CONTINUING ARCHAEOLOGICAL INVENTORY AND ASSESSMENT OF CHIDLIAK AND QILAQ CLAIM BLOCKS, HALL PENINSULA, BAFFIN ISLAND, NU

Thomson Heritage Consultants
Pictou Landing, NS
Permit No, 10-003A

FINAL REPORT TO

PEREGRINE DIAMONDS LTD.,
Suite 201, 1250 Homer Street
Vancouver, BC V6B 1C6

CONTINUING ARCHAEOLOGICAL INVENTORY AND ASSESSMENT OF CHIDLIAK AND QILAQ CLAIM BLOCKS, HALL PENINSULA, BAFFIN ISLAND, NU

PROJECT No. THC2010-1
Nunavut Archaeologist Permit No. 10-003A

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EXECUTIVE SUMMARY

In 2009, at the request of Peregrine Diamonds Ltd. (Peregrine), a preliminary archaeological assessment was undertaken in the Chidliak Claim Block on the Hall Peninsula, southeast Baffin Island, Nunavut, by Callum Thomson, Thomson Heritage Consultants. In August 2010 the project continued with additional field surveys on the Chidliak claim block and the adjacent Qilaq claim block. Prior to 2009, only one archaeological site had been recorded in the Chidliak study area. However, the claim block's size (almost 10,000 km²), the presence of several marine fiord arms on the north and northeast sides of the claim block and a major river and lake system running through the centre, knowledge of two traditional travel routes through the claim block and the fact that no previous archaeological surveys had been conducted in most of the area indicated that additional sites would be found during a programme of surveys in the exploration area. Eighteen new sites were recorded in 2009 and one formerly recorded site revisited. In 2010, Peregrine requested that Thomson Heritage Consultants conduct a survey to identify any sites that may be affected by their continuing exploration activities on the Chidliak property, without appropriate mitigation, to develop means of safeguarding such sites and/or the information they contain and to expand on the knowledge of archaeological potential within the claim block. In addition, Peregrine requested that two planned drill sites on the north side of the adjacent Qilaq claim block be assessed for archaeological potential. Fourteen sites had previously been recorded on the Qilaq claim block and on the immediately adjacent coastline of Cumberland Sound, Davis Strait and Frobisher Bay.

Fieldwork on the Chidliak and Qilaq claim blocks was undertaken with helicopter support from the Sunrise camp from August 20-23, 2010. The camp is located in the east-central area of the Chidliak claim block. The field team was flown by helicopter to various parts of the Chidliak claim block to inspect, either from the air or on foot, drill sites, potential winter access routes, potential new camp sites and associated airstrips and water sources, and potential cuttings containment areas in the event of future development. In addition, a return visit was made to the Qamanialuk area to obtain information on several sites noted from the air in 2009. At Peregrine's request, two drill sites overlooking Tasiuyak (Tawsig Fjord) on the adjacent Qilaq claim block were evaluated for archaeological potential and a brief survey was conducted at the south end of Tasiuyak.

Eighteen new archaeological sites were found during the team's four full days on site when helicopter access was available and four formerly recorded sites were revisited. Most sites contained only stone structures such as habitation structures and caches; one site on Tasiuyak was also found to contain precontact lithic (stone tool) materials. As in 2009, the impression was left that primary occupation of the areas surveyed was by Inuit and their Thule ancestors, with some previous occupation by Dorset Palaeo-Eskimos at least in the northern fiord region. Site locations indicated a focus on sea mammals on the coast, and caribou and arctic char in the interior. Other than the Snyder site found in 2009 by a geologist from the Geological Survey of Canada near the Discovery camp, no sites were found to lie directly within any of the target areas around the two existing camps, kimberlites or drill sites or any of the potential infrastructure sites. The eighteen new sites recorded on one of the northern fiords and on the interior river/lake system, especially around the large lake known as Qamanialuk (McKeand Lake), are distant from the above activity areas so do not appear to be at risk from present project activities. No

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sites were found that exhibited any evidence of disturbance from exploration or other human activities.

In general, there are not many areas of overlap between locations of current exploration activities on the Peregrine claim blocks and areas where sites are known to be present or likely to be present. Drilling in 2010 was focussed on kimberlites that have been found in the east-centre of the claim block in an area characterized by glacial rubble and small shallow lakes, streams and dry stream beds. However, as the Snyder site was found near the Discovery camp in this type of environment, it seems that at least occasional travel or hunting trips occurred in this area in the past. No sites were found in any of the potential new camp and associated infrastructure sites inspected from the air but, because of their large expanse, a more thorough ground survey of the selected site is recommended. We predict that more sites will most likely be found on the northern fiord arms where they intersect with the claim blocks and in association with the larger interior lakes and rivers, as well as on the traditional travel routes, which have not yet been surveyed. However, the unpredictable nature of past human resource exploitation and our past experience on similar surveys indicate that other sites will be found in areas traditionally considered by archaeologists to be of lower potential.

Because of the absence of evidence for site disturbance during this stage of mineral exploration by Peregrine, the observed lack of overlap between the current and proposed areas of intensive work and the location of recorded archaeological sites and areas of highest archaeological potential, and the application of sound environmental practices by Peregrine personnel, we concluded that the present exploration programme as known in August 2010 at Chidliak and Qilaq has little risk of conflict with heritage resources. Because of the identification of numerous sites on the northern fiord arms and on the interior lake/river system, we recommend that additional, more intensive surveys be undertaken in these areas and a selection of other areas considered of high, medium and low archaeological potential as well as any planned new camp sites. We also recommend that discussions with Inuit in local communities be intensified to assist in acquiring local information on land use in areas where sites have been found and ensuring in practice Peregrine's policy of non-disturbance of heritage resources.

Project Participants

Permit Holder:	Callum Thomson, Pictou Landing, NS
Project Archaeologist:	Callum Thomson
Field Assistant:	Amie Nashalik, Pangnirtung, NU
Principal Report Author:	Callum Thomson
Researcher:	Jane Sproull Thomson, Pictou Landing, NS
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Peregrine Diamonds Ltd.:	Shirley Standafer-Pfister, Vancouver and Victoria, BC

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1 INTRODUCTION

At the request of Peregrine Diamonds Ltd. (Peregrine), a Vancouver-based mineral exploration company, a preliminary archaeological inventory and assessment was conducted by Thomson Heritage Consultants (THC) in 2009 in areas of active exploration activities and areas considered to be of high archaeological potential within the Chidliak claim block on the Hall Peninsula, southeast Baffin Island, Nunavut (Thomson *et al.* 2009). This project continued in 2010 and included a brief survey of part of the adjacent Qilaq claim block (Figure 1-1).

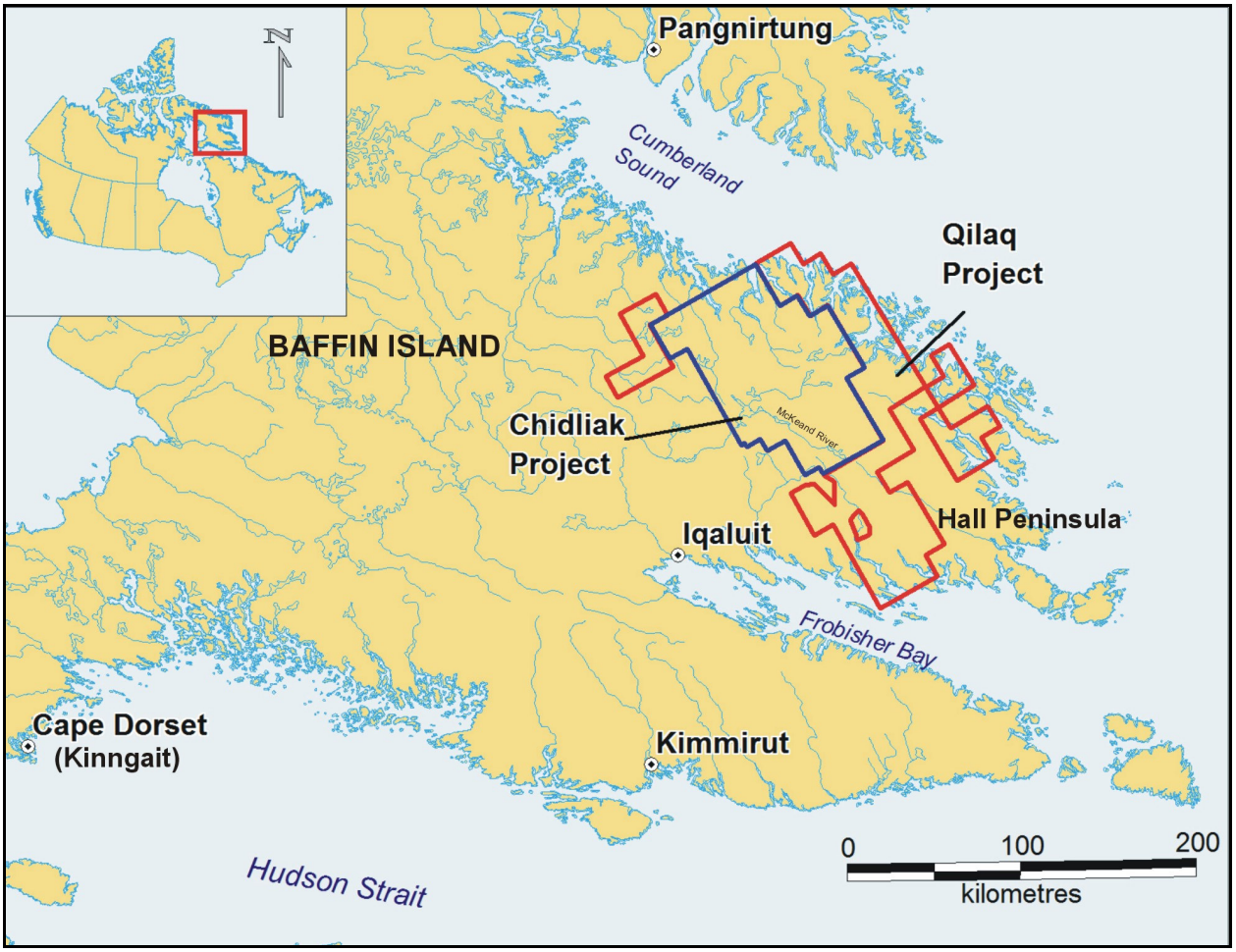

Figure 1-1. Chidliak and Qilaq Project Areas and Project Setting

1.1 Proponent's Activities

Peregrine has been conducting an exploration programme since 2008 on a block of prospecting permits and claims totalling 980,000 ha on south Baffin Island. In 2008 three diamondiferous kimberlite pipes were discovered and in 2009 Peregrine collected a mini-bulk sample from a known pipe (CH-1, located near Discovery Camp) and test-drilled in order to discover additional kimberlites; 13 new kimberlites were discovered in 2009. In 2010, continuing exploration activities included: prospecting; till and geochemical sampling; drilling; planning of a potential, larger camp site and associated infrastructure northwest of the existing camp; and selecting a site

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for a new camp site on North Lake, near Ptarmigan Fiord (Qasigijjat). The current Peregrine camps (Discovery and Sunrise) in the headwaters area of the McKeand River are accessed in summer by small aircraft landing on a natural gravel airstrip at Discovery, and by helicopter shuttles to Sunrise from the airstrip. In winter, aircraft are able to land on the frozen lake at the Sunrise camp. Exploration drilling is also planned on the neighbouring Qilaq property, which is currently accessed from the existing camp sites on the Chidliak property and could be accessed from the new camp adjoining North Lake.

1.2 Archaeological Project Activities

The Chidliak archaeological project was aimed at continuing the assessment of potential impacts on heritage resources from exploration activities and the development of an inventory of archaeological and other heritage sites within the Chidliak project area, with particular focus on areas of intensive activity such as drill sites and other areas of potential disturbance (Figure 1-2). Areas of interest during the 2010 field season included: the drill sites CH 1, 6, 7, 12, 23-25 and 27; potential airstrips 1-5; potential water supply areas A-C; cuttings containment (tailings) areas 1-2; another potential camp site in the northern part of the claim block on "Camp Lake" adjoining North Lake; and two planned drill sites on the Qilaq claim block, Q-1 and Q-2 (Table 1-1). Potential winter access and traditional Inuit overland travel routes (Figure 1-3) through the Chidliak project area from Iqaluit to Cumberland Sound were also targeted for overflights.

In addition, a visit was planned to the site found by a Geological Survey of Canada geologist in 2009 in the vicinity of the Discovery camp (LbDh-1). If time permitted, several sites recorded only from the air on the McKeand River system in 2009 were to be revisited and recorded in more detail than was possible from the air (we were low on fuel and had to return to camp) and other areas of archaeological potential including several overland trail routes were to be surveyed (Figure 1-3). Any sites found could then be assessed for potential negative effects from the present stage of mineral exploration, and early thought could be given to mitigation requirements during any future expansion of activity such as construction of new camp sites and associated airstrips and water supply routes. It was intended that the results of this continuing but still preliminary assessment would provide Peregrine with an expanded set of baseline data from which to refine, if necessary, the company's existing heritage conservation measures and policies, and would be provided to regulators and other interested parties to help inform their review of continuing exploration work. An interim report was provided to Peregrine immediately following completion of the field activities in August 2010 (Thomson 2010).

Throughout the course of the 2010 surveys, the primary objective was to support Peregrine's policy of avoidance of conflict between current and potential project activities and heritage resources. Where sites were found, therefore, they were evaluated for their significance, for the potential for project disturbance and need for mitigation measures, and for their potential to contribute to a prediction of the distribution of archaeological and other heritage resources elsewhere in the project area.

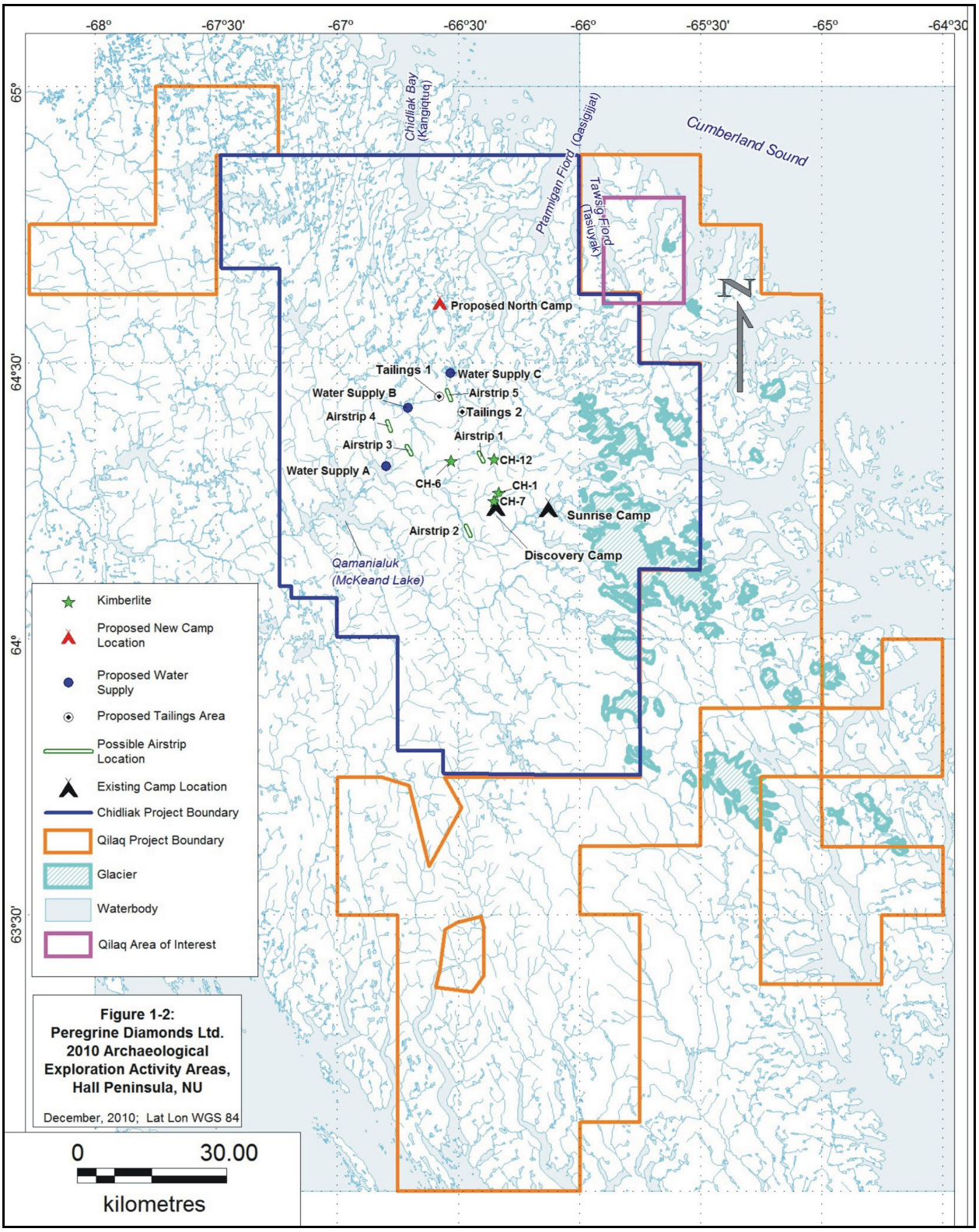


Figure 1-2. Peregrine Diamonds Ltd. 2010 Exploration Activity Areas, Hall Peninsula, NU

Table 1-1 Archaeological Potential at Active and Potential Facility Areas Assessed in 2010, Chidliak and Qilaq Claim Blocks		
Facility	**Location**	**Description and Initial Evaluation of Archaeological Potential**
Chidliak		
Drill Sites CH-1, -6 and -7	Immediately north of Discovery Camp	Glacial rubble and bedrock. Minimal archaeological potential
Airstrips 1-5	High elevation level terrain1-18 km north of McKeand River	Characteristically wet. Minimal-low archaeological potential
Water Supply Areas A-C	Large bodies of water 1-20 km north of McKeand River	Characteristically set in low gradient terrain with wet, sloping margins. Low archaeological potential
Tailings Areas 1-2	Small lakes 15-18 km north of McKeand River	Shallow lakes with typically wet margins. Minimal-low archaeological potential
Northern Camp in vicinity of North Lake	North Lake 45 km north northwest of Discovery, and alternate lakes adjacent	North Lake has few suitable camp locations due to bouldery terrain, slope and shallow water at shore inhibiting float plane access. The south end has some small dry terraces suitable for habitation. Overall archaeological potential for North Lake is low. An alternate lake to the southwest has an extensive area suitable for a camp with good deep water and potential for ice landing strip. Moderate archaeological potential
Winter Access Routes and Traditional Inuit Overland Routes	Potential Winter Access Routes between Iqaluit and Discovery camp and on to potential port sites on Cumberland Sound. Traditional Inuit Routes cross-cut the claim block from southwest to north and northeast	Variable archaeological potential on potential winter access routes, highest near fiords and large water (ice) crossings Traditional Inuit routes have moderate-high archaeological potential around Qamanialuk and fiords
Drill Site CH-12	10 km north of Discovery camp	Located in dry stream bed surrounded by boulder terrain Minimal archaeological potential
Drill Site Cluster CH-23, 24, 25, 27	In northern sector of claim block southeast of Ptarmigan Fiord	Moderate potential for archaeological sites associated with char fishing and caribou hunting
Qilaq		
Qilaq Drill Sites Q-1 and Q-2	East side of Tasiuyak at ca. 300 m elevation with sheer drop to fiord	Q-1 in rubble-covered valley, Q-2 on steep slope. Minimal archaeological potential

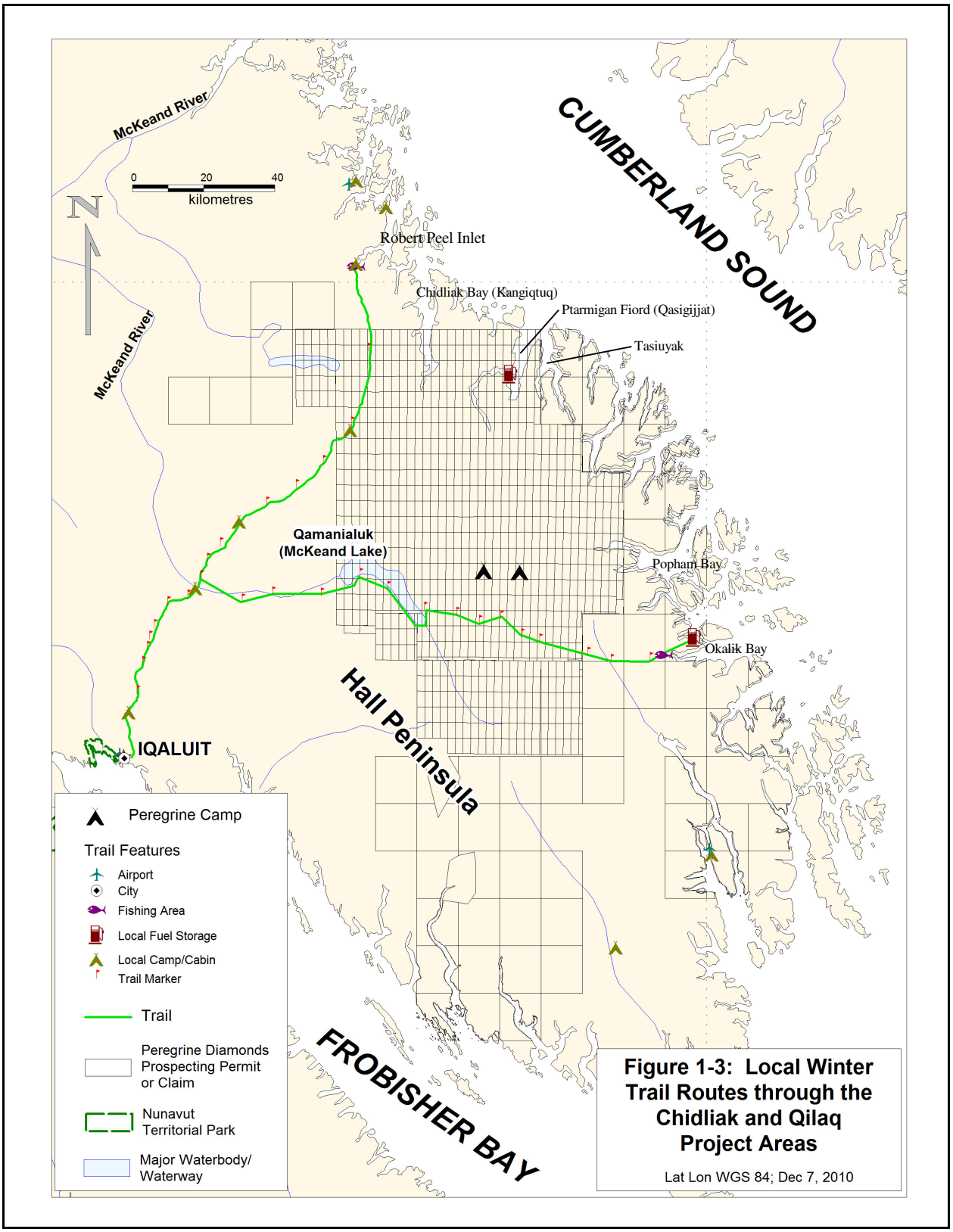


Figure 1-3. Local Winter Trail Routes Through Chidliak and Qilaq Project Area

1.3 Project Personnel

The background research, fieldwork direction, analysis and preparation of report contents were undertaken by Callum Thomson. Jane Sproull Thomson provided additional research and report review. Preparation of report graphics and physical compilation of the draft final and final reports were undertaken by Sandra Ratch. Assistance in the field was provided by Aime Nashalik, a resident of Pangnirtung. Project management, logistical support and report review were provided by Shirley Standafer-Pfister, Peregrine's Manager of Regulatory and Environmental Affairs, who also provided detailed information on project activities. Kenn Borek Airlines flew us between Iqaluit and Peregrine's Discovery camp by Twin Otter, and helicopter support was provided by Héli-Inter Helicopters.

1.4 Report Organization

Section 2 of this report presents a brief description of the study area. Section 3 summarizes the methodology used to obtain the project results, which are presented in Section 4. Sections 5 and 6 offer conclusions and recommendations, respectively, and Section 7 lists sources consulted and concludes with a Glossary of terms used. Appendix 1 includes site entry forms submitted to the Archaeological Survey of Canada as well as site and feature sketches. The Nunavut 10-003A archaeologist permit is included in Appendix 2. Appendix 3 contains a catalogue of digital photographs; a CD containing project photographs is appended to the back cover. Appendix 4 includes a one-page Archaeology Protocol for use by field crews at Chidliak and Qilaq.

2 STUDY AREA

2.1 Environmental Setting

The environment within the Chidliak claim block, which is located between Cumberland Sound and Frobisher Bay on the Hall Peninsula in southeast Baffin Island, is primarily characterized by gently rolling bedrock and glacial terrain at an average elevation of 700 m above sea level, interspersed with many small lakes and ponds and, in the east, melting snow fields and ice sheets. Vegetation in the interior is generally sparse, with small patches of moss, lichen and sedge-like grass where finer sediments predominate. White and rose quartz is plentiful in the glacial till and in bedrock veins; evidence was found of likely prehistoric use of this resource for tool-making in a fiord on the Qilaq claim block immediately east of Chidliak. On the coastal margins, the vegetation increases markedly in abundance and variety, access is available to a seasonal range of marine and terrestrial resources, and suitable habitation sites are plentiful on raised beach terraces and ridges. The McKeand River, arising in the ice sheets in the southeast corner of the claim block, cuts through the south and southwest part of the Chidliak claim block then runs north to drain into Cumberland Sound at Irvine Inlet. The river broadens into an area known locally as Qamanialuk (S. Standafer-Pfister pers. comm., November 2009), an extensive multi-armed lake near the west side of the claim block.

The Qilaq claim block partially surrounds the Chidliak property to the northwest, east, southeast and south, extending Peregrine's area of interest south as far as Frobisher Bay and east to Davis Strait. Elevations in the Qilaq area rise from sea level in the numerous islands and fiords to more than 700 m. Several more icefields are contained within the claim block and small to large lakes cover much of the territory. Many named and unnamed fiords, inlets, channels, sounds and bays

border Qilaq on the north, east and south sides. The only part of the Qilaq property observed during the 2010 survey was immediately east of the northeast corner of Chidliak, on the southeast side of the easternmost of two arms of Tawsig Fiord (during Peregrine's recent community consultation, local residents informed Peregrine that Tawsig Fiord, as shown on the NTS maps, is locally known as Tasiuyak; hereafter, we refer to Tasiuyak).

Banfield (1974) lists many species of terrestrial and marine mammals present in and around the study area, including adjacent Frobisher Bay and Cumberland Sound, that would have been and in some cases continue to be exploited by people in the region for food and other resources. These include brown and collared lemming, arctic hare, wolf, arctic fox, red fox, polar bear, ermine, wolverine, possibly lynx (extralimital record nearby), caribou, northern bottle-nosed whale, white whale or beluga, narwhal, white beaked dolphin, killer whale, Atlantic pilot whale, harbour porpoise, minke whale, bowhead whale, walrus, bearded seal, harbour seal, ringed seal, harp seal and hooded seal. In addition, ptarmigan, waterfowl, gulls, birds' eggs, arctic char, cod, clams, berries and other resources used for food and other needs are plentiful in the region. However, the central area of the Chidliak claim block where most of the project activities are currently focussed seems relatively less populated by wildlife, with occasional polar bear (S. Standafer-Pfister pers. comm., 2009), wolf, arctic fox, caribou and Canada geese being sighted. Arctic char are present in the lake at Sunrise camp and in Qamanialuk and the McKeand River (N. Qaumariaq pers. comm., 2009) and a family of ptarmigan made its home under the tents at Sunrise in 2010. A lone caribou was observed at Discovery camp during the 2010 project and two more at one of the planned potential water supply lakes north of Qamanialuk.

Riewe presents additional information on the Chidliak study area in the Cumberland Sound section of the Nunavut Atlas (Riewe 1992). Harbour seal are reported to be present at Qamanialuk, the large freshwater lake near the headwaters of the McKeand River. This same area is a summering and possibly post-calving caribou ground, where the small sub-population of Hall Peninsula caribou feed on the rich vegetation after giving birth in the coastal highlands to the east. Arctic char are present in the McKeand River system. Along the coast, where the Chidliak and Qilaq claim blocks meet Cumberland Sound, game animals and birds of interest to Inuit hunters include bowhead, walrus, beluga, narwhal, seals, polar bear, waterfowl and nesting seabirds; these are augmented in the interior by wolf and fox as well as caribou. In the Frobisher Bay section, which includes the Davis Strait coast between Frobisher Bay and Cumberland Sound, ringed, harp and bearded seals, bowhead, beluga, walrus, polar bear, caribou, fox, wolf, nesting seabirds, waterfowl and char are among the game animals and birds available to Inuit within the Qilaq claim block. Much of both the Chidliak and Qilaq claim blocks are within a zone of high intensity Inuit land use; many recent camp sites are documented and some of the Peregrine property areas fall within Areas of Archaeological Interest. Travel routes including Iqaluit-Qamanialuk-Ptarmigan Fiord (Qasigijjat), Iqaluit-McKeand River-Popham Bay, Iqaluit-Cumberland Sound-Pangnirtung, Iqaluit-Loks Land (Frobisher Bay), Loks Land-Popham Bay along Davis Strait and through the Lemieux Islands and Anderson Channel, and across Qilaq from Davis Strait-Cumberland Sound via Cornelius Grinnel Bay and Smith Channel are still in use by Inuit on snowmobile from late fall to spring, and probably were originally followed by dog teams (Riewe 1992: 72-73, 90-91, 181-183, 198-203).

2.2 Past Land Use

Prior to the results of this project, known archaeological sites in the region clustered around the marine coast where attributes such as access to marine resources, caribou summer grazing areas, char streams, elevated lookout points, fresh water, well-drained locations suitable for campsites, and travel routes by sea and sea ice coalesce. Sites on record prior to the 2009 and 2010 Peregrine surveys include the remains of sod houses, tent rings, caches, graves, foxtraps and scatters of lithic and historic period material, primarily from the Thule and historic Inuit cultures of the last several hundred years and, less often, from the preceding Palaeo-Eskimo period. Human populations never permanently settled in this area; most occupants travelled across the landscape with the seasons, harvesting resources as they became available - sea mammals, caribou, nesting seabirds, moulting waterfowl, eggs, fish, furbearers and berries – and including or falling back on cached meat as planned or required. Many habitation sites are small and ephemeral and may be located in a wide variety of situations according to the needs of the time: *e.g.,* overnight shelter, animal butchering, meat storage, burial, access to a quartz vein or other lithic source, exposure to a breeze, and proximity to driftwood and other sources of wood for fuel and tool manufacture so may not be located in areas of traditional high archaeological potential such as eskers, marine beach terraces and lake/river confluences. Occasionally, where resources such as bowhead whales, migrating caribou or arctic char are seasonally concentrated, larger aggregates of people may live temporarily in bigger camps and social activities may occur in a communal festival or meeting house or *qaggiq*.

Following meetings with Hunters and Trappers Association members and others in Iqaluit and Pangnirtung, additional information was provided to Peregrine on land use in the interior of the Chidliak claim block. The large lake unofficially referred to during the 2009 field study as McKeand Lake, where eight archaeological sites were found, is known locally as Qamanialuk, meaning "the place where Inuit go to kill caribou for caribou parkas" (S. Standafer-Pfister pers. comm., 2009). This information has been incorporated in our interpretation of site function and seasonality in the interior.

2.3 Historical Notes

Baffin Island, named after the early 17th century English explorer William Baffin, has been occupied by aboriginal people for more than 4,000 years, including Pre-Dorset Palaeo-Eskimos (4000-2500 BP), Dorset Palaeo-Eskimos (2500-500 BP), Thule Neo-Eskimos (1000 BP-contact), and Inuit, the historic descendants of the Thule. Baffin Island was also one of the first parts of North America encountered by European explorers seeking a Northwest Passage to the Orient. Martin Frobisher sailed into the bay that now bears his name in 1576, at first seeking a route to the Orient but subsequently focusing on mining a rich deposit of what turned out to be iron pyrites on Kodlunarn Island, not the gold he had told his backers. The first Church of England service on North American soil was held in Frobisher's bay in 1578. The community of Iqaluit, known until 1987 as Frobisher Bay, was founded in 1942 as an American airbase and is now the capital of the 11-year old territory of Nunavut. Previously, the vicinity of the town site had been visited seasonally by Inuit fishing for arctic char, hence the Inuktitut name Iqaluit, meaning "many fish". The arrival of the Hudson's Bay Company in 1949 and a radar and communication station in the late 1950s propelled Iqaluit into the modern era. The Hudson's Bay Company had previously operated out of the same buildings on Cormack Bay, Ward Inlet, 20 km from the

south-western corner of the Qilaq claim block, and moved the post to Apex on the outskirts of Iqaluit in the late 1940s.

Cumberland Sound, occupied for several thousand years by Inuit and their predecessors, was explored and mapped in 1585 and 1587 by John Davis, an English navigator for whom Davis Strait is named, although Norse travelling between Greenland and Vinland undoubtedly visited Cumberland Sound and northeast Baffin Island as well in previous centuries. From 1840 onwards, European and later American whalers began 80 years of operations in Cumberland Sound, radically changing the traditional settlement and subsistence patterns and health of the Inuit. In 1894, Reverend Edmund James Peck opened a mission station on Blacklead Island and introduced the use of a syllabic writing system to the Inuit of Cumberland Sound, from where the system spread rapidly. When whaling declined, the Inuit returned to life in camps scattered around Cumberland Sound. A Hudson's Bay Company post opened in Pangnirtung on the north coast of Cumberland Sound in 1921 and within 10 years the Royal Canadian Mounted Police opened a detachment and a hospital was built. In 1962, a devastating distemper epidemic killed most of the sled dogs in Cumberland Sound prompting many families to move off the land and into Pangnirtung, meaning "the place of the bull caribou", after decades of seasonal hunting and trading visits.

2.4 Previous Investigations

According to the site records provided by the Department of Culture, Language, Elders and Youth (CLEY), only one site was known within the Chidliak claim block prior to the 2009 Peregrine survey: LeDg-1: a substantial site on Ptarmigan Fiord (Qasigijjat) described as containing winter sod houses, *qammat* or fall houses, summer tent rings and whale bone, considered by the reporting archaeologist (Gardner 1976, 1979) to be the remains of a Thule Inuit site and a later occupation by European whalers. Fourteen sites had been recorded on the Qilaq property prior to the 2010 Peregrine survey on the north coast between Chidliak Bay (Kangiqtuq) and Ptarmigan Fiord (Qasigijjat), on the east coast, and on Frobisher Bay. In 2009, THC recorded 18 additional sites on the Chidliak property and re-visited LeDg-1 (Thomson *et al.* 2009), bringing the total of known sites within the two claim blocks to 33 (Figure 2-1).

Prior to the 2009 and 2010 Peregrine surveys, a total of 45 sites had previously been recorded on the five 1: 250,000 map sheets in the region within which the Chidliak and Qilaq project areas fall, exclusively in coastal and island situations on Cumberland Sound and Frobisher Bay. Sites range through most of the prehistoric and historic periods, with Pre-Dorset (4000-2500 BP [before present]), Dorset (2500-500 BP) and Thule (1000 BP-contact), Inuit (contact period to present), European (500 BP to present) and Euro-Canadian (19th century to present) cultures represented. Features include sod houses, *qammat*, tent rings, shelters, hearths, caches, graves, stone foxtraps, kayak stands, *inuksuit*, blinds, caribou fences, children's play areas, cairns, ceremonial houses (*qaggiit*), trading posts, churches, mines, whaling sites, whaling paraphernalia, shipwrecks and artifact scatters.

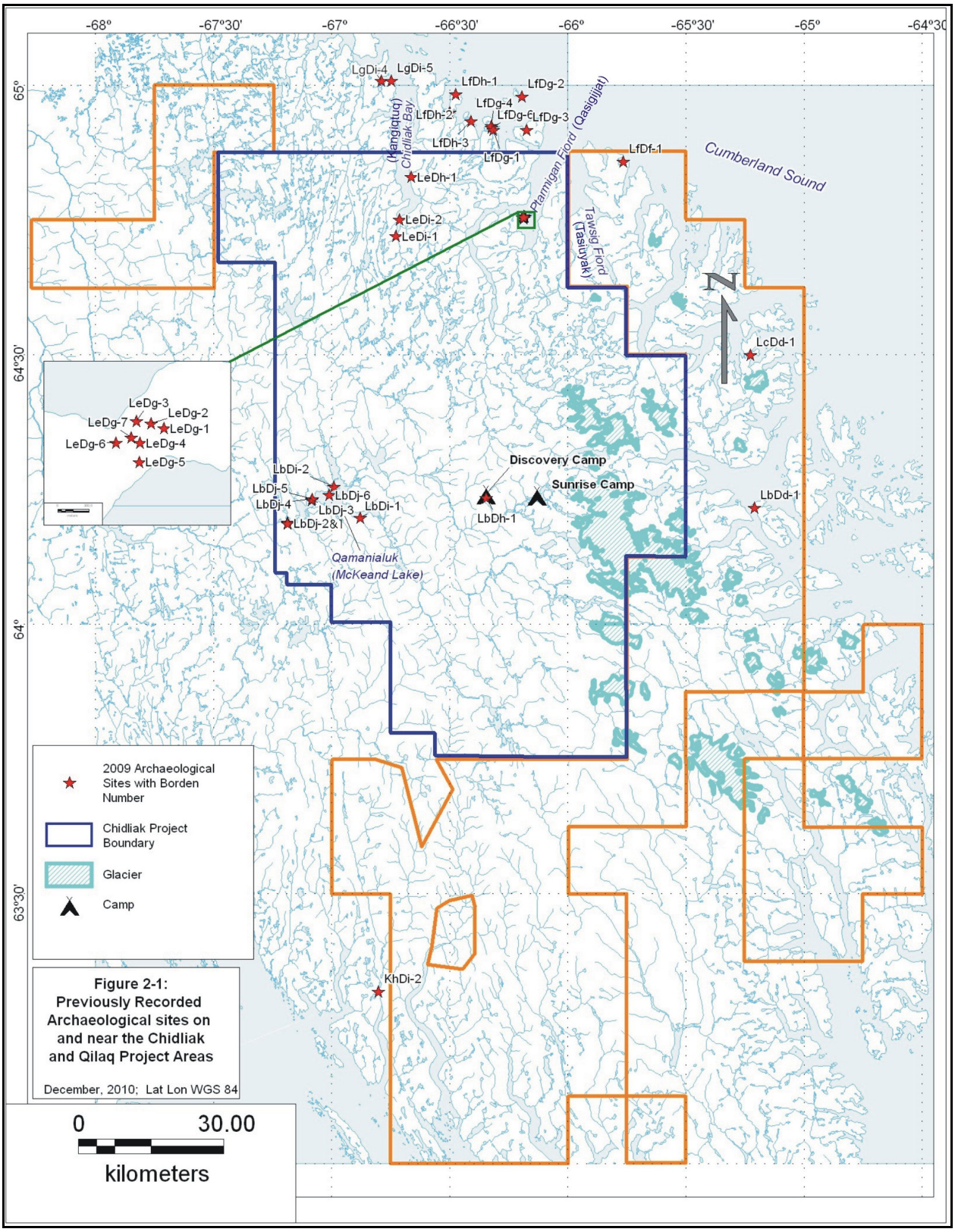


Figure 2-1. Archaeological Sites on Chidliak and Qilaq Claim Blocks Recorded Prior to 2010

Most sites identified in the region have been found as a result of surveys sponsored by universities, museums and government agencies and thus have been recorded in areas where the researchers have hypothesized past land use patterns and have tested their hypotheses, rather than archaeological inspection of planned development areas such as the Chidliak claim block. The primary researchers who, prior to 2010, recorded and investigated the 63 sites on the five 1:250,000 map sheets in the region on which the Chidliak and Qilaq claim blocks occur (25O, 25P, 26A, 26B, and 26G) are identified in Table 2-1.

Table 2-1 Previous Site Investigations prior to 2010, by Permit Number, in Vicinity of Peregrine's Chidliak and Qilaq Claim Blocks (2009 data from Nunavut Department of Culture, Language, Elders and Youth, and Sites Recorded in 2009 by Thomson Heritage Consultants for Peregrine Diamonds)
76-396 D. Gardner Thule Archaeology Conservation Project (Gardner 1976, 1979)
76-398 W.G. Ross (Ross 1976)
84-559 M. Stevenson Archaeological Survey and Mapping of Blacklead Island (Stevenson 1984)
88-637 D. Stenton 1988 Ward Inlet Survey (Stenton 1988)
89-673 K. Lunn (Lunn 1989)
90-689 W. Fitzhugh Archaeology of Frobisher Expedition (Fitzhugh 1990)
91-710 W. Fitzhugh Meta Incognita Project (Fitzhugh 1991)
92-728 W. Fitzhugh Meta Incognita Project (Fitzhugh 1992)
93-764 W. Fitzhugh Meta Incognita Project (Fitzhugh 1993)
09-004A C. Thomson Peregrine Chidliak Preliminary Archaeological Inventory and Assessment (Thomson *et al.* 2009)

3 METHODOLOGY

The 2010 field survey was preceded by preliminary stages of a historic resources overview of the study area, with data on previous investigations provided to Shirley Standafer-Pfister by the Nunavut Department of Culture, Language, Elders and Youth, and review of available relevant literature (Banfield 1974; Gardner 1979; Maxwell 1985; Riewe 1992; Bennett and Rowley 2004) and the results of the 2009 Peregrine survey (Thomson *et al.* 2009). The field team flew from Iqaluit to the Chidliak claim block, landing at the Peregrine Discovery camp. The team consisted of Callum Thomson and Amie Nashalik, a resident of Pangnirtung. The survey was intended to include helicopter time for aerial surveys and transportation to and from selected areas of pedestrian survey; however, due to heavy demand on the two helicopters on site for geological exploration activities, this was limited to 12 hours over the four full days on site. In addition, the archaeological team undertook pedestrian survey in the vicinity of known kimberlites, drill sites and camps. In this manner, a wide variety of environments were inspected at close hand.

Surface indications of archaeological sites were recorded, *e.g.*, stone houses or *qammat*, tent rings, caches, kayak stands, foxtraps, *inuksuit*, blinds and hide-drying rings. No archaeological materials were collected and no subsurface testing was undertaken, so as to minimize disturbance to intact sites. Where time permitted, site and individual feature locations were recorded by GPS (Garmin eTrex); on some occasions, due to time constraints and widespread sites with numerous features, only a few selected features were recorded. Approximate locations and routes traversed were marked on topographic maps. Each site and its surrounding area were photographed and notes were taken on site details such as size, contents and relationships to environmental

features. Site forms were completed for each site and sent to the Sites Office, Archaeological Survey of Canada for assignment of a Borden number under the national archaeological site classification system (Appendix 1).

A preliminary assessment was made of each site's significance and potential for project-related disturbance. Broad mitigation measures were determined for each site in case the project description changes in the future. Site significance, in the absence of any territorial or federal standards, is a subjective result of determining how important an individual site is, which then assists in evaluating mitigation requirements. For this study, a rating of *Low* was assigned to any site with fewer than five structures, of which none is highly informative from a research viewpoint; *High* was assigned to any site with more than ten individual structures or one or more extremely significant structures or features; and *Medium* was assigned to sites that fell between these parameters, *i.e.,* five to ten structures, none of which appears to be highly significant. One Palaeo-Eskimo site component was found; the lithic material present on the surface was considered in assigning high significance.

An interim report prepared in the field during the hours before and after each day's surveys and while waiting for helicopter transportation was e-mailed to Shirley Standafer-Pfister immediately following departure from the field. All of the project objectives and methods were designed to contribute to the understanding of the culture history of the region, as well as the study area, to ensure that known sites are not affected by project-related activities and to assist in site recognition and appropriate site reporting by exploration field crew members.

4 RESULTS

4.1 Field Narrative

The following narrative is adapted from the Interim Report (Thomson 2010). The archaeological team was supposed to meet in Iqaluit on August 19. However, bad weather prevented the arrival of field assistant Amie Nashalik from Pangnirtung until late in the evening of August 20. The project archaeologist, Callum Thomson, was flown to the Discovery camp by Kenn Borek Twin Otter, arriving at1630, and then shuttled by helicopter to the Sunrise camp where he was given a safety and orientation briefing by camp co-ordinator Aaron, assigned a sleeping tent and given work space in the office tent.

On August 20, light rain showers, low cloud and complete overcast blanketed the Sunrise camp. It became evident that Amie may not be able to get into camp until tomorrow, due to continuing bad weather in Pangnirtung. This became problematic for the planned ground surveys as Amie was the designated gun bearer. Discussions were held with geologist Jennifer Burgess on the planned work programme and access to helicopters. As in 2009, this is a busy field programme, with lots of drill rig moves happening all day. Weather had been bad here recently, preventing flying to the north. As a result, helicopter availability for archaeological surveys would be scarce on Chidliak and the two planned drill sites on Qilaq.

The morning was spent from 0500-1100 reviewing priorities, updating maps with targets and sites on the Qilaq property and outlining a draft Interim Report. At 1125, 1.5 hours of flying time was available so all the infrastructure sites selected by EBA Engineering Consultants Ltd.

for assessment as potential airstrips (5), water supply lakes (3) and cuttings-containment (tailings) areas (2) were overflown. All of the airstrip locations were on high ridges, for the most part quite level, with gravel and boulders and some thin vegetation, and quite wet. Some had good views for quite a distance and most had many outcrops or veins or scatters of white quartz, but no archaeological sites were seen from the air. The margins of the water supply lakes were a mix of wet slopes, dry bedrock and some dry gravel terraces. Some caribou trails and two caribou were noted. No sites were seen during the complete flyovers of all three lake circumferences, but all three have some minor-moderate potential for the presence of archaeological sites. The two potential cuttings-containment sites were located on small lakes with minor potential. Once a decision has been made on the airstrip (and presumably on the associated camp and water supply lake) location, a complete archaeological assessment should be completed of the area of disturbance, including a water pipeline from the water source. On the way back to camp an attempt was made to find a tent ring site reported by Jennifer on the McKeand River floodplain, with no luck.

After lunch, some more helicopter time was available and used to visit the three drill sites identified by Shirley Standafer-Pfister as of most interest: CH-1, 6 and 7. The area is characterized by glacial rubble with minimal archaeological potential, and no sites were seen. The next area surveyed was Qamanialuk, the extensive lake system on the McKeand River 10-20 km west of Discovery Camp. During the 2009 survey, five sites were recorded on the north shore but time had not allowed for a full description and acquisition of photos or GPS co-ordinates for the individual structures at three of those sites so this information was obtained in 2010 and two additional sites were found on the northeast arm. No time was available to complete the southern part of the east side of the north arm. Activities after supper included working on the Interim Report, downloading and cataloguing photos and preparation of site form updates for the three sites revisited from 2009 and new site forms for the two new sites. Amie Nashalik arrived from Pangnirtung at 2015 and was given a briefing on the camp, safety policies and the plans for the next few days.

Table 4-1 Archaeological Sites Recorded August 20, 2010, Qamanialuk (McKeand Lake) North Arm

Borden No.	Field No.	Description
LbDi-2 (revisit)	THC2009-5: 15	Seven habitation structures, one hearth, two caches and a kayak stand on a bedrock outcrop adjacent to the lake
LbDj-6 (revisit)	THC2009-5: 14	Six habitation structures and one kayak stand on a gravel terrace at the tip of a peninsula adjacent to the lake
LbDj-5 (revisit)	THC2009-5: 13	Five habitation structures and two caches overlooking a lake narrows on a series of bedrock terraces
LcDj-1	THC2010-1: 1	Four habitation structures on a gravel terrace on the north arm at the east side of a narrows
LbDi-3	THC2010-1: 2	Three habitation structures with internal paving on the east side of the north arm amongst some bedrock outcrops

August 21 started with fog and low overcast, but through the morning both cleared off to bring a partly sunny day with no wind and good visibility. Three more sites were found on the east side of the north arm of Qamanialuk, where the lake narrows. This would be appealing to caribou, which would tend to cross at the narrow point of the lake arm instead of circumnavigating it.

Hunting sites are therefore located near these points and the animals killed in the water by hunters in kayaks. One more site was found at the south end of another long arm that projects southeast from the east end of the lake, where a river empties into the arm.

Table 4-2 Archaeological Sites Recorded August 21, 2010, Qamanialuk (McKeand Lake) North Arm and Southeast Arm		
Borden No.	**Field No.**	**Description**
LbDi-4	THC2010-1: 3	One tent ring with a central divider on a small vegetated terrace adjacent to the east side of the north arm
LbDi-5	THC2010-1: 4	A large paved tent ring with central divider on a terrace above a prominent beach extending from the east side of the north arm
LbDi-6	THC2010-1: 5	Six habitation structures, three caches and a windbreak on a grassy terrace on a point projecting from the east side of the north arm towards some islets
LbDi-7	THC2010-1: 6	Five habitation structures, two caches, a windbreak and a blind made of large boulders randomly distributed across a terrace at the confluence of a river and the lake arm

After refuelling back at camp, the rest of the north shore of McKeand Lake not previously surveyed was flown, with no result. A site found by a geologist near the Discovery camp in 2009 was visited after lunch to verify the site data.

Table 4-3 Archaeological Site Recorded August 21, 2010, Discovery Camp		
Borden No.	**Field No.**	**Description**
LbDh-1 (re-visit)	THC2009-5: 19	One oval tent ring on a sandy knoll above a headwaters tributary of the McKeand River

In late afternoon a group including the archaeological team, the project geologist at Discovery and two personnel from Discovery Mining in camp to erect bear fences flew north to North Lake to check out a potential satellite camp site and to scout alternatives. No archaeological sites were found during extensive ground surveys at two possible camp locations or from the air during overflights of the shoreline of several lakes. After supper, office work continued until 2200.

August 22 began with office work from 0430. No helicopters were available until 1015 when the archaeological team took off and headed north to check the Qilaq-1 and -2 proposed drill sites on the east side of Tasiuyak. Both planned drill sites are high (ca. 300 m) above the fiord with no access from the fiord and no useful attributes should anyone reach the area by other means. The terrain is precipitous bare bedrock and rubble. Neither drill site area has any archaeological potential. The team then flew down the southeast side of the fiord, which is the easternmost of two arms running north to join at the open mouth of Tasiuyak, east of Ptarmigan Fiord. No time was available to check the west or northeast sides of the fiord or the west arm or the open mouth of the fiord, all of which have high archaeological potential. The river valley climbs from the bottom of Tasiuyak at a relatively gentle gradient and leads over a low saddle to the west side of Littlecote Channel as well as into a series of interior lakes. Another river descends from a series of small but deep lakes to the Littlecote Channel. Both headwaters have a possibility of containing overwintering arctic char and the lush vegetation near the coast has good potential for the presence of caribou. The seacoast, of course, offers access to many kinds

of sea mammal, nesting birds and eggs, fish and waterfowl, and on land berries of at least three kinds (crowberry, blueberry and partridge berry) are abundant. This abundance of resources and high archaeological potential should be kept in mind by field crews during exploration in this area at the northern border of Chidliak and Qilaq. After recording sites on several small promontories near the southeast corner of the eastern fiord, the team was deposited on a flat terrace on the east side of the stream running into the south end of the fiord. The pilot was unable to re-start the helicopter so the team used the several hours to survey the southeast corner of the fiord until a mechanic arrived in another helicopter. A total of twelve sites were recorded (Table 4-4).

Table 4-4 Archaeological Sites Recorded August 22, 2010, Tasiuyak, Qilaq Claim Block

Borden No.	Field No.	Description
LdDf-1	THC2010-1: 7	More than 20 stone structures including tent rings, *qammat*, hide-drying rings and hearths too numerous to fully document within the time available, on a small vegetated peninsula 1 km north of the south end of the fiord
LdDf-2	THC2010-1: 8	At least 17 tent rings, a cache and a marker cairn on another small vegetated peninsula 500 m south of LdDf-1
LdDf-3	THC2010-1: 9	Three long rectangular tent rings with central dividers on a small vegetated terrace 400 m south of LdDf-2
LdDf-4	THC2010-1: 10	A cache and a shelter in amongst large boulders on a bedrock outcrop 150 m southeast of LdDf-3
LdDf-5	THC2010-1: 11	A rectangular divided tent ring on a large terraced peninsula at the southeast corner of the fiord (one of seven sites found on the peninsula), with an adjacent scatter of surface and subsurface Palaeo-Eskimo lithic material on a gravel terrace
LdDf-6	THC2010-1: 12	A vegetated tent ring with divider in the lee of a bedrock ridge
LdDf-7	THC2010-1: 13	A shelter and two open caches in a bedrock outcrop
LdDf-8	THC2010-1: 14	Large tent ring on a grassy terrace in a small bay now below high/storm tide line
LdDf-9	THC2010-1: 15	A chamber foxtrap and two caches on a high bedrock ridge
LdDf-10	THC2010-1: 16	Three tent rings, two of which are divided, a set of hide-drying rings and a hearth on a partially vegetated bedrock outcrop
LdDf-11	THC2010-1: 17	A moss-covered heart-shaped alignment of small cobbles on a bedrock outcrop
LdDf-12	THC2010-1: 18	An extensive quartz vein on a bedrock cliff/slope on the east side of the stream with large amounts of quartz blocks scattered downslope, possibly exploited as a lithic source

After the mechanic got the helicopter restarted the team returned to Sunrise camp and continued working on the report, preparing new site forms and downloading and cataloguing photos.

On August 23, the author began work before 0400, completing yesterday's site forms and reviewing the interim report. By breakfast time the fog was down to the lake and rose and fell for the next few hours, with intermittent light to heavy rain. In late morning conditions seemed to be better and the team took off at 1100 for one last attempt to locate Jennifer's reported tent ring on the McKeand, for which we now had precise co-ordinates from her flight log, but it still was not found. From there the helicopter flew north of Discovery to look at one more drill site. CH-12 is 10 km north of Discovery camp in a dry streambed leading down to a more substantial river

which eventually drains into Ptarmigan Fiord. The terrain is covered in boulders and rubble and has minimal potential for archaeological sites. None were seen. From here, three trails drawn on a site plan of the proposed new camp alternatives were followed, one to the north to near Ptarmigan Fiord, one to the northeast towards Littlecote Channel and a third to the southwest towards Iqaluit. These are potential access routes to proposed port sites. Poor visibility in low cloud and rain made survey difficult, but the impression was gained that archaeological potential was highest near Ptarmigan Fiord (which could not be accessed because of a low fog bank) and Littlecote Channel (the mapped route did not go that far). Much of the rest of the terrain flown was sloping, wet or boulder covered, or a combination of some or all. Office work and report preparation continued until 2300.

Office work resumed on August 24, the last day in camp, at 0500 and a copy of the interim report was given to Jennifer Burgess. Amie remained in camp to work with the geological and camp teams, while a helicopter flew the project archaeologist from Sunrise to Discovery in very low cloud. At about noon, a Kenn Borek flight arrived and the archaeologist reached Iqaluit on the return flight in time to head back south to Nova Scotia via Ottawa.

Eighteen new sites were recorded and four sites revisited as a result of the 12 hours of helicopter time which was spent flying to areas of archaeological potential for ground surveys, inspection of two planned drill sites on the Qilaq property, and inspections of kimberlites, drill sites, infrastructure sites and mapped access routes on the Chidliak claim block. Site co-ordinates were forwarded to Peregrine for plotting on mapping for the information of field crews working in those areas. Copies of the archaeological site forms for the 18 new and 4 revisited sites were sent to the Archaeological Survey of Canada to be supplied with a Borden number (for the new sites) and filing on the national site inventory.

4.2 Archaeological Sites Recorded in Chidliak and Qilaq Exploration Areas

The four sites found in 2009 and revisited in 2010 and the eighteen new sites are described in more detail below (Figure 4-1). Each of the 22 sites is also documented in Site Forms contained in Appendix 1, which also provide field sketches and/or photos of archaeological features. A full set of digital site photographs is available in the attached CD; a catalogue in Appendix 3 provides details of each specific photo. The sites described below are arranged in alphabetic order (beginning with the Discovery Camp site (LbDh-1), then Qamanialuk (McKeand Lake) (LbDi, LbDj and LcDj) and proceeding on to Tasiuyak (LdDf). Each site is rated for significance: High significance is assigned to sites with more than 10 structures, diagnostic artifacts or some other attribute of high interest; Low significance is assigned to sites with less than five structures; and Medium sites are assigned to those with 5-10 features.

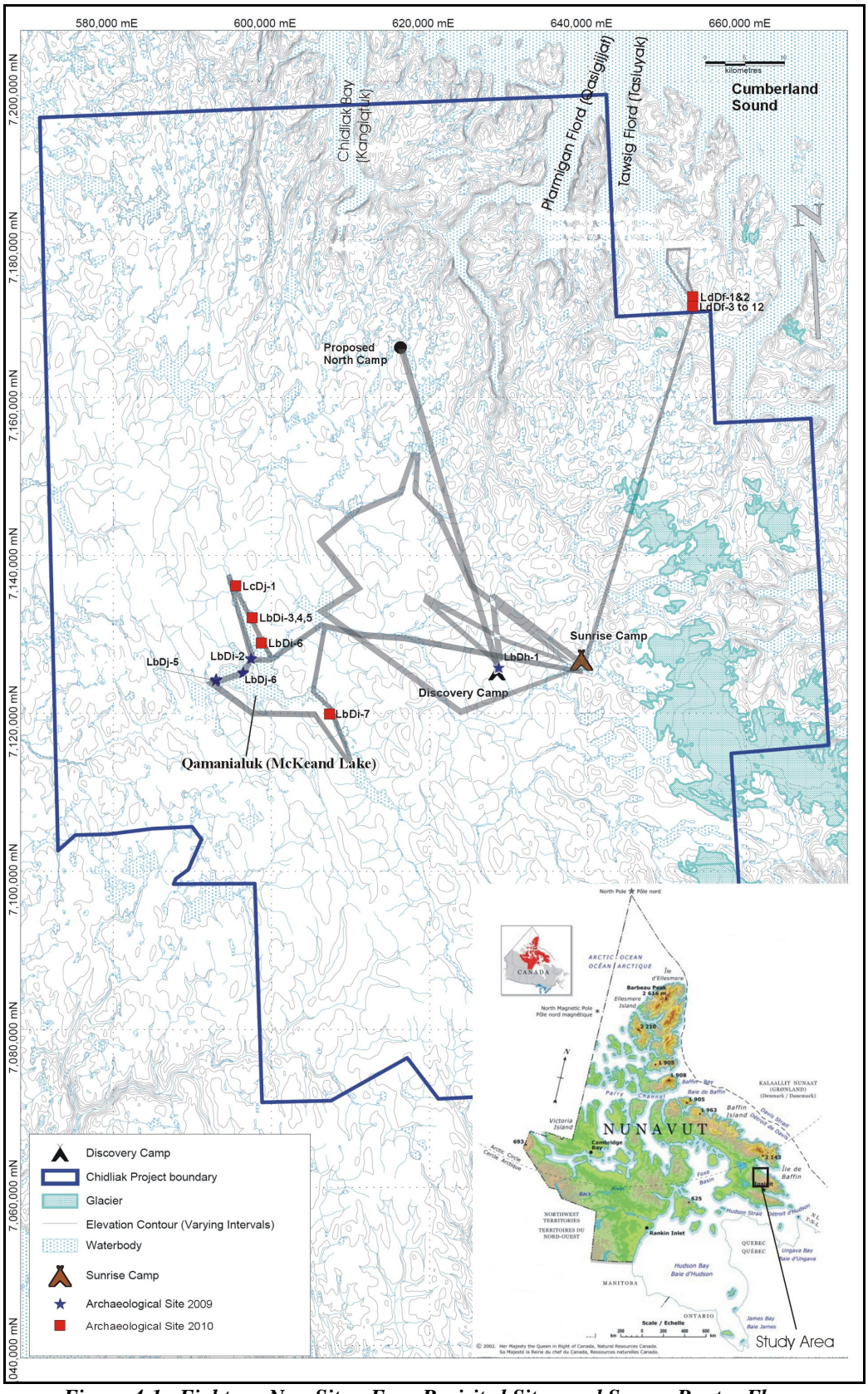


Figure 4-1. Eighteen New Sites, Four Revisited Sites, and Survey Routes Flown

4.2.1 Chidliak Claim Block

Discovery Camp Area

LbDh-1 (THC2009-5: 19), East of Discovery Camp

Description

LbDh-1 was found by Dave Snyder in August 2009 after the departure of the archaeology team near the GSC seismic station on a sandy knoll about 500 m east of the Discovery camp on the other side of the river. The site consists of a single oval tent ring with no artifacts visible and no interior features such as a divider or hearth. A possible second feature is located 20 m south of F-1 on the summit of the knoll but was not recorded.

LbDh-1, Discovery Camp				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	Tent ring, oval, with interior hearth	3 x 2.5		August 21: 28 view N August 21: 29 overhead view N

Analysis

The location of this site is far from areas of apparently higher archaeological potential such as the seacoast, large rivers and lakes, but it does provide a good view in all directions and caribou sightings have been recorded around the camp. It also helps illustrate that past human activities including selection of locations for camps, caches, burials and other structures are not focused in what future archaeologists might consider areas of high archaeological potential, but are based on the needs of the time, *e.g.*, an overnight travel camp, a butchering site and associated cache, a desire to obtain relief from flies by situating on a breezy knoll, a place with a view of passing animals. Additional details were collected from which to update the 2009 site form. Because only one or possibly two features were found and no artifacts are present this site is rated at low significance.

Recommendation

LbDh-1 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance

Qamanialuk (McKeand Lake)

Six new sites were found during helicopter overflights of the north arm and the southeast arm of Qamanialuk, the local name for the large river west of the Peregrine camps. These two arms had not been surveyed in 2009 due to a lack of helicopter availability. In addition, three sites found on the north shore of the lake in 2009 but only recorded from the air for the same reason were revisited in 2010 and fully documented. It is noteworthy that the fourteen sites now recorded around Qamanialuk and immediately downstream on the McKeand River are located on bedrock outcrops or elevated, dry terraces. Much of the remaining shoreline of the lake is sloping, low elevation or wet, or all of the above. In addition, many of the sites are located in strategic locations from which caribou could be observed or intercepted while travelling around or across the lake or river, or from which to obtain fish.

LbDi -2 (THC2009-5: 15 Site Re-visit), Qamanialuk North Shore

Description

LbDi-2 is located on the southern tip of a peninsula on the north side of Qamanialuk at the west side of the entrance to the north arm. The site is separated by a narrow channel from an island to the south and has a view up the north arm, east to the entrance of McKeand River into the lake, and south across the lake so is well situated for observing caribou and, most likely, as a fishing place. Four tent rings had been observed from the air during a quick overflight in 2009. Twelve individual features were found during the ground survey in 2010 including what may be a semi-subterranean house, tent rings, hearths, a cache and a kayak stand. The features are spread out over a 50 m terrace on the peninsula.

LbDi-2, Qamanialuk North Shore				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	Tent ring, double-walled with central divider and interior hearth	3 x 3		August 20: 31 view N
2	Tent ring	2 x 2		August 20: 32 view N
3	Tent ring with divider and paving adjacent cache and kayak stand	3 x 3 2 x 2 3 x 1		August 20: 33 view N August 20: 34 view W August 20: 35 view W
4	Tent ring	4 x 3		August 20: 36 view N
5	Semi-subterranean house	3 x 5		August 20: 37 view N August 20: 38 view W
6	Tent ring with partial double wall in lee of large boulder to east	3 x 3		August 20: 39 view W
7	Hearth in lee of large boulder to west	0.75 x 0.75		August 20: 41 view N
8	Tent ring with central divider	3 x 3		August 20: 40 view N
9	Cache, closed, built against bedrock to east	1.5 x 2		August 20: 42 view N

Analysis

Features of particular interest at this site include the complete or partial double-walled tent rings (F-1, 3, 4, 6), suggesting occupation during a time of year when two tent covers were necessary, most likely in fall, and the use of a natural depression to build a partially semi-subterranean house without having to build up parts of the wall with boulders, also suggesting a fall occupation. The presence of a kayak stand indicates either use of F-3 in summer or storage of the kayak above ground in fall. Partial paving (F-3) and the presence of a flat slab central divider (F-1, 3, 5, 6, 8) are traditional Inuit construction techniques. As suggested in 2009 (Thomson *et al.* 2009), this site was most likely situated for use in fall for caribou hunting, and perhaps fishing. The size of the site (nine structures containing 12 individual features) and the presence of attributes such as double-walling and a semi-subterranean style house results in a rating of high significance.

Recommendation

LbDi-2 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

LbDi-3 Qamanialuk North Arm

Description

LbDi-3 is located on the east side of the north arm of Qamanialuk, 2 km south of LcDj-1. The site is situated in amongst some bedrock outcrops as though concealed from passing caribou, or perhaps tucked out of the wind. Three habitation structures all have internal paving.

LbDi-3, Qamanialuk North Arm				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	Tent ring with some vertical wall slabs and paving Interior hearth	3 x 3		August 20: 66 view N August 20: 67 view N August 20: 68 view W August 21: 4 view N August 21: 5 view W
2	Tent ring set in bedrock cleft	2 x 3		August 20: 65 view N August 21: 3 view N
3	Tent ring with divider	3 x 3		August 20: 69 view N August 21: 6 view N

Analysis

Like the other sites on the north arm of Qamanialuk, this site seems to be located for access to caribou either travelling around the lake or using one of the narrow crossings to travel over the ice or in the water from one shore to the other, which at this location is less than 2 km. The situation of the structures in the shelter of bedrock outcrops and the use of vertical wall slabs in F-1 suggest occupation in fall. The three features found and the absence of any artifacts or other attributes of particular interest suggest that this site be rated at low significance.

Recommendation

LbDi-3 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

LbDi-4 Qamanialuk North Arm

Description

LbDi-4 is located 200 m south of LbDi-4 on the same eastern shore of the north arm of Qamanialuk. The single tent ring is located on a small vegetated terrace protected from all directions by rising bedrock outcrops.

LbDi-4, Qamanialuk North Arm				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	Tent ring with some vertical wall slabs, a partial double wall, a central divider and an interior hearth	2 x 2.5		August 21: 7 view N

Analysis

As with LbDi-3, this site seems to be located for access to caribou either travelling around the lake or using one of the narrow crossings to travel over the ice or in the water from one shore of the arm to the other, which at this location is less than 2 km. The situation of the structure in the shelter of bedrock outcrops and the use of vertical wall slabs and a partial double wall suggest occupation in fall. The single feature found and the absence of any artifacts or other attributes of particular interest suggest that this site be rated at low significance.

Recommendation

LbDi-4 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

LbDi-5 Qamanialuk North Arm

Description

LbDi-5 is located south of LbDi-4 300 m further down the east side of the north arm on the first terrace above the lake overlooking a prominent beach that extends west out into the lake arm. Again, only one structure was found, a substantial tent ring with central divider and paving slabs.

LbDi-5, Qamanialuk North Arm				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	Tent ring with some stacked wall rocks, a partial double wall, a central divider and some interior paving	2.5 x 3		August 21: 8 view N August 21: 9 view N

Analysis

This substantial tent ring also seems to be located for access to caribou either travelling around the lake or using one of the narrow crossings to travel over the ice or in the water from one shore to the other, which at this location is less than 2 km. The situation of the structure in the shelter of bedrock outcrops and the use of stacked wall slabs and a partial double wall suggest occupation in fall. The single feature found and the absence of any artifacts or other attributes of particular interest suggest that this site be rated at low significance.

Recommendation

LbDi-5 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

LbDi-6 Qamanialuk North Arm

Description

LbDi-6 is about 2.5-3 km south of the group of sites on the central section of the north arm at another point where there are islets in the lake which caribou could use while crossing the lake. This site, located on a level grassy terrace, contains ten separate features including six habitation structures, three caches and a windbreak.

LbDi-6, Qamanialuk North Arm				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	*Qammaq* (fall house)	2 x 2		August 21: 10 view N August 21: 19 view W to islets
2	Tent ring	2 x 2		August 21: 11 view N
3	Tent ring with central divider	2 x 2		August 21: 12 view N
4	Tent ring	2 x 2		August 21: 13 view N
5	Tent ring with central divider, some vertical and stacked wall rocks	3 x 3		August 21: 14 view N
6	Cache, open, adjacent to F-5	1.5 x 1.5		August 21: 14 view N
7	Cache, open	1.5 x 1.5		August 21: 15 view N to F-6, -5
8	Cache, open, adjoining F-9	1.5 x 1.5		August 21: 16 view N from F-9
9	Tent ring with vertical and stacked wall rocks and central divider, adjacent to F-8	3 x 2		August 21: 16 view N to F-8
10	Windbreak	3 x 1		August 21: 17 view N

Analysis

LbDi-6 is located near the confluence of the north arm and main body of Qamanialuk on a bedrock ridge overlooking a group of islets in the middle of the arm and with a good view south along the east side of the lake to the south shore. The site seems well placed for viewing and intercepting caribou moving around or across the lake. The presence of three caches suggests that some resources were stored for future use. The substantial nature of habitation structures F-1, F-5 and F-9 indicate use in fall. The presence of ten features suggests that this site be rated at medium significance.

Recommendation

LbDi-6 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

LbDi-7 Qamanialuk Southeast Arm

Description

LbDi-7 is located on a partially vegetated dry terrace above the confluence of the southeast arm of Qamanialuk and a river which flows into the arm through several smaller lakes. The site, on

the east side of the river, consists of seven sets of features, many of which are built in part with huge round boulders which seem to occur naturally on the terrace and are randomly distributed. Among the site features are five habitation structures, two caches, a windbreak and a blind.

LbDi-7, Qamanialuk Southeast Arm				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	*Qammaq* (fall house) with central divider	4 x 3		August 21: 20 view N
2	Cache, open	1.5 x 1.5		August 21: 21 view N
3	*Qammaq* (fall house) with windbreak and adjacent cache or alcove	2.5 x 4 3 x 1 3 x 2		August 21: 22 view N August 21: 23 view W
4	*Qammaq* (fall house) with central divider	2.5 x 3		August 21: 24 view N
5	Shelter built against large boulder	2 x 2.5		August 21: 25 view N
6	Blind or windbreak	1 x 3		August 21: 26 view N
7	*Qammaq* (fall house)	2 x 3		August 21: 27 view N

Analysis

As with many of the other sites on the lake, LbDi-7 is located in a strategic place where caribou can be expected to cross the mouth of the river en route around the south side of Qamanialuk. The substantial nature of the four *qammat* and the shelter, which also has multi-course walls, indicates occupation of the site during the fall when winds are stronger, temperatures are lower and the period of occupation is most likely longer during the harvesting and processing of caribou. The presence of nine individual structures suggests that this site significance rating is medium.

Recommendation

LbDi-7 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance

LbDj-5 (THC2009-5: 13 re-visit), North Shore of Qamanialuk

Description

LbDj-5 (2009-13) is situated 2 km east of LbDj-6 on the north shore of the lake at the east end of a narrows separating the north and south shores. The site extends back from the lake on a series of bedrock terrace and consists of five habitation structures, one closed cache and one open cache.

LbDj-5, Qamanialuk North Shore				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	Tent ring, double-walled with central divider, some paving and vertical wall slabs	3.5 x 3.5		August 20: 52 view N

2	Cache, open, possibly converted from former habitation structure	6 x 7		August 20: 53 view N
3	*Qammaq* or fall house, with vertical wall slabs, 4 courses of wall stones, a central divider and an external hearth	2 x 2.5		August 20: 54 view N
4	Cache, closed	2.5 x 2.5		August 20: 55 view N
5	Shelter with interior hearth	3 x 3		August 20: 56 view NE
6	Tent ring with double wall and vertical wall slab	2.5 x 3		August 20: 57 view N
7	Tent ring with interior paving	2.5 x 3		No photo

Analysis

LbDj-5 is one of a string of three sites located on the north shore of Qamanialuk where for almost 3 km it is separated from the south shore by a narrow channel less than 1 km wide. The three sites contain more than 40 stone structures including summer and fall habitation structures, kayak stands, a tower foxtrap, caches, skin-drying rings and a *qaggiq* or meeting house. The sites were most likely occupied by caribou hunters in fall and possibly also in winter for ice-fishing and trapping. The presence of nine individual features at LbDj-5 suggests that this site significance rating be medium.

Recommendation

LbDj-5 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance

LbDj-6 (THC2009-5: 14 re-visit), North Shore of Qamanialuk

Description

This site is located on the southern tip of a peninsula 2 km southwest of LbDi-2 on the north shore of Qamanialuk, 1.5 km north of the south shore of the lake. The site location provides a view of much of the central and east parts of the lake, including several narrow potential caribou crossing points. The peninsula is partially covered with boulders, gravel and vegetation. Three tent rings were noted during a quick flyover survey in 2009. In 2010 during the ground survey we found six tent rings, one with a stone seat outside, and a kayak stand, mostly closely associated with each other, within 25 m of the lake.

LbDj-6, Qamanialuk North Shore				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	Tent ring, double-walled with central divider Kayak rest	3 x 3 2 x 1		August 20: 43 view N
2	Tent ring, with partial double wall Exterior stone seat	2 x 2		August 20: 44 view N August 20: 45 view N

3	Tent ring with partial double wall	2.5 x 2.5		August 20: 46 view N
4	Tent ring with some vertical slabs, partial paving and divider	3.5 x 3.5		August 20: 47 view N
5	Tent ring with partial paving	3 x 2.5		August 20: 49 view N August 20: 50 view W to F-4
6	Tent ring open at east side	3 x 2.5		August 20: 51 view N

Analysis

The use of double walls and vertical slabs in some of the structures suggests use in fall, perhaps for caribou hunting. The site has a good view of several potential caribou crossing places on the lake, and caribou trails circle the lake. Because of the size of the site (8 features) it is rated at medium significance.

Recommendation

LbDj-6 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

LcDj-1 North Arm of Qamanialuk

Description

LcDj-1 is located on the east side of the narrows near the north end of the arm. The site consists of four habitation structures on a level, dry gravelly terrace, the first terrace back from the lake shore.

LcDj-1, Qamanialuk North Arm				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 19W**	**Photo**
1	Shelter with vertical slab walls, set against bedrock outcrop to west	3 x 2		August 20: 58 view N August 20: 59 W across lake narrows
2	Tent ring with central divider	3.5 x 3		August 20: 60 view N
3	Tent ring with some paving Interior hearth	4 x 3		August 20: 61 view N
4	Tent ring	2.5 x 3.5		August 29: 62 view N

Analysis

This site is probably situated to intercept caribou as they take the short cut across the arm via several small islets in the lake. The presence of five individual features suggests that this site significance rating be medium.

Recommendation

LcDj-1 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

4.2.2 Tasiuyak, Cumberland Sound, Qilaq Claim Block

The only other area within the Chidiak and Qilaq claim blocks where archaeological sites were found is on the Qilaq property immediately adjacent to the northeast corner of Chidliak. The sites were all found on the southeast side of the east arm of Tasiuyak following an assessment of two planned drill sites, Q-1 and Q-2, above the east side of the fiord. Tasiuyak (Tawsig Fiord) is a 25 km-long bifurcated fiord that flows into Cumberland Sound east of Ptarmigan Fiord (Qasigijjat), one of the many fiord arms, inlets and narrow bays that penetrate the mainland of the Hall Peninsula on Cumberland Sound and Davis Strait. The walls of Tasiuyak climb steeply to 300-500 m on the east side and less than 300 m on the west side. Both sides of the fiord have occasional bedrock promontories or terraces a few metres above sea level where habitation is possible. Because of time constraints, only the southernmost 1.5 km on the southeast side of the east arm of the fiord were surveyed, resulting in the recording of twelve sites, LdDf-1 to -12.

LdDf-1 Tasiuyak

Description

LdDf-1 is located on a small peninsula about 1 km north of the south end of Tasiuyak on the east side. The site was too extensive to be mapped completely so we made note of the features seen and obtained photographs and co-ordinates from several representative parts of the site. In total, we observed 13 tent rings, 2 *qammat*, and one children's playtent; other boulder features including hide-drying rings and hearths were not recorded.

LdDf-1, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Tent ring with paving and lamp stand, near centre of site	3 x 5		August 22: 1 view N
2	Tent ring with paving near F-1	3 x 4		August 22: 2 view N
3	Tent ring			
4	Tent ring			
5	Tent ring			
6	Tent ring			
7	Tent ring			
8	Tent ring			
9	Tent ring with central divider			
10	Children's play tent or small shelter with exterior hearth, on northeast edge of site	1.5 x 1.5		August 22: 3 view N
11	Tent ring			
12	Tent ring			
13	*Qammaq* in lee of bedrock outcrop at southeast edge of site	2 x 2.5		August 22: 4 view N
14	Tent ring with central divider	4 x 4		
15	Tent ring	4 x 4		

Analysis

The overall impression of this site was of some antiquity as many of the structures were deeply buried in the soil or turf, most structures had a deep growth of berry plants inside, and the rocks were all lichen covered. Few historic artifacts were noted: two thin, rusted knife blades and part of a wooden bat or oar. Several mammal bones were seen on the surface including small whale vertebrae, caribou longbones and vertebrae and some seal bone, and berry plants cover much of the peninsula. This may represent at least parts of the subsistence focus of people using this site over probably the past couple of hundred years. The site's location near the bottom of the fiord suggests that access to the interior for hunting, trapping and fishing may have been one of the motives for occupying this peninsula, other than the abundance of building materials, suitable habitation sites and shelter afforded by bedrock outcrops. A stream enters the fiord 50 m to the east Apart from berry plants, the ground was vegetated with mosses and lichens and abundant arctic heather. The presence of more than 17 individual features suggests that this site significance rating be high.

Recommendation

LdDf-1 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance. This site should be re-visited to obtain co-ordinates and descriptions of all features.

LdDf-2 Tasiuyak

Description

LdDf-2 is about 600 m south of LdDf-1 on another bedrock terrace protruding from the east side of the fiord. Again, time did not allow for thorough documentation of the site as the helicopter was required back at camp for a drill move. The bedrock of the peninsula is mostly covered with a rich growth of berry plants, predominantly crowberry, some sand and an abundance of goose droppings. One large pile of wolf droppings full of berry seeds was also seen. A flock of gulls suggested a nearby nesting place, and Amie noticed a harbour seal in the clear water of the fiord heading toward the mouth of the river. Features recorded included 16 tent rings, one cache, and a cairn on the tip of the peninsula, possibly to mark the site's location.

LdDf-2, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Tent ring, rectangular, with paving and some recent lumber	4 x 4		
2	Tent ring, rectangular, with paving	4 x 4		
3	Tent ring, circular, with central divider	2.5 x 2.5		
4	Tent ring, circular, with paving	4 x 4		
5	Tent ring, rectangular	5 x 4		
6	Tent ring, circular	3 x 3		

7	Tent ring, circular, with central divider	3.5 x 3		August 22: 5 view N
8	Cache set against bedrock	2 x 2		
9	Tent ring	4 x 3		
10	Tent ring, rectangular	4 x 2.5		
11	Cairn, collapsed, at north point of site			
12	Tent ring, small, at point			
13	Tent ring, small			
14	Tent ring, small			
15	Tent ring, circular	4 x 4		
16	Tent ring, circular	4 x 4		
17	Tent ring, circular, on higher terrace at southeast end of site	4 x 3		August 22: 6 view N August 22: 7 view NW over site from F-17
18	Tent ring, circular, on higher terrace, adjacent to F-17			

Analysis

As with the previous site, many of the feature rocks are well buried in the soil and turf and covered with lichen and berry plants, suggesting pre-contact antiquity. Some of the features have been inundated by high (storm?) tides as they are strewn with seaweed. No historic material was noted on the site, but one caribou skull again suggested interior hunting. The presence of eighteen individual features suggests that this site significance rating be high.

Recommendation

LdDf-2 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance. This site should be re-visited to obtain co-ordinates and descriptions of all features.

LdDf-3 Tasiuyak

Description

Three long (4-5.5 m in length) rectangular tent rings are present on a short narrow terrace below a bedrock slope on the east side of the fiord about 300 m south of LdDf-2. All three have a central divider and one has an internal hearth. The terrace is covered with berry plants, grass and other vegetation, and high tides have inundated the site at some recent time.

LdDf-3, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Tent ring, rectangular, with central divider	4 x 3.5		August 22: 14 view N over F-1, 2, 3
2	Tent ring, rectangular, with central divider, interior hearth	4.5 x 3.5		
3	Tent ring, rectangular, with central divider	5.5 x 4		

Analysis

This site appears to be more recent than others in the fiord, although the structures' boulders are well set in the turf. The long rectangular tent rings most likely held down the outer walls of rectangular canvas tents. The presence of some seaweed on the site indicates recent inundation. No historic materials were noted. The presence of four individual features suggests that this site significance rating be low.

Recommendation

LdDf-3 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

LdDf-4 Tasiuyak

Description

LdDf-4 is about 150 m southeast of THC2010-1: 9 in a bedrock outcrop. A shelter and a cache have been built in amongst some large boulders.

LdDf-4, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Shelter built in cleft between two large boulders	2 x 1 (est.)		August 22: 15 view N over F-2 and F-1
2	Cache built in cleft between two large boulders	2 x 1 (est.)		

Analysis

The habitation feature seems to have been for temporary use, taking advantage of the presence of a suitable gap between two large boulders. Several smaller boulders at the west end of the cleft would have been incorporated as an end wall. The presence of two individual features suggests that this site significance rating be low.

Recommendation

LdDf-4 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact collection or other disturbance.

LdDf-5 Tasiuyak

Description

LdDf-5 is on another berry-covered terrace on a large terraced bedrock peninsula at the southeast corner of the fiord, where seven individual sites were recorded (LdDf-5 to -11). A rectangular tent ring with a central divider and a lampstand is located close to the seaward edge of the terrace. Behind the tent ring we noted many surface flakes and at least two formal tools made of clear and milky quartz crystal, including the midsection of a biface and a microblade core. This part of the terrace is dry sandy gravel with lichen cover, within which the artifacts are partially

concealed. No collections were made as this site should be preserved intact for future investigation. A cache was found about 30 m southwest of the main part of the site.

LdDf-5, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Tent ring, rectangular, with central divider and lamp stand	4 x 4		August 22: 16 view N August 22: 21 lampstand
2	Palaeo-Eskimo lithic scatter on surface	10 x 10 (est.)		August 22: 17 biface August 22: 18 core August 22: 19 core August 22: 20 view N
3	Cache, open	2 x 2		August 22: 26 view N

Analysis

This is first site where evidence has been found of Palaeo-Eskimo presence in either the Qilaq or Chidliak claim blocks. The lithic material suggests a Late Dorset occupation sometime between 1500-1000 years ago (Maxwell 1985) or perhaps as late as 500 years ago (Thomson 1988). It is possible that the lithic material was obtained from quartz veins in bedrock southwest of the site, or from the large possible quarry site LdDf-12 east of the stream entering the south end of the fiord. No excavation was undertaken at the site other than extracting (and replacing) two artifacts that were partially exposed, for identification. No collections were made, thus preserving the site in its intact condition. This site has good potential for investigation to better understand the cultural chronology of this part of Cumberland Sound, best known for its Thule, Inuit and Euro-Canadian occupations (Schledermann 1975). The presence of a Palaeo-Eskimo component in addition to the tent ring and cache give this site a high significance rating.

Recommendation

LdDf-5 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and, especially important at this site, prohibition of any artifact movement or collection or other disturbance. In the event of any further archaeological survey work in the vicinity of this site, it should be re-visited to ensure that it has remained undisturbed, and to identify any additional components.

LdDf-6 Tasiuyak

Description

This is an older rectangular tent ring covered in a thick growth of berry plants built in the lee of a bedrock ledge. The structure has an interior divider and an entrance on the west side, and the hold-down rocks on the east side are perched on the bedrock ledge.

LdDf-6, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Tent ring, rectangular, with central divider adjacent to and incorporating a bedrock ledge	3 x 3		August 22: 23 view N August 22: 24 view W over bedrock ledge

Analysis

This is one of seven sites on this peninsula at the bottom of Tasiuyak, most likely situated for access to the interior for caribou hunting, trapping and perhaps fishing. The vegetation cover suggests that this tent ring probably dates to the early-contact or pre-contact period. The presence of one feature and absence of any attributes of additional interest suggest that this site significance rating be low.

Recommendation

LdDf-6 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact movement or collection or other disturbance.

LdDf-7 Tasiuyak

Description

LdDf-7 contains a shelter and two open caches located in a cleft in a bedrock outcrop and incorporating two large boulders.

LdDf-7, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Shelter between two boulders and a bedrock outcrop	2 x 2 (est.)		August 22: 26 view N
2	Cache between two boulders and a bedrock outcrop	1 x 2 (est.)		

Analysis

This is most likely a temporary shelter perhaps used only one time, taking advantage of an available natural space that could easily be reinforced with smaller wall rocks. The cache suggests storage of resources such as caribou meat brought from the highlands south of the fiord. The presence of two features and absence of any attributes of additional interest suggest that this site significance rating be low.

Recommendation

LdDf-7 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact movement or collection or other disturbance.

LdDf-8 Tasiuyak

Description

LdDf-8 consists of a large but simple tent ring located on a grassy terrace surrounded by bedrock. The structure has been inundated by the sea and is covered with seaweed. A highly rusted 45 gallon drum is present beside the tent ring but is not necessarily associated with its

occupation as it too is below the high/storm tide line and could have been washed ashore after the site was occupied.

LdDf-8, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Tent ring, oval	4 x 4		August 22: 27 view N

Analysis

The site appears to have been occupied relatively recently judging from the seaweed suggesting complete inundation by the sea. The rusted 45 gallon fuel drum could have been washed into the cove during the same inundation, so may not date to the period of occupation of the tent ring. The presence of one feature and absence of any attributes of additional interest suggest that this site significance rating be low.

Recommendation

LdDf-8 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact movement or collection or other disturbance.

LdDf-9 Tasiuyak

Description

LdDf-9 was found on a high bedrock ridge and consists of three boulder structures: a chamber foxtrap and two caches. The interior chamber of the foxtrap measures approximately 12 x 15 x 60 cm. The second cache is unusual in that it is built of large vertical slabs set against a big boulder. Several roofing slabs have fallen inside.

LdDf-9, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Fox trap, chamber	1.5 x 1.5 ext. 0.12 x 0.60 x 0.15 int.		August 22: 28 view N August 22: 29 overhead view N
2	Cache, open	2 x 2		August 22: 30 overhead view N August 22: 31 view NW to F-1
3	Cache, rectangular, open	2 x 2		August 22: 32 view N

Analysis

The drop rock which would have sealed the entrance to the front of the fox trap when an animal inside the trap dislodged a supporting stick is not in place, but two rectangular slabs that might have acted in that capacity are adjacent to the trap. The trap is built on bedrock, another common technique which would prevent the trapped fox from digging out through the floor. This is clearly a pre-contact trap, as steel leghold traps were quickly adopted by trappers in the early nineteenth century and replaced the labour intensive stone traps. One of the caches is 3 m from the foxtrap and probably helped to attract foxes to the trap. The presence of three features suggests that this site significance rating be low.

Recommendation

LdDf-9 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact movement, disturbance of the trap's components, or other disturbance.

LdDf-10 Tasiuyak

Description

LdDf-10 consists of three tent rings, a set of hide-drying rings and a hearth, once again located on a partly vegetated bedrock outcrop. Two of the tent rings have dividers across the middle separating sleeping and working areas in the traditional manner. The hearth consists of three rectangular slabs set in a U-shape against bedrock.

LdDf-10, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Tent ring, circular	3 x 4		August 22: 33 view N
2	Hide stretchers, three sets	4 x 2		August 22: 34 view N
3	Tent ring, rectangular, with central divider	3 x 3		August 22: 35 view N
4	Tent ring, rectangular, with central divider	5 x 5		August 22: 36 view N
5	Hearth, set against bedrock	1 x 1		August 22: 37 overhead view NE

Analysis

The hide-stretchers or hide-drying rings are one of the less common features found during the Peregrine survey, but indicate that skins from seals or other sea mammals, or caribou, were spread out on the bedrock outcrops to dry and/or bleach in the sun during processing. In other places, this technique may use pegs through the skins into turf. The hearth is a common form, using three rectangular slabs set on edge to form a rectangle against the bedrock upright. Fires using driftwood, wood from dead shrubs, arctic heather or other materials were set inside the hearth, on top of which was placed either a thin flat cooking slab or a soapstone, limestone or sandstone pot. The presence of seven individual features suggests that this site significance rating is medium.

Recommendation

LdDf-10 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact movement, disturbance of the hearth's components, or other disturbance.

LdDf-11 Tasiuyak

Description

LdDf-11 is the last site found during the survey of the southeast corner of Tasiuyak, with the exception of LdDf-12, which is located up the stream at the head of the fiord. The site found by Amie Nashalik contains a single, curious structure: an alignment of small cobbles in a partial

heart shape on a bedrock outcrop, with some of the cobbles completely covered by a deep growth of moss.

LdDf-11, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Children's play tent	2 x 1.5		August 22: 38 view N

Analysis

The small size of the structure (1.5 x 2 m) and its components suggest use as a children's playhouse, with the in-turned top of the "heart" serving as the entrance. The cobbles are too small to have served as hold down rocks for a standard skin tent, so the feature may have been used without a roof, with children's activities taking place within the boundary of the stone outline. The moss growth on part of the structure suggests some antiquity. The presence of one feature and absence of any attributes of additional interest suggest that this site significance rating be low.

Recommendation

LdDf-11 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact movement, disturbance of the feature's components, or other disturbance.

LdDf-12 Tasiuyak

Description

As we had completed a cursory survey of the area and the mechanic's helicopter had not yet arrived, we walked up the east (right) side of the river that drains several lakes upstream. We could see another site on the opposite side of the mouth of the stream but were unable to cross due to the force of the water cascading down to the fiord. We did find one last site on the east side, though, a large expanse of quartz vein in the bedrock slope which appears to have been exploited.

LdDf-12, Tasiuyak				
Feature	**Type**	**Size (m)**	**Coordinates (NAD 83) 20W**	**Photo**
1	Quartz vein and scatter, possibly exploited	20 x 30 (est.)		August 22: 39 view E August 22: 40 view E

Analysis

Insufficient time was available to fully investigate this site so it is not clear whether the scatter of quartz blocks at the foot of the cliff on which the vein is exposed is the result of natural erosion and downslope movement or extraction of blocks by hand from the cliff for use in tool-making. It is possible that the quartz crystal at LdDf-5 came from this source. Should this site be a quarry rather than a natural occurrence, the potential exists to acquire knowledge of quarrying techniques, raw material preferences, movement of the quartz blocks or finished tools, trading patterns and other information through more intensive investigation of the site and its contents. This suggests that this site significance rating should be tentatively assigned as high.

Recommendation

LdDf-12 does not appear to be at any risk from current exploration activities so requires no immediate mitigation other than Peregrine's standard avoidance policy and prohibition of any artifact movement or collection, disturbance or movement of the quartz blocks, or other disturbance. The site would benefit from more detailed investigation.

5 CONCLUSIONS

Mineral exploration has been ongoing on the Chidliak claim block and more recently on the adjacent Qilaq claim block for several years. Over the past two years of archaeological investigations for Peregrine, 36 new sites have been found on Chidliak and the northwest corner of the main part of the Qilaq property, including one (LdDf-1) recorded by a field geologist near the Discovery camp (Figure 5-1). While much of the exploration activity, including the Sunrise and Discovery camps, has been in an area 25-40 km or more from the areas of highest archaeological potential on the coast and along the McKeand River valley, the finding of LdDf-1 near the interior Discovery camp illustrates that potential does exist for sites to be present in a wide range of environments, resulting from an expedient travel stop or opportunistic kill. Exploration is expected to continue over the next several years, during which a decision will be made on advancing the project further; Peregrine field crews and other scientists working in the region are encouraged to remain vigilant for signs of previous human occupation, and to record any such evidence (see Appendix 4).

Archaeological sites in the region have most often been found in association with the seacoast and on offshore islands. The study area includes several marine inlets on the north, northeast, east and southeast margins, where 35 archaeological sites are now on record, but exploration currently is not heavily focused in this coastal area. A contemporary travel route cuts across the northwest corner of the property towards the coast and another bisects the property south of the McKeand River. Families from Pangnirtung still frequent campsites on the western arm of Ptarmigan Fiord, particularly in summer, and in 2009 we observed two locations in Chidliak Fiord where tents and cabins are present, although not then occupied. Nigel Qaumariaq (pers. comm. 2009) reported that people still travel from Iqaluit to McKeand Lake to fish through the lake ice in spring and winter, and informants have described fall caribou hunting at Qamanialuk (S. Standafer-Pfister pers. comm., 2009). Our finding of fourteen sites, mostly from the prehistoric period, around the lake and adjacent river rapids indicates that this is a longstanding pattern, although the nature of some of the houses and tent rings suggest occupancy in seasons other than spring or winter and most likely for caribou and furbearers as well as or instead of fish. Pangnirtung informants indicated that caribou are hunted in a wide sector along the coast and inland from Cumberland Sound and that there are "many camps" in the northeast Chidliak/northwest Qilaq areas where we have now recorded more than 20 new sites comprising at least 80 habitation features. A traditional-knowledge (TK) study has been prepared for Peregrine in draft form by the community of Pangnirtung and remains to be evaluated; a map identifying locations of traditional sites will accompany the study report (produced for Peregrine under Nunavut Research Licence *# 01 060 10N-A).* Peregrine also is currently acquiring local, current land-use site information from the public and Hunters & Trappers Association in Pangnirtung and the Hunters & Trappers Association in Iqaluit.

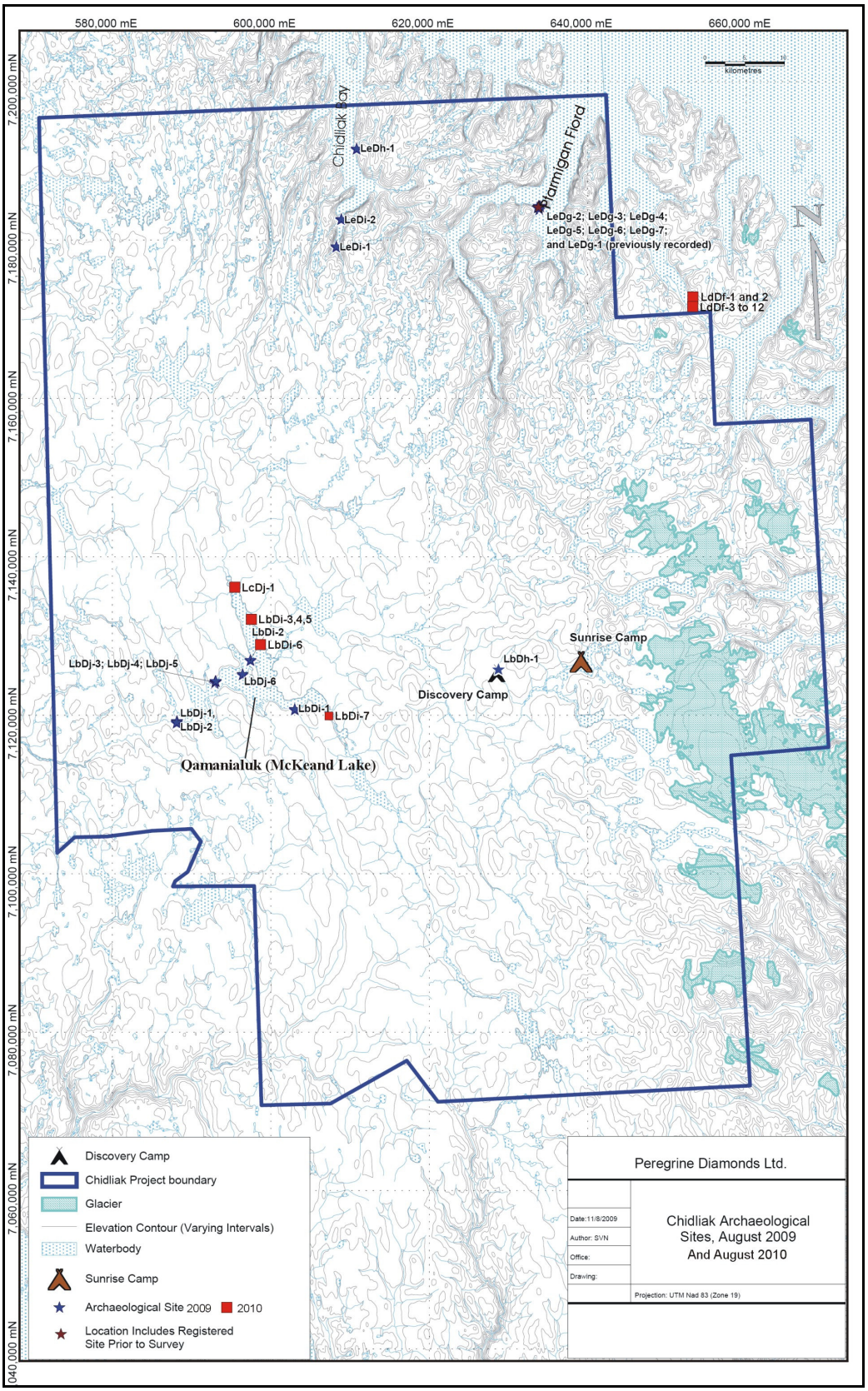


Figure 5-1. Archaeological Sites Recorded in 2009 and 2010 on the Peregrine Chidliak and Qilaq Claim Blocks

The Chidliak and Qilaq properties have high potential for the presence of archaeological resources. Areas of particular interest include coastal inlets and associated char streams and lakes; near-coastal caribou grazing areas; large interior lakes and rivers containing populations of char and where caribou trails indicate migration or other travel; traditional travel routes across the property; well-drained sand or gravel terraces, especially any associated with large water bodies; and bedrock outcrops where vein quartz might be found and exploited (*e.g.*, LdDf-12). In view of the paucity of observed wildlife or signs of wildlife such as caribou trails in the interior of the claim block and the shortage of the type of terrain usually associated with travel, habitation and resource use in much of the interior of the study area away from the large lakes and rivers, archaeological potential in the central part of the Chidliak claim block around the two camps is considered low. In contrast, the presence of caribou trails in the McKeand River valley and on the north coast, the anecdotal evidence of seasonal caribou hunting and fishing in McKeand Lake, the presence of cabins and tents in Chidliak Bay (Kangiqtuq) and the abundance of archaeological sites found during this project on the north coast and the McKeand River valley indicate that these areas, at least, are of high archaeological potential. It should be stated, however, that the few hours of helicopter time made available to the project team in both 2009 and 2010 has not allowed for a thorough, widespread or systematic survey of the Chidliak study area and only a small section of the northwest corner of the main Qilaq property, and these tentative conclusions may not be accurate or complete. Any planned expansion of exploration activities including camp construction and other infrastructure closer to the coast or in the vicinity of the McKeand River and associated lake should be preceded by more thorough archaeological reconnaissance with a dedicated helicopter; ideally, a structured helicopter survey of the claim block areas where future use is determined likely should be undertaken. Foot surveys should also be conducted in areas of high potential such as the north and northeast ends of the potential (hypothetical) port site and traditional travel routes.

Pending more intensive archaeological investigations and additional results of local land use studies, the recommended strategy for continuing investigation and preservation of archaeological resource potential includes:

- Access to and review of reports of archaeological surveys in similar parts of interior Baffin Island for comparative purposes;
- Review of the reports associated with the available site records from the study area and environs, and other relevant literature, not previously available but accessible at the Canadian Museum of Civilization, Hull;
- Detailed analysis of local NTS 1: 50,000 maps, now available, and aerial photographs to identify areas of archaeological potential;
- Analysis of client's project description to identify future areas of proposed disturbance such as new drill sites, bulk sample sites, new camps and airstrips, winter access routes or road routes and potential port sites, and a comparison of those selected with locations of archaeological potential;
- If the client wishes, participation in meetings with local Inuit to help elicit and interpret any relevant information about land use in the study area and region, especially now that the site inventory has now reached 36;

- Following all or some of the previous strategies, written and photographic description of the types of known archaeological sites in the claim block, providing means of identification and suggestions for recording and reporting by Peregrine field crews;
- Development of a research strategy and permit application for additional field investigations in 2011 as required, including a thorough assessment of any selected new camp/airstrip site, a survey around the cluster of northern drill sites (CH-23, 24, 25 and 27 or any other drill sites which might be of relevance) in the vicinity of potential char lakes and caribou summering areas south of the northern fiords, return visits to LdDf-5 and -12 at Tasiuyak to obtain more detailed information on these significant sites; and a low-level flyover of the traditional winter travel routes and potential access routes to port sites and Iqaluit in good visibility, with time for a foot survey in critical areas such as the lower stretch of the river entering Ptarmigan Fiord, the approaches to Littlecote Channel and any river crossings.

5.1 Data Gaps

Ideally, baseline surveys should focus on a wide variety of landforms and environmental zones to understand past site location preferences and needs. The two brief surveys in 2009 and 2010, though limited in extent and duration, have focused on a wide range of terrain types where project facilities are planned or ongoing. While most sites have so far been found on bedrock outcrops and on vegetated or boulder terraces in riverine and lacustrine environments, and on beach ridges and terraces adjacent to the marine coast, one site has been found on a small sandy knoll at some distance from any large water bodies. Other precontact and historic period sites are most likely situated in similar and different locations elsewhere in the study area; a more systematic survey of the claim blocks should be undertaken to more fully understand past patterns of land use and occupancy. More intensive discussions with Inuit familiar with the study area would also result in more knowledge of seasonality, travel routes and hunting, fishing and trapping patterns that can be applied to interpretation of known sites and the finding and protection of additional sites.

One area that is coming under intense scrutiny by archaeologists in other jurisdictions is the study of wasting snow and ice patches resulting from both seasonal/annual changes and warming of the Arctic climate. There are many such features in the eastern part of the claim block, where snow that accumulated through many winters and remained in place through the summer is now melting at an increasing rate and ice patches isolated from the leading edges of glaciers. Such snow- and ice-patches are sought out by caribou for their cooling effects and as a defence against flying insects. Aboriginal people were aware of this tendency and hunted caribou on snow and ice patches. Hunting weapons, discarded clothing and other materials are being revealed by the melting of snow and ice patches; investigations by archaeologists and other specialists are contributing new information on technology, aboriginal health and diet, and land use patterns (Beattie *et al.* 2000; Andrews pers. comm. 2009; Andrews *et al.* 2009). Peregrine exploration personnel working in such areas of the Chidliak and Qilaq properties should remain vigilant for any remains related to past hunting during similar climatic warming episodes, and report any sites as directed by Peregrine's archaeological protocol.

In some cases, site documentation during this survey was not as complete as it should have been, due in part to other exploration tasks requiring priority use of the helicopter. Because of the time

constraints, no subsurface testing was undertaken to investigate the possibility that buried cultural deposits may occur at some of the sites, especially LdDf-5 where evidence of a Palaeo-Eskimo presence is visible on the surface. Test-pitting is standard procedure for archaeologists who, noting a lithic scatter on the surface, may choose to investigate below the surface. However, unless such test-pitting is tightly controlled, the loss of provenience can be destructive and it may be preferable to leave the site intact for later, more controlled investigation in the event that mitigation is necessary or a site is perceived as sufficiently significant to warrant full scale research. Limited test-pitting with locations tied to a permanent and clearly identified datum should be undertaken at LdDf-5 to investigate the depth of deposit of the Palaeo-Eskimo material noted on the surface. None of the quartz veins and boulders found, particularly around the active drill zone adjacent to Discovery camp and noted from the air during preliminary surveys of the planned alternate camp and airstrip locations were recorded as archaeological sites as no definitive evidence was found of precontact human exploitation (for the most part, use of lithic materials was curtailed when metal trade goods became accessible during the historic period. Modern geologists and contractors hammer or blast chunks out of veins of quartz favoured by past land-users in connection with exploration or operational needs, but this recent use is usually identifiable). More intensive examination of veins and other occurrences in the study area might result in their re-interpretation as archaeological sites. One large expanse of quartz was found at LdDf-12 on Tasiuyak; the extent of quartz blocks downslope from the main vein was attributed to human action, but this should be confirmed by more careful interpretation. One attempt was made to fly parts of the traditional travel routes and winter access routes that cross the Chidliak and Qilaq claim blocks; however, poor visibility reduced the effectiveness of this preliminary survey; undoubtedly, at least the traditional routes contain associated camps, caches, route markers and other features that will contribute to knowledge of recent and past land use, and the potential port facility routes and potential road route to Iqaluit undoubtedly contain areas of high archaeological potential.

5.2 Site Prediction

Based on the findings of the present survey and previous surveys in the region, it is evident that archaeological and recent land use sites may be present in a wide variety of environments. The results of the continuing survey, inventory and assessment of the Chidliak exploration area and a small part of the Qilaq block, combined with those of earlier surveys on the adjacent coast of Cumberland Sound, primarily by Gardner (1979), who located the only known site in the Chidliak claim block prior to the present assessment (LeDg-1), and on Frobisher Bay and Davis Strait where several sites have been recorded on Qilaq, suggests that there is likely to be a high density of archaeological and recent land use sites in areas of highest potential along the marine coastal margin and on major inland waterways; a moderate density of archaeological sites in other parts of the claim block on traditional and potential project travel routes, areas of traditional trapping and hunting, and on smaller rivers and lakes where ice fishing and interception of annual char and caribou migrations may have taken place; and a low density of sites in other parts of the claim block. This prediction is supported by the high density of sites found around Cumberland Sound, particularly by Schledermann (1975), Gardner (1979) and Sabo (1979) and on a large interior lake west of Cumberland Sound, Nettilling Lake by Stenton (1987, discussed in Thomson 2000), where many pre-contact and historic period sites were found:

Doug Stenton also conducted a survey and excavations at Nettilling Lake, a major interior lake in southeastern Baffin Island between Cumberland Sound and Foxe Basin (Stenton 1987). While outside of the Monopros-study area, it is informative in terms of identifying the types of sites, which might be present at other interior lakes connected to the coast by navigable rivers or valleys accessible by foot or by sled. Features found include commercial fishing huts from the 1970s; tent rings of various sizes, shapes and ages, some paved; boulder and crevice caches; kayak stands; hearths, often associated with habitation features; *inuksuit*; a single stone digit cairn; burials; miniature tent rings; DEW Line- and D.N.D.-associated structures; a stone record cairn; blinds and windbreaks; heavier habitation sites with high exterior wall, sleeping platform and entrance passage; lithic material indicating Pre-Dorset and Late Dorset occupations; Thule material; other material identified only as Palaeo-Eskimo and Dorset; twentieth century material; cairns; stone box fox traps; stone tower fox traps; steel fox traps; and Thule semi-subterranean houses with entry passages and sleeping platforms. The sites provide evidence of a wide range of activities at all seasons, with caribou, fish, geese and other waterfowl the principal subsistence foci. Sites were commonly found on glacial features such as moraines, and at or near the confluence of rivers with the lake (Thomson 2000).

It is particularly instructive to compare this inventory of different features and site locations with those recorded during the recent surveys around Qamanialuk (Thomson 2010; Thomson *et al.* 2009). The location by Dave Snyder of a small tent ring on a sandy terrace on a hilltop near the Discovery camp illustrates the unpredictability of past human adaptations, movements and preferences. The density of sites on the north coast fiord arms: Chidliak, Ptarmigan and Tawsig, was predictable.

5.3 Heritage Resources Values

All archaeological sites are unique and provide some information on human use and occupation of the environment of which they are a part. Archaeological sites are protected under Government of Nunavut and Federal legislation, and sites and their contents must not be disturbed except under the terms and provisions of a permit issued by the Department of Culture, Language, Elders and Youth following a period of review of the permit application by local communities and agencies.

The precontact sites found during the 2010 survey are informative and have the potential, especially when added to the similar results of the 2009 survey ((Thomson *et al.* 2009), to provide more information should a decision be made to adopt any of the following recommendations (Section 6). The relatively large density of sites is a finding that could influence decisions on the necessity for archaeological inventories and assessments in similar environments and potential development situations in this region and elsewhere.

The Chidliak and Qilaq claim blocks are intermediate between Frobisher Bay and Cumberland Sound, both populated by Inuit during the historic period and before that by Thule and Palaeo-Eskimos. Pre-contact travel routes overland between the two marine inlets as well as into the hinterland for caribou hunting and fishing most likely existed. It is likely that more sites than have already been recorded associated with travel, fishing, trapping and hunting throughout the

historic period also occur in and around the study area; the presence of two traditional travel routes and 15 archaeological sites along the McKeand River valley and in the headwaters area of the north branch of the river certainly indicates that the study area was used prior to as well as since contact.

Of the 18 new sites recorded in 2010 and four of the 2009 sites re-visited on the Peregrine Chidliak and Qilaq claim blocks, 11 were judged on the basis of preliminary examination to be of low significance, six of medium significance and five of high significance (Table 5-1). However, each site is significant in that it contributes either individually or in combination with other nearby or similar sites to an increase in knowledge of land use in the study area and the broader region. Additional research at some of the sites where a visit was rushed because of helicopter priorities elsewhere may result in a change of some of the ratings.

Table 5-1 Site Significance, Sites Revisited and New Sites Recorded in 2010 on Chidliak and Qilaq Claim Blocks, Hall Peninsula, Baffin Island

Borden No.	Field No., Location	Significance		
		High	Medium	Low
Chidliak Claim Block				
LbDh-1	THC2009-5: 19, near Discovery Camp			√
LbDi-2	THC2009-5: 15 Qamanialuk north shore	√		
LbDi-3	THC2010-1: 2 Qamanialuk north arm			√
LbDi-4	THC2010-1: 3 Qamanialuk north arm			√
LbDi-5	THC2010-1: 4 Qamanialuk north arm			√
LbDi-6	THC2010-1: 5 Qamanialuk north arm		√	
LbDi-7	THC2010-1: 6 Qamanialuk southeast arm		√	
LbDj-5	THC2009-5: 13 Qamanialuk north shore		√	
LbDj-6	THC2009-5: 14 Qamanialuk north shore		√	
LcDj-1	THC2010-1: 1 Qamanialuk north arm		√	
Qilaq Claim Block				
Borden No.	**Field No., Location**	**High**	**Medium**	**Low**
LdDf-1	THC2010-1: 7 Tasiuyak southeast side	√		
LdDf-2	THC2010-1: 8 Tasiuyak southeast side	√		
LdDf-3	THC2010-1: 9 Tasiuyak southeast side			√
LdDf-4	THC2010-1: 10 Tasiuyak southeast side			√
LdDf-5	THC2010-1: 11 Tasiuyak southeast side	√		
LdDf-6	THC2010-1: 12 Tasiuyak southeast side			√
LdDf-7	THC2010-1: 13 Tasiuyak southeast side			√
LdDf-8	THC2010-1: 14 Tasiuyak southeast side			√
LdDf-9	THC2010-1: 15 Tasiuyak southeast side			√
LdDf-10	THC2010-1: 16 Tasiuyak southeast side		√	
LdDf-11	THC2010-1: 17 Tasiuyak southeast side			√
LdDf-12	THC2010-1: 18 Tasiuyak southeast side	√		
Totals		**5**	**6**	**11**

5.4 Potential Project Effects

Archaeological sites in the region occur primarily on the surface, in immediate subsurface soil deposits or below vegetation cover. In the event that sites are present on and in the near vicinity of such facilities as exploration camps, airstrips and helipads, water pipeline routes, winter access routes, equipment storage areas, fuel caches, drill sites, bulk sample sites, overland access

routes to drill sites, sump areas where the products of drilling activities are deposited and other areas of intensive exploration-related activities they could be affected by:

- clearing for levelling of an exploration camp, airstrip and helipad and construction of related docks and storage areas;
- the weight of vehicles and compression beneath packed snow and ice on the overland sections of a winter access route, heavy-equipment movement of boulders on the route or in a camp area, disturbance of the ground surface where insufficient snow cover is present, attempts to gain traction on a steep slope from a lake or river shore, and excavation of borrow materials used to improve traction;
- drilling, till sampling and trenching and use of overland access routes to such sites;
- development of a port facility;
- inadvertent movement of boulders from an archaeological feature to support line stakes; and
- other related activities.

The effects of known project activities on archaeological resources are normally predictable, given accurate project description details and adequate time and resources for an archaeological assessment of the project areas. Most project effects from camp, exploration and access route activities can be mitigated by collaboration between the camp manager, engineers, project geologist, environmental staff and the project archaeologist at the planning stage, but ideally require a thorough survey and assessment of the affected areas to determine the need for and the most suitable options for mitigation. The commitment by Peregrine Diamonds Ltd. to conduct preliminary inventories and assessments at an early stage of exploration is exemplary and conforms with legislation requiring prohibition of project activities which may alter or disturb an archaeological site (which may not be recognised until an archaeological survey has been undertaken). Territorial Land Use regulations also stipulate that no permittee may conduct a land use operation within 30 m of a known or suspected archaeological site or burial ground; however, an archaeological survey or the services of keen-eyed exploration personnel is normally required in order to find and protect sites from such operations.

Following the results of this continuing archaeological survey in 2010, it appears likely that none of the exploration activities as described for the Chidliak claim block or the two proposed drill sites on the Qilaq block assessed to date are likely to have had or are likely to have any effect on known archaeological resources (Table 5-2).

Table 5-2 Summary List of Exploration Facilities Assessed in 2010

Facility	Location	Results	Recommendations
Drill Sites CH-1, -6 and -7	Immediately north of Discovery Camp	Glacial rubble and bedrock. No sites observed. Minimal archaeological potential.	No further work required
Airstrips 1-5	High elevation level terrain1-18 km north of McKeand River	Characteristically wet. Many quartz scatters. Minimal-low archaeological potential.	Full assessment of selected airstrip and associated facilities (*e.g.*, camp and water line route)
Water	Large bodies of	Characteristically set in low gradient	Full assessment of

Supply Areas A-C	water 1-20 km north of McKeand River	terrain with wet, sloping margins. Occasional locations suitable for habitation on higher dry terraces. Low-Moderate archaeological potential.	selected water lake and associated facilities (*e.g.*, water line route)
Tailings Areas 1-2	Small lakes 15-18 km north of McKeand River	Shallow lakes with typically wet margins. Minimal archaeological potential.	No further work required.
Northern Camp in vicinity of North Lake	North Lake 45 km north northwest of Discovery, and alternate lake adjacent to the southwest of North Lake	North Lake has no suitable location for exploration camp due to bouldery terrain, slope, shallow water at shore. South end has some small dry terraces suitable for habitation but no sites found. The alternate lake has an extensive area suitable for a camp with good deep water and potential for ice landing strip. The lake and access route to North Lake have low-moderate archaeological potential.	Full assessment of selected camp location and associated facilities (*e.g.*, snowmobile route to North Lake).
Qilaq Drill Sites Q-1 and Q-2	East side of Tasiuyak at ca. 300 m elevation with sheer drop to fiord. Q-1 in rubble-covered valley, Q-2 on steep slope.	Flew over only as no suitable locations for safe landing, especially near Q-2. Minimal archaeological potential.	No further work required.
Winter Access Routes	From Discovery camp NE, N and SW	Difficulty of navigation in poor weather and visibility meant that parts of the N and NE and SW routes were missed. Good archaeological potential on both N and NE routes near the potential port sites – should be flown again and walked in places. Potential on other routes and parts of routes highest at large water crossings, which should be walked.	Routes should be flown again, and walked in places where archaeological potential highest
Drill Site CH-12	10 km north of Discovery camp	Located in dry stream bed surrounded by boulder terrain. Minimal archaeological potential.	Requires no more work.
Drill Site Cluster CH-23, 24, 25, 27	Did not access	High-moderate potential for sites associated with char fishing and caribou hunting.	Should be flown and walked if necessary.

The potential for additional sites in the vicinity of the present camps, kimberlites, adjacent drill locations and airstrip is low, though not absent. The potential for additional sites to be present on and in the vicinity of the McKeand River and Qamanialuk and on the marine coast of Cumberland Sound within the claim blocks is high. The potential for sites elsewhere within the 10,000 km² Chidliak claim block varies. In the event that an access road or route to Iqaluit or Pangnirtung or to a potential port site on Cumberland Sound is planned for use in the future, it should be noted that some of the activities normally undertaken by winter road contractors do have potential for disturbance of archaeological sites both on and off the alignment, so any

planning of these activities should be preceded by a complete and thorough archaeological assessment and implementation of mitigation measures.

5.5 Mitigation

Impact management options are available which will minimize risk to known heritage resources. These include, in the present stage of the Peregrine project, avoidance of known archaeological sites and a 100 m buffer zone around them (note that CLEY now requests that, where possible, a 100 m rather than the former 30 m buffer zone be implemented (J. Ross pers. comm., 2009); where this is not possible, alternative mitigation measures will be instituted); archaeological assessment of any new activity areas and access routes; and regular monitoring of known archaeological sites in the vicinity of activity areas. To minimize potential for impacts on currently unknown archaeological site locations procedures could include involvement of an archaeologist in the planning of any new access routes or other infrastructure locations, and education of exploration personnel in techniques of site recognition and procedures to follow in the event of finding a suspected site.

No site-specific mitigation is currently required for the 18 new sites found in 2010 and the 19 previously known sites (Thomson *et al.* 2009) from present exploration activities other than avoidance and the prohibition against disturbing any archaeological remains, including faunal material, or disturbance of site features. Should the situation change due to more widespread concentration of drilling and bulk sampling or development of a new exploration camp and related infrastructure, known sites might be potentially at risk from a new or revised activity or location; in this case, mitigation requirements should involve a more detailed study and assessment of the site and its surroundings; accurate mapping of the location and extent of any archaeological sites associated with this activity; and determination of the potential for avoidance of disturbance and maintenance of a buffer zone of at least 100 m around each archaeological site. If this is not possible, mitigation – with approval from the regulator - could alternatively involve complete documentation and archaeological excavation of any site at risk.

6 SUMMARY AND RECOMMENDATIONS

Based on the limited amount of helicopter support, our preliminary conclusion is that archaeological potential, in tandem with observed and inferred wildlife patterns in the vicinity of the kimberlites and drill sites around the present camps is low but not absent, as shown by the finding of the tent ring site (LbDh-1) near the Discovery camp by Dave Snyder. Given the present project description, which does not include any intensive exploration work in the Qilaq claim block other than at Tasiuyak, archaeological potential in the study area along the coast and near interior at Cumberland Sound and on the McKeand River and lake system (Qamanialuk) and any other large lakes is high. In the event that exploration activities intensify towards the coast of Cumberland Sound, Davis Strait or Frobisher Bay or in the vicinity of the McKeand River valley, additional site inventory and assessment focussing on areas of past and proposed disturbance as well as identification and survey of areas of high, moderate and low archaeological potential is recommended. As the project proceeds, a more extensive and structured archaeological inventory is recommended so that a baseline is gradually compiled in preparation for any required environmental assessment, should the project proceed to the development stage.

Eighteen new archaeological sites were found during four days of helicopter-assisted survey in 2010 to add to the 18 found in 2009 and one previously recorded site re-visited, LeDg-1 (Gardner 1979; Thomson *et al.* 2009). We found12 new sites in the Qilaq claim block on a small section of Tasiuyak on Cumberland Sound and inferred from their locations and contents that they were situated for access to interior resources such as caribou and arctic char as well as resources of the marine and shoreline environment such as sea mammals, polar bears, foxes, fish and birds. Some sites may also have been associated with travel into the interior, or shelter. Sites on the fiord arms were primarily found on low terraces close to the shore where boat or *qamutiik* (sled) access from the sea or ice is possible. The river valley at the head of the fiord appears to be accessible and may have been used as a route into the interior and/or to travel overland to north-eastward-facing Littlecote Channel and Neptune Bay. Some or all of the following attributes, among others, were present:

- a relatively level gravel or vegetated boulder terrace, sometimes with a large expanse of flat bedrock or bedrock outcrops providing natural shelter;
- a view of the surrounding water;
- shelter from prevailing or storm winds;
- presence of materials for building habitation structures, caches, kayak rests, fox traps, hearths and other features, *e.g.,* boulders, slabs and sod;
- accessibility to a breeze in summer; and
- proximity to fresh water.

We inferred from the presence of six new sites and three re-visited sites at Qamanialuk on the McKeand River system that the primary reason for their location was for access to caribou travelling across or around the lake in late summer/fall, where they could be speared in the water from kayaks or ambushed in the many natural blinds around the shore, and for access to arctic char through the lake ice or with nets. Other sites are most likely present along this system. For those sites on or adjacent to Qamanialuk and the McKeand River, attributes present at some or all of the sites included:

- relatively level, well-drained and vegetated gravel or boulder terrace;
- proximity to water for consumption, fishing and for travel (including on ice);
- proximity to caribou travel routes parallel to and crossing the lake or river;
- elevation or adjacent to open water for access to breeze and a view of caribou travel routes; and
- presence of materials for building habitation structures, caches, kayak rests, foxtraps, hearths, *inuksuit*, and other features, *e.g.,* boulders, slabs and sod.

The discovery by geologist Dave Snyder of one site (LbDh-1) close to the Discovery camp in the heart of the interior of the Chidliak claim block, visited in 2010 to confirm recorded data, also indicated that people exploited resources and/or travelled through inland areas remote from the marine coast or large waterways. For such sites, attributes present might include:

- relatively level, well-drained, possibly vegetated gravel or sandy terrace;

- proximity to fresh water;
- proximity to caribou travel routes and hence opportunities for trapping predators such as fox and wolf that follow the caribou;
- elevation for a view of surrounding terrain and/or access to breeze; and
- presence of materials for building habitation structures, caches, foxtraps, hearths, *inuksuit*, and other features, *e.g.,* boulders and slabs.

The finding, albeit by a geologist and not by an archaeologist, of a site in an area without many obvious major attributes around the Peregrine camp supports the findings of other surveys by Thomson Heritage Consultants that humans are unpredictable, that remains of their presence are not always found in the obvious hotspots such as on shores of large lakes and rivers, on the marine coastline, on eskers, or at caribou crossings (although admittedly sites are most often highly concentrated in such areas and tend to be extensive), and that the inclusion of survey areas considered to be of low archaeological potential can sometimes bear fruit. While we made every effort within time and equipment constraints to check facility site areas and areas of apparent archaeological potential, some drill site locations and none of the tentative alternate locations of new camps and associated infrastructure have been subjected to foot survey, and many areas of obvious potential have not yet even been overflown. In addition, during helicopter traverses to and from areas of planned ground survey, we usually were flying too fast and/or high for effective aerial survey as the helicopter time was shared with other users. As a result, it can be expected that potential exists for other sites to be present within and adjacent to areas already surveyed or flown over and in similar and dissimilar environments within the claim blocks.

The presence of many sites at Qamanialuk, where Nigel Qaumariaq said he used to go ice-fishing in winter, suggested that fishing and most likely caribou hunting and trapping of furbearers took place in seasons other than winter. Informants have told Peregrine that the name Qamanialuk translates from the Inuktitut as "the place where Inuit go to kill caribou for caribou parkas". This suggests that the traditional travel route that parallels the McKeand River for much of its length to Popham Bay from the north-south route between the head of Frobisher Bay and Irvine Inlet on Cumberland Sound may also have been used during the precontact period by people heading into the interior to hunt, fish and trap, on foot, with *qamutiit* pulled by dog teams, or in part by kayak.

6.1 Assessment

No sites were found to lie directly within any of the present areas of disturbance from exploration activities. The 18 new sites and four previously recorded sites re-visited in 2010 are relatively distant from these activity areas and do not appear to be at risk from the present project activities. No sites were found which exhibited any evidence of disturbance from exploration activities. In general, there are no areas of overlap between current exploration activities on the Peregrine claim block and the small part of the Qilaq claim block investigated and areas where sites are known to be present or highly likely to be present. Construction and use of camps and local trails can present some risk, but at this stage of exploration, the two established camps and the airstrip at Discovery have been surveyed and no sites were found. The planned new camp and related facilities north of Qamanialuk and in the vicinity of North Lake have been subjected to an aerial survey and, in the case of North Lake, a limited foot survey, with no sites being found. Additional survey should be conducted of camp/airstrip locations, once selected.

6.2 Recommendations

Because of the absence of evidence for site disturbance during this stage of mineral exploration by Peregrine and because of the observed lack of overlap between the current and proposed areas of intensive work and the location of recorded archaeological sites and areas of highest archaeological potential, it is recommended that Peregrine's proposed exploration programme on the Chidliak claim block and the part of the Qilaq claim block assessed in 2010 be approved from a historic resources perspective.

Measures to help Peregrine employees continue to support the company's heritage conservation policy (as exhibited by the excellent support provided by the Vancouver office and field personnel during this project and the evident respect for the environment) and abide fully by applicable heritage legislation include:

- use of a desktop or field archaeological evaluation of any new areas of intensive land use around the Chidliak and Qilaq claim blocks, such as new camps that have not previously been intensively surveyed, new bulk sampling locations, areas of intensive drilling activity, and new winter access roads;
- provision of an education programme for summer field personnel on how to recognize and report archaeological features and avoid disturbance (a Site Recognition Guide was prepared for Peregrine by THC in December 2009 and continues to be provided to field managers);
- annual review of exploration and construction (*e.g.*, camp) plans to assess the need for additional field surveys;
- continuing interaction with residents of Iqaluit and Pangnirtung familiar with resources and resource use in the study area;
- continuing access to archaeological advice in the event of encountering a feature that requires interpretation (*i.e.,* temporary identification and recording as an archaeological site, such as was done with the Snyder site LbDh-1); and
- consideration of an extended and more extensive programme of field survey in these claim blocks in collaboration with Inuit familiar with land use in the area to identify additional sites, inspect a broader range of environment types where sites may be present, and continue to build a picture of land use and occupancy that may be of interest to other land users and to regulators, as well as to Peregrine.

Table 6-1 presents a summary of mitigation recommendations for the sites found or revisited and re-assessed in 2010. In the event of any potential future conflict between heritage resources and project activities, the avoidance option discussed above could be re-considered in consultation with the Department of Culture, Language, Elders and Youth by evaluation of the site's significance, the significance of loss of all or part of the site and the availability of other mitigation options. These might include temporary protection during the project activity or detailed investigation and site recording prior to disturbance.

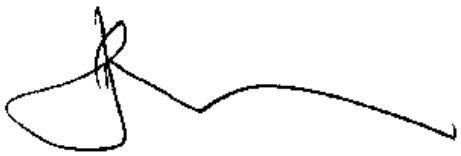
Table 6-1 Recommended Mitigation and Detailed Investigation Procedures			
Borden No.	**Field No.**	**Recommended Mitigation**	**Recommended Detailed Investigation if Impact Unavoidable**
Chidliak Claim Block			
LbDh-1	THC2009-5: 19	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LbDi-2	THC2009-5: 15	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LbDi-3	THC2010-1:2	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LbDi-4	THC2010-1:3	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LbDi-5	THC2010-1:4	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LbDi-6	THC2010-1:5	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LbDi-7	THC2010-1:6	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LbDj-5	THC2009-5: 13	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LbDj-6	THC2009-5: 14	Unlikely to be affected by project; avoidance;100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LcDj-1	THC2010-1: 1	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
Qilaq Claim Block			
LdDf-1	THC2010-1: 7	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation of all features; detailed site plan; subsurface testing; re-assessment of significance and mitigation options
LdDf-2	THC2010-1: 8	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation of all features; detailed site plan;; subsurface testing; re-assessment of significance and mitigation options
LdDf-3	THC2010-1: 9	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LdDf-4	THC2010-1: 10	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LdDf-5	THC2010-1: 11	Unlikely to be affected by project; avoidance; 100 m buffer zone; periodic monitoring	More complete survey of vicinity; detailed site plan; surface collection; sub-surface testing; re-assessment of significance and mitigation requirements

LdDf-6	THC2010-1: 12	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LdDf-7	THC2010-1: 13	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LdDf-8	THC2010-1: 14	Unlikely to be affected by project; 100 m buffer zone; avoidance;	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LdDf-9	THC2010-1: 15	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LdDf-10	THC2010-1: 16	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LdDf-11	THC2010-1: 17	Unlikely to be affected by project; avoidance; 100 m buffer zone	Complete documentation; subsurface testing; re-assessment of significance and mitigation options
LdDf-12	THC2010-1: 18	Unlikely to be affected by project; avoidance; 100 m buffer zone	More complete survey of vicinity; detailed site plan; surface collection; sub-surface testing; re-assessment of significance and mitigation requirements

In general, it is strongly recommended that Peregrine's example should be followed elsewhere: an archaeological assessment should be conducted at an early stage of mineral exploration in this region, *i.e.*, prior to the development of camps and land-based airstrips or construction and use of winter access routes and port facilities, and intensive drilling and bulk sampling. While no disturbance was noted at any of the sites recorded during this project, the potential is present for conflict between archaeological sites and such activities without prior archaeological inventory and assessment both here and in most or all mineral exploration areas in the Nunavut and the Northwest Territories.

6.3 Closure

It is our professional opinion that the likelihood of disturbance of archaeological and more recent heritage sites and features by Peregrine's continuing mineral exploration programme as known in August 2010 in the areas examined is minimal, given the above mitigation recommendation (*i.e.,* avoidance and 100 m buffer zone), and that approval should be given, from a cultural heritage perspective, to the project as proposed in 2010. Should exploration activities expand away from the core area around the kimberlite zone and Discovery/Sunrise camp area in the future, and in order to better understand and document regional land use, additional archaeological surveys and assessment should be conducted and the programme of informant interviews intensified.



J. Callum Thomson,
Principal, Thomson Heritage Consultants,
Pictou Landing, NS, February 11, 2011

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7.2 Personal Communications

Andrews, Thomas D. Prince of Wales Northern Heritage Centre, Yellowknife, Northwest Territories.
Nashalik, Amie. Pangnirtung, Nunavut.
Qaumariak, Nigel. Iqaluit, Nunavut.
Ross, Julie. Territorial Archaeologist, Department of Culture, Language, Elders and Youth, Igloolik, Nunavut
Standafer-Pfister, Shirley. Peregrine Diamonds Ltd., Vancouver and Victoria, British Columbia.

7.3 Glossary

Anadromous. Fish that migrate between freshwater and the sea. Arctic char feed in the sea in summer and return to their river of birth in fall to spawn in gravel shoals in lakes or in river pools. They overwinter in freshwater and return to the sea the following spring.
a.s.l. Above sea level, elevation expressed in metres.
Archaeology. The branch of anthropology devoted to studying the material remains of past human events.
Artifact. An object of human manufacture or use.
B.P. Before present, with "present" being defined as A.D. 1950.
Borden System. An alpha-numeric classification system used in Canada to identify the location of **archaeological sites**, based on the 1: 50,000 topographic map system.
Cache. A structure used to store meat, blubber and fish for use, usually, in winter or to store clothing, tools, utensils for use in a future season; may be built above ground out of boulders and slabs or dug partly into a cobble or boulder beach ridge.
Caribou. Herd animal essential in northern cultures for food and materials such as hide, antler and sinew. Commonly obtained in large numbers by hunters at water crossings. Sometimes driven in desired direction by use of **inuksuit** or fences of aligned spaced boulders; often hunted on trails used by caribou as travel routes.
Dorset. A **prehistoric Palaeo-Eskimo** culture present in the Canadian Arctic and Labrador from approximately 2500 **B.P.** to 500 B.P. Descended from **Pre-Dorset.**
Faunal. Pertaining to animals, as in **faunal** remains. Animal (and bird, fish etc.) bone provides information on the season(s) in which a **site** was occupied and which animals were exploited.
Feature. A term used to include evidence such as a stone structure, **hearth**, buried layer of food bone, charcoal or **flaking** debris, a discoloured soil layer, or some other collection of cultural material assembled within a usually small, restricted area.
Flake. A thin flat fragment of stone removed by pressure- or percussion-**flaking** during the process of stone tool manufacture or repair. **Flakes**, removed from **preforms**, are often the desired end product and are formed into tools.
Foxtrap. A stone structure used to trap small fur-bearing mammals such as foxes and wolves. May be built around a narrow rectangular chamber in which the animal is trapped by a falling drop rock or a beehive-shaped hollow chamber out of which the animal cannot climb due to the corbelled construction. After European contact and access to trade goods, steel leghold traps generally replaced the stone versions.
Hearth. Fireplace.

Hide-drying ring. An amorphous arrangement of boulders placed on a bedrock outcrop to hold down the edges of hides drying during processing for clothing, tent covers, kayak covers and other purposes. Used in the absence of vegetated or gravel terraces into which staking pegs can be set.
Inuit. The preferred term for the aboriginal occupants of the Arctic descended from people of the **Thule** tradition, whose origins are in the Alaska/Bering Strait area.
Inuksuk, pl. Inuksuit. A cairn or carefully-built stack of rocks and slabs resembling a person (**inuk**, pl. **Inuit**).
Inuktitut. The traditional **Inuit** language.
Kayak rest or **kayak stand.** A structure consisting of two spaced boulders or stacks of boulders on which a **kayak** is placed either for repair or replacement of the skin cover or to keep it off the wet ground when not in use. Larger version built for ***umiaq.***
Kimberlite. A subsurface geological feature resembling an inverted cone often containing diamonds.
Lamp stand. Flat stone on which ***qulliq*** (soapstone, limestone or sandstone oil lamp) was placed inside tent, sod house or ***qammaq***. Often stained black from burning oil.
Lithic. Of stone.
Locus, pl. **Loci**. A discrete location within a larger **site.**
Mitigation. The process whereby negative impacts on an archaeological site can be eliminated, reduced or controlled.
Neo-Eskimo. An **archaeological** term used to define the **prehistoric Thule** culture and early historic ancestors of today's **Inuit.**
Palaeo-Eskimo. The original and subsequent occupants of the Arctic, who spread west from Alaska approximately 4500-5000 years ago across the Canadian Arctic to Greenland, Labrador, Quebec and Newfoundland. Divided into **Pre-Dorset** and **Dorset**.
Pre-contact. The period prior to the arrival or influence of European/Euro-Canadian culture in the Arctic.
Pre-Dorset. The original occupants of much of Arctic Canada, 4500-2500 **B.P.** Noted for manufacture of tiny finely-made stone tools. **Dorset** culture evolved from **Pre-Dorset.**
Preform. A partially-made stone tool.
Prehistory. The period prior to the invention or adoption of writing: in the Arctic, prior to the arrival of Europeans and Euro-Canadians and the development of syllabics and, later, written **Inuktitut**.
***Qaggiq*, pl. *Qaggiit*.** A large snow house or stone circle used for ceremonies, feasting, dancing and communal work.
***Qammaq*, pl. *Qammat*.** A stone house built up with multiple courses and covered with skin, used in fall before snow houses can be built.
***Qamutiik*, pl. *Qamutiit*.** Toboggan.
Qulliq*, pl. *qulliit. Lamp made of soapstone or where soapstone not available, limestone or sandstone, in which oil rendered from seal blubber or oil blubber is burned for light, heat and cooking.
Semi-subterranean. House dug partially into the ground for additional shelter and stability, or into a sloping bank as a labour-saving method, then walled up with stone and sod and roofed with bone or wood, skin and sod. Commonly used in late fall to early spring by **Dorset Palaeo-Eskimo**, **Thule** and **Inuit.**
Site. Location **of archaeological** remains.

Subsistence. The means of providing food and other essentials of life.
Tent ring. The outline formed by rocks formerly used to hold down the walls and guy ropes of a tent-like structure made of skin or canvas.
Thule. The ancestors of today's **Inuit** who arrived in the western arctic around 1000 B.P. and spread rapidly across the Arctic to Nunavut, Greenland, Quebec and Labrador over the next few centuries.
Umiaq, pl. umiat. Large open boat made of sealskin or split walrus hide stretched over frame of wood and/or bone used for camp moves and whaling.
Weir. Stone wall built across river to intercept fish.

Apppendix 1: Site Forms

Appendix 1a: Site Form – Revisits

Appendix 1b: Site Forms – New Sites

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Appendix 2
Nunavut Archaeologist Permit 09-04A

NUNAVUT ARCHAEOLOGIST PERMIT

Permit Number	Permit Year	Permit Class
10-003A	2010	Class 2

Under the authority of the *Nunavut Act* and the *Nunavut Archaeological and Palaeontological Sites Regulations*, authorization is granted to:

Permit Holder: Callum Thomson

Affiliation: Thomson Heritage Consultants

Name of Project: *Continuing Archaeological Inventory and Assessment of Chidliak Exploration Project, Hall Peninsula, South Baffin, NU, 2010*

For the purpose of: Archaeological reconnaissance in the Hall Peninsula area related to the Chidliak Exploration Project. The collection of artifacts or archaeological specimens is authorized under this permit.

Permit Period: This Permit is valid from to December 31, 2010.

Conditions:

1. *The Permittee shall abide by the Nunavut Archaeological and Palaeontological Sites Regulations*
2. *The Permittee shall abide by the Guidelines for Nunavut Archaeological and Palaeontological Sites*
3. *The Permittee shall comply with all conditions attached to this permit.*
4. *The Permittee shall distribute materials and documentation to the agencies identified below according to this schedule:*

	Government of Nunavut Department of Culture and Heritage Box 310 Iqaluit, NU X0A 0L0	Canadian Museum of Civilization Box 3100, Station 'B' Hull, PQ J8X 4H2	Prince of Wales Northern Heritage Centre Box 1320 Yellowknife, NT X1A 2L9	Inuit Heritage Trust Box 2080 Iqaluit, NU X0A 0H0
Required by September 30, 2010:				
One page non-technical summary and two (2) colour photographs	X			
Required 60 days after return from field:				
Site Forms and Maps	X	X		
Required by March 31, 2011:				
1. Report	X	X		X
2. Field Notes	X			
3. (1) Artifacts, (2) Catalogue and (3) Loan Arrangements	(2), (3)			(1), (2)

Approved by:

Minister
Department of Culture, Language, Elders and Youth
Government of Nunavut

Issued at: Iqaluit, Nunavut

Date of Issue:

Appendix 3
Project Photograph Catalogue

Date	Photo #	Site	Feature	Direction	Notes
Aug-20	31	LbDi-2		1 N	
	32	LbDi-2		2 N	
	33	LbDi-2		3 N	
	34	LbDi-2		3 W	
	35	LbDi-2		3 W	
	36	LbDi-2		4 N	
	37	LbDi-2		5 N	
	38	LbDi-2		5 W	
	39	LbDi-2		6 N	
	40	LbDi-2		8 N	
	41	LbDi-2		7 N	
	42	LbDi-2		9 N	
	43	LbDj-6		1 N	
	44	LbDj-6		2 N	
	45	LbDj-6		2 N	
	46	LbDj-6		3 N	
	47	LbDj-6		4 N	
	48	LbDj-6		5 N	
	49	LbDj-6		5 W	
	50	LbDj-6		6 N	
	51	LbDj-6		6 N	
	52	LbDj-5		1 N	
	53	LbDj-5		2 N	
	54	LbDj-5		3 N	
	55	LbDj-5		4 N	
	56	LbDj-5		5 NE	
	57	LbDj-5		6 N	
	58	LcDj-1		1 N	
	59	LcDj-1		1 W	
	60	LcDj-1		2 N	
	61	LcDj-1		3 N	
	62	LcDj-1		4 N	
	63	LcDj-1		N	
	64	LcDj-1		N	
	65	LbDi-3		2 N	
	66	LbDi-3		1 N	
	67	LbDi-3		1 N	
	68	LbDi-3		1 W	
	69	LbDi-3		3 N	
Aug-21	1				Sunrise Camp
	2				Sunrise Camp
	3	LbDi-3		2 N	
	4	LbDi-3		1 N	
	5	LbDi-3		1 W	

Date	Photo #	Site	Feature	Direction	Notes
	6	LbDi-3	3	N	
	7	LbDi-4	1	W	
	8	LbDi-5	1	N	
	9	LbDi-5	1	N	To Amie Nashalik
	10	LbDi-6	1	N	
	11	LbDi-6	2	N	
	12	LbDi-6	3	N	
	13	LbDi-6	4	N	
	14	LbDi-6	5+6	N	
	15	LbDi-6	7	N	
	16	LbDi-6	8	N	
	17	LbDi-6	9	N	
	18	LbDi-6	10	N	
	19	LbDi-6	1	W	To islets
	20	LbDi-7	1	N	
	21	LbDi-7	2	N	
	22	LbDi-7	3	N	
	23	LbDi-7	3	W	
	24	LbDi-7	4	N	
	25	LbDi-7	5	N	
	26	LbDi-7	6	N	
	27	LbDi-7	7	N	
	28	LbDh-1		N	
	29	LbDh-1		OHN	
	30	LbDh-1		N	Possible F-2
Aug-22	1	LdDf-1	1	N	
	2	LdDf-1	2	N	
	3	LdDf-1	10	N	
	4	LdDf-1	13	N	
	5	LdDf-2	7	N	
	6	LdDf-2	17	N	
	7	LdDf-2		NW	from F-17 over site
	8				view towards Quilaq 1 and 2 drill areas
	9				view towards Quilaq 1 and 2 drill areas
	10				view towards Quilaq 1 and 2 drill areas
	11				view towards Quilaq 1 and 2 drill areas
	12				view towards Quilaq 1 and 2 drill areas
	13	LdDf-3			View W over LdDf-3
	14	LdDf-3	2	N	
	15	LdDf-4	1	N	
	16	LdDf-5	1	N	
	17	LdDf-5	2	N	
	18	LdDf-5	2	N	
	19	LdDf-5	2	N	
	20	LdDf-5	2	N	

Date	Photo #	Site	Feature	Direction	Notes
	21	LdDf-5	1	N	
	22	LdDf-5	2	N	
	23	LdDf-6	1	N	
	24	LdDf-6	1	W	
	25	LdDf-7	1	N	
	26	LdDf-5	3	N	
	27	LdDf-8	1	N	
	28	LdDf-9	1	N	
	29	LdDf-9	1	OHN	
	30	LdDf-9	2	OHN	
	31	LdDf-9	2	NW	To F-1
	32	LdDf-9	3	N	
	33	LdDf-10	1	N	
	34	LdDf-10	2	N	
	35	LdDf-10	3	N	
	36	LdDf-10	4	N	
	37	LdDf-10	5	OHNE	
	38	LdDf-11	1	N	
	39	LdDf-12	1	E	
	40	LdDf-12	1	E	
	41				Qilaq - new site on W shore of river
	42				Qilaq - new site on W shore of river
	43			N	Helicopters and Tasiuyak

Appendix 4
Peregrine Archaeological Protocol

Procedures for Recording/Avoiding Suspected Archaeological Sites, Chidliak/Qilaq

Most of the archaeological sites found to date in the Chidliak and Qilaq claim blocks have been situated on elevated level vegetated terraces or bedrock outcrops close to water and with a good view. In the interior, many suggest that watching for and hunting caribou was the main focus of activity at these sites and in this area, most likely in late summer. Some of the site features contain interior hearths and heavy stone walls, suggesting occupation into the fall. Trapping of wolves, foxes and other fur-bearing animals probably occurred, as these animals tend to follow the caribou seasonal movements. Fishing also was likely an important occupation, judging from the location of many sites on rivers and lakes. On the north coast, sites have also been found on the fiord arms, some situated for access to marine resources and others probably for access to the interior. One site on the coast contains chipping flakes or tools made of quartz and quartz crystal, and a large quartz vein on a cliff was most likely exploited. Other lithic materials such as quartzite, chert and basalt may occur in other pre-contact Palaeo-Eskimo sites in the region, where hunters sat making or re-sharpening tools such as knives and spear points for use in hunting caribou, seals and other mammals and birds. Such material is most likely locally available in bedrock veins or as blocks, chunks and cobbles scattered in the glaciofluvial material or brought into the area from elsewhere. Tent rings, shelters, festival houses, caches, fox traps, kayak rests and other boulder features found to date inform archaeologists about how people lived in the past, and should not be disturbed. Graves in the area commonly occur as skeletal remains and grave goods on the surface in a stone chamber or sometimes surrounded by a ring of boulders or stones that may have held down a hide cover. Under no circumstances should human burial sites be disturbed in any way. **If any <u>suspected</u> sites are encountered during field activities, the following should occur. If time is short, minimum information should include site co-ordinates**.

- If possible, avoid any disturbance within the site (which may contain several or many boulder features such as tent rings, or scatters of lithic material); if disturbance is necessary, confine the activities to a part of the site where no bone, stone tools or boulder arrangements that may be archaeological in nature are situated. Ideally, set and maintain a 100 m buffer zone between any activity and site features. Always avoid disturbance in the vicinity of a grave.
- Check for evidence of a tent ring, hearth or wood from tent rings or other structures; if present, sketch and avoid.
- Record the location by GPS (NAD 83), by elevation, and with a dot and reference number on a map (and aerial photo if available). Describe the location, local environment (knoll, hilltop, esker, peninsula, bedrock, proximity to water, *etc*.). Photograph the suspected archaeological or other heritage material and provide a setting shot and direction of view, which will help in relocation. Add your name and contact numbers to the report. If you have a copy of a site record form, fill out a form in as much detail as you like or have time for.
- Send a report on the site or sites to Shirley Standafer-Pfister at Peregrine Diamonds, who will forward it to the firm's archaeologist for analysis.

At some point in the future, the archaeologist will visit the site(s), verify the attributes as reported, and formally record the site with the Government of Nunavut and the Canadian Museum of Civilization, appending the finder's name to the record. Many thanks for your co-operation.

Shirley Standafer-Pfister
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