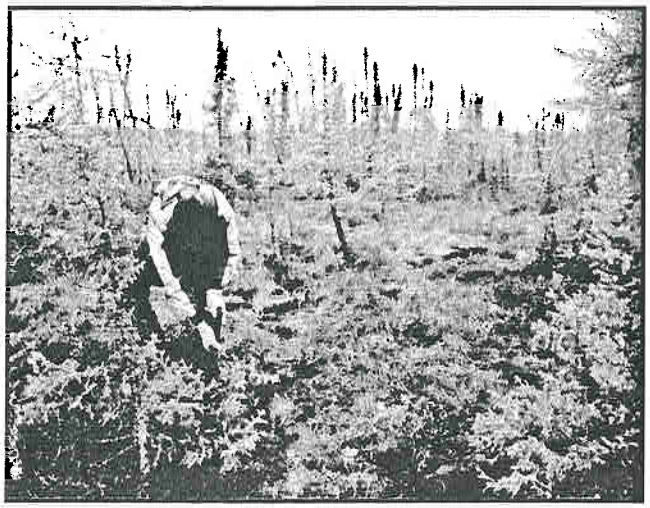
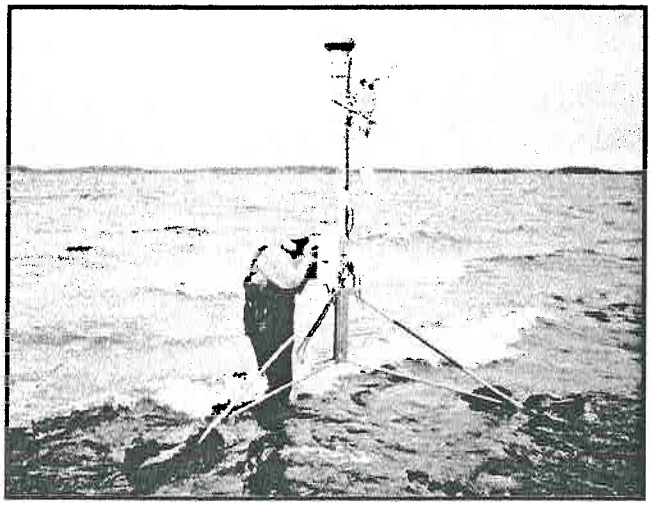
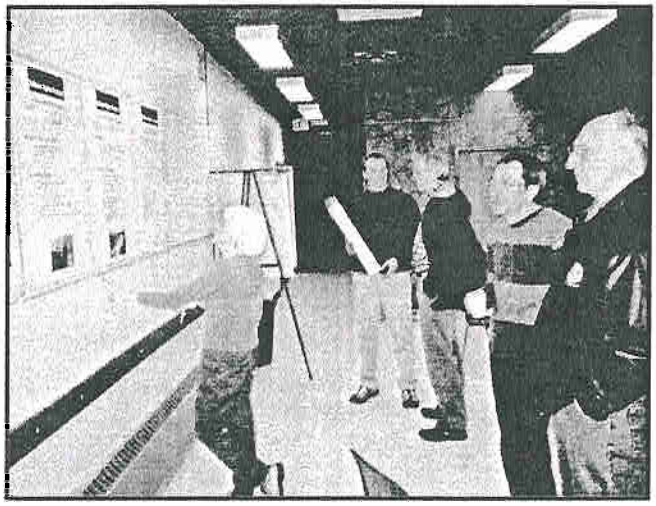
Taltson Hydro Expansion Project
2003 Baseline Report



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Of the 21 field plots surveyed in 2003, the majority were established in esker complexes and wetlands. The aerial survey covered the entire proposed corridor route and resulted in the observation of a wider range of vegetation types and topographic features. General descriptions of the areas observed from the air are provided in Appendix 4.6-3.

A list of plant species identified during field truthing has been compiled and will be used to assist with field work scheduled for 2004. The plant collection containing specimens of willows, sedges, and grasses that are difficult to identify in the field is ready to be sent to specialists for further identification.

4.7 Heritage Resources

This overview assessment was conducted through a combination of background research, topographic map review and preliminary field reconnaissance. However, due to the preliminary stage of the planning process, the emphasis in this assessment was necessarily placed on the background research.

Normally, as part of the overview assessment process, a topographic interpretation is conducted through a review of 1:20,000 to 1:50,000 maps and aerial photographs, or if air photos are not available and weather is favourable, through low and slow helicopter reconnaissance. This requires that the route be identified at least at a scale of 1:50,000. Unfortunately, the transmission line route has not yet been defined with this degree of accuracy. As a result, the 1:50,000 maps were used only as a general guide of terrain types and the helicopter reconnaissance was an overflight intended to assist in the identification of general characteristics. In consequence, it was necessary to conduct more intensive background documentary research to assist in determining the archaeological site potential. It should be acknowledged that it would have been necessary to conduct this level of background search prior to initiation of the inventory phase of the archaeological study, thus, the more intensive research is justified. Once the inventory is completed, it may be necessary to conduct more detailed research of specific archaeological sites or portions of the study area, especially if there are revisions to the route.

The research in 2003-2004 was restricted to secondary documentary sources since the route is still tentative and a review of primary sources would have required considerably more time. This research emphasized a broader area than the actual corridor in the event that route changes are identified. Also reviewed were archaeological site records on file with the PWNHC. Recorded archaeological sites were plotted on field maps and a review of the files identified the researchers responsible for their discovery as well as site and landform types. Since many of these sites were recorded in the 1960s and 1970s and detailed reports were not completed, the site files are often the primary source of information. Other sites discovered more recently as a result of gold and diamond exploration are detailed in reports, most of which were reviewed.

The major objective of the overview assessment is to compile sufficient information to determine the archaeological potential of the proposed development, in this case, a linear corridor. This requires that the corridor be well defined. Since the Taltson corridor is still tentative, the potential assessment is also tentative and general. A considerable number of archaeological investigations have been conducted near the north end of the study area. However, much of the earlier inventory work conducted by other archaeologists was on or near Great Slave Lake and it is possible to provide generalizations for that area as well.

4.7.1 Background Information

Summaries of relevant information compiled during the background review conducted for the Taltson Expansion Project are provided. Once a final route has been defined, it will be necessary to conduct topographic interpretation through use of maps and aerial photographs. The objective of the interpretation phase of the assessment would be to identify specific landforms or areas with moderate or greater archaeological potential for examination during subsequent ground reconnaissance stages of this study.

4.7.1.1 Past Environmental Conditions

There is little information available on past environmental conditions of the central interior of the Northwest Territories, but research has been undertaken in the Mackenzie corridor and to the east (Ritchie and Hare, 1971; Dredge *et al.*, 1994; Nichols, 1967; Slater, 1985 and MacDonald, 1987). This work suggests changes in vegetation through time and it is predicted that the changes would have affected animal life and possibly human use of these regions. Although these studies are not directly relevant to the Taltson study area, it is likely that similar changes in environment occurred in the region.

It has been suggested that at Eildun Lake in the Mackenzie Valley (near Wrigley, NWT), deglaciation occurred prior to 11,000 years ago (Slater, 1985). The earliest vegetation was herbaceous tundra. Through time, the shrub component increased to become dominant. Poplar entered that area as early as 10,700 years ago, followed a few hundred years later by spruce. A boreal forest consisting of alder and birch developed by 7,000 to 7,500 years ago and has remained largely unchanged to present (Slater, 1985; Macdonald, 1987). It has also been suggested that a northward expansion of the treeline occurred 8,500 to 5,000 years ago (Ritchie and Hare, 1971). During this period, areas of tundra may have been forested which could result in changes in subsistence activity. In fact, it is suggested that the treeline has fluctuated through time (Nichols, 1967) and, thus, vegetation, animal distribution and human activities could have varied. It is postulated that a cooling trend began about 3,500 years ago, followed around 2,700 years ago by increases in temperature. Climatic conditions comparable to those of present time then prevailed (Macdonald, 1987).

To the east, where the glacial retreat was somewhat later, pollen analysis suggests a relatively warm climate (compared to today) between approximately 8,000 and 6,500 years ago; this is believed to have enhanced wasting of the ice sheet. It is suggested that the tundra that fronted

the retreating ice was of limited extent and was rapidly replaced by forest cover. Between about 5,700 and 3,600 years ago, spruce and alder appear to be dominant. A cooling trend began about 5,000 years ago and from 3,650 to 2,600, fluctuations of moss and spruce pollen suggest a changing treeline. Modern conditions appear to have prevailed since approximately 1,500 years ago in the southern Keewatin District and northern Manitoba (Nichols, 1967). It is likely that the pattern of climate and vegetal cover in portions of the Taltson study area could have experienced similar changes, but at some medial point in time. Dyke and Dredge (1989) suggest that some areas were ice-free by 9,500 years before present (B.P.), while Craig (1964) notes that areas further east were unglaciated by approximately 7,000 years ago.

4.7.1.2 Plants and Animals

Vegetation studies of the proposed Taltson transmission corridor are currently underway and will be reviewed for consideration as input to more detailed archaeological assessments once data becomes available. However, in general, two ecozones are crossed: to the south, the boreal forest and near the northern end of the corridor, the transition zone. The following information was compiled from a variety of sources, including EBA (2002), Gordon (1996) and Sly *et al.*, (1999), as well as discussion provided in ethnographic sources that are detailed later.

Of importance to both zones are the caribou herds that move south to the treeline in the fall and north to the calving grounds in the spring. Caribou played a major subsistence role in the lives of aboriginal people. Wolves usually follow the caribou, their primary prey, from area to area. Grizzly bears are year-round residents of the transition and tundra regions, while black bear can be found in the forested areas. Generally evident year-round in most regions are fox (Arctic or red), wolf and wolverine. In addition, ground squirrels, snowshoe and Arctic hare, marten, voles, mice, lemmings and shrew are present in all or portions of the study area. The animals that require dens, tunnels or burrows commonly use glacial fluvial deposits, especially eskers. Moose are present in the forested areas, but have been known to move into the tundra during the summer. Muskoxen, depleted in the late 1800s and early 1900s by intensive hunting, are increasing on the tundra. Small numbers have been reported above Artillery Lake (Sly *et al.*, 1999). See section 4.4 for a detailed discussion of wildlife in the project area.

Eskers play an important role in the life of a large number of species. Some species use eskers for denning because they contain deposits that can be excavated reasonably easily. They are also used for travel as evidenced by the numerous caribou trails. Other animals use them as a source of forage or small game. Eskers are a prominent landscape feature — they minimally provide an elevation that permits a view of surrounding areas and have lower concentrations of bugs than lower landforms with denser vegetation cover. Because they are of value to animals, they are also of value to hunters. The importance of eskers through time has been confirmed through archaeological assessments.

Few birds are year-round residents, but migratory species pass through or use the area during the snow-free months. The following are expected to occur in the vicinity of the Taltson transmission corridor: Canada geese, other geese, Tundra swans, various ducks, red-breasted

merganser, terns, gulls, jaegers, loons and ptarmigan. Also predicted to occur in the region are various birds of prey, including bald and golden eagle, rough-legged hawk, peregrine falcon and gyrfalcon. Many of these species were hunted.

A number of fish species are also likely represented in the Taltson study area and similar regions, including lake trout, Arctic grayling, whitefish, burbot, sucker, sculpin and lake chub. A number of these species were likely exploited prehistorically and/or are traditionally caught.

Other resources of both the forest and tundra were also utilized. Spruce trees provided support framework for habitation structures, such as a tipi or lean-to, and later cabins. They also supplied the material necessary for the construction of items such as snowshoes and drying frames, provided boughs for bedding, were a source of fuel for cooking and heating and provided fibre for various activities. Willow and birch were also utilized, the latter notably for canoe construction and containers. Sphagnum moss served numerous purposes and a wide variety of berries were gathered as they ripened.

4.7.1.3 Previous Archaeological Investigations

The following discussion summarizes the relevant aspects of archaeological investigations undertaken in areas surrounding the Taltson study area. Some mention of work conducted at some distance away is also provided to present a more accurate account of the status of the archaeological database in the central interior of the NWT. More detailed discussion of the site types represented within the Taltson study area is provided in a subsequent section of this report. Unfortunately information on sites found during the earlier inventories is sparse. A summary of the culture history, briefly mentioned in this section is provided in the following section.

The earliest archaeological investigation conducted in the vicinity of the Taltson study area was a 1949 canoe survey of the area between Artillery Lake and Caribou Narrows conducted by R. MacNeish. He discovered 21 sites (MacNeish, 1951), all of which are more than 20 km from the proposed transmission corridor. Site files for archaeological sites located more than 20 km were not reviewed for this study.

The next work was that conducted by William Noble (1966-1969, 1971). In 1966, Noble surveyed in the vicinity of Lutsel K'e and Fort Reliance, as well as along the north shore of McLeod Bay and Taltheilei Narrows. In 1969, he conducted excavations near Artillery Lake and Fort Reliance. As a result of his investigations, hundreds of sites were recorded, including 53 sites located within 20 km of the Taltson study area. These sites are located on the north or east shore of Great Slave Lake (Charlton Bay and Waldron and Sunken river areas), along the portage (called Pike's Portage) that provided access to Artillery Lake or at the southwestern end of this lake. One site is located between Tyrrell and Parry falls on the Lockhart River. The historic references suggest that the lower Lockhart River was not a desirable travel route and was not commonly used by the aboriginal occupants of the study area. However, the presence of at least one prehistoric archaeological site indicates that the area was utilized in the past although probably not as a travel route traversed with the regularity of the more southerly Pike's Portage.

Bryan Gordon directed archaeological investigations along the Taltson, Elk and Upper Dubawnt drainages, surveying and testing 189 sites in the process (Gordon, 1975a). He discovered almost 200 sites, only 16 of which are within 20 km of the proposed Taltson corridor. These 16 sites are located on Nonacho and Noman lakes. Unfortunately, no report detailing this inventory is available although site forms were examined. In his more recent synthesis, Gordon (1996) has identified the chronology of many archaeological sites, including those near the Taltson study area. Historic Dene camps (200 years B.P until present) are noted to occur on Great Slave Lake, as well as Nonacho and Artillery lakes. Taltheilei tradition (approximately 200 B.P to 2,600 B.P) sites are identified on these lakes, as well as Noman and Gray lakes and the Lockhart River. Arctic Small Tool tradition or Pre-dorset (2,600 to 3,500 B.P.) sites have been found at Artillery and Nonacho lakes and along Pike's Portage. Sites suggestive of the Shield Archaic (3,500 to 6,500 B.P.) tradition have been identified at Artillery Lake, while Plano has been reported for the Taltson River area (Gordon, 1996).

In 1980, an individual named Bostock recorded at least one archaeological site on the Taltson River, but the report on his work could not be found at either the PWNHC or the Canadian Museum of Civilization (CMC). Since this site may have been affected by construction of the original dam and reservoir, its status is of considerable interest.

In 1982, David Morrison surveyed the middle Lockhart River system between Aylmer and Artillery lakes. Although these sites are at least 20 km from the Taltson transmission corridor, a review of his study has confirmed the importance of the Lockhart drainage. Morrison (1982) recorded 47 sites, most of which related to the historic or the late prehistoric or could not be affiliated with a specific time. While most sites consisted of surface finds, one site contained a small Shield Archaic component found in stratified context below Pre-Dorset and Taltheilei occupations. Site types or features include lithic and artifact scatters (called by Morrison surface flake scatters), historic cairns, historic and prehistoric blinds and caches, tent rings of various ages and isolated finds. Most sites were located on elevated terrain associated with lakes and rivers, including on islands, and/or on eskers.

After the early work conducted by Noble, Morrison and Gordon, no detailed archaeological inventory was conducted in the general region until diamond exploration resulted in various environmental and archaeological assessments. Nearest to the Taltson corridor, the Snap Lake project now owned by De Beers Mining Ltd., was subjected to several seasons of field investigation, beginning in 1998. These investigations were conducted by Bussey (1998b, 2000b, 2002c, 2003c) and Thomson (2001) and resulted in the recording of 53 sites; 40 of these sites are within 20 km of the transmission route as currently proposed. The sites consist primarily of lithic scatters and/or lookouts located on eskers or other elevated landforms, especially in proximity to lakes. Seven of these sites are clustered on a section of esker south of Snap Lake that is very near the currently proposed route.

Nearby at Kennady Lake (Gahcho Kue), archaeological studies were initiated in 1996 (Fedirchuk, 1996), then were conducted seasonally from 1998 until 2003 (Thomson 2000a, 2000b, 2000c, 2001, 2003). This proposed mine is located east of Snap Lake. Over 200 sites were recorded, with only 14 being located within 20 km of the currently proposed transmission

route. Sites have been found primarily in association with lakes or rivers connecting lakes and on glacial features such as eskers or gravel and sand knolls and terraces. Thomson noted that sites are commonly clustered. The majority of these sites are lithic scatters/lookouts, but tent rings, camps, workshops, quarry and recent/traditional sites and features were also encountered.

The Tibbitt to Contwoyto winter road project was a multidisciplinary post-construction assessment of the existing winter road between Yellowknife and the Lupin mine on Contwoyto Lake in Nunavut. Originally known as the Lupin winter road, it was renamed in 2001. The diamond "rush" and development of mines has resulted in increased use of this road. The archaeological component for this project (Bussey, 2002a) resulted in the discovery of 55 new archaeological sites and the revisit of 14 previously recorded sites. The majority of these sites were identified as lithic scatters although some sites were suggestive of use as workshops, quarries, lookouts and/or camps and a few sites were isolated finds or contained tent rings. A site near Snap Lake found during the winter road survey yielded artifacts suggestive of the Arctic Small Tool tradition (Bussey, 2002a). Most sites were located on or near eskers or other glacial fluvial landforms although a number of sites were found on elevated bedrock-based terrain. A number of sites were tested and/or mitigated in 2002 because of their proximity to portages, work areas and gravel pits (Bussey, 2003b). The winter road was monitored in 2003 (Bussey, 2004b).

Although located approximately 100 km to the north, the development of the first two diamond mines in Canada, Diavik and EKATI, has resulted in a substantial increase in the archaeological database. Considerable archaeological reconnaissance was conducted for the Diavik Diamond Project located on an island in Lac de Gras. Initiated in 1995, continuing investigations were undertaken by Fedirchuk McCullough & Associates Ltd. (Fedirchuk, 1995a, 1997, 1999, 2000; Unfreed, 1997).

Fedirchuk (1995a) initially concentrated on the highest potential areas within two large islands and on selected sections of the Lac de Gras mainland. Thirty-five new archaeological sites were located, consisting mainly of isolated finds and lithic or artifact scatters, but also including habitation sites, a potential burial, a quarry (bedrock source of rock used for the manufacture of stone tools) and two stone feature sites. During the second year, more extensive investigations were undertaken and a wider range of landform types were examined; as a result, 160 new archaeological sites were discovered (Unfreed, 1997). Similar types of sites were encountered and a campsite relating to the Arctic Small Tool tradition was recorded. Many of the sites found in 1996 are not associated with eskers, especially the quarry sites, but they are generally associated with other landscape features suggestive of good archaeological potential. For example, most have been found at the height of land, along the shores of lakes or at the edge of valley systems.

Archaeological investigations for the BHP Billiton EKATI Diamond Mine located north of Lac de Gras were initiated in 1994 and have continued annually (Bussey, 1994, 1995, 1997, 1998a, 1999a, 1999b, 2000a, 2001, 2002b, 2003a, 2004a). In 1994, field reconnaissance concentrated on five proposed open pits and their associated facilities, all within a few kilometres of EKATI, and a proposed road route to the east and south. This road involved use of a large esker and was

abandoned for environmental reasons. Fifty new archaeological sites were discovered. The abandonment of the 1994 road and the selection of an alternate route necessitated a survey southeast of EKATI; this archaeological survey was undertaken in 1995 and yielded 12 new sites. In 1996, the study area was expanded to include areas to the north and east, as well as locations closer to the camp. The areas of investigation expanded further in 1997 to include localities well to the northwest and southwest. By the end of the field season in 2003, a total of 198 sites were recorded in this claim block.

In addition to archaeological survey, the testing and mitigation of sites threatened by proposed development was undertaken. Although the majority of the recorded sites are located on or near eskers, sites have also been located on the shores of lakes, at narrows and on bedrock-based elevated landforms. Most sites are lithic scatters, although lithic scatter/workshops, lithic scatter/camps, tent rings, hearths, quarries and isolated finds have also been encountered. Recent inventory in this area has confirmed the importance of caribou crossings as far back as 3500 years B.P. (before present) with the presence of numerous tools suggestive of the Arctic Small Tool tradition.

Gold exploration has also resulted in some recent archaeological investigation north of Snap Lake near Courageous Lake (Bussey, 2003d). This work involved a combination of potential assessment and ground truthing and was intended to provide direction for future studies. Three highly visible historic/traditional sites, one early exploration feature and ten prehistoric sites were recorded during this reconnaissance. Five of the ten prehistoric sites are located on an esker and three are found on high bedrock knolls or ridges. Two other sites were situated on the first elevated terrain inland from a good-sized lake and are associated with lower bedrock-based landforms. Two of the ten prehistoric sites are isolated finds, five are lithic scatters (one may have also served as a lookout), two are lithic scatters/workshops (both may have also served as a lookout) and one lithic scatter/camp. One site yielded a tool suggestive of the Arctic Small tool tradition and another site contained artifacts of the distinctive chert usually associated with this culture.

The relatively recent discovery of hundreds of sites near or north of Snap Lake, in conjunction with the density of sites found during earlier studies around Great Slave Lake, is judged to be support for the contention that there is archaeological potential within the transmission line route. The time periods associated with this use are less well known.

4.7.1.4 Culture History Summary

It has been necessary to review data from investigations conducted in surrounding areas. Until more work is undertaken within the study area itself, the assumption was made that similar environmental conditions and general archaeological traditions are represented. Only those that might be applicable are detailed, although other cultural traditions may be identified in the future.

MacNeish initiated archaeological research in the western portion of the Northwest Territories with surveys in the Upper Mackenzie drainage-Great Slave Lake area (MacNeish, 1951, 1953). Based on this work, MacNeish formed a tentative cultural sequence, which has since been modified. Noble (1971) conducted a reconnaissance program in the Great Slave Lake area and adjacent vicinities, the results of which provided for the elaboration of the regional cultural sequence and the identification of the Taltheilei tradition. Gordon (1996) recently provided a more detailed discussion of the culture history, which includes data from near the Taltson study area, as well as other work in the barrenlands (Gordon, 1975b).

Archaeological investigations suggest occupation of the Northwest Territories occurred as early as approximately 8,000 year B.P. (before present). Lanceolate (long, narrow or "lance-shaped") spear points of stone typify the earliest cultural period. It is commonly referred to as the Northern Plano tradition and is believed to be a tradition that spread into the area from the south. It is postulated that populations moved north as the climate improved after deglaciation. In Noble's (1971) early summary, he noted that sites associated with this tradition were commonly found on sand eskers and in blowouts, and that quartzite was commonly used for stone tools. There are few Plano sites identified in the Northwest Territories, but the better known sites include those near Grant Lake (Wright, 1976), on the Thelon River (Harp, 1961) and at Acasta Lake (Noble, 1971). Stewart (1991) has suggested that the low frequency of Plano sites could be the result of smaller populations, different hunting emphases and patterns (caribou may not have had the same economic significance) and/or that such sites have not been identified because they share attributes with more recent cultural periods.

The period between approximately 6,500 and 3,500 B.P. is also relatively poorly represented in the archaeological record. It has been referred to by a variety of names, including the Shield Archaic. Wright (1972, 1981) has suggested that the Shield Archaic developed from local Paleo-Indian complexes present in the region; others, such as Gordon (1996) support this contention. This tradition is believed to be associated with a warming trend that may have prompted changes in animal and subsistence behaviour (expansion of forests). Characteristic stone tools include corner-notched projectile points, wedges and a variety of knives and scrapers. Known site distribution is broader than evidenced in the Northern Plano tradition (Gordon, 1996).

Around 3,500 B.P., a cooler climatic period (associated with a retreat of the treeline) is postulated. At this time, the Pre-Dorset or Arctic Small Tool tradition makes its appearance. This tradition, unlike the two earlier ones, is identified as Paleo-eskimo and it is postulated that it moved in from the north in response to changing climatic conditions. It is believed to represent a distinctive caribou-adapted lifestyle. The stone tools associated with this tradition are noticeably smaller, thinner and better fashioned. Fine-grained chert appears to be the preferred material for a number of tool types. Point characteristics include concave bases, triangular outlines and side-notches. Other tool types include wedges, scrapers, burins and knives (Clark, 1975; Gordon, 1975b, 1996; McGhee, 1970; Noble, 1971; Wright, 1981). In Noble's (1971) early summary, he noted that sites associated with this tradition were located on sand exposures, in protected bays, on sheltered points, on eskers and on islands. Variations of this tradition have been found throughout much of the subarctic during this period (Gordon, 1996). The Tibbitt to Contwoyto

winter road, EKATI, Seabridge and Diavik archaeological investigations have all identified this tradition.

Approximately 2,500 B.P. the Arctic Small Tool tradition is replaced by the Taltheilei tradition, which continued until 200 B.P. The Taltheilei tradition is associated with Athapaskan occupation of the Northwest Territories. Tools are commonly made of a grey siliceous shale or quartzite; specimens of chert, basalt, red slate and other materials have also been recovered. The use of native copper has been associated with this period. The Taltheilei tradition is typified by a variety of point styles, including lanceolate and side and corner notched specimens. It is associated with barrenland and forest environments and involves heavy dependence on caribou hunting (Clark, 1977; Gordon, 1975b, 1996; Noble, 1971; Wright, 1981). It is assumed that the majority of the sites found in recent years are the remnants of this tradition although use earlier in time is possible.

4.7.1.5 Historic Summary

It is evident from the research conducted, that regions at the southern end of the Taltson study area saw intensive use during the historic period. The nearest current communities are Fort Smith, Fort Resolution and Lutsel K'e (previously Snowdrift), all originally formed as posts or forts. Numerous other posts and camps were once present along the shores of Great Slave Lake and in inland sections of the various rivers and creeks flowing into this lake.

The earliest evidence of non-native incursions into the central inland portion of the NWT was the exploration undertaken by Samuel Hearne. In 1769 and 1770, Hearne made two attempts to find the source of native copper in the vicinity of what became known as the Coppermine River (Hearne, published in 1911). Leaving Churchill on Hudson's Bay, it is believed that Hearne reached Dubawnt Lake during his second trip, but his first was short-lived. In 1771-72, he used a more southerly route and eventually reached the Coppermine River. Although the actual routes utilized are under debate, he did travel through the areas north and east of Great Slave Lake and therefore passed through some parts of the Taltson study area.

Around 1790-91, Philip Turnor and Peter Fidler visited the Great Slave Lake area. Turnor traveled to Great Slave Lake and visited the newly built "Canadian House" near the mouth of the Slave River (Turnor, 1934). He then returned to Athabasca Lake. Fidler (1934) wintered with a band of Chipewyans along the southern part of Great Slave Lake and on the lower Taltson River system.

In 1833, George Back headed east from Fort Resolution and traveled along the east shore of Great Slave Lake (Back, 1970). He mentions Rein-deer Islands and Mackenzies's Cape during his travels. He named a group of islands the Simpson's group and notes that Point Keith was named after the Company's agent in Montréal (presumably by Back). He identified Christie's Bay as being named after Chief Factor Christie who had provided considerable assistance. He then headed along the north shore of Great Slave Lake via a narrow passage called Tal-thel-leh, meaning "the part that does not freeze". Mentioned on the north shore of Great Slave Lake is a

large feature called by the Chipewyan and Yellowknives "The Mountain". The natives reported leaving their canoes nearby when going into the barrenlands to hunt.

Back ascended Hoarfrost River and notes the presence of an Indian Camp at Cook's Lake. He used the name Hoarfrost without comment, which suggests that this name may be an English translation of the existing native name or had already been named by someone else. He did name the first falls he encountered on that river Beverly's Falls, after his friend who accompanied William Parry to the Arctic Ocean (1970) and named Cook's Lake after another friend (1970). From here he headed northeast to Walmsley Lake, which he named after the Rev. Dr. Walmsley (1970). He also named Clinton-Colden and Aylmer lakes. Back spent two winters at Fort Reliance, built for his use by Alexander McLeod of the Hudson's Bay Company.

Back is responsible for naming a number of other landscape features in this area. He called the Lockhart River at Great Slave Lake Ah-hel-dessy in 1833-34. From Back's description, it was not a river used by the local residents; one of his local men stated that "the Indians never attempted it in any manner, either up or down" (1970). Back noted that they had to abandon the attempt to canoe it and even walking along the banks was difficult (1970). When they reached Great Slave Lake, McLeod expressed surprise at their taking that route. He stated that "He had expected that our route would have been by a small river about a mile to the eastward, invariably used by the Chipewyans or Yellowknives, whenever they proceed in that direction" (1970). When this area was visited, the presence of a number of canoes stored in the bushes was noted. The route was identified as relatively easy to walk.

Other place names attributed to Back include: Artillery Lake named "....out of respect to the distinguished corps (the Royal Artillery) to which some of my crew belonged, and from a grateful remembrance of the deep interest manifested by its officers for the success of the expeditions and for their friendly courtesies to myself..." (1970); Parry's Falls named after Sir Edward Parry a celebrated navigator (1970); and Anderson's Falls named for Captain Anderson (1970).

James Anderson and James Stewart were two officers of the Hudson's Bay Company sent to verify Inuit reports of some Franklin expedition remains in the northern reaches of Back's River (Barr, 1999). They followed the Mountain portage route, noted by Back's informants to be a Native route, to Alymer Lake, via Barnston, Campbell, Ross, Margaret and Back's lakes. They named the aforementioned lakes, with the exception of Alymer. They returned to the northeast arm of Great Slave Lake via Artillery Lake. James Lockhart, who had rebuilt Fort Reliance in the expectation that it would be used by these explorers met them at Artillery Lake, being guided by a native that knew the Indian canoe route (now known as Pike's Portage).

Warburton Pike was an adventurer who in the late 1880s traversed the barrenlands to learn about (translate hunt) the little known muskox. In company with Chipewyan and Métis guides, his travels took him to MacKay Lake, Lac de Gras and various points north (Pike, 1892). He began his expedition by canoeing along the east side of Great Slave Lake from Fort Resolution. He camped at various islands along the way. He utilized a chain of lakes in the western portion of the northeast arm of Great Slave Lake to connect with a chain of larger lakes, including Lac du

Mort, Lac du Rocher and Camsell Lake, to reach MacKay Lake. Native people apparently often used this route. He returned via the portage route southeast of Lockhart River. During his second journey he used another chain of lakes east of his first route and again returned to Great Slave Lake via Artillery Lake and the portage that later became known as Pike's Portage. Others have identified this portage as the traditional native route. There are one or more partial alternatives to this route that may have been utilized, but this required the caching of canoes. Pike (1892) notes a Yellowknife encampment at the western end of Artillery Lake

Another individual interested in hunting, Hanbury (1904), recorded details of landscape and geology in his travels, which included traversing Pike's Portage to Artillery Lake in 1899. From there he went on to Campbell Lake and followed the Thelon River to Hudson's Bay. In the early 1900s, Tyrrell conducted an exploratory survey east of Great Slave Lake. In his report, he identifies that they named Charlton Bay (Tyrrell, 1901) and utilized Pike's portage, which he reportedly mapped (Seton, 1911). Tyrrell also noted the presence of many "old Indian camps" (1901). In 1907, Seton (1911) traveled along the east side of Great Slave Lake, utilized Pike's Portage to reach Artillery Lake and continued on to points northwest. He notes meeting Dogribs at the Taltheilei Narrows first identified by George Back as a fishery. In 1914, Camsell (1916) conducted an exploration of portion of the Taltson River system and provided detailed descriptions of the landscape features and geology of the route. He noted that Indian from Resolution utilized the Taltson to access interior lakes and that there were no summer trails, except for the portages, which were broken and very rocky. He further noted that winter trails were numerous and identified locations of containing Indian camps, graves and travel routes encountered in his travels.

Other explorers and surveyors traveled through the area, but the above represent the major historic expeditions. Also of note, are a number of forts and posts that were constructed, most as a result of the fur trade, but others as an aid to travel. The following brief summary is primarily from Symthe (1968), Usher (1971), Voorhis (1930) and Young (1970). As stated previously, Fort Reliance (shown on topographic maps as Old Fort Reliance) was constructed at the far northeast end of Great Slave Lake in 1833 for George Back. It reportedly consisted of a building that was 50 feet long and 30 feet wide, divided into five rooms, each with a fireplace (Young 1970:23). It was utilized for two winters before being abandoned. Although reconstructed for Anderson and Stewart in 1855, they apparently did not winter there. It is the fort located nearest the proposed Taltson transmission line and remnants of the chimneys are still evident. There was a village nearby until fairly recently and evidence of camps and cabins have been noted.

In 1786, Cuthburt Grant and Laurent Leroux established two trading houses on the south shore of Great Slave Lake, a location referred to as Slave Fort. Slave Lake Fort was later relocated to Moose Deer Island, close to the present location of Fort Resolution. The new location was under the operation of the Northwest Company. The Hudson's Bay Company established Chiswick House in the Slave River delta in 1803, but it was abandoned after the 1805-1806 season. The Hudson's Bay Company relocated to Moose Deer Island by 1815 and by 1819 their operation became known as Fort Resolution. The fort was moved to its present site on the mainland opposite the island in 1822 (Young, 1970). Fort Resolution was an important fur trading

location and also served as a "fish post" providing fish for the fur brigades. Fort Smith is located at the rapids on the Slave River. It was established in 1874 by the Hudson's Bay Company.

An increase in the number of independent traders is noted after the 1890s with a number of posts being opened, primarily at established forts. Fort Resolution remained the chief trading centre and there were six trading posts or houses at this location by 1902 (Usher 1971). In the 1920s and 1930s, an influx of trappers and traders resulted in a number of posts being established, primarily on the Slave and Taltson rivers and the East Arm of Great Slave Lake. Most of these outlying posts were abandoned by the mid-1940s, with the exception of Rocher River, Snowdrift and Reliance (Usher, 1971).

Three posts were established near the mouth of the Taltson River in the early 1900s (Usher, 1971). Five establishments, one belonging to the Hudson's Bay Company and four independents, were located at Rocher River for varying lengths of time. Two posts were slightly upriver and involved independent traders; one was known as Snuff Channel and the other as Rat River. These three posts are well removed from the proposed Taltson transmission line, however they are located downstream of the Twin Gorges Generating Station. A post called "Whiskey Creek" was located about 2 miles above Napie Falls. It was established in 1933 by an independent trader, but was abandoned by 1940. It is over 5 km east of the transmission corridor. Two independent posts are located on tributaries south of the Taltson River in this general area: one at Hanging Ice Lake and the other at Star Lake. Two posts, involving a number of traders, were established on Thekulthili Lake between 1924 and 1933. These were all closed by 1947 and are over 15 km from the study area. One post established on the north shore of the west arm of Nonacho Lake is within 5 km of the transmission corridor. It was a short-lived (1927-1928) independent post. The first post was established in Snowdrift (now Lutsel K'e) by the Hudson's Bay Company in 1927. A few independent traders were also established here for various lengths of time. The Hudson's Bay Company also established a post at Reliance on the northeast arm of Great Slave Lake, but not at the same location as the original Fort Reliance. This post was opened around 1926 and is believed to have closed around 1930 (Usher 1971).

4.7.1.6 Ethnographic Summary

Ethnographic sources indicate that a number of aboriginal groups traditionally utilized the region crossed by the proposed Taltson transmission corridor and archaeological investigations confirm that human use of this area is not limited to the historic period. This area was utilized for a variety of purposes, including hunting and trapping. Caribou was the most important game animal, but muskox and hare were hunted for food, and wolves, foxes and wolverine for their fur. Hares are not a major food source, but they are "an animal that is by no means to be despised, as it is fully as big as an English hare and will at a pinch provide a meal for a small party" (Pike, 1892). Of course, many other animals, birds and plants were used when necessary.

Several groups have knowledge of all or portions of this corridor, including the Yellowknives, Dogrib, Chipewyan and Métis. Ethnographic information on these northern groups is available in numerous reports and primarily aspects relevant to the determination of archaeological

potential are summarized in this section. Ethnographic sources for each group are listed in the references, but include Birket-Smith (1930), Gillespie (1975); Helm and Lurie (1961), Mason (1946), D. Smith (1976) and Vanstone (1965). Gillespie, Helm, Slobodin and J. Smith compiled summaries of each group in 1981 and D. Smith (1981) provided additional information relating to Fort Resolution.

The major use of the barrenlands was for subsistence – hunting, trapping and fishing, with emphasis on hunting and trapping. Gathering was not a major economic activity, but berries would be harvested as they became available and other products were collected. The major game was caribou. Use of the barrenland was seasonal and the majority of the habitation sites were below the treeline where a range of subsistence activities were conducted. Caribou were a very major food source and their hides were important for clothing, shelter and other purposes.

Helm (1981) indicated that the majority of the Dogrib were located in the western portion of their territory (between Great Slave and Great Bear lakes), but that they ranged as far as Point Lake and Contwoyto Lake for caribou hunting. In preparation for the caribou hunt, Dogrib groups would often converge on Wekweti (Snare Lake), a centrally located Dogrib community. Gillespie (1981) indicated that the Yellowknives were located in the forests and barrenlands adjacent to the eastern end of Great Slave Lake, while Smith (1981) defined Chipewyan territory as east and south of Great Slave Lake. All three groups hunt caribou. Other animals were hunted on the barrenlands as well, but their acquisition was likely peripheral to the caribou hunt. Smith (1981:684) notes that the Chipewyan were more adept at hunting moose and suggests they were also more reliant on trade goods having been exposed for a longer period of time. Because of the environmental similarities (and territorial overlap), the subsistence behaviour and use of the barrenlands and forests by all three groups is similar.

The early Métis arrived with the fur trade and were originally from the Red and Saskatchewan river valleys. They manned the canoes and York boats of the fur trade and served as interpreters, hunters and fishermen. They traveled into and utilized the areas frequented by others, alone and in company with others to hunt, trap and fish.

Prior to the arrival of trade weapons, the bow and arrow, spears, deadfalls, snares and clubs were used to hunt a variety of animals. Travel during the snow free months was by canoe; canoes were constructed of birch bark. The canoe and supplies had to be transported overland at the various portages. Snowshoes, sleds and dogs facilitated travel in winter. Throughout the year, camps had to shift in response to the availability and suitability of the subsistence resources. Easily transported shelters were required and lengths of wood would often be packed into the barrenlands for heating water and cooking food. Typically, several families would travel together to the barrens. On other occasions, women and children would be left at the treeline to fish and gather while the hunters proceeded into the barrenlands (Birket-Smith, 1930; Gillespie, 1981; Helm, 1981; Mason, 1946; Smith, 1981).

Mason (1946) refers to the Dogrib as "edge of woods" people and indicated they often hunted caribou in the barrenlands during the summer. They are Athapaskan speakers. Winter was a preferred time for hunting muskox as the hides were in prime condition. Parties of men and dogs

would travel into the barrenlands for these hunts. Moose were hunted individually or in the process of conducting other activities, as were bears; both were commonly snared, then dispatched with bow and arrow or spear. Deadfalls were also utilized. Moose hunting was most common in the fall and winter. Closely spaced spruce poles formed teepees that were approximately 12 feet in diameter and covered by hides or snow, depending on the season; a central hearth was common. Blankets or hides were used on the barrenlands, while spruce boughs served as beds in the forests.

The Yellowknives are also Athapaskan speakers. Mason (1946) suggests that Yellowknife traditions relate to the Coppermine River. He uses as examples the manufacture of items from pounded native copper and the history of considering the Inuit as the enemy. The Yellowknives also traveled seasonally into the barrenlands to hunt caribou and muskox. Mason indicates that the Yellowknives would surround muskox and set snares or drive them into water and shoot them. Bears were hunted using the bow and arrows, rifles, snares or log-falls. He describes the barrenland tipi as consisting of a dozen poles and being shorter and smaller than those used on the plains. The covering was of caribou skin and as many as 40 would be necessary. Brush and snow would be used for extra insulation in winter and the hearth was centrally situated (Mason, 1946).

Helm (1981) has briefly summarized the post-contact Dogrib annual cycle starting with their arrival at posts in late June or early July; the objective was to trade the furs trapped in early spring. The Dogrib would then return to the bush to catch and dry fish. The men would hunt caribou on the barrenlands in late July and early August when the caribou would be heading south. Fishing would continue though September and October with a brief hiatus for ice to form on the lakes. November and December were identified as the best times to hunt and trap for furs. It is noted that at this time caribou are present in the woods in relatively large herds. Subsistence in January and February generally depended on stored foods. March saw a return to caribou hunting; other hunting, trapping and fishing was also undertaken during this period. The winter furs were then taken to posts in April or May and the remainder of the spring was spent hunting, trapping and fishing (Helm, 1981). Yellowknives and Chipewyan annual rounds were similar.

Smith (1981) notes that the Chipewyan would concentrate in larger group when the caribou concentrated and would disperse into small groups when the caribou were more dispersed. They utilized the chute and pound method for caribou hunting and would snare, spear or shoot individual animals. The Chipewyan acted as middlemen in the fur trade, trading with the Yellowknives and Dogrib prior to the establishment of forts in their territories. Winters were spent in the forests and the hunting of fur-bearing animals was marginal to subsistence. Contact resulted in adaptations to hunting strategies, the seasonal round and areas of use.

Working with aboriginal elders, land users and youth, information of value to archaeological assessments has been shared and is provided in this paragraph. Eskers are important for burials because the soil is loose enough that it is possible to excavate a grave. The leeward side of an esker is a good location for a camp during cold, wet weather. The tops of eskers are important for viewing game and avoiding the bugs. Eskers are important because animals use them for travel, forage and denning. A camp would not be placed too close to an esker if trapping fox

because doing so would scare the game. Islands are a good place for camps because it is harder for bears to get to them. Note that ethnographic and historic accounts confirm that locations suitable for caribou to cross a large lake or river during their migrations are important places that are revisited; archaeological research has confirmed this. That traditional knowledge, such as these examples above, contributes substantially to an archaeological study is evidenced by work such as that conducted by Andrews and Zoe (1997). Traditional knowledge studies relevant to or conducted in surrounding areas include those by the Autsyl K'e Dene First Nation (2001), Dogrib Treaty 11 Council (2000), North Slave Métis Alliance (1999) and Yellowknives Dene First Nation (1997). Additional information of value to the Taltson study could be compiled in consultation with First Nation's elders and aboriginal and non-aboriginal land users.

4.7.2 Archaeological Site Distribution along the Proposed Transmission Line

The historic background review has indicated that the Great Slave Lake area was particularly important during the exploration and fur trading periods. The ethnographic research has indicated that one or more aboriginal groups have utilized all portions of the Taltson study area and the archaeological record indicates such use also occurred much earlier in time. Although evidence from the last 2,600 years is likely the best represented, there are sites associated with the Arctic Small Tool tradition (approximately 2,500 to 3,500 years B.P.) on or near the proposed corridor. In addition, there is the suggestion of earlier Shield Archaic and Plano sites east of Great Slave Lake and such sites could be encountered. The archaeological database has revealed that these sites are located on a variety of landform types, the majority of which would be assigned moderate or high archaeological potential.

In the following, the types of sites, landform types and distribution of sites has been analyzed to assist in the determination of archaeological potential for the proposed Taltson transmission line route. The information recovered during the background research was utilized, in conjunction with a review of the 1:250,000 field route maps and 1:50,000 topographic maps, to discuss the archaeological potential of the corridor in general terms. It will be necessary to undertake detailed topographic assessments once a final route is selected and aerial photographs are available and/or detailed low and slow helicopter reconnaissance can be conducted.

Coordinates for the proposed transmission line were provided and a request for recorded archaeological site data was submitted to the PWNHC using these locations. The original request involved two sets of data. The first was all information for recorded sites within 2 km and of the corridor. The second was a request for similar data within 5 km of the corridor. Once it became evident that relocation of the corridor could occur and might involve distances greater than 5 km, a request for site data within 20 km was later filed and received. The information was then classified as sites within 2 km (Table 4.7-1), sites greater than 2 km and less than 5 km (Table 4.7-2) and sites more than 5 km and less than 20 km (Table 4.7-3). There are 12 sites within 2 km of the transmission coordinates, 18 recorded sites within 5 km and 94 sites within 20 km of the corridor (Tables 4.7-1, 4.7-2 and 4.7-3).

It should be acknowledged that different researchers use slightly different terminology to define site types and features. As a result, there appears to be a variety of site types documented when in reality the differences may be quite minor. An attempt at some standardization has been undertaken, but not at the cost of descriptiveness. Only general location data is provided for these archaeological sites as a security measure because many are reasonably accessible (Figure 4.7-1). The known and predicted distribution of sites is summarized since the corridor is not well defined at this time.

A lithic scatter is an archaeological site consisting of a scattering (which may be sparse, moderate, dense, *etc.*) of stone artifacts consisting of tools and flakes (the pieces removed and discarded during the manufacture of tools). These are also referred to as surface flake scatters and artifacts scatters. Some researchers refer to very dense lithic scatters as workshops, while other require that there be dense concentrations of lithics as well as cores or a quarry. A core is a rock that is struck to remove flakes. A quarry is a bedrock source of rock suitable for stone tool manufacture. One researcher refers to any site that is elevated and provides a viewpoint as a lookout, but the majority of these sites would qualify as lithic scatters. Generally it is not known if buried deposits are associated with the visible surface artifacts of the above site types unless subsurface testing was conducted. Few of the sites within 20 km of the corridor appear to have been tested, with the possible exception of those found by Noble. Work at EKATI has confirmed that many lithic scatters also contained buried, albeit usually shallowly buried, archaeological material.

Table 4.7-1
List of Archaeological Sites Within 2 km of the Proposed Transmission Line Route

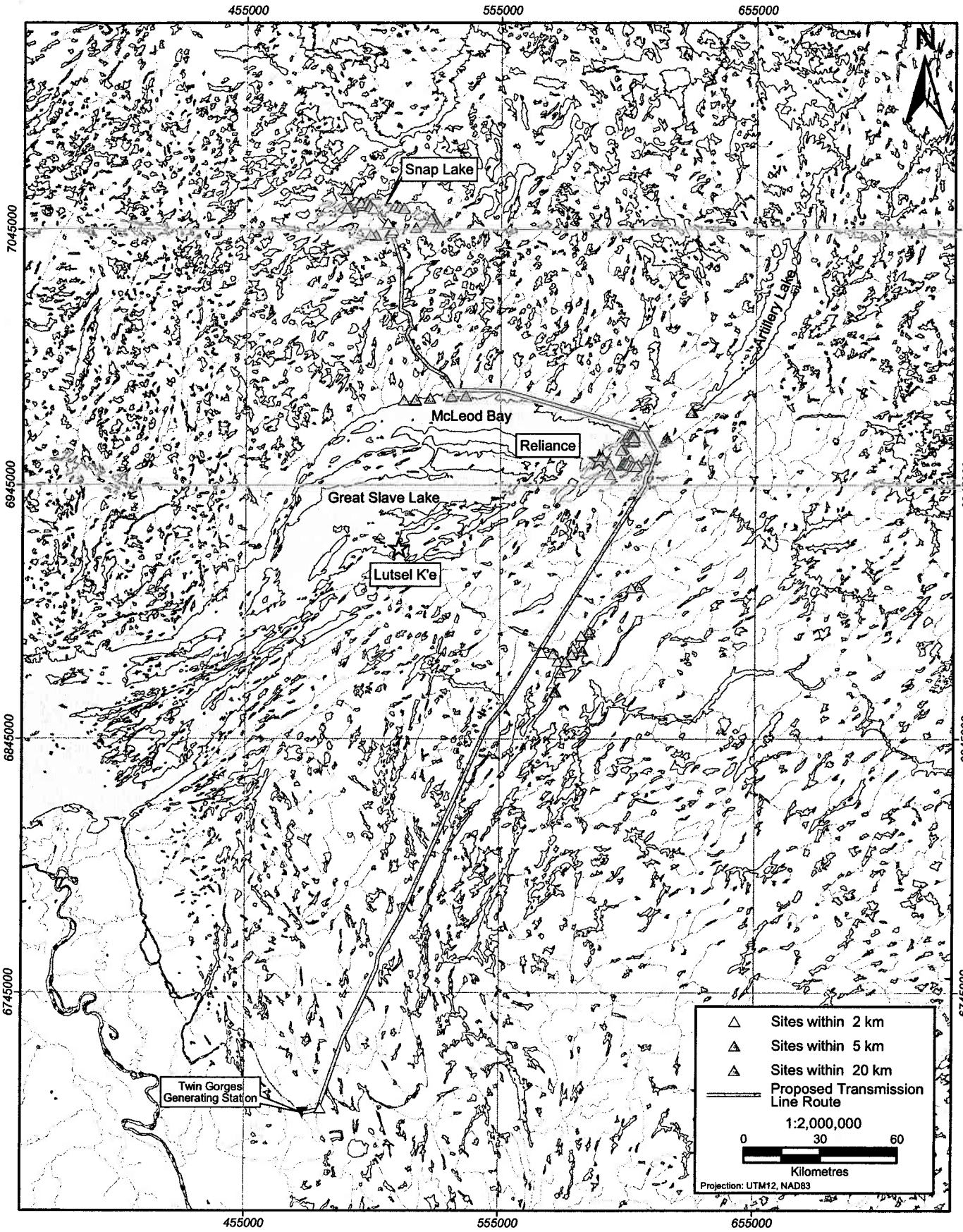
Site No.	Site Type and Location	Landform
JcOt-1	lithic scatter (dense) – Taltson River	east bank of river
KaNq-8	lithic scatter - Nonacho Lake	on lake
KeNo-8	lithic and hearth scatter/camp – Lockhart River	ridge on high bank
KjNu-1	lithic scatter – Snap Lake	esker near lake
KjNu-2	lithic scatter – Snap Lake	esker near lake
KjNu-3	lithic scatter – Snap Lake	esker near lake
KjNu-4	lithic scatter/camp – Snap Lake	esker near lake
KjNu-5	lithic scatter – Snap Lake	esker overlooking creek
KjNu-6	isolated find – Snap Lake	esker overlooking creek
KjNu-7	isolated find – Snap Lake	interior section of esker
KjNu-8	isolated find – Snap Lake	esker remnant on small lake
KjNu-25	lithic scatter – Snap Lake	bedrock exposure on lake

Table 4.7-2
List of Archaeological Sites Between 2 km and 5 km of the Proposed Transmission Line Route

Site No.	Site Type and General Location	Landform
KeNo-2	hearth, lithic and bone scatter – Charlton Bay	west side of narrows between two bays on lake terrace
KeNo-3	lithic scatter – Charlton Bay	elevated sand exposure behind rock ledge
KeNo-4	lithic scatter – Charlton Bay	high rocky area on north side of bay
KeNo-5	lithic scatter – Charlton Bay	high rocky area on north side of bay, slightly inland
KeNo-6	lithic and fire cracked rock scatter – Charlton	rock point on bay near river
KeNo-7	hearth scatter (lithic) – Charlton	high rock promontory at confluence
KeNo-9	lithic scatter – Charlton Bay	bank on bay near river confluence
KeNo-10	hearth scatter (lithic)/camp – Charlton Bay	old beach ridge/strand
KeNo-11	lithic scatter/camp – Charlton Bay	old beach ridge/strand
KeNo-12	lithic scatter – Charlton Bay	west end of small lake near bay
KeNo-37	hearth scatter (lithic) – French Lake	on lake on portage route
KfNs-1	hearth scatter (lithic) – McLeod Bay	old beach terraces
KfNs-2	hearth scatter (lithic) – McLeod Bay	head of rocky cover near confluence
KfNs-3	lithics outside of cave – McLeod Bay	cave on rocky elevation near confluence
KjNu-16	lithic scatter – Snap Lake	elevated rocky landform on lake
KjNu-17	isolated find – Snap Lake	elevated rocky landform on lake
KjNu-18	non-site – Snap Lake	low bedrock exposure on lake
KjNu-19	non-site – Snap Lake	low bedrock exposure on lake

Rocks used in association with a hearth or fire pit often crack in a distinctive manner as a result of heating and cooling. These types of rocks are referred to as fire cracked or fire broken rocks and in many of the early site forms were used as a site descriptor, as was hearth scatter. Sites containing hearths or other rock features (such as tent rings) or those with dense and varied artifacts (especially a variety of tools) are often referred to as camps; other identifiers, such as lithic/hearth scatters, may be used in conjunction. Often sites with larger rings of stone are identified simply as tent rings and imply a camp or habitation site.

Sites containing a single artifact, whether a tool or flake, are identified as an isolated find. A site with a strategic viewpoint is often identified as a lookout although that is a functional rather than a descriptive term and is not used by all researchers. Cabins are structures or structural remnants and relate to the historic or recent period. Camps consisting of less permanent structures have also been associated with the historic and recent periods. Generally the historic period contains evidence of the use of metal tools and implements. It is not always possible to separate historic and recent sites strictly on the basis of remains and in the absence of documentary information, it may be necessary to estimate site age.



Approximate Locations of Recorded Archaeological Sites for the Proposed Transmission Line Route

FIGURE 4.7-1

Rescan

Table 4.7-3
List of Archaeological Sites Between 5 km and 20 km of the Proposed Transmission Line Route

Site No.	Site Type/ General Location	Landform
JlOi-1	camp/lithic workshop – Nonacho Lake	east side of narrows
JlOj-2	lithic scatter/camp – Nonacho Lake	island
KaNp-1	lithic scatter/prehistoric burial - Nonacho Lake	island
KaNp-2	lithic scatter/lookout – Nonacho Lake	ridge/bedrock outcrop near lake
KaNp-3	camp – Nonacho Lake	spit on lake
KaNq-1	lookout/workshop/lithic scatter – Nonacho Lake	head of bay
KaNq-2	lithic scatter/quarry – Nonacho Lake	high ridge near lake
KaNq-3	isolated find – Nonacho Lake	ridge on point near lake
KaNq-4	camp/lithic scatter – Nonacho Lake	flat area along shore
KaNq-5	isolated find – Nonacho Lake	island near narrows
KaNq-6	camp/bone scatter – Nonacho Lake	spit on lake
KaNq-7	camp/lithic scatter – Nonacho Lake	tip of large peninsula
KaNq-9	lithic scatter – Nonacho Lake	island in lake
KbNo-1	lithic scatter – Noman Lake	spit on lake
KbNo-2	lithic scatter – Noman Lake	spit on lake
KdNp-1	hearth and lithic scatter/camp – Charlton Bay	spit and bedrock ridge on lake
KeNn-1	historic grave/hearths – Kipling Lake	sandy bank on lake
KeNo-1	lithic scatter/historic camp – Charlton Bay	old beach/lake terrace
KeNo-13	Old Fort Reliance – Charlton Bay	old beach/lake terrace
KeNo-14	historic camp – Charlton Bay	old beach/lake terrace
KeNo-15	historic camp – Charlton Bay	beach terrace at creek confluence
KeNo-16	camp/caribou fence – Charlton Bay	ridge on creek near lake
KeNo-17	lithic scatter – Charlton Bay	high rocky outcrop overlooking bay
KeNo-18	lithic scatter – Charlton Bay	high rocky outcrop overlooking bay
KeNo-19	lithic scatter/historic cabin – Charlton Bay	low sand ridge on point
KeNo-20	hearth and lithic scatter – Charlton Bay	rock ledge overlooking sand beach
KeNo-21	lithic scatter/historic camp/graves– Charlton Bay	series of elevated beaches/terraces
KeNo-22	lithic scatter – Lobo Creek	north side of creek
KeNo-23	lithic scatter – Lobo Creek	low ridge south of creek
KeNo-24	lithic scatter – Lobo Creek	steep sand bluff south of creek
KeNo-25	lithic scatter and fire cracked rock – Lobo Creek	edge of sand bank near bend in creek
KeNo-26	hearth and lithic scatter/camp – Glacier Creek	high bluff/terrace south of creek
KeNo-27	lithic scatter – Glacier Creek	sandy hill at confluence of two creeks
KeNo-28	lithic scatter – Glacier Creek	sloping esker-ridge south of creek
KeNo-29	artifact scatter – Charlton Bay - Glacier Creek	high rocky headland overlooking bay
KeNo-30	quarry/camp – Glacier Creek	inland section of high rocky headland
KeNo-31	hearth and lithic scatter – Glacier Creek	high sand ridge north of creek
KeNo-32	artifact scatter/historic camp – Glacier Creek	sandy hill north of creek
KeNo-33	camp – Glacier Creek	top of steep incline (height of land)
KeNo-34	camp and hearth scatter – Glacier Creek	high sandy bluff
KeNo-35	lithic scatter – Glacier Creek	west bank of creek
KeNo-36	lithic scatter/recent camp – Harry Lake	creek/lake terraces
KeNo-38	hearth and lithic scatter/recent camp – Harry Lake	high sandy terrace
KeNo-39	hearth and lithic scatter – Harry Lake	high sandy ridge on lake

(continued)

Table 4.7-3
List of Archaeological Sites Between 5 km and 20 km of the Proposed Transmission Line Route (Continued)

Site No.	Site Type/ General Location	Landform
KeNp-1	lithic scatter – Fairchild Bay	rocky point on bay
KeNp-2	historic camp – Charlton Bay	open sandy point on island
KfNn-9	hearth and lithic scatter – Artillery Lake	esker on lake
KfNn-10	lithic scatter – Artillery Lake	sand and gravel peninsula
KfNt-1	cemetery/camp – Waldron River	point overlooking bay
KfNt-2	camp – Waldron River	raised beach on bay
KfNt-3	camp – Waldron River	rocky point near mouth of river
KfNt-4	burial – Waldron River	west bank of river
KfNu-3	camp and cabins – McLeod Bay	west side of creek on lake
KjNt-1	workshop – Lac Capot Blanc	gravel terrace on pond
KjNt-2	lithic scatter/lookout/camp – Lac Capot Blanc	gravel and boulder terrace on pond
KjNt-3	isolated find – Lac Capot Blanc	bedrock slope near lake
KjNt-5	isolated find – Lac Capot Blanc	esker near lake
KjNt-6	camp – Lac Capot Blanc	head of bay near esker
KjNt-7	lithic scatter – Lac Capot Blanc	esker near lake
KjNt-8	lithic scatter – Lac Capot Blanc	esker on lake
KjNt-9	isolated find – Lac Capot Blanc	terrace between lake and esker
KjNt-10	lithic scatter/camp – Lac Capot Blanc	esker on lake
KjNu-9	lithic scatter – Snap Lake	esker at creek
KjNu-10	isolated find – Snap Lake	adjacent to esker at creek
KjNu-11	lithic scatter/lookout – Snap Lake	esker overlooking creek and lake
KjNu-12	lithic scatter/lookout – Snap Lake	knoll overlooking small lake
KjNu-13	lithic scatter/lookout – Snap Lake	ridge overlooking small lake
KjNu-14	stone markers (likely recent) – Snap Lake	low bedrock ridge overlooking lake
KjNu-15	lithic scatter/quarry/workshop – Snap Lake	bedrock outcrop on bay
KjNu-20	quarry – Lac Capot Blanc	boulder terrace on lake
KjNu-21	lithic scatter/lookout – Lac Capot Blanc	gravel terrace on lake
KjNu-22	quarry/workshop – Lac Capot Blanc	bedrock isthmus between two lakes
KjNu-23	lithic scatter/lookout – Lac Capot Blanc	lake terrace
KjNu-24	lithic scatter/lookout – Lac Capot Blanc	knoll on lake
KjNv-1	historic hunting site - Camsell Lake	bedrock ridge between two lakes
KjNv-2	historic or recent cabin - Camsell Lake	knoll on pond
KjNv-3	lithic scatter/lookout - Camsell Lake	gravel terrace near bedrock on pond
KjNv-4	historic or recent camp - Camsell Lake	esker on island
KjNv-5	lithic scatter/lookout - Camsell Lake	esker on island
KjNv-6	lithic scatter/lookout – Camsell Lake	esker on island
KjNv-7	lithic scatter/workshop/lookout - Camsell Lake	esker on island
KjNv-8	lithic scatter/lookout - Camsell Lake	esker on island
KjNv-9	lithic scatter/lookout - Camsell Lake	esker on island
KjNv-10	lithic scatter/lookout - Camsell Lake	esker on island
KjNv-11	lithic scatter/lookout - Camsell Lake	esker on island
KjNv-12	lithic scatter/lookout - Camsell Lake	rocky ridge between pond and lake
KjNv-13	lithic scatter/lookout/ workshop - Camsell Lake	rocky ridge between pond and lake
KjNv-14	lithic scatter/lookout – Camsell Lake	terrace between pond and lake
KjNv-15	lithic scatter/lookout - Camsell Lake	low ridges between pond and lake

(continued)

Table 4.7-3
List of Archaeological Sites Between 5 km and 20 km of the Proposed Transmission Line Route (Completed)

Site No.	Site Type/ General Location	Landform
KjNv-16	lithic scatter/lookout - Camsell Lake	ridge overlooking pond
KjNv-17	workshop/lookout - Camsell Lake	ridge between two ponds
KkNv-6	lithic scatter – Camsell Lake	low bedrock outcrop on isthmus
KkNv-7	lithic scatter/lookout – Camsell Lake	high bedrock ridge/ledge on isthmus
KkNv-8	lithic scatter – Camsell Lake	low gravel knoll/ridge on isthmus

In reviewing the archaeological record in relationship to the proposed transmission line, there are recorded archaeological sites near the north end of the study area and east and north of Great Slave Lake. The sites found near the north end of the corridor are the result of studies conducted for De Beers Canada Mining Ltd. and their predecessors. The archaeological work was conducted for the Snap Lake and Kennady Lake (Gahcho Kue) properties and included the assessment of a possible winter road connecting with the Tibbitt to Contwoyto (formerly the Lupin) winter road.

Nine sites discovered by Bussey are within 2 km of the corridor. Seven sites are located on a section of esker that will be crossed by the line, one is north of the start of the proposed transmission system on the shore of Snap Lake and the ninth is on an interior esker remnant east of this proposed line. Eskers are generally identified as having high archaeological site potential, while at least moderate potential is identified for large lakes and esker remnants. Five of these nine sites are lithic scatters, one is a possible camp and three are isolated finds (Table 4.7-1). Four of the sites found by Thomson are greater than 2 km, but less than 5 km from the corridor. It should be noted that a revisit of two of these sites suggest that they were not culturally produced (that is, represent natural quartz veins, not quartz quarries); both are adjacent to lakes (Table 4.7-2). One of the remaining sites is a lithic scatter and the other is an isolated find. The two sites containing archaeological artifacts are located on elevated, well-drained, terrain adjacent to lakes. Such locations are generally believed to have moderate to high archaeological site potential.

Forty-one sites are located greater than 5 km, but less than 20 km from the proposed transmission line route in the vicinity of Snap Lake and Gahcho Kue. Fourteen sites are located near Lac Capot Blanc, which is east of Snap Lake. Three sites are situated on or near an esker south of Snap Lake and are well west of the currently proposed transmission line. Four sites are located on elevated terrain adjacent to lakes northwest of Snap Lake. The remaining 20 sites are located on elevated terrain on or near Camsell Lake, also northwest of Snap Lake. Site types include lithic scatters and lithic scatters/lookouts, as well as isolated finds, quarries and/or workshops with and without lithics scatters, prehistoric camps and historic or recent hunting sites, markers and camps.

The northern and eastern shores of Great Slave Lake have yielded numerous sites. Most are more than 2 km from the transmission line corridor, but one site, a lithic and hearth scatter/camp,

is within 2 km. This site is situated on the Lockhart River. East of Great Slave Lake, two additional sites are within 2 km of the corridor; both are lithic scatters. One is located on the Taltson River and the other on Nonacho Lake. Three sites are between 2 km and 5 km from the proposed route on the north side of the lake in McLeod Bay. Two are hearth scatters (lithic) and one is a cave site. Ten sites are located on or near the east shore of Great Slave Lake in the McLeod and Charlton bay areas. Five are lithic scatters, one is a lithic scatter/camp, one is a hearth scatter (lithic), one is a hearth scatter (lithic)/camp, one is a hearth, lithic and bone scatter and one is a lithic and fire cracked rock site. Another site is located on one of the lakes, called French Lake, that forms part of Pike's Portage. There are other sites along this important portage, but they are not within 5 km of the transmission line as currently proposed.

There are 53 sites located more than 5 km, but less than 20 km from the corridor in the southern portion. Thirteen are situated on Nonacho Lake, two on Noman Lake, 21 on lakes or creeks associated with Pike's Portage and the remainder (18 sites) are located on or near Great Slave Lake. Site types include lithic scatters and/or lithic scatter/lookouts (or surface flake scatters), as well as isolated finds, lithic/hearth scatters/camps, workshops and quarries, the occasional bone scatter, some burial or cemeteries, and historic/recent camps and cabins. These sites are located on eskers, including eskers on islands, points, narrows and promontories, or on other elevated landforms that are usually associated with lake, creek and/or river systems. A number of sites were associated with bedrock outcrops, mainly landforms with a strategic view.

The lack of sites between the north shore of Great Slave Lake and the esker south of Snap Lake is a function of the fact that no detailed inventory has yet been conducted and should not be viewed as an indicator of low archaeological potential. It is expected that there will be low potential areas within this unsurveyed area, but they will be interspersed with landforms suggestive of moderate or greater archaeological sensitivity.

4.7.3 Concluding Statements

Review of available data indicates that there is sufficient archaeological potential associated with the proposed Expansion Project, regardless of its final route, to justify conducting a detailed archaeological survey. The objective of the next phase of investigation will be the discovery of archaeological sites on or near the proposed line. It is evident that potential is very high in proximity to lakes and rivers draining into Great Slave Lake and historic and prehistoric sites are expected. It is also highly likely that traditional use areas will be encountered. It is suggested that the greatest potential will be on and adjacent to natural travel routes, especially those that can be used year-round. However, there is some potential for the identification of winter travel routes that do not follow creeks and lake systems as well. Locations of such sites are more difficult to predict, and within the boreal forest, would be more difficult to discover as a result of heavier ground cover. Archaeological sites tend to be more readily visible in the transition zone with its more open forest and more extensive exposures.

Approximately 310 km of the 470 km transmission line corridor is south of the Lockhart River and the other 160 km heads west and then north to Snap Lake. These two rough divisions are

used in the following for discussion purposes. Potential in both areas will range from low to high and because the route has not been finalized, it is not possible to provide specific ratings along the route.

4.7.3.1 Southern Portion of the Proposed Transmission Line Route

Starting at the south end of the transmission line and heading north, some points of interest are evident. At the very south end, it is possible that landforms with moderate or greater archaeological potential have been inundated by the existing reservoir, the Twin Gorges Forebay. It is also possible that one recorded archaeological site located near the reservoir may have been flooded. However, other, higher landforms with good archaeological potential may be present along the various lakes and rivers in this area.

Of particular interest are the portions of this transmission line that parallel lakes and rivers or cross rivers and creeks. There are a number of significant lakes and rivers, such as the Taltson River and Lake, King Lake, Nonacho Lake and Snowdrift River, to name a few. Review of background data has indicated that the high ground overlooking these waterbodies and the shores and terraces along the portions that are not inundated have good potential for archaeological sites. In addition, there are numerous areas with bedrock outcrops that may contain exposures of a lithic material suitable for stone tool manufacture. These bedrock outcrops can be located at some distance from water.

A lake near the transmission line (Indian Shack Lake) is suggestive of past use and historic research has identified an abandoned fur trade post near another section of this southern portion of the route. The narrows near Walker and Knox lakes are near the transmission line and represent locations with good archaeological potential, confirmed by the fact that one recorded archaeological site is situated nearby. As one moves north, eskers are evident in the vicinity of the corridor and if crossed, could represent high potential site locations. Fortunately, since the majority of the eskers are east-west oriented in this area, it is likely they will only be crossed, not used as part of the transmission line route; the latter would result in greater potential to impact archaeological sites.

All creek, river and lake systems draining into Great Slave Lake south of the Lockhart River near the north end of this section of the transmission line are also of interest because of the proximity of this lake and the possibility that they may have served as travel routes. One well-known historic travel route that was based on an earlier aboriginal trail, Pike's Portage, is one example of a creek and lake system that was important and has yielded numerous archaeological sites. However, since the transmission line is proposed to cross, rather than parallel this and similar systems in this area, few sites will likely be encountered within the corridor.

The lower Lockhart River area is rugged and historic references suggest it did not represent a good travel route. However, it is evident by the presence of a recorded site near the transmission line that the area was utilized in the past, perhaps as a result of day trips from either Great Slave Lake or Artillery Lake. Also in the past, during the retreat of the glaciers, glacial lakes formed

that were characterized by higher lake levels, resulting in elevated beach ridges. It is possible that the area around the Lockhart River (and other areas) was more accessible and sites could be found at considerable distances from and above existing shores. One researcher working on the east shore of Great Slave Lake has identified multiple old beaches attributed to the presence of a glacial lake and some of them contain archaeological deposits. Again, this section of the southern portion of the route contains bedrock exposures, some at a distance from water, which might contain material suitable for stone tool manufacture.

4.7.3.2 Northern Portion of the Proposed Transmission Line Route

The section of the northern portion of the transmission line that heads west from the Lockhart River parallels the north shore of Great Slave Lake for almost 80 km. Although the corridor is generally more than a kilometre inland, the proximity of the lake suggests that there is good archaeological potential. The area is typified by a number of south-flowing creeks and rivers that connect with lakes and other drainages to produce potential travel routes. The high, predominantly bedrock ridges and hills adjacent to these drainages would provide lookouts and might contain stone suitable for tool manufacture. Some bedrock ridges appear to be fairly extensive and may also have been used for travel. In places, because of the presence of bays, the route is very near the lake and could be on landforms with high potential.

The remainder of the route heads north for approximately 80 km to Snap Lake. The initial portion of this section parallels the Waldron River and Benjamin Lake. The high ground overlooking these water features, as well as terraces and banks at lower elevations represent good locations for archaeological resources. This section of the line will cross four or five eskers, only one of which has been examined for archaeological resources. Although only two short sections of the most northerly esker were investigated (as part of the Snap Lake project), nine archaeological sites were discovered, indicating there is good archaeological potential on other portions. However, not all of these eskers appear to be as extensive or as well defined as the one south of Snap Lake. There are a number of recorded sites on the northern esker that are near or within the corridor and must be considered during planning.

The proposed transmission line will parallel a number of large lakes in this final section, and well-drained terrain edges, whether high or low near the lakes, could have good archaeological potential. It is expected that there will be areas that are low and/or poorly drained within the interior of large undulating terrain units (such as were found at Snap Lake) that will not have good archaeological potential. Until a final route is selected, specific portions of the route with low archaeological sensitivity cannot be identified, even within areas where archaeological work has been conducted previously. Again, bedrock exposures are evident along portions of this northerly section of the transmission line could contain stone suitable for stone tools.

4.8 Traditional Knowledge

The results of the Fort Smith meeting are detailed in the attached 'Meeting Notes' (Appendix 3.8-5). Further and subsequent communications addressed clarification with Ken Hudson, that