were recovered from two sites. FgCh-05 yielded a tiny patinated fully-ground tabular burin-like-tool of Middle Dorset type, while the collection from FfCi-01 includes a chert end-of-blade scraper that was obviously rubbed with red ochre. It is likely that these were casually collected from Pre-Inuit sites on the coast, although the presence of red ochre on one may indicate some ritual significance.

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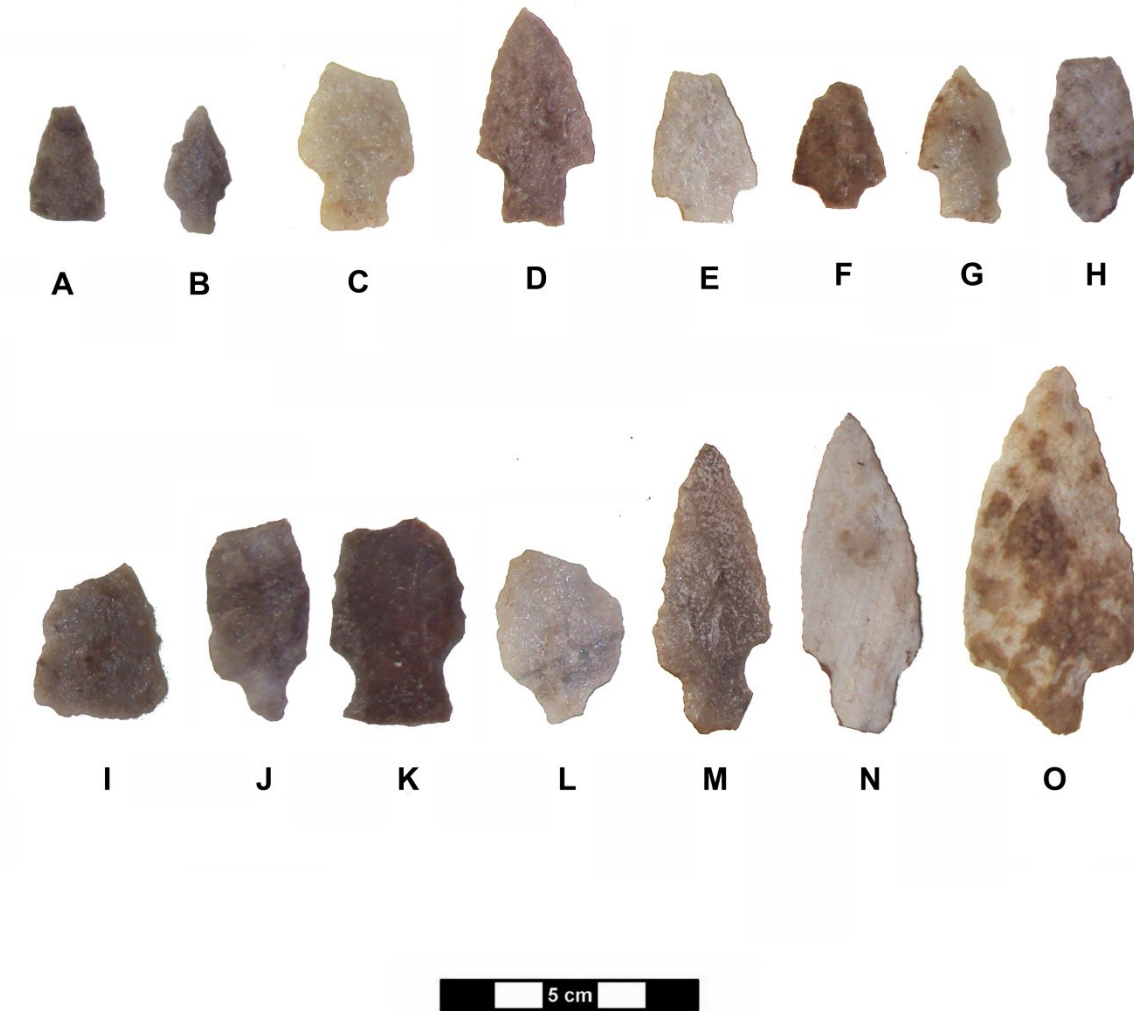


Photo 6 Selected Projectile Points Recovered from FfCi-02 Locus A (Stantec 2016)

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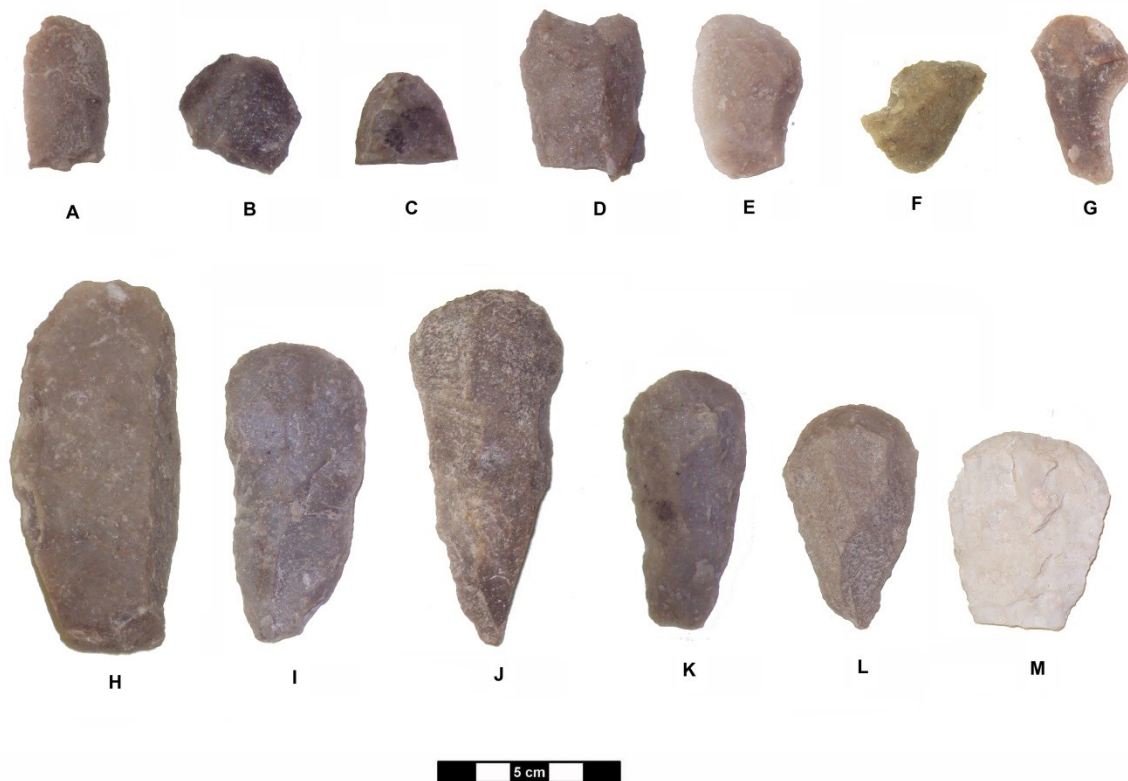


Photo 7 Selected Scrapers Recovered from FfCi-02 Locus E (Stantec 2016)

Precontact ceramics have been recovered previously at sites in the Churchill Valley, but two sites in the Gull Lake cluster yielded the largest ceramic assemblages recovered to date. An extraordinarily large collection of 1,414 sherds and sherdlets of ceramic was recovered at FfCi-02 Locus D. Five undecorated sherds belonged to a relatively high-fired, dark-grey-bodied ware with considerable coarse grit temper. These sherds had unsmoothed exterior surfaces, while their interior surfaces were smoothed and coated with a distinctive whitish deposit. The remaining sherds consisted of very small sherds or sherdlets of very soft ceramic with little temper that appear never to have been truly fired. The vast majority were associated with a shallow pit adjacent to a hearth and appear to belong to a vessel that shattered in an early stage of firing before achieving the temperatures required for ceramic change (normally ca. 550C - 600C). Several of these sherds showed some evidence for decoration, and two flattened-lip rimsherds were decorated with a row of upward-jabbed punctations on the vessel exterior, just below the rim. More specific evidence for decoration was found in the large collection of 276 ceramic sherds from FfCh-02 Locus A, the majority of which were recovered from Feature 2 (Photo 8). These sherds varied in thickness from approximately 2mm to 6.5mm and exhibited a grey to brown low-fired paste, grit temper, evidence for coiled manufacture, and smooth interior and exterior surface treatment. While most of the bodysherds were undecorated, the assemblage did include rim and neck sherds

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with horizontal linear dentate stamped decoration, along with diagonal notches along the lip of the rim on rimsherds. Dentate-stamped ceramics from the Gould Site in Port au Choix on the Island of Newfoundland (see Stapelfeldt 2009) have been dated to 1500 ± 40 BP (Beta 134156), and more broadly, the attributes present on the ceramics from FfCh-02 are consistent with those on ceramics from the early part of the Middle Woodland period in the Maritimes (Petersen and Sanger 1991, Bourgeois 1999).

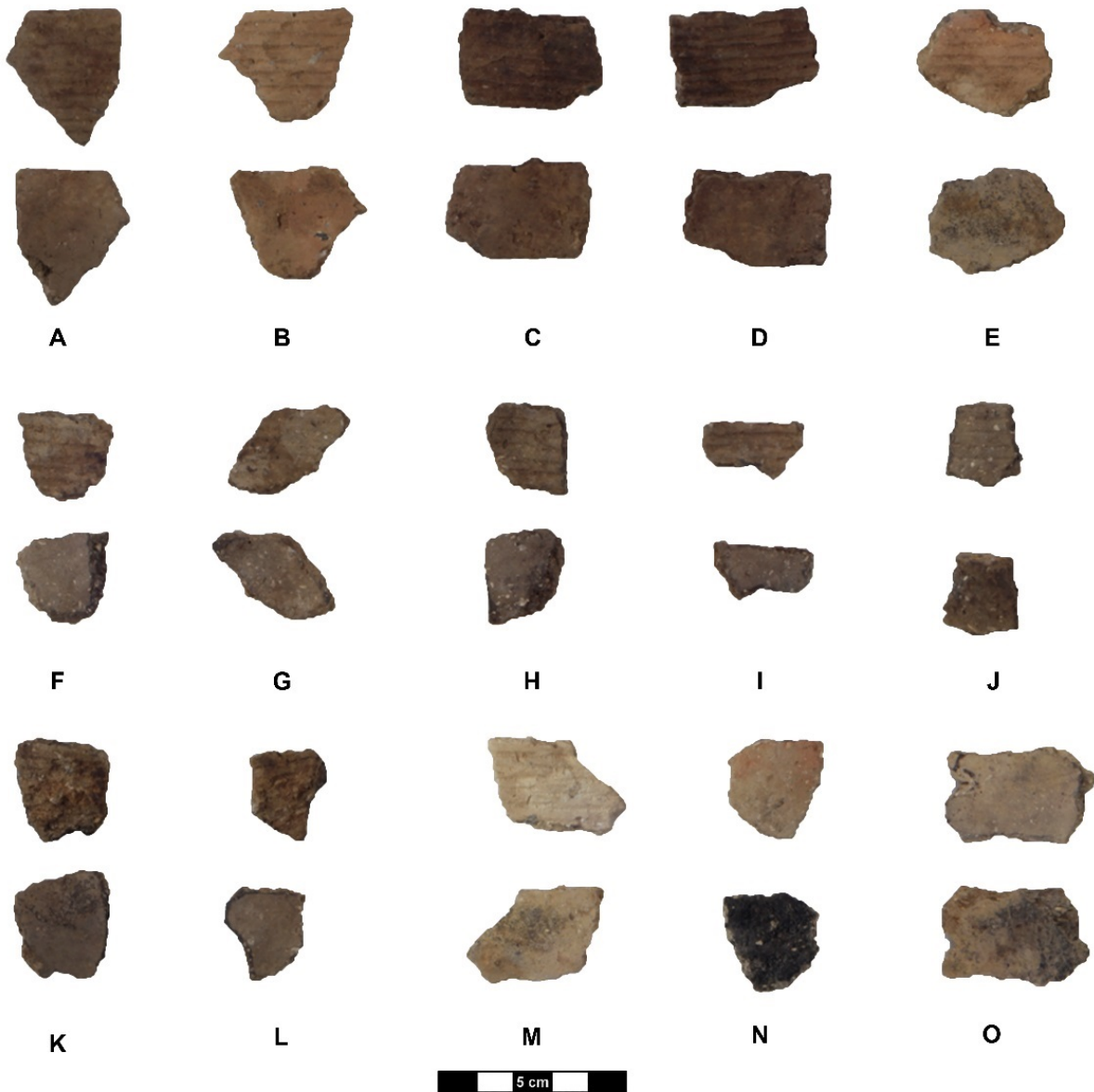


Photo8

Photo 8 Selected Precontact Ceramic Sherds Recovered from FfCh-02 Locus A (Stantec 2018)

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3.5.6 Summary

The precontact sites in the Gull Lake site cluster are relatively large, in most cases with evidence for prolonged or repeated occupations, suggesting intensive harvesting of migratory waterfowl and other resources. In contrast with the sites of the Sandy Banks cluster, those in the Gull Lake cluster do not show clear evidence for linear hearths associated with communal feasting activities. However, sites on Gull Lake have yielded the clearest evidence to date bearing on the nature of the dwelling structures associated with hearth features in this period.

Although all of the lithic assemblages are quartzite-dominated, minority exotic lithic raw materials are present. The peloidal cherts and possible Mistassini quartzite recovered from the sealed basal deposit at FfCi-01 indicate linkages with western Labrador and northern Québec, while the Newfoundland cherts, particularly at FfCh-02 Locus B, show connections with Newfoundland, or, at least, with the Québec lower Côte-Nord, where Newfoundland cherts are found in high frequencies. Typologically, the lithic assemblages are generally compatible with the North West River Phase, although they do possess a significant linear flake industry. Moreover, FfCi-02 Locus E yielded a significant collection of formal endscrapers, many of them teardrop-shaped, which has not previously been documented for the North West River Phase. Projectile points are occasionally encountered at these sites, but FfCi-02 Locus A yielded a particularly large assemblage, allowing the definition of a clear morphological type of stemmed point. Interestingly, two Pre-Inuit artifacts were recovered: one an end-of-blade scraper smeared with red ochre, the other a Middle Dorset fully-ground tabular burin-like-tool.

Three of the sites in this cluster contained precontact ceramics, and two produced the largest collections of precontact ceramics recovered in the Churchill Valley to date. Most (but not all) of those from FfCi-02 Locus D consisted of very low-fired sherdlets that appeared to derive from an unsuccessfully-fired vessel, indicating local manufacture. The collection from FfCh-02 Locus A represents the largest collection of decorated sherds to be recovered in the Churchill Valley, exhibiting dentate-stamped decoration with nicked rims.

Typologically, these North West River Phase-affiliated sites may be dated to 1800-1400 BP. The results of radiocarbon dating are consistent with this, as are the decorative and other attributes of the ceramics, as well as the Middle Dorset burin-like-tool recovered from FgCh-05, which may be dated broadly to 2000-1200 BP.

3.6 Site Cluster 5: Tshiashk^u-Paushfik^u (Gull Rapids)

Gull Rapids (*Tshiashk^u-Paushfik^u*) is a narrow, fast-flowing section of the Churchill River west of Gull Lake. Historically, and presumably in the precontact period as well, Gull Rapids represented an enforced portage and travel stop, and, like Muskrat Falls, a strategic settlement location with high potential for archaeological sites.



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3.6.1 The Sites

Previous assessment work (IELP/JWEL 2001d; Minaskuat 2006; Schwarz 2007) indicated that precontact settlement within the Project Area included a small cluster of precontact sites at Gull Rapids: three distributed along the north bank of the river below the rapids, and two above (an additional two sites situated 9km upstream near Horseshoe Rapids may be related, or may belong to a separate small site cluster of their own). Based on the small survey collections recovered, the sites at Gull Rapids appear to contrast with those identified on Gull Lake and Sandy Banks, in that only one consisted of quartzite debitage. The remaining four yielded collections primarily or exclusively of chert. All three of the sites recorded below the rapids were situated on high, narrow riverbank terraces overlooking the river. Only one site in this site cluster (FfCi-05) has been recovered, the remaining four lying further west, outside the Muskrat Falls reservoir area.

3.6.2 Site Distribution and Settlement Patterns

Since only one of the sites in this cluster has been recovered, detailed observations of settlement patterning are difficult. It is presumed that all of the sites primarily represent travel stops at the top and bottom of the Gull Rapids portage. The sites below the rapids, including FfCi-05, occupy narrow terraces that severely constrain the available space for habitation sites, and it is likely that these represent relatively short-term encampments. At least one of the two sites above the rapids offers more extensive space for settlement and may be larger, but this has not been confirmed.

3.6.3 Site Features

FfCi-05 was originally discovered in 2000 (see JWEL/IELP 2001b), with testing indicating a small precontact site on a narrow terrace 12m above the current river level. Artifacts recovered during testing consisted of 38 flakes and two biface fragments, all of Saunders chert. The site was recovered in 2017, when a total of 60m² was excavated (Stantec 2018). The site is therefore relatively small. Two features were recovered at the site: a diffuse firecracked rock hearth feature lacking charcoal or calcined bone, and one postmold in close proximity, presumably the central pole for a dwelling feature. The associated lithic assemblage was small, only 2,071 pieces, and consisted of small tertiary and resharpening flakes of vari-coloured Saunders Chert with a small percentage of Ramah. Finished artifacts, of blue-grey chert, were limited to 9 linear flakes (which may be elongated retouch flakes rather than expedient tools), 9 lanceolate points, and 5 other biface fragments.

3.6.4 Site Function and Seasonality

The small size of the site (and the small size and low diversity of the artifact assemblage) are consistent with a short-term encampment at the bottom of the Gull Rapids portage, focused on the preparation and maintenance of hunting implements. The season of occupation is unknown, but most likely spring or fall.



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3.6.5 Artifacts and Cultural Relationships

The artifact assemblage recovered from the FfCi-05 was small, but distinctive. The raw materials from the site show a complete contrast with those from other sites excavated within the Muskrat Falls reservoir area: the lithic assemblage from FfCi-05 was dominated by vari-coloured Saunders cherts, with a complete lack of quartzite. Finished tools recovered were primarily of blue/grey chert.

The most distinctive elements in the collection are the nine lanceolate points and point fragments (two additional point fragments were also recovered when the site was first recorded in 2000: JWEL/IELP 2001b). These points and point fragments (Photo 9) represent a single uniform tool type. All but one are made of a blue/grey, fine-grained chert (the remaining example is made of a dull white/brown chert). Three are complete or cross-mended. These points are all remarkably finely-made with parallel pressure flaking along the edges. All pieces are biconvex in cross-section and extremely thin, with a maximum thickness of only 6.11mm. No evidence of the original striking platforms is present, and longitudinally the points are flat with no evidence of the curve of a flake. The edges are parallel, with no evidence of side-notches. The hafting surface, where visible, is flat with some evidence of additional flaking but not enough to constitute basal thinning (Photo 9). This style of point has not previously been encountered among the precontact sites excavated in the Churchill Valley, and there are few comparable specimens from Labrador in general. The closest analogues may be a few atypically slender and lanceolate examples of triangular bifaces excavated at Daniel Rattle on the north-central Labrador coast. Slender lanceolate triangular bifaces have been found both within the Point Revenge component at Daniel Rattle Area II (Loring 1983: Figure 2E), and within the linear hearth feature of the Daniel Rattle Complex at Daniel Rattle Area IV (Loring 1989: Figure 2, top right). The closest parallels for these points thus appear to lie in the Late Precontact period on the north-central Labrador coast, although the raw material employed is completely different. Potentially similar lanceolate point have also been identified in the Cow Head Complex on the island of Newfoundland (Hartery 2007). It is unfortunate that FfCi-05 yielded no material suitable for dating this unique collection.

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Photo 9 Lanceolate Points and Biface Fragments Recovered from FfCi-05 (Stantec 2018)

3.6.6 Summary

FfCi-05 belongs to a cluster of precontact sites associated with Gull Rapids and is interpreted as a short-term travel stop at the base of the Gull Rapids portage. It was the only site in this cluster within the Muskrat Falls reservoir area, and the only one to be recovered to date. The lithic assemblage contrasts markedly from those recovered on Gull Lake or in the Sandy Banks area, being dominated by chert rather than quartzite, and containing a small and limited collection of finished artifacts that consists in large part of unusual finely-made thin lanceolate points. These may pertain to the Late Precontact period, but this cannot be confirmed.

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3.7 Summary of Precontact-Period Results

The majority of the sites recovered between 2012 and 2017 in the Muskrat Falls Study Area pertain to the precontact period. In all, 50 of the sites recovered during this program date to the precontact period or contain precontact components (plus one additional site recovered in 1979: Tuck 1981). As noted, precontact sites within the Study Area are highly clustered, with 31 sites recovered between 2012 and 2013 at Muskrat Falls, (23 on the south side and 8 on the North Spur), 5 at Sandy Banks, 8 on Gull Lake, and one at Gull Rapids (Figure 2-1). No precontact sites have been identified between these clusters.

More than half of these sites, including all of those on the North Spur of Muskrat Falls, the Sandy Banks area, and Gull Lake, and some on the south side of Muskrat Falls (e.g., FhCe-25) are quartzite-dominated assemblages characterized by large quantities of local quartzite debitage, including cobble shatter, primary, secondary and tertiary flakes. Other lithic raw materials, including rhyolite, chert (Saunders Chert and more exotic materials from western Newfoundland, western Labrador, or unknown sources), Ramah, quartz, and non-local quartzites are present, but generally in low frequencies (less than 10% of the assemblage) or even trace frequencies (less than 1% of the assemblage). Rhyolite is normally the most common of these minority materials. These materials are generally encountered as finished artifacts or small thinning or resharpening flakes.

Typologically, the lithic tool assemblages, with their high frequencies of quartzite linear flakes, preforms, large asymmetric-based bifaces, and retouched and utilized flakes, along with cobble-spall scrapers, compare closely to the late Intermediate/Early Late Precontact North West River Phase at North West River (Fitzhugh 1972). However, the recovery results from the Churchill Valley, and the Gull Lake Site cluster in particular, contribute new information to flesh out our picture of the North West River Phase considerably.

- As at the type sites in North West River, the lithic assemblages from the Gull Lake site cluster are overwhelmingly dominated by local quartzites, often representing 98-99% of the assemblage at any given site. The presence of primary flakes, cobble fragments and shatter, along with preforms, indicates that, as at North West River, the primary reduction of local quartzite was an important activity at all of these sites. However, other raw materials are also present, and occasionally represent 10-15% of the assemblage. Rhyolite (another local material) is the most common, but Ramah, Saunders Chert, Newfoundland cherts, peloidal cherts from western Labrador, and, rarest of all, Mistassini quartzite, are also found.
- In terms of interregional relations, Ramah is normally present at these sites, at least in trace frequencies, but the relative frequencies of exotic lithic materials, along with the presence of ceramics, suggest that the Churchill Valley sites of the North West River Phase show stronger connections to the west (western Labrador) and south (the Côte-Nord and even Newfoundland) than to northern or north-central Labrador.



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- Biface forms closely resemble those originally identified at the North West River type sites, and these include leaf-shaped and lanceolate forms, the latter often with straight, asymmetrically-angled bases.
- One characteristic noted at all quartzite-dominated sites in the Churchill Valley is the high frequencies of linear flakes. This has not previously been associated with the North West River Phase, although it is found in most Intermediate-period complexes (Fitzhugh 1972); it is also found in the Cow Head Complex in Newfoundland (at least, in the Spearbank Site; Hartery 2007: 15-16).
- The North West River sites lack formal scrapers. In the Churchill Valley, formal scrapers, particularly of the elongated teardrop shape, are clearly present, although not usually in great numbers (except at FfCi-02 Locus E). Another type present at most sites in the Churchill Valley is the cobble-spall scraper. It is implied that these may be present at North West River (see Fitzhugh 1972: 152; Plate 49) but they are not explicitly defined.
- Few small stemmed projectile points were collected at the North West River sites. In the Churchill Valley sites, stemmed projectile points, generally of quartzite and occasionally of rhyolite, are frequent enough, and stylistically-consistent enough, to define a clear formal type. Projectile points are indeed stemmed, with wide to moderately narrow stems, usually straight-sided but occasionally slightly tapered, with shoulders that are straight or slightly rising. Less commonly, the stem flares to create a "waisted" hafting modification. True corner-notched points are present but extremely rare. Examples with the wider stems resemble points of the rather poorly-defined David Michelin Complex at North West River (Fitzhugh 1972: 152; Plate 45).
- Rarely, Pre-Inuit artifacts are encountered in these assemblages. These include a tiny patinated fully-ground tabular burin-like-tool of Middle Dorset type (2,000-1,200 BP) recovered at FgCh-05, and a chert end-of-blade scraper rubbed with red ochre, recovered from FfCi-01. It is likely that these were casually collected from Pre-Inuit sites on the coast, although the presence of red ochre on one may indicate some ritual significance.
- Precontact ceramics have been recovered at five of the 13 quartzite-dominated sites in the Muskrat Falls reservoir area (FgCg-01, FgCg-06, FgCh-02, FfCh-02, and FfCi-02), in addition to five other sites on the south side of Muskrat Falls. Ceramics were not originally identified at North West River but are clearly part of the normal toolkit for the North West River Phase in the Churchill Valley. The ware characteristics, and, at FfCh-02, the dentate decoration, indicate a dating in the Middle Woodland period, consistent with the dating for the North West River Phase. There is some evidence both for local manufacture and for importing of these wares. The functions of these wares have yet to be determined, although residue analysis has the potential to clarify their uses. It remains unclear why ceramics were not encountered at North West River.



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- The extensive excavations undertaken at precontact sites in the Churchill Valley have added considerable data on habitation features and structures, not previously evident in the more limited excavations at North West River in the 1960s. Hearths may include sand mounds and are generally diffuse, with little firecracked rock, probably reflecting the use of heat-treated quartzite hearth cobbles for tool manufacture. In some cases (FfCi-02 Locus D), hearths may include pit features for firing ceramics. Evidence for structural perimeters (FgCh-01, FfCh-02 Locus A, and possibly FfCi-02 Locus C) indicates single-family dwellings measuring 5-6m in diameter, that may in some cases (FfCh-02 Locus A) include low earthen walls. In addition, linear hearths reflecting communal feasting activities are present (clearly at FgCg-01 Locus B, probably at FgCg-06).
- The dating of the quartzite-dominated sites in the Churchill Valley indicates the North West River Phase, at least this area, may be dated to approximately 2000-1500 BP. This is compatible with the original dating of 1800-1400 BP at North West River (Fitzhugh 1972), and is also consistent with the ceramic evidence, but makes the North West River Phase contemporary with at least the early halves of the Daniel Rattle Complex on the north-central Labrador coast (Loring 1992), and the Cow Head Complex in Newfoundland (Hartery 2007). In this sense, it may be more appropriate to consider the North West River Phase as a regional (central Labrador interior) variant of the Late Precontact Period, than as a terminal phase of the Intermediate Period.

The quartzite-dominated sites on the North Spur of Muskrat Falls may represent short-term travel stops at the north-side portage, but the sites at Sandy Banks and Gull Lake are clearly much more substantial occupations, containing evidence for the remains of dwelling structures, as well as linear hearths associated with communal feasting.

Two otherwise quartzite-dominated sites in the Sandy Banks area also yielded small collections of black chert tools (scrapers at FgCg-06, projectile points and a triangular biface at FgCg-01 Locus B) that appear to date later in the Late Precontact period, to 1000 BP or later. It may be that the North West River Phase in the central Labrador interior persists later than we can presently establish, or these artifacts may be intrusive, representing a later re-occupation of earlier North West River Phase sites. The small, unusual assemblage of finely-worked lanceolate bifaces from FfCi-05 may also pertain to the latter portion of the Late Precontact period, but this assemblage remains unique. While there is thus potentially evidence for occupation of this reach of the river after the North West River Phase, there is no evidence for any earlier occupation. Certain of the sites recorded west of Gull Rapids may prove to be earlier, based on lithic raw materials recovered in testing (see JWEL/IELP 2001a; 2001c), but between Muskrat Falls and Gull Lake, the North West River Phase is clearly the period of most intensive occupation.

The precontact sites recovered from the North Spur at Muskrat Falls, the Sandy Banks area, and Gull Lake contain many elements not previously documented for the North West River Phase, probably because the scale of excavations and the numbers of artifacts recovered greatly exceed the scope of work originally undertaken at North West River in the 1960s. However, they



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nevertheless recognizably pertain to the North West River Phase in terms of raw material use, typology, and dating.

The 23 precontact sites recovered on the south side of Muskrat Falls, on the other hand, present a much more complex picture. This site complex is interpreted as a series of campsites that served as a staging area for travel between Lake Melville and in the central Labrador interior along the axis of the Churchill River. One activity associated with this travel, likely during downstream movements in spring, was canoe building in preparation for summer travel in Lake Melville and beyond, to the coast.

Although the radiocarbon dates provide no support for early occupation, settlement on the south side of the falls appears to have begun in the Intermediate Period, between 2500 and 3000 BP, exemplified by classic Saunders Complex sites such as FhCe-05 (FhCe-20 Area B, which was undated, is also interpreted as a small Saunders Complex occupation), and the Charles Complex occupation at FhCe-20 Area A.

However, the most intensive period of occupation appears, on the basis of the radiocarbon dates, to have been between 2000 and 1500 BP. This corresponds to the North West River Phase in upper Lake Melville and the Daniel Rattle Complex on the north-central Labrador coast. However, only one of the sites on the south side of the falls (FhCe-25) appears to represent a pure North West River Phase occupation. The remainder of the sites here show no strong resemblance to the North West River Phase, nor to the Daniel Rattle Complex. Instead, these sites exhibit a unique combination of features, including the use of precontact ceramics, artifact styles resembling both Intermediate and Late Precontact forms, the use of lithic raw materials previously associated with the Intermediate period (Saunders Chert, rhyolite and quartzite), and the presence of small but significant quantities of lithic material from exotic sources, including Newfoundland and western Labrador cherts and others of unknown origin, and Mistassini quartzite. Local quartzite, characteristic of the North West River Phase, is abundant, but not predominant (except at FhCe-25), and Ramah, characteristic of the Late Precontact occupations of the Labrador coast, is a less-used and relatively exotic material. In contrast to sites of the North West River Phase or the Daniel Rattle Complex, most of the sites on the south side of Muskrat Falls show less tendency to rely on a single lithic raw material, and greater use of lithic materials from distant sources.

The lithic artifacts include biface forms compatible with the North West River Phase but fashioned from more diverse raw materials. Projectile points include stemmed examples similar to those recovered from sites of the North West River Phase, but also a wide variety of notched forms, again fashioned from a variety of lithic raw materials. Of course, given the indications of earlier Intermediate Period occupations on the south side of the falls, it is possible that some of these sites may be palimpsests. Nevertheless, the majority of the dating indicators suggest that the most intensive occupation on the south side of the falls occurred approximately 2000-1500 BP, and that much of the diversity in lithic raw materials and artifact styles, is due less to chronological variation than to the south side of Muskrat Falls being an important gathering place for a broad network of regional groups with far-flung connections to the north, west, and south. If the North West River



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Phase as manifested at Sandy Banks and on Gull Lake (and indeed on the North Spur of Muskrat Falls) may be considered a regional (central Labrador interior) variant of the Late Precontact Period, then the south side of Muskrat Falls was a central gathering place for many regional variants, reflecting a degree of "structured mobility" (*sensu* Mailhot 1997; see also Schwarz 2007) among the ancestral Innu of the Late Precontact period in Labrador.

The results of the recovery of a large number of precontact sites in the Churchill Valley therefore indicate occupation of Muskrat Falls beginning in the Intermediate Period, and subsequently, in the early Late Precontact Period, expanding into an intensive occupation of the lower reaches of the Churchill Valley. This occupation corresponds to the North West River Phase, now more richly defined to indicate a persistence of Intermediate Period patterns of raw material use, combined with evidence for more far-reaching connections with related groups elsewhere in the region. While these connections included the Labrador coast, evidenced in the trace presence of Ramah and occasional scavenged Pre-Inuit artifacts, the use of ceramics and the presence of lithic raw materials from western Labrador and Québec, as well as Newfoundland, indicate stronger ties to the south and west. The North West River Phase now appears to be a regional, central Labrador variant of the early Late Precontact period, distinct from the Ramah-dominated complexes of the coast, which may now be themselves considered a regional, coastal variant of the Late Precontact period, and not necessarily it's most typical manifestation.

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4.0 INTERPRETATION OF RESULTS: HISTORIC PERIOD HBC OCCUPATION

The historic period begins with initial contact with Europeans. Regionally, this may have begun with the arrival of the Norse ca. 1000 BP, but meaningful sustained contact began in the 16th century. Following initial contact, the European presence in Labrador gradually increased throughout the seventeenth century, particularly along the coast, with the establishment of seigneuries, fur trade concessions, fishing stations, and fortifications. The French had been trading with Innu at Tadoussac on the St. Lawrence River since 1600, and trade eventually expanded into the northern interior, with the establishment of a post on Ashuanipi Lake by Louis Jolliet ca. 1696 (White 1926). In 1702, the Governor of New France granted one of the earliest and largest trading concessions in Labrador to Sieur Augustin le Gardeur de Courtemanche. This concession extended from the Kegaska River (near Anticosti Island) to the Kesesaskion or “Kessessaskiou” River (now the Churchill River). Although Courtemanche appears to have done little to exploit the northernmost portions of his concession, he did survey many of the bays and rivers within his holdings, including Hamilton Inlet, and noted the presence of Inuit (who were already very familiar with French traders and European goods), and an “interior...tribe of Indians who had not as yet come into contact with the French (Zimmerly 1975: 36-37). After Courtemanche’s death in 1717, his concession was progressively reduced and granted to other merchants. In 1743 Louis Fornel established the first trading post in Lake Melville, at North West River. Although there is no record of French trading in the area prior to that time, acquisition of French trade items by local Innu groups had undoubtedly occurred through interaction with traders along the Lower North Shore of the St. Lawrence River, where posts had been established at least a century earlier.

No archaeological evidence for the early fur trade in the 17th or 18th century has been identified to date in the Churchill Valley. The earliest sites for which we do have evidence pertain to the second quarter of the 19th century, with the establishment of HBC posts at three locations along the river: Winokapau Post, situated west of the Muskrat Falls study area, Gull Island Post, which may have operated only briefly and has not been relocated, and Sandy Banks Post, which was situated approximately 20km west of the Muskrat Falls portage, two days march from North West River House. Sandy Banks was identified during Stage 2 assessment in 1998 (IED/JWEL 2000) and the site was fully recovered in 2015-2016 (Stantec 2016, 2017).

4.1 Historical Background

In 1836, the HBC established its first post (initially named Fort Smith but later changed to “North West River House”) alongside D.R. Steward’s competing enterprise, purchasing the latter’s establishments in Hamilton Inlet in April of 1837. The decision to establish a post at North West River was in part an attempt by the company to capture some if not all of the business from the several private traders already operating there, as well as to serve as an overland supply base for Fort Chimo, which could not be supplied successfully from the posts in Hudson Bay, nor by sea (Davies and Johnson 1963).



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As the HBC's trade in the Hamilton Inlet area expanded during the nineteenth century, other posts were established toward the western interior on Churchill River and further afield, including Sandy Banks.

Sandy Banks was first mentioned in the North West River post journals in 1839. But the earliest reference to Sandy Banks is contained in an 1837 letter from H. Comeau, manager of the D.R. Stewart operations at North West River at the time of the Hudson's Bay HBC's arrival. Comeau's note, written at Sandy Banks to Mr. McGillivray, the HBC Factor, registers a complaint that HBC men have "in passing demolished and burnt part of my Store at Rapid" (HBC, B153/a/1/38d; Saturday, February 4, 1837). Comeau's note suggests that Sandy Banks was in use prior to 1836.

The next documentary reference to Sandy Banks (as well as to Gull Island) occurs in the North West River Post journals of July 6, 1839 when the entry reads: "I was in the store fitting out the Indians and at night they all so cut [sic] off for the interior not to return here til next year – but to meet a trader sent by me next winter at Sandy Banks or at Gull Island" (HBC B.153/a/2/f82; Saturday, July 6, 1839). The October 8, 1839 entry for the North West River journal reads: "At 8 a.m. Mr. McKenzie left for Sandy Banks with 2 men. He will remain there 8 or 10 days at that place to direct Mr. Christie with (word illegible) to the trade" (HBC B.153/a/2/f82; Tuesday, October 8, 1839). Thereafter, Sandy Banks Post appears to have seen two periods of intensive (construction) activity: 1841 to 1845, and 1875 to 1877 (Anick 1976:667, 675; HBC B.134/k/1, p. 58; HBC B.153/b/2, p. 83).

The Post manager for 1841 to 1842 was George McKenzie. Between 1842 and 1844 Donald Henderson ran Sandy Banks, and from 1876 to 1877, James Lawson, Apprentice Clerk from North West River, operated the post.

In 1841 and 1842, George McKenzie managed the Sandy Banks outpost (IED/JWEL 2000), where men were engaged in trapping marten as well as trading with the Montagnais. In 1841, the establishment consisted of a store and dwelling house. The former collapsed during the winter and was most likely restored in the spring. The dwelling house was reroofed, partly with boards and partly with bark, in 1842 (Anick 1976). Turnips were grown in the garden at Sandy Banks, and 36 barrels of them were harvested in the summer of 1841.

In 1842, and again in 1844, William Nourse, the factor at North West River, considered abandoning Sandy Banks (see Anick 1976), but the outpost remained in operation, at least in part as a staging area for the outfits to more remote outposts, such as Winokapau House and Michikamau House.

A small outpost of Sandy Banks at Gull Island was also occasionally maintained as a depot for the annual outfits upriver. Trade at Sandy Banks seems to have been with Innu from both the North West River area and the Lower North Shore of the St. Lawrence. George McKenzie writes to William Nourse on April 26, 1842 that:

"Except Asshini and his two brothers, Witnaw, Antoine's family, Espitau and young Mistanapesh and brother, are the only natives of this place or Bay, all the others are natives either of 7 Islands, Mingan or Masquaro. Antoine was originally an interior



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Indian, but for many years belonged to Mingan" (HBC B.153/c/1, cited in IED/JWEL 2000).

After the early 1840s there is little reference to building or rebuilding activities at Sandy Banks, but from 1866 until March 1873, Sandy Banks was operated during the trapping season by Henry Hay and family for the HBC, and in other years by various HBC employees.

Sandy Banks was last mentioned in the Post journal in December 1875, when the Sandy Banks crew arrived back at North West River Post for four days' holiday over the New Year. It is doubtful that the post ceased operations at that time, for in the spring of 1875 the HBC had constructed a new store at Sandy Banks and repaired the existing house, as the following North West River journal entry states: "A. Sanderson and Henri left for Sandy Banks where they are to put up a store, repair the house & afterwards go up to Gull Island to put the place in order and then bring down the flats to the Rapid. As it will be necessary in future to keep a stock of Provisions etc. to supply the Inds. to prevent them from straggling. Mr. Michaud & Wachekat's son went with them and are to return from the Rapid" (HBC, B.153/a/24/6d, Wednesday, May 5, 1875). The absence of regular entries referencing Gull Island and Sandy Banks after the 1875 to 1876 trapping season may be due to a change in the style of the journal entries rather than an alteration in HBC trapping locations. After August 1, 1875, with the advent of a new journal keeper, entries become brief and lack geographic detail. For instance, on Saturday Sept. 16, 1876, the entry simply notes that Henry Hay and family left for "winter quarters", whereas in the past, the destinations were noted of all men on HBC business departing North West River. Thus, the outposts of Gull Island and Sandy Banks still may have been in use, however, the journal entries are no longer specific. Another concurrent change was that the HBC no longer sent its own employees to the winter traplines; numerous planters trapped for the HBC and were outfitted by, and in debt to, the HBC.

In 1894, geologist A.P. Low stopped at Sandy Banks and later described the location as being situated on the north side of Churchill River, where the clearing cut out for the former post was marked by a new growth of birch trees (Low 1896; cited in IED/JWEL 2000). It is noteworthy that in Low's description of Sandy Banks, only some 20 years after the post ceased operation, no mention is made of buildings or any other standing structures, suggesting that they had been dismantled and removed, with the materials recycled elsewhere, or they had burned, possibly as a result of a forest fire.

In summary, Sandy Banks was operated intermittently and seasonally as an outpost of the North West River Post for a period of 39 years between the 1830s and 1870s. Records indicate that the Post was comprised of at least two (and possibly three) principal buildings, including an accommodations building and a "store" (storage building/trading room). Sandy Banks, like other outposts, was in operation during the fur trapping months, approximately September to May of each year, and served as "winter quarters" for HBC employees. Each HBC crew was responsible for maintaining a series of tilt runs at the outpost to trap furbearers. As well, the crews at each outfit were expected to trade with and supply Innu who were loosely associated with each outpost; the Innu trapped further afield but made regular return visits to trade furs, fresh caribou meat or hides



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for provisions. Trade goods (blankets, cloth, flannel, ammunition, and tobacco are mentioned in the North West River Post journals) and food supplies (records exist for flour, biscuits, dried peas, corn meal and pickled pork or beef in barrels) were transported to the outposts from North West River each year with the help of Innu crews using flats (flat-bottomed river vessels), canoes, and portaging (JWEL/IELP 2001a). Sandy Banks often served as a storage depot or staging area for the annual outfits to the more remote outposts deeper in the Labrador interior.

4.2 Sandy Banks (FgCg-01)

As noted above, Sandy Banks was identified during Stage 2 assessment in 1998 (IED/JWEL 2000) and the site was fully recovered in 2015-2016 (Stantec 2016, 2017). Previous archaeological research into the HBC posts of central Labrador has been limited. In 1968, Fitzhugh recorded surface-visible structural remains (cellars and foundations), and historic artifacts, including kaolin tobacco pipe fragments and gunflints at FjCa-35, related to the main North West River post (Fitzhugh 1972: 277), but did not undertake significant testing or excavation. Further upstream on the Naskaupi drainage, he also noted and tested a large Innu campsite at Red Wine Portage (FICg-01), which may have been associated with a former HBC outpost near the mouth of the Naskaupi River, above the head of Grand Lake (Fitzhugh 1972; see also McCaffrey, Loring and Fitzhugh 1989). This site was briefly investigated by Loring during the Pathways Project for Innu youth in 1993 (Loring and Ashini 2000). Somewhat further afield, we may note Fort Nascopeie on Petitsikapau Lake in western Labrador (GeDp-01); the location of the post was visited in 1986 and a collection of historic artifacts surface-collected from the beach fronting the site (McCaffrey 1989). In the Churchill Valley, Stage 2 assessment for the Lower Churchill Project included survey and testing to identify the HBC posts documented for the Churchill River drainage (IED/JWEL 2000; JWEL/IELP 2001a). The two principal HBC outposts on the river, Winokapau Post (FhCt-01) and Sandy Banks (FgCg-01) were both identified and tested.

The Sandy Banks Post is situated within the Muskrat Falls reservoir area, on the north side of Churchill River, approximately 20km west (upstream) from the Muskrat Falls portage, and roughly mid-way between Muskrat Falls and Gull Lake. The site was identified during Stage 2 assessment of the area in 1998 (IED/JWEL 2000). Test pits excavated at the western end of the site identified an assemblage of various sized iron nails and spikes, metal barrel hoops, and leg-hold trap parts: the colour and general condition of which suggested they had been exposed to heat sometime subsequent to their production. Also recovered at that time were a number of ceramic sherds, partially melted glass, and kaolin tobacco pipe fragments consistent with a nineteenth century occupation. Two relatively well-defined, discrete deposits of historic-period artifacts identified in test pits and mapped during the 1998 assessment suggest that the site had been comprised of at least two separate buildings, both of which appeared to have burnt, possibly as a result of a forest fire. These observations accord well with a general description of the post from 1875 (HBC document: 8.153/a/24, cited in JWEL/IELP 2001a: Appendix A).

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4.2.1 FgCg-01 Locus D

FgCg-01 is situated on a low terrace on the northern side of Churchill River at Sandy Banks, approximately 20km west of the Muskrat Falls portage and mid-way between Muskrat Falls and Gull Lake. FgCg-01 is comprised of four separate loci – Locus A, B, C and D. Recovery work at the western end of the site in 2014 and 2015 resulted in the complete recovery of cultural materials from Locus A (a series of precontact and historic-period hearths described in Sections 3.4.4 and 5.2.1) and Locus B (consisting of precontact hearths and lithic scatters, described in Section 3.4.4). Locus C was the remains of a 20th century trapper's tilt and associated surface midden (see Section 6.2.1.1). Locus D, situated northeast of Locus B, is the remains of the 19th century Sandy Banks HBC outpost. Recovery work at Locus D commenced in 2015 and was completed in 2016. The results of this recovery work are reported in detail elsewhere (Stantec 2016, 2017).

4.2.1.1 Structures and Features

Aside from one precontact lithic concentration (Feature 19, described in Section 3.4.4 above), the features and materials excavated at FgCg-01 Locus D pertain to the 19th century historic occupation of the Sandy Banks HBC outpost. In addition to several small exterior storage and disposal pit features, mounds, midden deposits and trampled pathways, along with a broad sheet midden on the terrace fall in front of the sites, excavations revealed evidence for four principal structures along with one outbuilding (a privy) (see Figure 4-1). There is archival reference to two buildings at the site in 1841-42: a dwelling house and a store. Again, in 1875 there is reference to a plan to build a store and repair the house (Hudson's Bay Company Archives B.153/a/24/6d, Wednesday, May 5, 1875).

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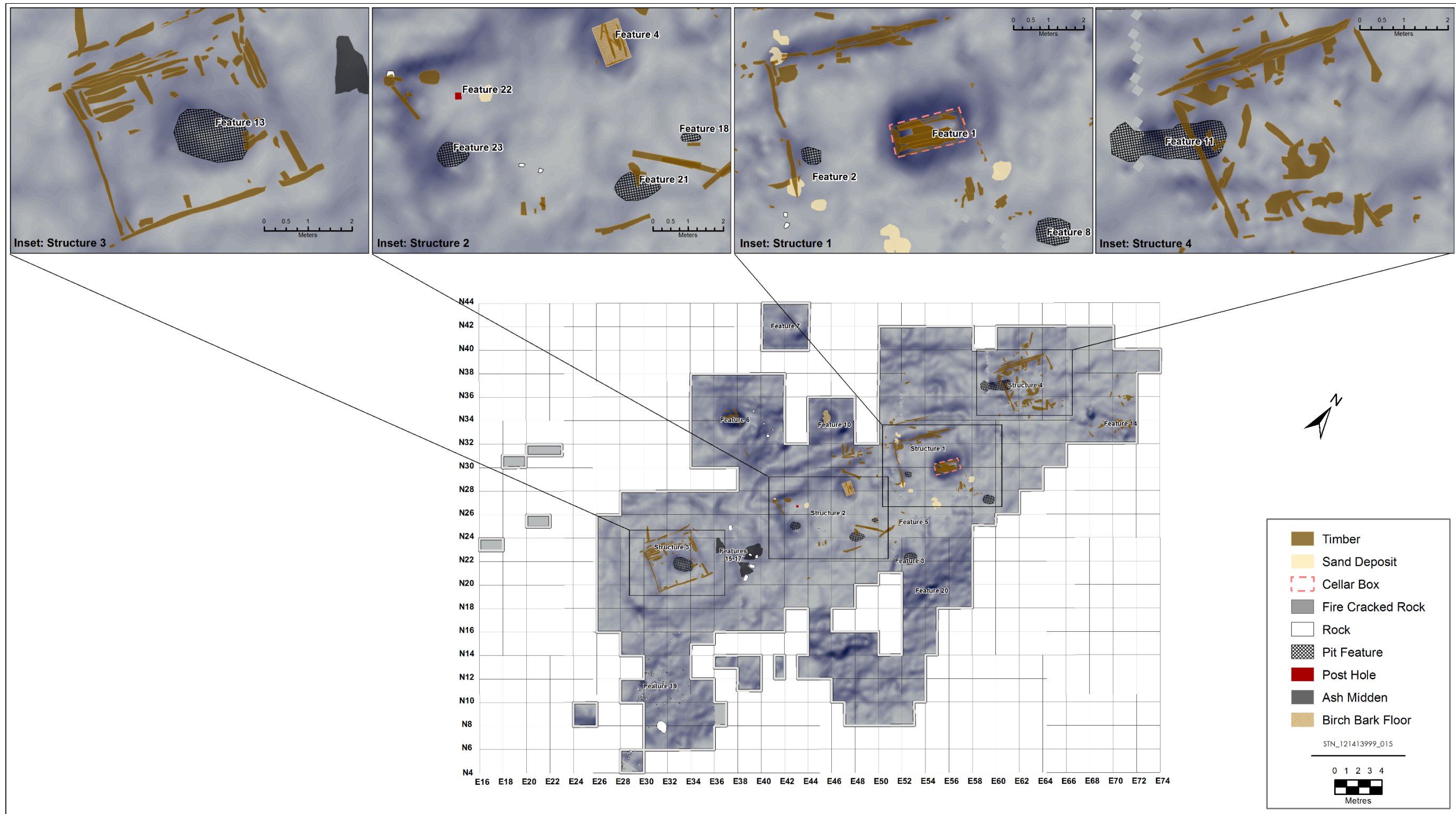


Figure 4-1 Plan View of Features and Structures Recorded at FgCg-01 Locus D (Stantec 2017)

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The four structures excavated at FgCg-01 Locus D are arrayed in a line, oriented approximately NE-SW, parallel to the edge of the terrace overlooking the Churchill River. The two westernmost buildings (Structures 2 and 3) have the exact same orientation, and their back walls are aligned, suggesting that they may have been erected together. Structure 1 has a slightly differently orientation, while Structure 4 is offset to the northeast of the other buildings.

In terms of construction, Structures 1, 3, and 4 were clearly of timber construction, embanked on the exterior with earthen berms. Although clear evidence for floorboards was encountered only in Structure 3, and only Structure 4 exhibited evidence for possible sleepers, the presence of a cellar (in Structure 1) and sump pits (in all three buildings) indicates that they had wooden floors. All three of these structures had burnt, and the remaining timber sills were charred and compressed, obscuring the precise construction methods employed, but the overlap of sills suggests either post-on-beam (*piece sur piece en coulisse*) or lapped-corner horizontal log construction. All three buildings appear to have had glass-paned windows, at least along their front (southeast-facing) walls and Structure 1 may also have had windows on the side walls.

Artifact distributions and compression of the middle of the front berm suggests that Structure 1 had a central door, and this may have been the case with the other structures as well. Structure 1 was extensively chinked and plastered with clay, either on the walls or on the roof, or both. The other buildings appear to have been minimally chinked with mud, if at all. No evidence was found for chimney construction at any of the structures, so wood stoves appear to have been used for heating. This is certainly the case at Structure 1, where numerous cast-iron stove fragments had been deposited beside the front door. In terms of size, Structures 3 and 4 were almost identical, measuring 3.7m x 4.25m, while Structure 1 was somewhat larger, measuring 4m x 4.5m. In addition, Structure 1 had significantly higher and more pronounced earth berms, particularly along the rear (northwestern) wall.

Structure 2 was somewhat unique in several respects. Like Structure 1 it exhibited a very high, pronounced berm, particularly along the rear wall, and like Structure 1 it contained a deep subfloor cellar near its northeastern end, and a shallow sump near its southwestern end. However, unlike the other structures at the site, it lacked any evidence for sill timbers and its wooden superstructure appears to have been deliberately dismantled, rather than left to decay *in situ*. Moreover, Structure 2 was a significantly larger building than any of the others identified at the site. Based on the distances between the interior toes of the berms, approximately where the sills would once have been, it measured 4m x 7.5m long.

These four buildings may be classified by their formal attributes into two distinct pairs. The two central buildings (Structures 1 and 2), although dissimilar in size, were both relatively large, with high earth berms and interior storage cellars and sumps, while the two flanking buildings (Structures 3 and 4) were both small (in fact, identical in size), and had sump pits but lacked cellars.

The privy outbuilding (Feature 6) was a conspicuous deep pit situated behind Structure 2. Fragments of unburned timber were recorded near the surface, and one large notched timber at



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the base of the pit, along with a layer of wood chips. The Feature 6 privy pit appears to have been covered by an outhouse superstructure that was subsequently dismantled, but not burned. In comparison with privy features from other comparable HBC contexts (e.g., Forsman 1986), Feature 6 contained relatively shallow waste deposits; this may reflect a relatively short use life for the feature, perhaps because the poor drainage made it an unpleasant location for an outhouse. On the other hand, there is no evidence that the inhabitants of the Sandy Banks outpost employed chamber pots instead. Feature 6 is also remarkable for the fact that it saw limited use for artifact disposal. Missing are the discarded pharmaceutical vials, liquor bottles and ceramic vessels often associated with privy pits in similar historic contexts (e.g., Forsman 1986): aside from 42 textile scraps, presumably employed as hygienic wipes, the only artifact contents of the privy pit were the remains of a single glass tumbler, and some tiny glaze sherds of refined white earthenware. However, forced-air flotation of block-lifted sediments from the base of the pit (Deal, Dinham and Wilkie 2016) did yield samples of woodchips, grape, raspberry and pin cherry seeds interpreted as dietary remains, in the case of the grape seeds likely derived from jam or raisins. Microfaunal remains included 21 porcupine quills, likely discarded after cleaning porcupine, insect parts, (including one pubic louse, and pinworms, indicating the presence of viable eggs in the deposit), human pubic hair and unidentified mammal hair.

4.2.1.2 Artifacts

A large assemblage of 43,695 artifacts and other cultural materials was recovered from FgCg-01 Locus D in 2015 and 2016. These artifacts are consistent with HBC archaeological sites excavated elsewhere in Canada (e.g., Forsman 1986; Castillo 2012), and specifically with the documented period of occupation of Sandy Banks (For detailed illustrations of this diverse assemblage see Stantec 2017).

In addition to the precontact assemblage, these included artifacts in the Kitchen/Domestic group. Ceramic sherds were abundant and included stonewares, particularly associated with Structure 4. Refined white earthenwares included edged and molded wares, hand-painted polychromes with chrome colours, and transfer-printed wares, these last primarily identifiable as Copeland and Garret patterns. Ironstones were represented by only 7 sherds. Container glass included tumblers, pharmaceutical containers, and preserve jars; liquor bottle glass was generally lacking, consistent with HBC policy. Cutlery, kitchenware and stove parts were recovered, primarily in association with Structures 1 and 2.

Artifacts of the Architectural/Furniture Group were extremely common. Nails, including rivets, were almost all forged, with few cut nails present. Windowpane glass was found in association with all four structures, again consistent with HBC policies (no evidence was found for artificial lighting, such as lamp parts or chimney sherds). Analysis of flat glass thickness indicates that the overwhelming majority of the window glass was introduced in the initial period of construction (ca. 1840), possibly from stocks already 10-20 years old. Thicker and later sherds, suggesting occasional repair of broken panes with new glass, are rarer and particularly associated with Structure 2 and

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Structure 3. Fragments of burnt clay daub were abundant, particularly around Structure 1, as were tin sheet fragments, probably used as flashing or roofing material.

Artifacts of the Arms/Ammunition Group included lead musket balls and shot, along with lead spoil and sprue, as well as musket components. Although one of the latter was the lock plate and breech plug from a caplock musket, no percussion caps were recovered. Instead, the numerous gunflints indicate that most of the firearm users supplied at the post, both HBC employees, and their Innu customers, primarily employed older flintlocks.

Artifacts of the Clothing Group include trade beads, bale seals, buttons, and hook-and-eye fasteners, as well as thimbles, scissors, and awls. Most of these artifacts (including beads) were recovered in Structure 2 and in the sheet midden in front of the site.

The Personal Group is a diverse category that includes two crucifixes, gaming pieces, slate pencils, and a jaw harp. However, the most common artifacts in this group were clay tobacco pipe fragments, found within or in front of all four structures, particularly Structures 1 and 2. The most common marked types bear the initials "I.F." on either side of the spur or have marked bowls identifying the maker as John Ford (later Jesse and Thomas Ford) of Stepney, who exported tobacco pipes to the HBC from ca. 1846 (or possibly earlier) until 1877 (Walker 1971). Tobacco and tobacco pipes were an important trade item for the HBC, and pipes with these marks are common in HBC contexts elsewhere in Canada (e.g., Forsman 1985).

The Activities Group is another diverse category that includes trap parts, likely both for trade and for the use of HBC employees, as well as barrel hoops (many of which appear to have been deliberately cut or broken as a source of metal for expedient tools), and scrap metal. A wide range of tools was recovered from FgCg-01 Locus D, many of which may equally have been used or traded. These include axes, awls (principally offset awls), clasp knives, and fire steels. Other tools are perhaps more likely to have been used primarily by HBC employees. These include chisels, planes, gimlets, bucket parts, and one shovel blade. As at most HBC sites, files are well represented, and while some of these may have been for use at the post, some may have been traded: for example, two fragments of a flat double-cut file had been heated and hammered thin, apparently to fashion a crooked knife. The fragmentary nature of the piece, along with the lack of a sharpened edge, suggest that this tool was abandoned during production and was therefore a crooked knife "preform" rather than a finished tool.

The Food Refuse Group is well represented. Excavation at FgCg-01 Locus D in 2015 and 2016 led to the recovery of 2,440 pieces of faunal bone. The collection includes large unburned animal bones and teeth, in addition to small calcined fragments. Preliminary assessment of the collection indicates that some of this bone is clearly from domesticated species (cattle and pig), presumably brought to the site in barrels as salt beef and salt pork. However, most of the pieces in the collection appear to derive from wild species, including small game, furbearers, caribou, and birds.



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Finally, the Miscellaneous Group consists of a number of unique or enigmatic objects of unknown function. These include mudstone spheres, iron concretions and pieces of undetermined metal alloy, one fragment of perforated slate that may be the hafting end of an ulu blade, or conceivably a pendant, and eight tiny fragments of a scarlet substance with a waxy lustrous finish from Structure 2 that may be pieces of hardened sealing wax, or may be vermilion pigment (see Castillo 2012).

Recovery work at FgCg-01 Locus D confirmed that this site locus was the location of the 19th century HBC outpost at Sandy Banks and yielded a large assemblage of artifacts consistent with an HBC occupation, specifically with the documented period of occupation of Sandy Banks between 1839 and 1876.

The range of artifact types recovered from FgCg-01 Locus D generally reflects the range of materials expected on an HBC post. This includes artifacts for the use of HBC personnel (particularly those in the Kitchen Group). The assemblage also includes artifacts specifically for trade, including beads, tobacco pipes (and presumably tobacco), and firearm-related objects such as muskets, gunflints, shot (and presumably powder). It may be noted, though, that the archival evidence implies that the Sandy Banks outpost served primarily as a winter quarters for HBC personnel, and trade may well have been a very secondary function of the site. The scarcity of liquor bottle glass is also consistent with an HBC affiliation for the post at FgCg-01 Locus D.

Where makers' marks are present and identified, these generally pertain to known HBC suppliers, including the Ford company of Stepney (tobacco pipes), Garret and Copeland (refined white earthenwares), the Carron Company (woodstoves) and William Parker (the musket lock mechanism), although many marks are unidentified, and some ceramics, and tobacco pipes were not acquired through the normal HBC supply chain; these may represent private purchases by HBC personnel, or by individuals not affiliated with the HBC.

The dating of these artifacts is generally consistent with the known dates of HBC operations at Sandy Banks (1839-1876), although it should be noted that very few pieces (the ironstone sherds, and sherds of the Copeland and Garrett "Ruins" pattern) can be conclusively dated after 1848 (*i.e.*, to the latter half of the occupation period). Virtually all the dateable artifacts were potentially available at or near the beginning of the known occupation period for Sandy Banks, possibly suggesting that the outpost saw surprisingly little re-supply of non-perishable items after its initial outfit. The corollary of this is that there is no clear artifactual evidence for occupation of the site after *ca.* 1876.

In this regard, it is also interesting to note the "old-fashioned" character of the firearms-related artifacts recovered from FgCg-01 Locus D. This may be because they were introduced on-site primarily for trade (since First Nations peoples in northern Canada continued to use flintlocks after they had become obsolescent elsewhere). It is also possible that in relatively-remote Labrador, even the HBC personnel continued to rely on older flintlock weapons.

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4.2.1.3 Interpretation

The distribution of artifacts across the terrace top indicates that the differences in form between these two pairs of buildings reflect differences in function as well. Structure 1 (the most extensively daubed and sealed of all the buildings) and Structure 2, both yielded high frequencies of artifacts in the Kitchen/Domestic Group, particularly refined white earthenwares, indicating that they most likely served as dwelling houses. Structures 3 and 4, on the other hand, yielded few artifacts of domestic function. Structure 3 yielded few artifacts in general, while Structure 4 contained most of the stoneware storage vessel fragments, along with high frequencies of shot and unused gunflints. Structures 3 and 4 are therefore interpreted as stores rather than dwellings.

The documentary evidence mentions only a single dwelling and a single store at the post at any one time, so the presence of four structures, interpreted as the remains of two houses and two stores, suggests some sequence of rebuilding phases during the period of occupation of the site. These same sources suggest two principal building phases at the site, one in 1841-1842, and another in 1875-1876, although details are sparse and we must be cautious in interpreting this evidence; some building or rebuilding operations may have been planned but never executed, while some intended re-buildings may have ended up simply being repairs (or vice versa).

Unfortunately, it is not possible to seriate these four buildings stratigraphically. The only clear stratigraphic relationship we can identify between buildings is the superposition of Feature 6 (privy) fill over the Structure 2 builders' trench, indicating that the privy pit was dug after the construction of Structure 2. Relatively late construction of the privy may account for the unexpectedly limited fecal deposits, and the relatively scarcity of artifact discard, within the privy pit. Moreover, because of the relatively brief period of occupation (ca. 40 years), and since very few of the artifacts recovered from the site can be dated firmly after ca. 1850, all archaeological contexts at the site appear to be (archaeologically) contemporary.

Nevertheless, it is hypothesized that Structures 1 and 4 may represent the initial dwelling house and store at the site. In fact, it is possible that these structures pre-date the HBC occupation and were initially constructed by Comeau in the 1830s, Structure 4 being the store partially burnt by HBC personnel, and perhaps subsequently repaired and re-used by its new owners between 1839 and 1842. Certainly, it does appear that some debris from Structure 4 was cleared away and discarded, both over the terrace slope and into the Structure 1 berm during renovations. If this hypothesis is correct, then Structures 2 and 3, with their distinct orientation and alignment, would represent a later building phase or phases at the site; these buildings may have been constructed in 1876, or may reflect an earlier re-building phase, otherwise unattested in the archival records. In either case, the density of artifact debris associated with Structures 1 and 4 suggests that if those structures were replaced by later construction, then that portion of the site was nevertheless never diligently cleared of debris.

However, it must be conceded that a variety of building-sequence scenarios might account for these diverse indicators. Both the archaeological and archival evidence suggest that at any one



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time, the Sandy Banks outpost consisted of a dwelling house and a store, that the dwelling house was renovated or rebuilt at least once, and that the store was rebuilt at least once. Beyond that, it is difficult to present a conclusive sequence of construction events at the site.

When Albert Low passed through the Sandy Banks area in 1894, he did not record any ruins or standing buildings at the Sandy Banks outpost site, noting only "a new growth of birch" marking the former location of the post (Low 1896). This would appear to indicate that the outpost had been abandoned for some years by that date, and the artifacts recovered from FgCg-01 Locus D in 2016 are consistent with this, indicating no clear evidence for occupation after the 1870s.

Whenever the occupation of the Sandy Banks outpost finally ceased, there are two post-depositional processes which may have significantly affected the remains of the outpost during and after its eventual abandonment.

The first consists of fire. Three of the buildings recorded at the site (Structures 1, 3, and 4) were clearly destroyed by fire, and while fire may have impacted Structure 4 during the occupation period, it is likely that one or more of the buildings still standing when the site was abandoned were destroyed in a terminal fire event occurring at, or following, the end of the HBC occupation. It is possible that the final buildings at the post were destroyed in a natural forest fire, and this would certainly provide a rationale for the final abandonment of an outpost that the Company had considered closing for years. However, it is worth noting that one apparently late building, the privy (Feature 6), shows no evidence for burning at all; while few timbers are present, and the building may have been dismantled, the timber fragments that remained were clearly unburnt. Moreover, Low's description of a "growth of birch" marking the post site suggests, not a widespread fire, but rather something more localized. Instead, it is hypothesized that any buildings still standing at the end of the HBC occupation were individually burnt, deliberately razed to the ground, perhaps to prevent occupancy by a competitor, or perhaps to salvage iron nails from the timbers.

This brings us to the second cultural post-depositional process that may be significant at the site: the scavenging and salvage of useful materials by later inhabitants of the Churchill valley. As has been noted, neither Structure 2 nor Feature 6 contained evidence for in situ timbers, and both buildings appear to have been deliberately dismantled, presumably to salvage timbers for use elsewhere. There is some limited but suggestive evidence for salvage of other useful materials from the site. Most notable is the scatter of cast-iron Carron woodstove plates beside the front door of Structure 1. This stove, which shows signs of severe melting and numerous repairs, may no longer have been functional when the post was finally abandoned, but nevertheless, it appears to have been pulled from the building and beaten into fragments on the ground beside the door, presumably in a search for useful scrap metal. However, this is not the only evidence for scavenging from the site. Further insight into the extent of post-abandonment scavenging activities, and where the salvaged materials may ultimately have been brought, may be seen at the second site excavated in 2016: FgCg-04, another historic site situated some 700m downstream from FgCg-01 Locus D. This site is described in more detail in Section 5.0.



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4.3 Summary

Recovery work at FgCg-01 Locus D confirmed that this site locus was the location of the 19th century HBC outpost at Sandy Banks, in operation between 1839 and 1876. Excavations yielded a large assemblage of artifacts consistent with an HBC occupation, and specifically with the documented period of occupation of Sandy Banks.

In addition to artifacts, excavations confirmed evidence for four principal structures and one outbuilding (Feature 6, the privy). The principal buildings were arrayed in a line parallel to the edge of the terrace overlooking the Churchill River, with the privy situated behind this line of buildings. Three of these buildings (Structures 1, 3, and 4) yielded preserved wooden sills and were clearly either of post-on-beam, or lapped corner timber construction. Structure 2 and Feature 6 lacked in situ timbers and appear to have been dismantled. All the principal structures, and the privy, were surrounded by mounded earthen berms banked against the walls. All structures, except the privy, had glazed windows, at least along their front walls, and one (Structure 1) was extensively chinked with clay daub. No chimneys were present, and all four of the principal structures appear to have been heated with stoves. The basic construction methods are consistent with HBC architecture encountered HBC posts excavated elsewhere in Canada; the absence of stone chimneys is not typical, but it is not unheard-of. The earthen berms, on the other hand are an unusual feature.

These four buildings may be classified by their formal attributes into two distinct pairs. The two central buildings, Structures 1 and 2, are interpreted as dwelling houses while Structures 3 and 4 are interpreted as stores.

The documentary evidence mentions only a single dwelling and a single store at the post at any one time, so the presence of four structures, interpreted as the remains of two houses and two stores, suggests some sequence of rebuilding phases during the period of occupation of the site. It is not possible to seriate these four buildings stratigraphically, and archaeological contexts at the site appear to be largely contemporary, in part because of the relatively short period of occupation. Consequently, it is difficult to reconstruct the building sequence at the site. However, the limited evidence available indicates that Structures 1 and 4 may represent the initial dwelling house and store, while Structures 2 and 3 represent a later building phase or phases at the site. The privy appears stratigraphically to have been dug after the construction of Structure 2, indicating that it was a relatively late addition to the post. This may account for the relatively sparse contents of the privy pit.

Archaeologically, there is no evidence for occupation of the site after it ceased to be mentioned in the HBC archives in 1876. In fact, the material culture includes very few artifacts clearly datable after ca. 1850: virtually all the artifact styles and technology (including firearms technology) were current in 1840 but outmoded by 1876, giving the artifact assemblage a rather "old-fashioned" look for the supposed period of occupation. In the case of the trade goods, this may reflect a persistent demand for earlier artifact styles and technologies by the principal customers of the HBC, the Innu hunters and trappers of central Labrador. On the other hand, even the artifact

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classes that may have been imported primarily for the use of HBC personnel, such as the transfer-printed refined white earthenware ceramics, include very few pieces clearly dateable after 1850.

It is possible that the Sandy Banks outpost saw little re-supply after its initial outfit in the late 1830s. It is also possible that the North West River post itself, of which Sandy Banks was only an outpost, was not well supplied. Only further archaeological work at the North West River post and its other dependent outposts, such as Winokapau House and Fort Nascopie, will resolve these questions. All three of these HBC establishments have been archaeologically sampled (see Fitzhugh 1972; McCaffrey 1989; IED/JWEL 2000; JWEL/IELP 2001a), but no extensive excavations have been undertaken.

Except for Structure 2 and Feature 6, which appear to have been dismantled, the remaining buildings at the site appear to have been destroyed by fire. In addition, there is some evidence that after the Sandy Banks outpost was abandoned, it continued to be visited to salvage scrap metal and other useful materials.



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5.0 INTERPRETATION OF RESULTS: HISTORIC INNU OCCUPATION

Three sites recovered along the Churchill River contained evidence for historic-period hearth features predating the 20th century and are interpreted as the remains of historic Innu campsites. An additional two sites yielded small quantities of historic artifacts, and may also pertain to campsites, but lacked evidence for historic hearth features.

5.1 Introduction and Historical Background

Innu-European contact began in earnest in the mid-seventeenth century, with the development of the fur trade, and the establishment of the Postes du Roy and the Seigneurie de Mingan on the Québec Côte-Nord of the St. Lawrence River. Though the Innu of Hamilton Inlet were clearly in contact with Europeans by this time (Tanner 1977: 9-10), the earliest close contact documented specifically for the upper Lake Melville area occurred when Louis Fornel established his trading post at North West River in 1743. This post was operated by a series of Québec-based and English merchants until 1836-1837, when the HBC acquired the North West River properties. The HBC maintained a monopoly on the fur trade in the area until 1901, when Revillon Frères Trading Company Limited established a competing post on the south side of the river, opposite the HBC post (Zimmerly 1975).

It is clear that through most of the fur trade period, the Churchill River valley was part of the hunting and trapping grounds of the Innu. Throughout this period, the interior remained remote and relatively unknown to Europeans. Initially, the parties involved in the fur trade consisted primarily of European traders on the one hand, and Innu hunters and trappers on the other. However, by the closing years of the nineteenth century, the Settler population became increasingly involved in fur trapping for trade, and by the early twentieth century had largely usurped Innu trapping grounds along the Churchill River and elsewhere (Tanner 1947, Tanner 1977; Mailhot 1997; Zimmerly 1975).

Archaeological data from historic-period Innu sites are sparse in southern and central Labrador. However, limited archaeological excavation of historic Innu campsites has been undertaken in northern Labrador and in northern Québec. The distinguishing architectural feature of these northern (Mushuau) Innu sites is the presence of the distinctive surface-visible earthwalled tentrings first recognized and defined archaeologically by Thomas Lee at Fort Chimo, Quebec (Lee 1966, 1967). These are generally circular, some 3-4.5m in diameter, with approximately 30cm high earthen walls, and often a ramp leading from the entrance to the central hearth; the hearths themselves are constructed of cobbles, mounded or pedestalled, and may contain charcoal and calcined bone. Where charcoal and bone are lacking, these features may have been support stands for tin stoves, which appear to have come into common use by the 1920s (see Loring 1992 Appendix A). Large clusters of these earthwalled tentrings have also been identified at Mushuau-nipi (Indian House Lake) in Québec (Samson 1975), and in northern Labrador (cf. Loring 1992) as far south as the Seal Lake area, on the Naskaupi drainage northwest of Sheshatshiu (McCaffrey,

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Loring and Fitzhugh 1989). These features had not previously been encountered south of the Naskaupi River (see JWEL/IELP 2001d: 28-29). The associated artifact assemblages appear to post-date the middle of the nineteenth century, and in many cases, date to the late nineteenth or early twentieth centuries. The sites contain few artifacts and have been characterized as “impoverished,” indicating limited integration of the Mushuau Innu into the fur trade (see Loring 1992).

5.2 The Sites

As noted, three sites recovered along the Churchill River contained evidence for historic-period hearth features predating the 20th century and are interpreted as the remains of historic Innu campsites. One of these sites, FgCg-01 Locus A, was situated in the Sandy Banks area, not far from FgCg-01 Locus D, the Sandy Banks HBC post. A second, FhCe-36, was located on the North Spur at Muskrat Falls, at the top of the historic portage trail leading up from the eastern side of the North Spur. The third, FfCi-02 Locus B, was located on the north shore of Gull Lake.

An additional two sites (FfCi-01 and FgCh-03) yielded small quantities of historic artifacts, and may also pertain to campsites, but lacked evidence for historic hearth features. We may also note the two historic portage trails at Muskrat Falls, which were both registered as archaeological sites.

5.2.1 FgCg-01 Locus A

FgCg-01 Locus A yielded evidence for precontact occupation (discussed in Section 3.4.4 above), but in addition, four hearth features and associated artifacts that appear to derive from an historic-period occupation of the site (Stantec 2015; 2016). One of these features (Feature 3) was a cobble hearth measuring 1.5m x 1.2m, covered in a layer of charcoal and above this a lens of fine beach sand covering the entire feature. Associated artifacts included unmarked clay tobacco pipe fragments, and sherds of floral-embossed blue edged ceramics identical to edged wares recovered from the Sandy Banks HBC post at FgCg-01 Locus D, some 75m to the east. Another (Feature 4) was a small cobble pavement with few associated artifacts other than two small rimsherds of whiteware or ironstone. It is possible that this feature represents a stove-stand, in which case it may date rather later than Feature 3. Two other features consisted of sand deposits similar to that which capped Feature 3, interpreted as the remains of doused hearths, but these yielded no artifacts. Feature 3, which is clearly contemporary with the post (ca. 1840-1876), probably Feature 4, and possibly the two sand features, are interpreted as the remains of Innu campsites established during the course of trading at the nearby HBC post.

5.2.2 FhCe-36

FhCe-36 (Stantec 2014b) was situated on the 62m asl terrace on the North Spur of Muskrat Falls, approximately 20m north of the top of the portage trail that ascended from the east. The single feature recorded at FhCe-36 was a small, slightly dispersed cobble hearth 1m in diameter. Associated artifacts included a small collection of quartzite artifacts likely pertaining to a nearby precontact site (FhCe-37, which in turn yielded some historic artifacts attributable to FhCe-36), but



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the majority of the artifacts recovered date to the historic period. These include a small collection of transfer-printed refined white earthenware sherds, sherds of a stoneware vessel closely comparable to a Keillor marmalade jar (Hamilton 1979), bodysherds and one finish of green wine bottle glass, a gunflint, clay tobacco pipe fragments, two brass tacks, and two voided heart-shaped tobacco tags (associated with the W.C. Macdonald Company, and dating from ca. 1877 to 1922: Springate 1997). In addition, the hearth at FhCe-36 yielded a relatively well-preserved and diverse collection of carbonized fish and small and large mammal bone. The artifact assemblage appears to be consistent with a short-term campsite established along the portage trail in approximately the last quarter of the 19th century. It cannot be stated conclusively that the people who established this camp were Innu, although some elements in the collection are similar to artifacts from the demonstrably Innu historic site at FfCi-02 Locus B (see below).

5.2.3 FfCi-02 Locus B

FfCi-02 was a large site, with six loci, situated on a terrace overlooking Gull Lake. Five of the six loci yielded features and artifacts dating primarily to the precontact period (see Section 3.5.5 above), but Locus B contained evidence for a significant historic Innu occupation (Stantec 2016). Features recovered in Locus B included three rock discard piles, interpreted as the result of site clearance activities, as well as a small isolated hearth feature containing caribou longbone fragments, along with a small collection of historic artifacts.

The largest and most important historic feature in Locus B was Structure 1, the remains of a large dwelling structure which occupied most of the northeastern half of Locus B. Structure 1 consisted of an annular earthen perimeter wall, the outside diameter of which measured 4.5-6m, and which enclosed a level interior space approximately 3.5m in diameter. This perimeter wall had been established on top of the original ground surface, preserved as a ring of buried duff. The earthen wall encircled a central sand-mound hearth feature measuring 0.5m x 1m, which contained little firecracked rock but considerable charcoal and calcined bone fragments, along with one sherd of transfer-printed ironstone ceramic and one piece of scrap metal. Structure 1 is interpreted as the remains of an earth-walled tent-ring with central hearth. Dwelling structures of this type are diagnostic of 19th and early 20th century historic Innu occupation sites in northern Labrador and Québec (e.g., see Lee 1966, 1967; Loring 1992, 2015; Samson 1975) but had not previously been recorded this far south in central Labrador.



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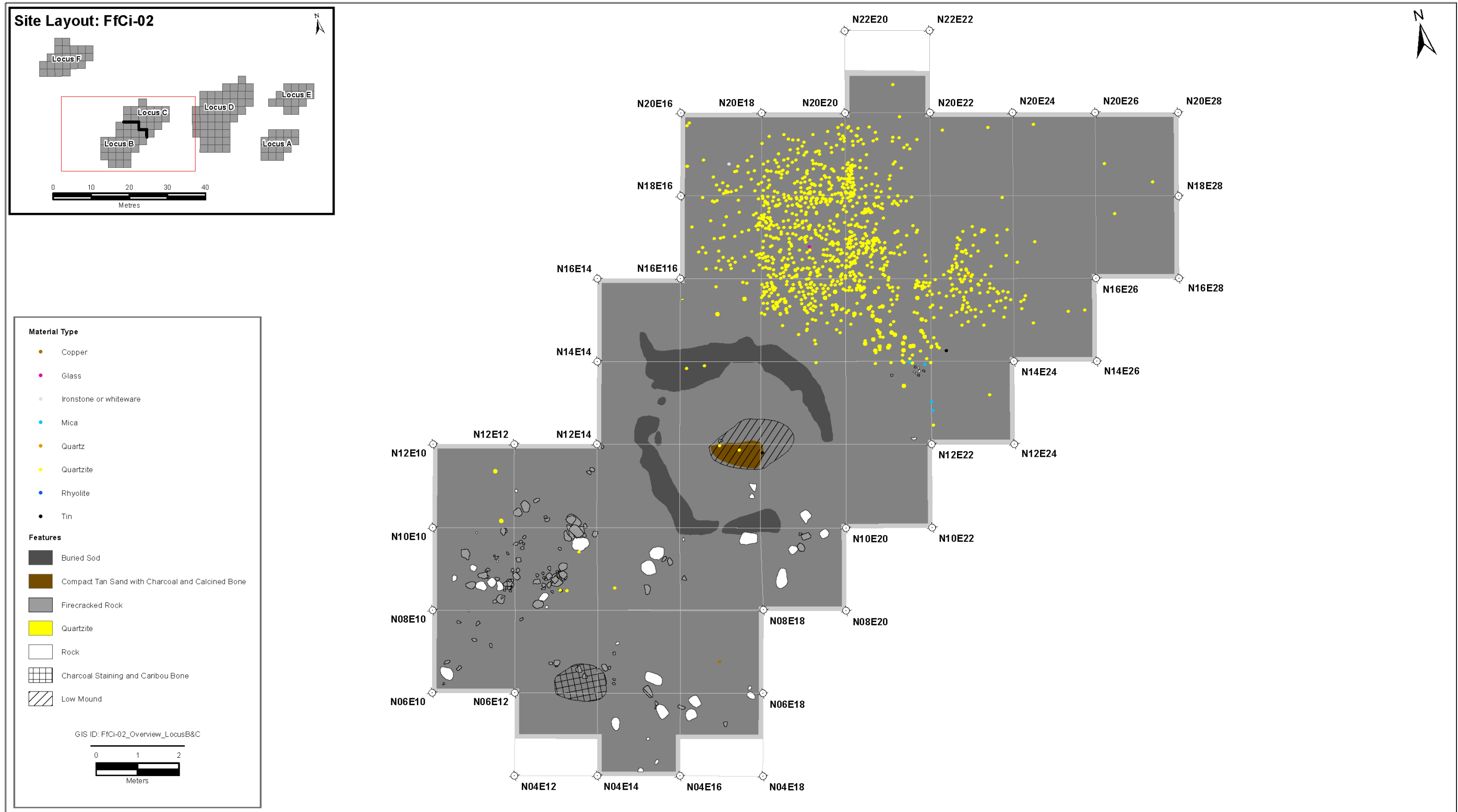


Figure 5-1 Plan of Excavations at FfCi-02 Locus B and C Indicating the Distribution of Historic Features and Artifacts (Stantec 2016)

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FfCi-02 Locus B yielded a small, but remarkably diverse and informative assemblage of historic artifacts (some of which were recovered from adjacent loci). Over half of the pieces recovered were ceramic sherds, including transfer-printed ironstone and sponge-painted refined white earthenware. Tobacco paraphernalia included kaolin tobacco pipe fragments (one bearing the "I.F." mark so common at the Sandy Banks HBC post) and two "voided heart" tobacco tags. Four firearm-related artifacts were recovered from FfCi-02 Locus B, including a .53 calibre lead musket ball, a gunflint, the distal end of a musket barrel, and a torn and splayed percussion cap. Of the glass objects recovered, two were small trade beads ("seed beads"), and one was a sherd from a medicinal peppermint essence vial. Clothing-related items included a thimble, two ceramic buttons, and three scraps of red flannel. The Innu occupation at FfCi-02 Locus B dates broadly to the second half of the 19th century and perhaps the very beginning of the 20th century. An occupation date that encompasses all of the dateable material culture would fall broadly between the 1850s and 1880s, with the later part of this span more likely. In this context, the firearm technology, as at the Sandy Banks HBC post, has a rather "old-fashioned" quality. Nevertheless, in comparison with the "impoverished" artifact assemblages associated with earth-walled tent-ring sites further north, the collection from FfCi-02 Locus B is relatively rich and diverse and indicates that the inhabitants of the site were active participants in the fur trade.

5.2.4 Miscellaneous Historic Sites

FfCi-01 (Stantec 2018) was situated just across a deep gully from the much larger site FfCi-02. FfCi-01 was primarily a precontact site, but a small collection of historic artifacts was recovered. Virtually all of these appear to date to the 20th century, but a small number may date to the 19th century. These include one .69 calibre musket ball, four tiny (and undatable) clay tobacco pipe fragments, and one "voided heart" tin tobacco brand identical to those recovered from FhCe-36 and FfCi-02 Locus B. Two ceramic buttons were recovered, both of the four-hole dished-front white Prosser shirt button type which may date to any time after 1840 (Sprague 2002). The small historic artifact assemblage collected from FfCi-01, which consists primarily of firearms-related artifacts, suggests that this location served intermittently but repeatedly as a hunting stand, not only in the precontact period, but in the historic period as well.

Three small kaolin tobacco pipe fragments were recovered from FgCh-03 on Gull Lake (Stantec 2018), otherwise a large precontact site. These pieces are potentially of 19th century date, but as stray finds they indicate only ephemeral historic activity on the site, not any significant historic occupation.

A single kaolin tobacco pipestem was recovered from FhCe-40 on the North Spur of Muskrat Falls (Stantec 2014b).

FhCe-03, the portage trail on the south side of Muskrat Falls, was recorded by means of video and still photography (Stantec 2014a). During this recording, it became apparent that the route had in the past been graded and prepared by bulldozers or other heavy earth-moving equipment. This fact was confirmed by a local elder informant, who reported that heavy equipment had been



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used to create a road around the falls 40-50 years ago in the 1960s. It is assumed that this portage route is ancient, particularly because of its association with 25 precontact archaeological sites, but it is noteworthy that no evidence for 19th-century occupation or activity was noted during recovery work at these sites. FhCe-08, the north portage around Muskrat Falls, was also recorded (Stantec 2014b). While the western descent appears to be relatively recent, the eastern descent has been depressed by pedestrian traffic in excess of 2m into the topography, in effect forming a narrow, linear ditch—a configuration which is truly a testament to the trail's long-standing and extensive usage. The top of the eastern side lies only 20m from the historic hearth at FhCe-36.

5.3 Summary

Relatively few 19th century campsites were identified during the course of the project, but those that were recovered were well-distributed across the Study Area. Most yielded very small artifact assemblages, and their archaeological visibility, both on the surface, and in subsurface testing is low.

One of these sites, FfCi-02 Locus B, contained evidence for an earth-walled tent ring, clearly diagnostic of an historic Innu occupation. FgCg-01 Locus A is inferred to represent an Innu occupation because of its early date, predating the expansion of Settler trapping along the Churchill River. FhCe-36 yielded an artifact assemblage similar to that of FfCi-02 Locus B, and likely represents an Innu occupation, but this cannot be confirmed.

With regard to dating, FgCg-01 Locus A definitely dates to the period of operation of the Sandy Banks HBC post and is interpreted to be the remains of the campsites of Innu who came to trade at the post. The occupation at FfCi-02 Locus B wholly or partly post-dates the period of the Sandy Banks HBC post, but nevertheless contains evidence for interaction with the HBC, presumably trading at North West River. FhCe-36 almost certainly post-dates Sandy Banks and lacks specific evidence for interaction with the HBC.

The discovery of the earth-walled tent ring at FfCi-02 Locus B clearly indicates that this style of dwelling is present in central Labrador, as well as further north. The apparent lack of such structures prior to the excavation of FfCi-02 Locus B (Schwarz and Hutchings 2016) probably reflects the fact that these structures are much less visible in the forested central Labrador interior than on the tundra of northern and north-central Labrador.

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Nine sites appear to pertain to the settlement by Settler trappers. All but one of these sites clearly date to the 20th century, the other (FgCg-04) likely dates to the 1890s, when settler trapping pattern was first becoming established in the Churchill Valley. A tenth site, FgCg-09, was not relocated; this site was identified in the 1970s but only recently assigned a Borden number, and the coordinates may not be correct.

6.1 Introduction and Historical Background

During the operation of the HBC outpost at Sandy Banks, until the last quarter of the 19th century, the fur trade in central Labrador was almost entirely conducted between the HBC and Innu hunters and trappers (although as noted, some of the HBC fur returns were trapped by HBC employees, not acquired by trade). However, in the 1890s, this changed as permanent residents of upper Lake Melville began to trap intensively along the Churchill River. The causal connection between the decline of Innu settlement on the Churchill River and the rise of Settler trapping in the area is not entirely clear. Tanner (1947) indicates that Settler encroachments were driving the Innu from traditional trapping areas, not without conflict. However, Mailhot's discussion of the issue implies that the Innu had their own motives for abandoning the Churchill River, and that the Settler encroachment was simply a consequence (Mailhot 1997: 27). In any event, by the early 20th century, the Churchill River and valley was increasingly a trapping area dominated by Settlers from western Lake Melville. Many of these individuals appear to have been former HBC employees, with lengthy experience trapping for the company in "winter quarters," or to have been the descendants of HBC employees. The trapping grounds initially exploited appear to have been those relatively close to Lake Melville on the lower reaches of the principal rivers, including the Churchill. From the very beginning, a body of customary law held that trapping grounds belonged to the Settler who first built a cabin and set out trapping paths along a stretch of the river (e.g., Groves 2013; Cotter 1922; account of John Blake in Fitzhugh 1999: 395-397).

Although a number of individuals were involved in this expansion of the settler trapping enterprise, one name which often appears in both documentary and oral history accounts as particularly important in the expansion along the Churchill River is that of Joseph Michelin. Joseph Michelin was born in 1846, the son of Mersei Michelin of Trois Rivières, an HBC employee during the heyday of the HBC outposts on the Churchill River in the nineteenth century. Joseph Michelin was able to take as his "place" the abandoned HBC outpost site at Sandy Banks, the most convenient and closest trapping ground above Muskrat Falls. Joseph Michelin did not stop there. Around the turn of the century, he was continuing to open new trapping grounds further and further upstream, presumably for the use of his sons (Merrick 1933) and he appears to have been one of the driving forces in the expansion of settler trapping along the Churchill River.



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The period from 1901-1941 has been described as the “zenith” of settler trapping along the Churchill River. The establishment of the Revillon Frères trading post at North West River in 1901, although founded primarily to trade with Innu trappers, broke the HBC monopoly and resulted in increased fur prices for everyone (Zimmerly 1975). Toward the end, prices were declining as a result of the depression and the war, and possibly trapping returns were declining as well (J. Goudie 2013), just as opportunities for relatively well-paying wage labour were appearing at the new base in Goose Bay. Through the 1950s and into the 1960s, trapping declined noticeably (H. Goudie 2013; J. Goudie 2013). Although trapping continued thereafter, there are indications that the original customary land tenure system had broken down, and that by the 1970s, other trappers were able to harvest in what had once been exclusive territories (e.g., see Saunders 2013). In addition, with the advent of the snowmobile, trapping became more recreational and involved shorter stays in the country than had been the case prior to the Second World War (for a review of the postwar changes in trapping activity in Labrador, see Plaipe 2002, cited in Minaskuat 2009: 56).

Vaino Tanner, writing in 1947, listed the principal trappers along the Churchill Valley (and other rivers) as of 1937, possibly the climax of the settler fur trade in the region. The trapping grounds relevant to the Muskrat Falls reservoir area were listed as follows (Tanner 1947):

- Carl Hope, Muskrat Falls (other sources suggest Muskrat Island; e.g., J. Goudie 2013);
- Stewart Michelin (son of Joseph, succeeded by Brian), Sandy Banks;
- Charlie Groves (succeeded by Hayward), Porcupine (near the mouth of Pena's River);
- Joe (probably Jud), Blake Gull Island; and
- Harvey Montague, Horseshoe (above Gull Island Rapids, outside the Muskrat Falls reservoir area)

These same names appear commonly, and in the same sequence, in oral histories of the region, suggesting that this is a complete listing of the trapping grounds between Muskrat Falls and Gull Island Rapids in the first half of the twentieth century.

6.2 The Sites

Nine sites appear to pertain to the settlement by Settler trappers. Five of these sites consisted of standing or collapsed wooden tilt structures, surface-recorded by photography and video. One (FgCg-01 Locus C, formerly designated FgCg-08) is a larger “main cabin” (a trapper's primary residence during the trapping season), and two (FhCf-01 and FfCh-01) appear to be “line tilts” (small tilts established for brief overnight stays along traplines). The remaining two structures (FhCf-02 and FhCe-11) appear to be of late 20th century date and may not directly relate to trapping. This is also the case with two additional cabins (13F/03 Ethno 06 and 13F/03 Ethno 39) that were investigated during the project but not assigned Borden numbers. Four sites (FgCg-07, FfCi-02 Locus D and Locus F, FfCi-01, and FhCf-03) yielded 20th century artifacts, but no clear evidence for tilt structures.



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6.2.1 Surface-Visible Tilt and Cabin Structures

6.2.1.1 FgCg-01 Locus C

FgCg-01 Locus C (formerly designated FgCg-08) was the remains of the Michelin “main cabin” at Sandy Banks. The tilt is reported to have been built as early as the 1920s by Stewart Michelin in a trapping place originally established by Joseph Michelin, possibly as early as the mid-1890s, and remained in use by Brian Michelin until the 1980s. It seems likely that this was not, in fact, Joseph Michelin's original tilt. Richard Michelin (younger brother of Brian Michelin) recalls staying at an “older tilt” below the island east of Sandy Banks and returning later to the “new cabin” above that site (Dawson 2013). The location of the “older tilt” appears to correspond to that of FgCg-04 (see Section 6.2.3 below).

The tilt at FgCg-01 Locus C was situated north of (and directly adjacent to) Locus A. It was first recorded in 1998 (IED/JWEL 2000), when the structure was leaning, but still standing. By 2014, however, it had collapsed. The structure was a typical ax-hewn, stacked-log construction, measuring approximately 4m wide by just over 4m long, with the window and door likely cut out from the front wall after the walls and roof had been raised. The tilt was single-roomed, with a low ceiling and wooden planked floor, and there was a wood stove situated near the east wall adjacent to the entrance. Due to the condition of the tilt, other aspects of the interior lay-out could not be confirmed.

The tilt was associated with an extensive midden deposit containing 20th century debris, including metal and plastic fuel containers, window and bottle glass, ceramic tableware, metal stove parts, and various types of trapping equipment dating primarily from the early 1960s through to the 1980s. While there are artifacts in the assemblage that clearly date to the 1950s or 1960s (e.g., metal paint and fuel-storage containers), there are also many that clearly are more recent (e.g., brown-glass, stubby beer bottles that date between 1961 and the early 1980s). The remains of several stoves were recorded, including one type sold by the HBC at its Labrador stores throughout the 1950s and into the early 1960s, and a second that appears to be considerably older. The latter was a vertical-cylinder “Tortoise-style” stove with a body of rolled metal sheet that is attached to two cast iron plates with three steel rods, made by McClary Manufacturing, which was established in London, Ontario in 1871. The inside of the plate is embossed with “Ex 21 1911”, while the outer surface is embossed with “Registered 1896” and displays a decorative design. The collar, which attached the rods to the plate, is embossed with the maker's mark “McClary London Ont.”

6.2.1.2 FhCf-01 and FfCh-01

Two of the structures (FhCf-01 and FfCh-01) were represented by small log structures (2m x 2m) which can certainly be described as line tilts. At both sites, plastic debris was sparse or lacking, suggesting termination of occupation by or before ca. 1980. Adjacent to the tilt at FfCh-01 are the remains of a wood-framed canoe clad in green-painted canvas, seemingly disarticulated and largely covered in moss. Based on their size, both are good examples of “line tilts”: FhCf-01 at Lower Brook likely marks the beginning of a trapline associated with the Michelin trapping place



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at Sandy Banks, while FfCh-01 appears to correspond with the largely-eroded “main cabin” site of Jud Blake on Gull Lake, although the small size of the structure is more compatible with a line tilt.

6.2.1.3 Late 20th-Century Cabins

This group of sites, including FhCf-02, 13F/03 Ethno 06, 13F/03 Ethno 39, and FhCe-11, consists of relatively large log cabins. These cabins do not correspond to the known trapping “places” documented for the first half of the 20th century. Surface-visible remains do not appear to predate the 1970s-1980s and appear to be largely recreational in nature. This is not to say that trapping was not undertaken from one or more of these cabins, but they appear to be primarily recreational cabins less than fifty years old. FhCe-11 is still standing (and is a government-built structure), 13F/03 Ethno 06 was burned in the forest fires of July 2014, and the remaining two have collapsed.

6.2.2 Campsites and sites of indeterminate Function and Affiliation

Four sites or site components yielded twentieth-century artifacts but lacked clear evidence for associated tilt or cabin structures. It should be noted that these materials are not culturally diagnostic and may represent either Settler or Innu activity along the Churchill River.

FgCg-07, previously recorded as an ethnographic site (13F/03 Ethno 33), was located on the east side of a small brook mouth on the north side of the Churchill River, ca. 1km downstream from FgCg-01. The site was originally identified in 2006 (Minaskuat 2008a) as a small midden consisting of a surface assemblage of metal objects. This collection included 1 coffee can, 2 pots, and 1 bucket. No other evidence of a cabin or tilt was recovered despite test pitting and subsequent site revisits.

FhCf-03 is situated on a level terrace at the mouth of a small brook on the southern bank of the Churchill River, opposite the mouth of Lower Brook. The site was first recorded in 2006 (Minaskuat 2008a) when a leg-hold trap was found fastened to the base of a large spruce tree with a length of chain and galvanized nails. Other artifacts identified at the site included a tobacco can with nails driven through the base to suspend it to a tree, likely used to hold bait. In 2014, when the site was revisited (Stantec 2015), there was no longer evidence for the trap, but a rusted steel food tin was noted on the surface. Excavation of 4m² at the site did not yield any additional cultural material. This appears to have been essentially a trap location, and possibly a boil-up site.

FfCi-01, on the north shore of Gull Lake, was primarily a precontact site, with a small 19th century historic component, but some of the artifacts are clearly more recent and indicate continued occupation into the 20th century. These include three 10 gauge brass shotshell bases with marked headstamps, three complete (unfired) .22 calibre rimfire rounds, one brass .44 Winchester centerfire cartridge case, three wire nails, one homemade cut tin stovepipe wall or roof plate, one probable stovepipe fragment, one metal grommet, a small corner sherd of windowpane glass 2.49mm thick, and a piece of rubber from a rubber boot. The firearm-related items are



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consistent with use of the site as a hunting stand, the stovepipe parts and grommet suggest the use of canvas tents, and the nails and windowpane suggest the occupants possessed a tilt, either here or elsewhere nearby.

FfCi-02, also on the north shore of Gull Lake, not far east of FfCi-01, was also primarily a precontact site with evidence of 19th century historic occupation. However, Locus D and Locus F at FfCi-02 also yielded artifacts suggesting continued occupation into the 20th century. At Locus F, these included two pieces of thin, curved clear glass, likely from a lamp chimney, two nails (one cut and one wire), a wire loop, a flat wide tin cover, and a possible metal button. A brass 12-gauge paper-cased cartridge base with the logo of the Union Metallic Cartridge Company, was possibly made as early as the 1880s. Locus D yielded a larger assemblage, with 153 individual pieces that appear to date between the 1930s and the 1960s or 1970s. Many of these were broadly associated with a small hearth deposit containing burned bone and melted glass, suggesting a short-term campsite. Among these were 53 pieces of undecorated whiteware ceramic; unmelted glass sherds that were thin and curved, suggesting vessels or lamp-chimneys rather than window glass; however, one complete glass vessel was recovered: a thick walled, parallel-sided Chesebrough Ponds cold-cream jar with a screw top. Metal objects included tins and lids, one of which was a small, hinge-lidded square aspirin tin. Firearm-related materials were limited to 3 brass casings: two were .22 calibre rim-fire cartridge cases, and the third was a centre-fire 25-35 calibre cartridge case produced by the Dominion Cartridge Company Canada. Additional historic objects included a three-pronged fish hook and lure marked "A.L &W Toronto," a small electric flashlight bulb, a battery, a small section of a zipper with brass teeth mounted on a canvas tape, and a plastic knitting needle. The lack of architectural artifacts (e.g., window glass or nails), and the presence of a hearth, indicates a campsite location.

6.2.3 FgCg-04

FgCg-04 was situated approximately 750m to the east of FgCg-01 and was initially discovered in 2006 (Minaskuat 2008a), when testing at the site resulted in the discovery of two clay smoking pipe fragments, a barrel hoop, and a relatively large iron key. The presence of the key suggested a possible historic tilt, or a structure associated with the 19th century HBC outpost at Sandy Banks. Additional testing in 2014 to relocate the site recovered pieces of sheet tin and a heavy iron object of unknown function (Stantec 2015).

Recovery work at FgCg-04 in 2016 (Stantec 2017) uncovered a layer of decayed timbers pertaining to the remains of a 4m x 4m structure built of minimally-dressed horizontal logs embanked with low exterior earth berms (Figure 6-1). The sills on which it was constructed were artificially raised with the transport and deposition of beach sand. The construction method is uncertain, but post-on-sill construction is likely based on the flat pattern of collapse of the walls. Associated flat glass indicated that the structure had glazed windows but was not chinked with clay; presumably any chinking between the logs was composed of moss. Based on the distribution of artifacts, especially bone, which accumulated in an area slightly to the west of the center of the southern sill a central entrance and possible path along this wall is likely. No evidence for a



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chimney was recovered, but fragments of tin sheet stove pipe indicate that the building was heated with a stove. The log structure at FgCg-04 did not burn, but rather, collapsed *in situ*. Except for the lack of clay chinking, the log structure at FgCg-04 clearly belonged to the same architectural tradition as the HBC post buildings at Sandy Banks, although the dimensions are similar to those of 20th century Settler "main cabin" structures, such as that at FgCg-01 Locus C.

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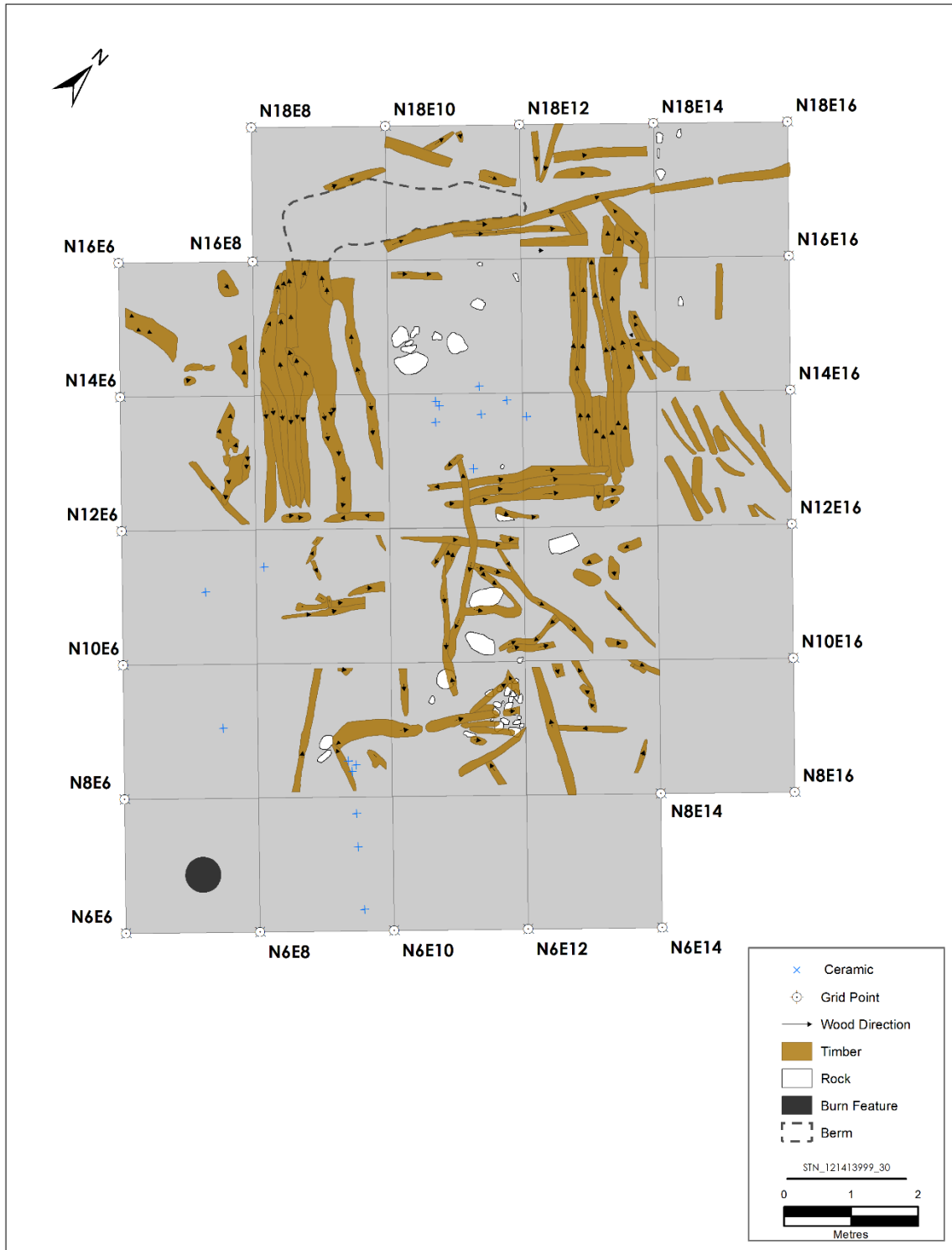


Figure 6-1 Plan of Excavations at FgCg-04 (Stantec 2017)

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Excavation at FgCg-04 produced an assemblage of cultural materials consisting of 3,672 objects (for detailed illustrations of this diverse assemblage, see Stantec 2017). This assemblage included all the expected materials and objects for a mid to late 19th century trapping tilt, including sherds of transfer-printed refined white earthenware, clay tobacco pipes, gunflints, windowpane glass fragments, and a faunal collection. A large collection of iron objects was recovered, including iron nails and roves, complete and fragmentary barrel hoops, tin sheeting, trap and gun parts, and lead shot. In addition, the collection also included several unique objects such as a hammer, parts of a grinding wheel, and a kettle.

Decorated refined white earthenware sherds were all transfer-printed and derived from at least three separate vessels: a small dinner plate or saucer, a small bowl, and the footring from a third, possibly undecorated container. For both decorated vessels, the edge pattern is the same as the Copeland and Garrett pattern called "Antique Vase" (Sussman 1979), and both vessels had Copeland and Garrett maker's marks dateable to 1833-1847 (Sussman 1979: Appendix C). Large quantities of Copeland and Garrett transfer-printed wares were recovered from the Sandy Banks HBC post, although it may be noted that neither these precise marks, nor the specific "Antique Vase" pattern, were encountered at the latter site. Flatware recovered from FgCg-04 included two knife fragments and the tine element from a composite fork (Photo 5-13). Utilitarian cooking vessels from FgCg-04 consisted of a large cast iron pot lid, an iron kettle and lid, and a tin lamp. A small missing fragment of the pot lid was recovered 700m to the southwest at the Sandy Banks HBC post. As with the pot lid, a portion of this kettle was also recovered from FgCg-01: six basal fragments bearing the embossed maker's mark "A. Kenrick and Sons." The tin lamp was of the slut style with an open reservoir for oil and a hole for a thick wick in the handle.

As in other artifact categories, objects of the Arms/Ammunition Group from FgCg-04 closely resembled those from FgCg-01 Locus D, and included musket balls, shot, lead sprue, and one musket barrel section. However, FgCg-04 did yield some types not found at FgCg-01 Locus D, such as percussion caps, a jacketed .45 calibre bullet, and a number of honey-brown "French" gunflints. Four flints appear to have been strike-a-lights. Another firearm-related was a gun worm, used to clear blockages from the barrel.

Building hardware included both forged and cut nails, roves, hinges, staples, lock plates, and a Pintle, as well as pieces of tin sheet and windowpane glass. Clothing-related items included two buttons, two light blue glass beads, and a scissor fragment. Tobacco pipe fragments included one stem with an orange-red glazed or waxed end and six spurs and spur fragments bearing "I.F." marks. Barrel hoops and fragments were well represented on site, and tools included a file, a punch, fire steel, strap hammer, trap parts, and the stone fragments and turning mechanism for a large grinding wheel.

The faunal collection included a wide range of bird (the most common), fish, and mammal bones with examples of both wild game and domesticates (the latter including pig crania and mandibles). Much of the faunal remains were recovered from south of the front sill of the cabin, likely next to the path used to access the structure.



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INTERPRETATION OF RESULTS: HISTORIC LABRADOR TRAPPER OCCUPATION
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It is not known precisely when Joseph Michelin began trapping from Sandy Banks, but as noted above, the growth of Settler trapping along the Churchill River seems to have begun in the 1890s (Cotter 1922), and it is likely that Sandy Banks was among the first of the trapping grounds to be established under Settler customary law. Nor is it clear precisely where Joseph Michelin's establishment may have been. Joseph's son Stewart (1894-1987) built a tilt approximately 60m west of the old HBC post site in 1922 (Dawson 2013). This corresponds with the tilt at FgCg-01 Locus C (Stantec 2015; 2016). Sometime after the 1930s, Brian Michelin (son of Stewart, born 1917) acquired the tilt and he continued to trap the area until he retired in 1987 at the age of 70 (Michelin 2013). The location of any preceding post-HBC Sandy Banks tilt is unclear. When A.P. Low travelled through the area in 1894, he mentions no standing buildings of any sort at the site of the Sandy Banks post, noting only that "... the Hudson's Bay Company formerly maintained a small trading Post on the North side, where the site of their clearing is marked by a new growth of birch" (Low 1896). Either Joseph Michelin had not yet built a cabin here in 1894, or his premises were located elsewhere in the area. In this regard, it is interesting that Brian Michelin's brother Richard (born 1927) remembers staying in an "older tilt" just below the island east of Sandy Banks and returning later to a "new cabin" (presumably Stewart Michelin's then relatively new tilt at FgCg-01 Locus C) above that site (Dawson 2013). The location of this otherwise unattested "older tilt" would appear to correspond to the archaeological site at FgCg-04.

The construction practices and artifacts recovered from the structure identified at FgCg-04 are consistent with the interpretation of this building as the remains of a trapper's cabin. The artifacts recovered point toward a latter 19th century date. Many artifacts are demonstrably contemporary with those recovered from FgCg-01 Locus D (*i.e.*, mid-19th century) and seem to have been acquired through the same HBC supply chain as the artifacts from FgCg-01 Locus D. On the other hand, FgCg-04 did contain evidence for an admixture of later technologies, particularly in the Arms/Ammunition Group. A final aspect of the site's artifact assemblage, related to its proximity to FgCg-01, is the examples of cross-mends between the sites, which point toward contact between the two sites, but the transport of broken objects seems to preclude a trading connection, and instead suggests scavenging by the occupants of FgCg-04 after the abandonment of the HBC post at Sandy Banks.

FgCg-04 represents a late 19th century trapper cabin built in the same architectural tradition as the nearby Sandy Banks post, by occupants who acquired many of their goods through the HBC supply chain. It is hypothesized that FgCg-04 is the remains of the initial Michelin family Sandy Banks tilt, likely initially constructed in the 1890s by Joseph Michelin and replaced in 1922 by the more recent tilt designated FgCg-01 Locus C. If this interpretation is correct, then FgCg-04 may represent a unique and important period in the history of central Labrador: the evolution of Settler trapping on the Churchill River from a pattern of HBC employees living in "winter quarters" to a system of independent trapping families harvesting furs from their own trapping territories along the river.



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6.3 Summary

Nine sites appear to pertain to the settlement by Settler trappers. Five were standing or collapsed wooden tilt structures, surface-recorded by photography and video. These yielded evidence for early-mid 20th century trapper's tilts, including both a "main cabin," and two-line tilts, as well as more recent cabin structures dating to the latter half of the 20th century. Four lacked evidence for tilts and are interpreted as the remains of short-term campsites or trapping or discard activities. Since the artifacts themselves are not diagnostic as to cultural affiliation, some of these sites may pertain to Innu, rather than Settler trapper occupations.

Of particular interest is the late 19th century tilt site at FgCg-04, which yielded evidence bearing on the earliest stages of the development of the 20th century Settler trapper lifestyle on the Churchill River, and its evolution from the trapping in "winter quarters" practiced by HBC employees.

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SUMMARY AND CONCLUSIONS

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7.0 SUMMARY AND CONCLUSIONS

7.1 Summary

The Historic Resources Management Program for the Lower Churchill Project (LCP) involved Stage 3 assessment and recovery (mitigation) of archaeological resources situated within the Muskrat Falls hydroelectric development of the LCP between 2012 and 2017. During the course of this work, archaeological recovery, including excavation and/or surface-recording, was completed at 57 archaeological sites identified within the footprint of the Muskrat Falls generating station and reservoir area on the lower reaches of the Churchill River in central Labrador. The results of this recovery program have generated significant new data bearing on the history of precontact, historic, and 20th century human occupation of the lower reaches of the Churchill River, and these data bear on the land-use history of diverse cultural groups, including Amerindian, Euro-Canadian, and Labrador Settler land-use.

The majority of the sites recovered between 2012 and 2017 in the Muskrat Falls Study Area pertain to the precontact period. In all, 49 of the sites recovered during this program date to the precontact period or contain precontact components (plus one additional site recovered in 1979: Tuck 1981). These sites within the Study Area are highly clustered at Muskrat Falls, Sandy Banks, Gull Lake, and Gull Rapids. No precontact sites were identified between these clusters.

More than half of these sites, including all of those on the North Spur of Muskrat Falls, the Sandy Banks area, and Gull Lake, and some on the south side of Muskrat Falls, are quartzite-dominated assemblages that may be assigned to the North West River Phase. These sites date 2000-1400 BP, and the North West River Phase is now interpreted as a regional central Labrador interior variant of the Late Precontact Period. The recovery results from the Churchill Valley contribute new information to flesh out our picture of the North West River Phase considerably. Structural data include evidence for linear hearths, as well as for single-family dwellings measuring 5-6m in diameter, that may in some cases include low earthen perimeter walls. Although these sites yielded lithic assemblages dominated by quartzite, minority raw materials indicate more far-flung regional connections, particularly to the west, south, and the Island of Newfoundland. Linear flake and cobble-spall scraper industries have been identified at these sites, as well as diagnostic stemmed projectile points and teardrop-shaped scrapers. Most notably, precontact ceramics with attributes consistent with the Middle Woodland Period have been recovered from ten sites at Muskrat Falls or in the Muskrat Falls reservoir area. Ceramics were not originally identified at North West River but are clearly a part of the normal toolkit for the North West River Phase in the Churchill Valley. This is clearly the period of most intensive precontact occupation of the lower reaches of the Churchill Valley; there is limited evidence for continued occupation later in the Late Precontact period, but no evidence for earlier occupation. That said, the westernmost of the recovered sites, along with survey collections from sites recorded further upstream, show very different raw material patterns and earlier occupations may prove to be present above Gull Rapids.



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The 23 precontact sites recovered on the south side of Muskrat Falls present a very different and much more complex picture. Settlement on the south side of the falls appears typologically to have begun in the Intermediate Period, between 2500 and 3000 BP, exemplified by classic Saunders Complex and Charles Complex assemblages at certain sites. These early occupations may begin shortly after Muskrat Falls became a falls (JWEL 2000).

However, the most intensive period of occupation appears, on the basis of the radiocarbon dates, to have been between 2000 and 1400 BP, contemporary with the classic North West River Phase sites from the North Spur and the Muskrat Falls Reservoir area. However, only one of the sites on the south side of the falls appears to represent a pure North West River Phase occupation. The remainder of the sites exhibit a unique combination of features, including the use of precontact ceramics, artifact styles resembling both Intermediate and Late Precontact forms, the use of lithic raw materials previously associated with the Intermediate period (Saunders Chert, rhyolite and quartzite), and the presence of small but significant quantities of lithic material from exotic sources, including Newfoundland and western Labrador cherts and others of unknown origin, and Mistassini quartzite. It is hypothesized that the diversity of lithic raw materials and artifact styles on south side of Muskrat Falls reflects the role of this location as an important gathering place for a broad network of regional groups with far-flung connections to the north, west, and south. If the North West River Phase as manifested at Sandy Banks and on Gull Lake may be considered a regional central Labrador interior variant of the Late Precontact Period, then the south side of Muskrat Falls was a central gathering place for many regional variants, reflecting a degree of "structured mobility" (*sensu* Mailhot 1997) among the Innu ancestors of the Late Precontact period in Labrador.

Historic occupation in the 19th century is well-documented in the sites recovered in the Churchill Valley. The largest of these was the HBC outpost at Sandy Banks, in operation between 1839 and 1876. Excavations at this site, the first HBC post to be completely excavated in Atlantic Canada, yielded a large assemblage of artifacts consistent with an HBC occupation, along with evidence for four principal structures and one privy. Construction techniques include some features associated with HBC posts in western Canada, but in some respects show local innovations. The two central buildings are interpreted as dwelling houses while the flanking structures are interpreted as stores. One dwelling house, along with the privy, appear to have been dismantled, while the remaining buildings at the site appear to have been destroyed by fire. The material culture includes many items manufactured by documented HBC suppliers and resemble artifact assemblages from HBC posts in western Canada. It is noteworthy, though, that very few artifacts are clearly datable after ca. 1850: virtually all the artifact styles and technology (including firearms technology) were current in 1840 but outmoded by 1876, giving the artifact assemblage a rather "old-fashioned" look for the supposed period of occupation.

Evidence for contemporary Innu occupation was also recovered. This includes a series of hearth features 70m from the Sandy Banks HBC post, interpreted as the remains of the campsites of Innu who came to trade at the post. Of particular interest is the recovery of a late 19th century Innu earth-walled tent ring. Such dwelling structures are characteristic of historic Innu sites in northern



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Labrador and Québec but had not previously been identified in central Labrador. The discovery of the earth-walled tent ring on the Churchill River clearly indicates that this style of dwelling is present in central Labrador, as well as further north. The apparent lack of such structures prior to the excavation of this site probably reflects the fact that these structures are much less visible in the forested central Labrador interior than on the tundra of northern and north-central Labrador.

Evidence for occupation by 20th century Settler trappers includes the remains of both “main cabins” and “line tilts,” along with campsites, trapping sites, and discard features. Particularly significant was the recovery of a collapsed late 19th century tilt near Sandy Banks, interpreted as the remains of Joseph Michelin’s original Sandy Banks tilt, and an important testimony to the emergence of former HBC employees as independent trappers, and the earliest stages in the evolution of the 20th century Labrador trapper lifestyle.

7.2 Implications for Further Research

There is considerable potential for further research building on the results of the historic resources management program for the Lower Churchill Project. Research opportunities include further analysis of the collections recovered on the lower Churchill River, as well as further research to be pursued more broadly within the region.

7.2.1 Further Research on the Churchill River Collections

The collections include numerous charcoal samples for future refinement of chronology, and to address specific dating questions that may arise in future. In addition, the collection includes soil samples for potential OLS dating of sediments from the unusually deep deposits at FgCg-01 Locus B.

The ceramic collections offer numerous opportunities for further research, including residue analysis, further clay and temper sourcing analysis, and OLS dating of grit temper from individual sherds.

The large lithic collections offer potential for further typological and comparative studies, as well as the investigation of quartzite reduction strategies. Exotic materials in some cases do not derive from known sources, and there is potential for further lithic raw material analysis as well, for which the LCP collections can provide useful comparative materials.

Faunal collections from the precontact sites recovered on the Churchill River are in most cases small and fragmentary, consisting primarily of calcined fragments with few identifiable elements. However, in the aggregate, faunal analysis of these collections may prove to be a fruitful line of inquiry into subsistence patterns and seasonality of occupation. The principal historic sites (FgCg-01 Locus D, FgCg-04, and, to a lesser extent, FfCi-02 Locus B) yielded larger samples, and many elements are unburnt. These collections are clearly amenable to faunal analysis.



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7.2.2 Further Regional Research

The results of the recovery program suggest numerous directions and implications for further research in central Labrador more broadly.

Previous Stage 2 assessment along the Churchill River west of the Muskrat Falls reservoir area identified precontact sites with lithic raw material assemblages very different from those noted in the Sandy Banks area or Gull Lake. These may pertain to occupations dating earlier than those recovered to date or may reflect sites with different regional relationships. In any case, further investigation of these sites is likely to yield significant new data.

As noted above, the sources of some lithic raw materials remain unknown. Local quartzite, local rhyolite, Ramah, and cherts from western Newfoundland, all derive from known sources, but the source of Saunders Chert is still uncertain. Certain lithic materials in the LCP collections resemble raw materials identified from known sources (e.g., Western Labrador peloidal cherts and Mistassini quartzite), but these identifications are not confirmed. Other raw materials (e.g., the candy-striped cherts from FhCe-33) are of wholly unknown provenience. Further research into the sources of the lithic materials circulating in central Labrador is essential.

More broadly, the results of the LCP historic resources management program suggest the Late Precontact period may be more complex than previously believed, at least in central Labrador. Ramah-dominated Daniel Rattle or Point Revenge style assemblages may not necessarily be the hallmark of the Late Precontact in this region. Certainly, the routine presence of ceramics on the Churchill River sites highlights possible distinctiveness of Late Precontact sites in the central interior. The apparent connections to neighbouring regions to the west and south point to the potential significance of further investigations in areas such as Dominion Lake, Minipi Lake, and the upper reaches of St. Lawrence River tributaries such as the St. Augustin.

The results of the LCP historic resources management program further highlight the potential for further investigations into the historic period in central Labrador. Additional HBC posts existed in the region, and several have been archaeologically recorded. These include the site of Winokapau post further upstream on the Churchill River. Survey collections suggest an artifact assemblage that may differ somewhat from that at Sandy Banks, but the site is expected to be equally large and informative. Historic Innu sites in the region may be anticipated to include the remains of earth-walled tent rings; identifying these sites in the forested interior may be difficult, however, and may require the use of metal detectors to increase the likelihood of positive identification. Further investigation of historic Labrador trapper sites also appears likely to yield important results.

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