Kiggavik Project
Final Environmental Impact Statement

Tier 3 Technical Appendix 9B
Archaeology Baseline

September 2014

History of Revisions

	Date	Details of Revisions
01	December 2011	Initial release Draft Environmental Impact Statement (DEIS)
03	September 2014	FINAL Environmental Impact Statement

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1 Introduction

1.1 Overview

The objective of this baseline report is to provide information about the existing archaeological conditions in the area of Baker Lake. This information will be used to assess effects of the Kiggavik Project (the Project) proposed by AREVA Resources Canada Inc. (AREVA). The Project is a new uranium ore development, including open pits, underground mine, mill, and supporting infrastructure. The Project is located in the Kivalliq region of Nunavut about 80 kilometres (km) west of the community of Baker Lake.

This baseline report integrates information collected during all archaeological investigations, including recent field studies from 2007 to 2009, and 2013, historical information from past archaeological investigations dating between 1955 and 2006, as well as data collected through Inuit Qaujimajatuqangit (IQ), Traditional Land Use (TLU) and engagement interviews. In doing so, it presents the current understanding of known archaeological sites.

This report is organized as follows:

- Section 2 describes the study areas;
- Section 3 presents the methods;
- Section 4 presents the results; and
- Section 5 presents a summary of the key baseline results.

1.2 Purpose

The purpose of this baseline report is to describe the existing archaeological sites that may be affected directly or indirectly by the Project and to provide sufficient information to support the Environmental Impact Statement.

1.3 Scope

The scope of work for the archaeology program included field studies and literature review. Four seasons of field studies were conducted between August 2007 and August 2013 by Golder Associates Ltd. (Golder) (Golder 2008, 2009, 2010, and 2014), and previously between 1988 and 1991 by Max Friesen (1989, 1992). The general geographic extent of the Project included lands encompassing the Thelon River system extending from Baker Lake to Aberdeen Lake, as well as the

Anigguq River including the Judge Sissons Lake, Siamese Lake, and Kavisilik Lake sub-basins. Historical data included a variety of scholarly works and baseline studies dating from 1955 through to 2006.

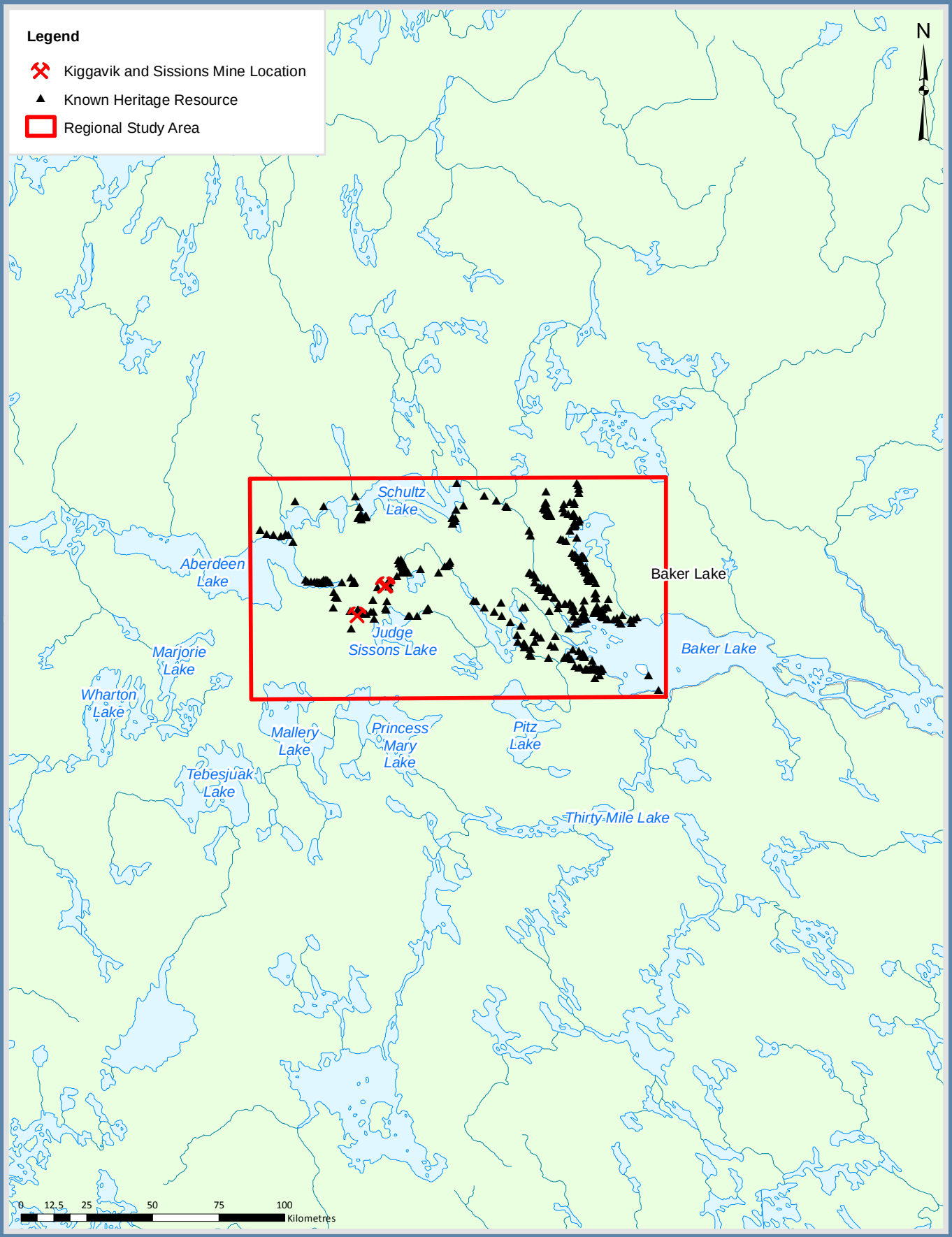
2 Study Area

2.1 Regional Study Area

The spatial boundaries for the Project study area were established to provide a context for the history of human occupation and land use in the region. For the purpose of this document, the Regional Study Area (RSA) includes the lands that encompass the proposed Project and related infrastructure. East to west the RSA extends from the west shore of Baker Lake to the east arm of Aberdeen Lake, and from north to south it extends from Judge Sissons and Audra lakes to Shultz Lake (Figure 2.1-1).

2.2 Local Study Area

The Local Study Area (LSA) corresponds to the specific project components plus a surrounding 250 metre (m) buffer zone (Figure 2.2-1). For linear developments such as roads this includes a 250 m buffer on each side of the centerline for a total 500 m buffer area. Components include the proposed All-Season Access Road, Winter Access Road, Sissons and Kiggavik sites and associated infrastructure, the haul road between the Kiggavik and Sissons sites, and the proposed airstrip. Archaeology sites within the LSA have the potential to be impacted by the proposed Project, as such, only these sites will be discussed further in Section 4.3.



Projection: NAD 1983 UTM Zone 14N
Creator: MGD/LMR
Date: 12/08/2014 Scale: 1:2,000,000
File: KI08A001
Data Sources: *Department of Culture, Language, Elders and Youth ESRI Data, Atlas of Canada Data*

FIGURE X2.1-1
LOCATION OF REGIONAL STUDY AREA AND KNOWN ARCHAEOLOGICAL SITES

KIGGAVIK PROJECT - EIS

Golder Associates
AREVA

AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend

- Local Study Area
- All Season Road
- Preferred Winter Road Option
- Meadowbank All Season Road (Existing)
- Other Site Road
- Airstrip

N

Whitehills Lake
Ayaktuukvik Lake
Kavisilik Lake
Squiggly Lake
Skinny Lake
Siamese Lake
Long Lake
Qikittalik Lake
Pointer Lake
Caribou Lake
Gerhard Lake
Cigar Lake
Aniguq River
Thelon River
Thom Lake
Baker Lake
Qinguq Creek
Qinguq Bay
Judge Sissons Lake
Audra Lake
Buzzard Lake
Qamanaugaq Lake
Dragon Lake
Pistol Lake
Pitz Lake

0 2.5 5 10 15 20 Kilometres

550000 560000 570000 580000 590000 600000 610000 620000 630000 640000 650000 660000

7170000 7160000 7150000 7140000 7130000 7120000 7110000

Projection: NAD 1983 UTM Zone 14N
Creator: LMR
Date: 20/05/2014 Scale: 1:300,000
File: KI08A012
Data Sources: *NTS Mapsheet 56D, 66A, 66B, AREVA Resources Canada Inc.*

FIGURE X2.2-1
ARCHAEOLOGY LOCAL STUDY AREA

KIGGAVIK PROJECT - EIS

Golder Associates
AREVA

AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

3 Methods

3.1 Existing Literature and Databases

Several data sources were consulted as part of the baseline studies. The Archaeological Sites Database maintained by the Nunavut Department of Culture and Heritage was queried to identify previously recorded sites in the RSA. This supplied the geographic location of known sites, a brief description of features or artifacts present, as well as a bibliographic reference. These data were augmented by a literature review of pertinent publications, report manuscripts, and articles from academic journals produced as a result of previous research in the region. This included archaeology permit reports housed at the Canadian Museum of Civilization, as well as Environmental Impact Statement reports available from the Nunavut Impact Review Board FTP site.

3.2 Fieldwork

Fieldwork was conducted over four seasons by Golder between 2007 and 2013 (Golder 2008, 2009, 2010 and 2014), and previously by Max Friesen over three years between 1988 and 1991 (Friesen 1989, 1992) in order to ground truth and identify archaeology sites within the LSA. This was carried out using a combination of low-level helicopter survey and pedestrian reconnaissance. Survey of the entire proposed project footprint and corridors was utilized instead of a predictive model utilizing LIDAR data to identify areas of low, moderate and high heritage potential. Locations exhibiting moderate to high heritage potential were then visually inspected on the ground. These areas typically included well-drained, elevated landforms suitable for habitation, with particular attention paid to areas adjacent to significant lakes, rivers, and drainages, as well as topographic features including rock outcrops and eskers. In contrast, low, poorly-drained areas considered to have low heritage potential were not examined. As the objective of the program was an initial reconnaissance and site inventory, as opposed to detailed site assessment, no subsurface testing was carried out.

Site locations were recorded with a hand held Global Positioning System (GPS) unit and digital photographs were taken of features and/or artifacts. Site attributes were noted including location in the general landscape, site dimensions, assemblage density and diversity, and current condition. Beginning in the 1980s when archaeological investigation permits were first issued, it has become standard practice for researchers to be accompanied by a local assistant while conducting fieldwork. As a result, traditional significance and interpretations of sites reported by local community representatives assisting on the Project were also documented. Sites or areas of traditional significance that are not considered archaeological were also recorded in consultation with local advisors.

3.3 Community Meetings and Engagement

Community meetings attended by Golder archaeologists were coordinated with Barry McCallum, Manager of Nunavut Affairs for AREVA, in Baker Lake. This provided a public forum to discuss the archaeology baseline study with community members. The objective was to provide information regarding the archaeology program and to seek input regarding any specific heritage concerns there may be with the proposed Project development area. Three public meetings were held in 2007. The first occurred on August 6 at AREVA's Baker Lake office with the Kiggavik Community Liaison Committee. This was followed by a meeting for the general public at the Community Centre in Baker Lake on August 10 and finally with members of the Inuit Heritage Trust on November 14. Two meetings were held in 2009. This included a second meeting with members of the Kiggavik Community Liaison Committee on August 19 at the Kiggavik camp, and a meeting for the general public at the Community Centre in Baker Lake August 20. Information from these meetings as well as other community engagement meetings were used to help inform the baseline studies (Appendix 3B).

Responses from these meetings indicated that archaeological and historic sites were valued, and concerns were raised over their potential disturbance (EN-KIV OH Oct 2009[1], EN-BL EL Mar 2009[2], EN-CI NIRB May 2010[3]). Concerns regarding proper handling of artifacts as well as a desire to have items returned to the community were also brought forward (EN-BL CLC Oct 2007[4], EN BL CLC Nov 2007[5]).

Several of the discussions focused on gravesites, with mention of graves located on Judge Sissons Lake (EN BL CLC Sept 2008[6]), Anigguq Lake (EN-BL CLC Apr 2008[7]), and near Kiggavik (EN-BL

[1] EN-KIV CH Oct 2009: What do you do about archaeology?

[2] EN-BL EL Mar 2009: As long as the archaeological sites are not disturbed, I will continue to support the mine.

[3] EN-CI NIRB May 2010: Concerns over potential impacts to archaeological and historical sites in or near the community.

[4] EN-BL CLC Oct 2007: I would like them to investigate without moving items; The committee members would like to artefacts returned to Baker Lake when the archaeologists are finished with them.

[5] EN BL CLC Nov 27: 1) it would not be good if the Archaeologists takes everything and not left one at all. 2) will the artefacts be returned? 4) if they want to keep the artefacts in safe place they can

[6] EN BL CLC Sept 2008: After the CLC visit to Kiggavik we stopped at Judge Sessions Lake on the way back to visit my mother's gravesite.

[7] EN-BL CLC Apr 2008: I have my Father's grave very end of Anniguq Lake.

CLC Mar 2009[8]). A concern was raised whether the area between the Project mine and the mill was examined for graves (EN-BL OH Nov 2013[9]).

Land use areas and cultural features well outside the LSA that will not be affected by the Project were also identified. Winter and summer camping areas as well as spiritually significant areas were noted near Pitz Lake and Princess Mary Lake south of the RSA (EN-BL HTO Feb 2013[10]). Stories were related of community members travelling with their parents when children from Kazan River to Aberdeen and Beverly lakes to find game, and seeing inuksuit as well as graves beyond Beverly Lake (EN-BL CLC Apr 2007[11]).

3.4 Inuit Qaujimajatuqangit and Traditional Land Use Information

Information obtained from the IQ and TLU interviews (Appendix 3B) were also incorporated into the field component of the baseline studies. As a result of these interviews, the location of archaeology sites, graves, and spiritual areas in the region were reported by elders and community members. This helped to inform the studies regarding human land use in the RSA, as well as aiding in site identification and interpretation.

Archaeological sites described during Project interviews included such features as *stone weirs, stone fox traps, grave sites at old camps, Thule sites, inuksuit, stone pits for cooking, and stone circles where people used to dance* (IQ-CIE 2009). *Inuksuk were used to show where various families may have moved and rock placements also functioned as fish pointers* (IQ-BL 01 2008, IQ-BL03 2008, IQ-BL13 2008).

Concerns were expressed regarding the protection of archaeology sites that occur along the Thelon River at *caribou crossing points and former camps used by nomadic hunter groups* (IQ-GeoVector 2008). Consideration of the Thelon River as a recognized Heritage River was also discussed (EN-BL CLC Feb 2007[12]). In terms of land use, *elders said that Baker Lake people lived in various camps west of Baker Lake. The camps also served as caribou caching areas* (IQ-BL02 2008). *While some elders said they camped around Kiggavik, others indicated they did not* (IQ-BL02 2008, IQ- BL03

[8] EN-BL CLC Mar 2009: *stated her father is buried near Kiggavik. An inukshuk marks the spot.*

[9] EN-BL OH Nov 2013: *Did you check to see if there are grave sites between the mine and mill?*

[10] EN-BL HTO Feb 2013: *Pitz Lake and Princess Mary Lake are both well used. Both have winter and summer camping areas, migratory areas, fish spawning, gravesites, caribou crossings and spiritual significant areas.*

[11] EN-BL CLC Oct 2007: *He started on the Kazan River. Parents moved towards Aberdeen and Beverly Lakes to find game. Remembers lots of inukshuks. There were many foxes and caribou past Beverly Lake. Recalls 2 graves past Beverly Lake*.

[12] EN-BL CLC Feb 2007: *Thelon River is recognized as the Heritage River and this has to be considered*.

2008). *Camping areas were described near Schultz Lake, Judge Sissons Lake, and Anugguq Lake* (IQ-BL02 2008, IQ- BL05 2008). *Sites along the travel corridor between Baker Lake and Back River were described by elders to be very spiritual* in nature, including graves (IQ-Cumberland 2005). Bones representing potential graves were also noted south of Qikkiqqtarjualik Lake and at Unuriqtalik on Aberdeen Lake (IQ-BL10 2008, IQ-BL11 2008[13]).

Historical and archaeological sites in areas well outside the LSA were also identified. This included whaling sites and Hudson's Bay Company buildings near Repulse Bay (IQ-RBE 2009[14]), *sod houses between Kazan River and Rankin Inlet* (IQ-BL14 2008), *camps along Chesterfield Inlet* (IQ- Freeman 1976; Riewe 1992), campsites along the Kazan River and Thirty Mile Lake (IQ-BL10 2008[15], IQ Mannik 1998[16]), and inuksuit near Arviat (IQ-Bennett and Rowley 2004[17]).

[13] IQ-BL10 2008: *Bones are located south of Qikkiqqtarjualik Lake and at Unuriqtalik on Aberdeen Lake.*

[14] IQ-RBE 2009: *Elders referred to sites related to whaling and the Hudson's Bay Company, with whom their ancestors were involved during the 19th century. Elders said that a stone house, built by John Rae, a 19th century explorer and Hudson's Bay Company employee can still be seen close to the community; and whalers had written inscriptions on rocks in the area, which can still be seen*.

[15] IQ-BL10 2008: *One family described camping at Kazan River in the winter, and moving to Anigguq in the spring.*

[16] IQ Mannik 1998: *Baker Lake Elders have said there are campsites all around the Kazan River and Thirty Mile Lake, south of Baker Lake.*

[17] IQ-Bennett and Rowley 2004: *An Elder from Arviat indicated that he was aware of monumental inuksuit.*

4 Results

4.1 Cultural Setting

As a result of the literature review, a brief outline of the regional culture history can be summarized. Occupation of the Barrenlands began shortly after the recession of the glaciers approximately 8,000 Before Present (BP) (Clark 1991; Gordon 1996). The earliest recognized archaeological tradition is Northern Plano (8,000 to 6,500 BP), which is characterized by projectile points similar in form to Agate Basin points found in the plains of North America (Noble 1971). These long lanceolate points with tapered and ground bases were manufactured largely out of quartzite and are suggested to date from approximately 8,000 to 7,000 BP in the Barrenlands (Gordon 1996). The oldest radiocarbon dates from Northern Plano occupations come from the Migod site (KkLn-4) on Grant Lake, which produced a date of 7,930 ± 500 BP, and the nearby KkLn-2, which produced a date of 7,220 ± 850 BP (Gordon 1975; Wright 1976). The concentration of Northern Plano materials on Grant Lake further suggest the Dubawnt and Thelon Rivers were major caribou migration corridors exploited by Northern Plano peoples (Gordon 1996).

Approximately 6,500 BP, Northern Plano evolved into Shield Archaic (6,500 to 3,500 BP) (Wright 1972a). This cultural development coincided with a warming period that resulted in the expansion of the boreal forest as far north as Dubawnt Lake. The archaeological culture is characterized by projectile points manufactured primarily out of quartzite, but these differ from the preceding Northern Plano Tradition in that they are “side-notched lanceheads with ground, rocker [convex] bases” (Gordon 1996). Friesen (1989) has suggested that the Shield Archaic peoples were more adapted to the Canadian Shield and boreal forest environments of the subarctic, and as such, may only have had a marginal presence in the southern interior of Nunavut, restricted to the Thelon River and its Dubawnt and Kazan tributaries.

The Shield Archaic Tradition is followed by the Pre-Dorset Tradition which lasted from approximately 3,450 to 2,650 BP (Gordon 1996). Pre-Dorset is part of the Arctic Small Tool Tradition (ASTt) well known in the high arctic (Irving 1970). The migration of these early Pre-Inuit groups corresponded with a cooling trend that adversely affected maritime hunting. As a result, these arctic-adapted people were forced further south in their quest for food. They were able to exploit migrating caribou herds on the Barrenlands as a result of the southward retreating forest edge. The Pre-Dorset Tradition is characterized archaeologically by very small, finely retouched tools manufactured from fine grained, banded chert. Distinct tools include end and side blades used for harpoons and arrows, burins, and micro-cores.

The Taltheilei Tradition is the latest precontact archaeological culture identified in the study area, and dates from approximately 2,600 to 200 BP. (Gordon 1996). People representing this tradition moved

into the region from the west after the preceding cooling period ended, and are generally regarded as ancestral Dené (Clark 1987). The material culture of the Taltheilei Tradition is characterized by a continuum of lanceolate and notched points, distinct discoidal hide-working tools known as chithos, and a variety of scraping tools. The Taltheilei Tradition archaeological culture has been divided into three Periods based on projectile point style:

- the Early Period (2,600 to 1,800 BP) is characterized by long stemmed points;
- the Middle Period (1,800 to 1,300 BP) by unshouldered lanceolate points; and
- the Late Period (1,300 to 200 BP) by small side and corner-notched points (Gordon 1996).

The Historic Period begins with European explorers and fishermen traversing the arctic waters in the mid-16th Century, and the establishment of fur trade posts on the western shore of Hudson Bay in 1670. Early traders eager to make contact with more distant Aboriginal groups ventured into the Barrenlands of Nunavut, and Aboriginal groups travelled to the posts in order to trade. It was during the early historic period that Dené groups, decimated by European disease, and worsening climate, abandoned the Barrenlands in favour of the forests to the south to more effectively engage in the fur trade (Gordon 1996).

Following the abandonment of the Barrenlands by Dené groups, the historic Caribou Inuit moved into the region. The precontact origins of the Caribou Inuit ultimately lie in the Thule Tradition, which spread across the central and eastern arctic approximately 1,000 BP (McGhee 1984). By the beginning of the 16th century, the Thule evolved into what we recognize as Historic Inuit.

The appearance of Historic Inuit into the Thelon River/Baker Lake area appears to have corresponded with the Neo-boreal Climatic Episode and a mass migration of people from Coronation Gulf (Burch 1978; Fossett 2001). This Climatic Episode, also known as the Little Ice Age was a period of rapid and consistent cooling on a global scale beginning in 1550 and lasting to approximately 1850. It intensified between 1645 and 1715 and the effect was particularly harsh in the Coronation Gulf. The colder temperatures and thicker and longer lasting ice had a negative impact on resources normally available in this region such as the caribou, seals and beluga whales. Archaeological evidence suggest that after a period of food shortages, lower population and increased mobility in search of resources, there was a mass migration of people from Coronation Gulf. Burch (1978) and Taylor (1963) suggest this occurred sometime after 1650, with a movement of people southeast across the Barrens to the Middle and Upper Thelon River. More recently, Stevenson (1997) suggests there was a two phase migration. The first phase was a movement to the Thelon Woods and Beverly Lake during an earlier cooling period around the mid 15th Century; the second phase occurred sometime in the mid to late 18th century and resulted in a further movement down the Thelon River to Chesterfield Inlet, and along the Hudson Bay coast. Evidence for such a migration from Coronation Gulf appears to be supported by changes in the material and intellectual cultures of people along the west coast of Hudson Bay in the late 17th century. By the mid 1740's

classic semi-subterranean Thule houses along the west coast of Hudson Bay are replaced by the more mobile surface dwellings (skin tents) similar to those found in the Coppermine River area since 1500. The dialect, trading practices mythology, and clothing styles of the Caribou Inuit is also more similar to the Netsilik groups of Coronation Gulf and Boothia Peninsula than their nearest neighbors, the Iglulik people of Melville Peninsula and north Baffin Island. Local oral histories also indicate journeying across a great land, and point to an ancient home to the northwest.

After 1718 European traders and explorers regularly report the presence of Inuit on the Western coast of Hudson Bay (Fossett 2001). It is evident their Inuit descendants have occupied much of the interior of Nunavut ever since, including the Kazan, Dubawnt and lower Thelon drainage basins. The margins of these major rivers and lakes are dominated by Inuit sites, which are characterized by stone features including inuksuit, tent rings, caches, hunting blinds and kayak stands (Friesen 1989).

It was not until the 20th century that fur trade posts were established in the interior of Nunavut (Usher 1971). The Hudson's Bay Company built a post on Big Hips Island in Baker Lake around 1914. However, this post was eventually abandoned in 1926 in favour of a location on the north end of the lake to better compete with a Revillon Freres post that had been established in 1924. These posts would eventually lead to the development of the community of Baker Lake. Another post built by Lamson and Hubbard and located at the eastern entrance of Baker Lake was in operation briefly between 1920 and 1922. Throughout the 1950s with further development of the north, the Canadian Government began a policy of settling the local Inuit into communities such as Baker Lake, Chesterfield Inlet and Rankin Inlet (Stager 1977). Although year-round occupation of the Barrenlands no longer occurs, seasonal caribou hunting and fishing is still an important activity of local residents.

4.2 Previous Archaeological Research

Archaeology research in the RSA began during the mid-20th century and has continued sporadically through to 2013 (Table 4.2-1). The earliest archaeology work conducted in the region was initiated by Oblate Missionary Priest Father Guy Mary-Rousselière, who was stationed at Baker Lake from 1948 to 1951. He recorded 10 sites near the community of Baker Lake and carried out excavations at two of these sites (LbJx-3 and LbLa-3) in the early 1950s (Rousselière 1955). This early work was followed by Arthur Moffat who led a canoe expedition in 1955 following a route originally mapped by J.B. Tyrell (Harp 1959a). His party began in Black Lake, Saskatchewan and followed the Dubawnt River north to its confluence with the Thelon River at Beverly Lake. They then proceeded on the Thelon River east to Baker Lake. The purpose of the expedition was to document the wildlife and Aboriginal people along the way, as well as collect archaeological artifacts (Harp 1959a).

In 1958, Harp followed Moffat's footsteps and conducted his own archaeological survey along Beverly, Aberdeen, and Schultz Lakes, as well as the lower Thelon River leading into Baker Lake (Harp 1959a, 1959b, 1961, 1962). Forty-two sites were recorded by Harp during this survey. Based on the data obtained from these sites, Harp proposed the first culture history for the region (Harp

1961, 1962). Subsequent research carried out by Irving (1968) in 1960, 1963, and 1964 on the Upper Kazan River and in the North Henik and Dubawnt Lake areas would result in a refinement of Harp's proposed cultural chronology. Most significantly, Irving incorporated increasing knowledge of Holocene climatic fluctuations in his proposed cultural sequence.

Archaeological investigations continued in the region in the 1970s with more controlled excavations conducted at a number of sites first recorded by Harp. Wright (1972a, b; 1976) excavated at the Aberdeen (LdLl-2) and Grant Lake (KkLn-2) sites, while Gordon (1976) conducted excavations at the Migod (KkLn-4) site located north of Dubawnt Lake. These multi-component sites were significant in further refining the continuum of precontact occupation in the region. Additional surveys were also conducted by Gordon (1974) at the mouth of the Thelon River southwest of the community of Baker Lake, as well as areas immediately east of the community. Five of Harp's sites were revisited (LbLa-3 to LbLa-7), and four new sites were recorded (LbLa-13 to 16). This included LbLa-13, where Gordon excavated three of seven semi-subterranean dwellings.

Table 4.2-1 Archaeological Research Conducted in the Regional Study Area

Year/Archaeological Investigation Permit No.	Investigator	Project
1955	Father Guy Mary-Rousselière	Avocational Site Recording, Baker Lake
1955	Arthur Moffat	Moffat Canoe Expedition (Black Lake, SK to Baker Lake, NU)
1958	E. Harp	Archaeology of the Lower and Middle Thelon
1972, 1976	J.V. Wright	Aberdeen and Grant Lake site excavations
1974, 1976	B. C. Gordon	Baker Lake Survey, Migod Site excavation
1977, 1978	P. Schledderman and R.J. Nash	Polar Gas Pipeline Project
1988-646	M. T. Friesen (Beak Consultants Ltd.)	Kiggavik Uranium Project
1989-664	M. T. Friesen (Beak Consultants Ltd.)	Kiggavik Uranium Project
1991-704	M. T. Friesen (Beak Consultants Ltd.)	Kiggavik Uranium Project
1999-003A	D. Webster (Webster Heritage Consulting)	Meadowbank Archaeological Survey
2003-012A	D. Webster (Webster Heritage Consulting)	Meadowbank Archaeological Survey
2005-012A	G. Prager (Points West Heritage Consulting Ltd.)	Meadowbank Road Project
2006-027A	J. Tischer (FMA Heritage Resources Consultants Inc.)	Cumberland Meadowbank Road Project
2007-015A	B. Novecosky (Golder Associates Ltd.)	AREVA Kiggavik Project
2008-024A	B. Novecosky (Golder Associates Ltd.)	AREVA Kiggavik Project
2009-010A	B. Novecosky (Golder Associates Ltd.)	AREVA Kiggavik Project
2013-027A	B. Novecosky (Golder Associates Ltd.)	AREVA Kiggavik Project

The first archaeological research related to impact assessment projects occurred in 1977, with surveys conducted along the proposed Polar Gas pipeline route (Schledermann 1978; Schledermann and Nash 1977). Areas surveyed included portions of the southwest shore of Baker Lake up 3 km inland, the perimeter of Qiamanaugaq Lake, western end of the Anigguq River, and aerial surveys between the Anigguq and Thelon rivers. A total of 18 new sites were recorded during these surveys. An additional 15 sites were recorded in the Thirty Mile Lake area on the lower Kazan River, located approximately 70 km to the southwest.

The first archaeological baseline studies for the Kiggavik Uranium Project were conducted by Friesen (1989, 1992). At that time, the Kiggavik Uranium Project was operated by Urangesellschaft. Friesen led three seasons of archaeological surveying in the area in 1988, 1989, and 1991 (Friesen 1989, 1992). The majority of the sites recorded during these assessments are located along the east arm of Aberdeen Lake and Skinny Lake. Excavation was carried out on tent outline features at three sites located at the south end of Skinny Lake (LcLe-2, 5, and 7). Recoveries produced substantial debitage and projectile points dating to the Taltheilei Tradition. An additional 17 sites were recorded during the 1991 season near Andrew and Judge Sissons lakes, as well as south of the east arm of Aberdeen Lake. Data from two of the sites recorded during these investigations (LcLg 12 and 22) were used in subsequent academic articles examining food storage practices (Friesen 2001) and Protohistoric settlement patterns in the interior of Nunavut (Friesen and Stewart 1994).

Archaeological assessments related to the Meadowbank Gold Project were conducted in 1999 and 2003 (Cumberland Resources Ltd. 2005). This included assessments of the mine site area located approximately 70 km north of the community of Baker Lake, a winter road route to the mine site, and a storage and marshalling area east of the community of Baker Lake. A total of 82 new sites were recorded and 10 sites were revisited. The majority were interpreted as relatively recent, temporary campsites. Stone features observed included tent rings, qarmaits, hearths, shelters, inuksuit, markers, blinds, shelters, kayak stands, caches and unidentified features. This work was subsequently augmented by additional surveys of the Meadowbank road conducted under permit 2005-012A (Prager 2006) and permit 2006-27A (Tischer 2007).

Most recently, four seasons of archaeological investigations have been carried out by Golder as part of the baseline studies for the Kiggavik Project on behalf of AREVA. The first investigations were carried out in July 2007. The goals of this survey were to identify archaeology sites in conflict with the immediate infrastructure needs, such as the exploration camp, fuel cache, airstrips, drilling locations, as well as a general survey to identify the heritage potential of the region (Golder 2008). During this field season, 17 previously unrecorded sites were identified, and a number of sites previously recorded by Friesen on Skinny and Aberdeen lakes were revisited.

In July 2008 the investigations focused on the proposed All-Season Access Road from Baker Lake to the proposed Kiggavik site, and the haul road between the Kiggavik and Sissons sites (Golder 2009). The reconnaissance focused on several main areas of interest along these routes including Siamese

Lake, Judge Sissons Lake, Skinny Lake, Mushroom Lake, and the Thelon River. In addition, a low-level helicopter reconnaissance of the general project area was completed. Over the six days of survey, 34 previously unrecorded sites were identified and nine previously recorded sites were revisited.

In August 2009, investigations included a reconnaissance of revisions to the All-Season Access Road and quarry locations, the Winter Access Road, and other infrastructure related to the proposed site areas (Golder 2010). In addition, a low-level helicopter reconnaissance of the Thelon River and portions of the north and south shore of Schultz Lake was completed. During the 14 day investigation, 81 previously unrecorded sites were identified, and 11 known sites were revisited.

Investigations in August of 2013 included examination of the proposed dock location east of the community of Baker Lake, a portion of the Winter Road near the mouth of the Thelon River, and the proposed ferry crossing on the Thelon River along the all-season road (Golder 2014). One archaeological site was recorded near the proposed dock location and four sites were revisited at the ferry crossing.

4.3 Archaeological Fieldwork

As a result of the previous fieldwork, 374 archaeology sites have been recorded within the RSA. Of these, 28 occur within the LSA. A summary of known sites within the LSA is presented below. They are discussed according to the various project components by Borden number designation. The exact site coordinates cannot be provided in this document as per conditions outlined in the licensing agreement for the Nunavut Archaeological Sites Database. The general location of sites in the RSA is illustrated in Figure 2.1-1. More detailed descriptions and photographs of individual sites are found in Archaeological Investigation Permit Reports as well as individual site forms, which include sketch maps. These documents are filed with the Canadian Museum of Civilization and the Nunavut Department of Culture and Heritage following each field season.

4.3.1 All-Season Access Road

The All-Season Access Road was first examined during archaeological studies for the Kiggavik project in 2007 (Golder 2008). A helicopter reconnaissance was flown along the proposed route in advance of a ground inspection in order to document areas of moderate and high heritage potential. The reconnaissance resumed the following field season in July of 2008 (Golder 2009). The segment of the road corridor from the Kiggavik site to east of Skinny Lake was examined on foot, as was the eastern portion extending from the Thelon River to the Baker Lake airport. The west side of the Thelon River was also examined on foot. The central portion of the corridor between Siamese Lake and the Thelon River was examined by low-level helicopter survey. Several landforms determined to have heritage potential along this section were then examined by pedestrian reconnaissance.

The All-Season Access Road was examined again the following year between August 10 and 23, 2009 (Golder 2010). Areas included potential quarry locations along the route, revisions to the previously assessed route, and various road options at the eastern terminus of the corridor extending west from potential ports along the northwest shore of Baker Lake. A low-level helicopter survey was conducted of each quarry location, while a combination of helicopter and pedestrian reconnaissance was carried out along corridor revisions and road options near Baker Lake. The proposed ferry crossing at the Thelon River was re-examined again in 2013 (Golder 2014). Four sites recorded in 2008 were revisited as well as surrounding areas.

Previous archaeology work has been conducted in areas that the All-Season Access Road traverses. This includes the south shore of Skinny Lake that was examined as part of baseline studies for the original Urangesellschaft Kiggavik project (Friesen 1989). Previous archaeology work was also conducted in and around the community of Baker Lake near the eastern terminus of the road. This included assessments for the Meadowbank all-weather road (Cumberland Resources Ltd. 2005), as well as early archaeology research carried out in the 1950s (Harp 1961; Rousselière 1955).

A review of the IQ, Engagement and TLU data (Appendix 3A and 3B) indicate that no archaeology sites were reported specifically along the proposed road corridor itself. However, the All-Season Road will cross the Thelon River. As the *Thelon River is recognized a Heritage River* (EN-BL CLC Feb 2007), special consideration with respect to archaeological sites must be made. Concerns were expressed by community members regarding the protection of any archaeology sites identified along the Thelon River (IQ-GeoVector 2008[18]).

As a result of baseline studies, 18 archaeology sites have been identified in the All-Season Access Road LSA. These are presented in Table 4.3-1.

Table 4.3-1 Archaeology Sites in All-Season Access Road Local Study Area

Borden No.	Year/Archaeological Investigation Permit No.	Site type	Feature/Artifact Description	Site Size
LcLa-33	2008-024A	Hunting	Cache	2 m x 2 m
LcLa-34	2008-024A	Campsite	Square tent outline	5 m x 5 m
LcLa-35	2008-024A	Hunting	2 blinds, inuksuk, fire pit	150 m x 50 m
LcLa-36	2008-024A	Campsite	Tent ring	4 m x 4 m

[18] IQ-GeoVector 2008: *Along the Thelon River were caribou crossing points, and former camps used by nomadic hunter groups of the region which are considered important. Concerns for the protection of the sites have been noted.*

Table 4.3-1 Archaeology Sites in All-Season Access Road Local Study Area

Borden No.	Year/Archaeological Investigation Permit No.	Site type	Feature/Artifact Description	Site Size
LcLb-11	2008-024A	Hunting	Cache	1.5 m x 1.5 m
LcLb-12	2008-024A	Campsite	Tent ring	2 m x 2 m
LcLb-14	2008-024A	Campsite	Tent ring	10 m x 10 m
LcLb-15	2008-024A	Hunting	Cache	40 m
LcLb-16	2008-024A	Lookout	inuksuk, trail	1 m x 1 m
LcLd-02	2009-010A	Lithic scatter	25 debitage	10 m x 10 m
LcLe-01	1988-646	Campsite	3 tent rings, 150 debitage	unknown
LcLe-02	1988-646	Campsite	2 tent rings, 3 u-shaped features, 5 Taltheilei points from excavation	unknown
LcLe-03	1988-646	Lithic scatter	20 debitage	unknown
LcLe-16	1989-664	Lithic scatter	-	unknown
LdLd-05	2009-010A	Hunting	Cache	10 m x 10 m
LdLd-06	2009-010A	Campsite	3 caches, 1 square tent outline, 1 round tent outline, work spot, hunting rest/equipment cache, scatter (lithic)	50 m x 50 m
LdLd-07	2009-010A	Campsite	1 round tent outline, scatter (lithic) approx. 150 debitage, retouched flake and bifacial point collected	160 m x 400 m
LdLd-11	2009-010A	Lithic scatter	>100 debitage	10 m x 10 m

LcLa-33

LcLa-33 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). This site is a cache feature located along the ATV trail into Baker Lake, 2.8 km east of the Thelon River. This feature is an opened cache measuring 1.73 m by 1.76 m. There is also a caribou skull still evident within the cache. Likely, this site is fairly recent due to the modern activity and hunting practices in the vicinity.

LcLa-34

LcLa-34 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). This site consists of a large square tent outline that was located along the ATV trail south of a small lake, 3.5 km east of the Thelon River. This feature consists of a smaller square shape within a larger rectangle. It measures 4.5 m by 5.5 m. No other artifacts were observed; however, it does appear to be a fairly recent camp.

LcLa-35

LcLa-35 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). This campsite was located 250 m to the east of LcLa-34. This site consists of an inuksuk, two hunting blinds, and a fire pit within a 150 m by 50 m area (Table 4.3-2). Modern refuse was observed on the surface such as cigarette butts, cartridge shells, and aluminum foil. Because of the modern activity within the area and the nature of the artifacts observed it is believed that this is a recent site.

Table 4.3-2 LcLa-35 Features

Feature No.	Feature Type	Dimensions (m)	Notes
1	Hunting Blind	1.8 x 0.5 x 0.5	Modern
2	Hunting Blind	1.8 x 1.9	Horseshoe shape
3	inuksuk	n/r	1.4 m tall
n/r= not recorded			

LcLa-36

LcLa-36 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). This site was located on the south shores of a small unnamed lake, 6 km east of the Thelon River. This site consists of one round tent outline that is 3 m by 3 m and is consists of 18 cobbles. Modern activity is associated with this site (e.g. an ATV tire was located nearby).

LcLb-11

LcLb-11 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). This site is an unopened cache that was located on the side of a hill on the eastern crest of the Thelon River valley. This feature measured 1.33 m by 0.72 m and still had caribou bone evident within it.

LcLb-12

LcLb-12 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). It is a campsite located on the eastern crest of the Thelon River, just west of LcLb-11. One round tent outline was recorded at this site measuring 0.8 m by 1.5 m and consisting of 15 cobbles. A plastic bag was observed under one rock indicating that it is likely a more recent site.

LcLb-14

LcLb-14 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). This campsite was located on a high hill 1.5 km east of the Thelon River. This campsite is comprised of three round tent outlines (Table 4.3-3Table 4.3-3). Two of the tent outlines are located next to one another; one appears to be recent and therefore measurements were not taken. The older one consists of 31 cobbles measuring 3.70 m by 3.10 m and is overgrown with lichen. There are cigarette butts on the surface indicating that this site was utilized more recently. The third feature is a square tent outline and is located approximately 100 m west. It measures 1.75 m by 2.47 m and is made up of 14 cobbles.

Table 4.3-3 LcLb-14 Features

Feature No.	Feature Type	Dimensions (m)	Notes
1	Tent Outline	3.7 x 3.1	Round - 31 cobbles
2	Tent Outline	1.75 x 2.47	Square - 14 cobbles

LcLb-15

LcLb-15 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). This site is located northeast of LcLb-14 on a high hill, 1.7 km east of the Thelon River. This site consists of two cache features approximately 40 m apart (Table 4.3-4). Both cache features are opened and one was well covered in lichen. The features measure 1.14 m by 2.52 m and 1.75 m by 1.40 m. No other artifacts were observed.

Table 4.3-4 LcLb-16 Features

Feature No.	Feature Type	Dimensions (m)	Notes
1	Cache	1.14 x 2.52	Opened
2	Cache	1.75 x 1.4	Opened

LcLb-16

LcLb-16 was recorded in 2008 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2009). This site is an inuksuk located on a high hill next to a contemporary ATV trail 2.2 km east of the Thelon River. This feature is made up of three large cobbles and measures 1.95 m tall. No other artifacts or features were identified.

LcLd-2

LcLd-2 was recorded in 2009 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2010). This site consists of a lithic scatter located on a gravelly hill 9 km northwest of Long Lake. Over 25 white quartzite flakes were observed in a 10 m diameter area. This scatter was dominated by secondary flakes; however, some primary flakes were also observed.

LcLe-1

LcLe-1 was recorded in 1988 during baseline studies for the Urangesellschaft Kiggavik project (Friesen 1989). This site consisted of three round tent outlines, an unidentifiable feature and a lithic scatter of approximately 150 debitage. This site is located across approximately 100 m of shoreline at the south end of Skinny Lake. LcLe-1 was revisited in 2009 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2010) and all three tent rings were relocated.

LcLe-2

LcLe-2 was recorded in 1988 during baseline studies for the Urangesellschaft Kiggavik project (Friesen 1989). In 1989 Friesen revisited the site where he recorded five features. This included two round tent outlines, and three U-shaped features. All of these features were excavated at this time (Table 4.3-5). Artifacts were collected from three of the five features and included five projectile points from the Taltheilei Tradition as well as a large sample of debitage. This site covers a 50 m^2 area located at the south end of Skinny Lake. These features were successfully relocated in 2009 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2010).

Table 4.3-5 LcLe-2 Features Excavated in 1989

Feature No.	Feature Type	Dimensions (m)	Notes
1	Round tent outline	2.5 diameter	Unknown number of artifacts recovered
2	Round tent outline	5 diameter	Large lithic sample including 5 Taltheilei projectile point bases
3	U-shaped feature	4.5 x 1.5	Unknown number of flakes observed on the surface
4	U-shaped feature	4.5 x 1.5	No artifacts recovered
5	U-shaped feature	1.5 x .75	No artifacts recovered

LcLe-3

LcLe-3 was recorded in 1988 during baseline studies for the Urangesellschaft Kiggavik project (Friesen 1989). This site consisted of a lithic scatter located on the southern shores of Skinny Lake. This lithic scatter consisted of approximately 20 debitage.

LcLe-16

LcLe-16 was recorded in 1988 during baseline studies for the Urangesellschaft Kiggavik project (Friesen 1989). This site consists of a scatter of an unknown number of lithics located on a low spur of an escarpment 980 m south of Skinny Lake. All artifacts were collected.

LdLd-5

LdLd-5 was recorded in 2009 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2010). The site consists of a cache feature located north of a small unnamed lake approximately 9.5 km northwest of Long Lake. The cache measured 1.8 m by 1.6 m, exhibited heavy lichen growth and had caribou remains visible within the feature (Table 4.3-6). No other artifacts were observed.

Table 4.3-6 LdLd-5 Features

Feature No.	Feature Type	Dimensions (m)	Notes
1	Cache	1.8 x 1.6	Heavy lichen growth, caribou remains visible

LdLd-6

LdLd-6 was recorded in 2009 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2010). This site consists of three cache features, two tent outlines, a hunting rest/equipment cache and a lithic scatter. The site is located to the west of a small unnamed lake and 9 km northwest of Long Lake. The caches measure 2.2 m by 2.4 m, 1.2 m by 1.8 m and 2.8 m by 2 m. Two have heavy lichen growth and one had caribou bone present within it. To the north of one of the caches a lithic scatter was observed over a 10 m area. One of the tent outlines was square measuring 3.2 m by 2.5 m and was located on a ridge. The other tent outline was round; it measured 2.5 m by 2.9 m. Two quartzite flakes were observed 3 m north of this ring. The hunting rest/equipment cache consisted of ten cobbles. This site covers approximately a 50 m^2 area. For further feature descriptions see Table 4.3-7.

Table 4.3-7 LdLd-6 Features

Feature No.	Feature Type	Dimensions (m)	Notes
1	Cache	2.2 x 2.4	Empty – old cache
2	Cache	1.2 x 1.8	Good lichen growth – caribou bone still present
3	Cache	2.8 x 2	Heavy lichen growth
4	Tent Outline	3.2 x 2.5	Square
5	Tent Outline	2.5 x 2.9	Round
6	Cache	n/r	Hunting rest/equipment cache – 10 cobbles
n/r= not recorded			

LdLd-7

LdLd-7 was recorded in 2009 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2010). This heritage resource was found approximately 9 km northwest of Long Lake. This large site occurs within a 160 m by 400 m area and consists of one round tent outline and a series of lithic concentrations located on a flat, sand/gravel landform overlooking a small lake to the east. Over 150 pieces of debitage were observed in eight clusters comprised of white, grey, and pink quartzite as well as quartz. One quartzite retouched flake and one small, quartzite biface were collected from the site.

LdLd-11

LdLd-11 was recorded in 2009 during reconnaissance of AREVA's proposed All-Season Access Road (Golder 2010). This site is located on a rocky outcrop on the west side of an unnamed creek, approximately 10 km west of Siamese Lake. The site consists of a lithic scatter of over 100 debitage and core fragments in a 4 m diameter area.

4.3.2 Winter Access Road

The Winter Access Road was examined as part of heritage baseline studies for the Kiggavik Project in 2009 (Golder 2010). As this road will traverse frozen lakes and generally low-lying, water saturated areas, the heritage potential is generally lower than the All-Season Access Road option. As a result, a low-level helicopter reconnaissance was flown along the route to examine higher potential landforms. A pedestrian survey was also carried out along an 11 km stretch near the mouth of the Thelon River as part of the 2013 reconnaissance (Golder 2014).

Previous archaeology work has been conducted in areas that the proposed Winter Road traverses. A proposed winter road route for the Urangesellschaft Kiggavik project was flown by Friesen in 1988 (Friesen 1989). Portions of the Anigguq River south of Long Lake were assessed as part of the Polar

Gas Pipeline project in 1977 (Schlederman 1978). Other assessments near the community of Baker Lake include the Meadowbank all-weather road (Cumberland Resources 2005), as well as early archaeology research carried out in the 1950s by Rosseliere (1955).

A review of the IQ, Engagement and TLU data indicate that graves and campsites have been reported at the south end of Anigguq Lake (EN-BL CLC Apr 2008[19], IQ-BL02 2008 and IQ- BL05 2008[20]); however, these sites occur well south of the proposed Winter Access Road and are outside the LSA.

As a result of baseline studies, one archaeology site is currently identified within the Winter Road LSA (Table 4.3-8). This site is discussed below.

Table 4.3-8 Archaeology Sites in Winter Access Road Local Study Area

Borden No.	Permit/Year Recorded	Site Type	Feature/Artifact Description	Site Size
LbLb-17	2009-010A	Campsite	1 round tent outline	20 m x 20 m

LbLb-17

LbLb-17 was recorded in 2009 during reconnaissance of AREVA's proposed Winter Access Road (Golder 2010). This site consists of a stone circle located on a ridge feature 8 km west of Baker Lake. This feature was observed from a helicopter.

4.3.3 Kiggavik Site

Portions of the Kiggavik site area were previously assessed as part of the original Urangesellschaft Kiggavik project in 1988 (Friesen 1989). Areas examined included the then proposed campsite, open pits, mill sites, waste disposal areas, air strips, and associated roads using a combination of helicopter and pedestrian reconnaissance. No archaeological sites were identified.

The Kiggavik site was examined again as part of the heritage baseline studies for AREVA in 2007 (Golder 2008). The site was considered to have moderate heritage potential, with well-drained, upland features present in the area. A pedestrian reconnaissance was conducted in areas to address

[19] EN-BL CLC Apr 2008: *I have my Father's grave at the very end of Anniguq Lake*;

[20] IQ-BL02 2008: *Camping areas were described near Shultz Lake, Judge Sissons Lake, and Annuguqq Lake.*

the needs of the exploration camp including the camp itself, existing fuel cache, potential landing strip and areas around the ore bodies. Five archaeology sites were identified during this investigation.

The Kiggavik site was examined again the following year with a pedestrian reconnaissance carried out from the Kiggavik camp and extending south to Sik Sik and Pointer Lake (Golder 2009). Three archaeology sites were identified during this investigation.

A review of the IQ, Engagement and TLU data indicate that *some elders said they camped around Kiggavik*, (IQ-BL02 2008 and IQ- BL05 2008). Archaeological sites that may relate to these activities were reported north of the Kiggavik site; however, these occur between Squiggly Lake and Kavisilik Lake and are outside the LSA. A community member *stated her father is buried near Kiggavik. An inukshuk marks the spot* (EN-BL CLC Mar 2009). A general inquiry was also made in a community meeting regarding whether the area between the Project mine and the mill was examined for graves (EN-BL OH Nov 2013[21]). This area was examined during baseline studies and no graves were identified.

As a result of baseline studies for AREVA, four single feature sites were identified within the LSA (Table 4.3-9). These sites are discussed below.

Table 4.3-9 Archaeology sites in Kiggavik Site Local Study Area

Borden No.	Permit/Year Recorded	Site Type	Feature/Artifact Description	Site Size
LcLe-19	2007-015A	Lookout	1 boulder marker	5 m x 5 m
LcLe-20	2007-015A	Lookout	Stone feature (marker)	1 m x 1 m
LcLe-21	2007-015A	Hunting	Cache	2 m x 1 m
LcLe-22	2007-015A	Lookout	Stone feature (marker)	1 m x 1 m

[21] EN-BL OH Nov 2013: *Did you check to see if there are grave sites between the mine and mill?*

LcLe-19

LcLe-19 was recorded in 2007 during reconnaissance of AREVA's proposed Kiggavik mine infrastructure (Golder 2008). It was located 2 km north of Pointer Lake. This feature consists of a large linear boulder or marker placed upright on a stack of boulders measuring about 1.5 m tall. The site was revisited during the 2008 field season and again in 2009 (Golder 2010), and it was determined that the feature is modern. There is no lichen growth on any of the rocks, nor are there any other associated artifacts or features to indicate a greater antiquity. Given its proximity to recent exploration activities, this feature likely represents a recent marker related to mineral exploration activities.

LcLe-20

LcLe-20 was recorded in 2007 during reconnaissance of AREVA's proposed Kiggavik mine infrastructure (Golder 2008). The site consists of a small collapsed marker located on a prominent upland feature 770 m northeast of camp. This collapsed marker measures 2 m by 1.8 m. LcLe-20 was revisited during the 2009 field season where the feature was mapped and tested (Golder 2010). Three shovel tests measuring 50 cm by 50 cm were placed at the base of the feature on the north, east and south sides. No artifacts were recovered from any of these tests. Given the absence of significant lichen growth on the rocks, and the absence of associated artifacts, it was determined that the feature is modern. Given its proximity to the Kiggavik camp, this feature likely represents a recent marker related to mineral exploration activities.

LcLe-21

LcLe-21 was recorded in 2007 during reconnaissance of AREVA's proposed Kiggavik mine infrastructure (Golder 2008). An open cache measuring 1.5 m long, 70 cm wide, and 40 cm deep was identified 1.25 km northeast of camp in a boulder outcrop. The site was revisited during the 2008 field season and again in 2009 (Golder 2010). Despite the presence of some lichen growth on the cobbles, an old piece of paper was found under a rock at the bottom of the cache. Given the absence of associated artifacts or features to indicate the site is of greater antiquity, this feature likely represents more recent hunting activities. Feature dimensions were measured and digital photographs were taken.

LcLe-22

LcLe-22 was recorded in 2007 during reconnaissance of AREVA's proposed Kiggavik mine infrastructure (Golder 2008). It is a small collapsed marker found along the south edge of a prominent upland feature 2 km northeast of camp. Jaeger Lake can be seen to the south and is located 3.1 km away. It was noted that a large quartzite vein was present in the vicinity of the marker. The site was revisited during the 2008 field season and again in 2009 (Golder 2010). Similar to LcLe-

19 and 20, there is no lichen growth on any of the rocks, nor are there any other associated artifacts or features to indicate a greater antiquity. Given its proximity to recent exploration activities, this feature likely represents a recent marker.

4.3.4 Sissons Site

Portions of the Sissons site were previously assessed as part of the original Urangesellschaft Kiggavik project in 1991 (Friesen 1992). A combination of helicopter and pedestrian reconnaissance were used to examine the ore body near Andrew Lake. Although 10 archaeology sites were recorded east of Andrew Lake, none were identified in the current Sissons site area. This was attributed to the generally boggy landscape and low heritage potential of the area.

The Sissons site was examined again as part of the AREVA Kiggavik project in 2007 (Golder 2008). The general area where the mine infrastructure is proposed is considered to have low heritage potential, as it is characterized by generally low, wet terrain. The area was assessed using a combination of helicopter and pedestrian reconnaissance, including a pedestrian survey extending from Andrew Lake to Mushroom Lake.

The Sissons site was revisited again in 2008 (Golder 2009) where a second helicopter survey was conducted. This was augmented with a pedestrian reconnaissance carried out in upland areas north of Mushroom Lake. A total of four sites were identified during these investigations, all north of the proposed site.

Of the fourteen archaeology sites recorded in the general vicinity of the Sissons site, none are within the current LSA. A review of the IQ, Engagement and TLU data (Appendix 3A and 3B) indicated that no additional archaeology sites have been reported within or near the proposed Sissons site.

4.3.5 Kiggavik - Sissons Access Roads

The proposed access road between the Kiggavik and Sissons sites as well as access roads to Judge Sissions Lake were examined during the 2008 field season (Golder 2009). A low-level helicopter survey was flown along the routes, which was generally considered to have low heritage potential. Portions of the road corridor were also previously examined during the 2007 Sissons site survey (Golder 2008), as well as the Andrew Lake survey in 1991 (Friesen 1992).

A review of the IQ, Engagement and TLU data indicated that people used to camp on the southeast side of Judge Sissons Lake (IQ-BL02 2008 and IQ- BL05 2008[22]). A community member also reported a family gravesite near Judge Sissons Lake (EN BL CLC Sept 2008[23]).

As a result of baseline fieldwork, no gravesites were observed along the access roads; however, one archaeology site is known within the Kiggavik to Sissons Access Road LSA, and three others were recorded along the access road LSA's to Judge Sissons Lake (Table 4.3-10). They are discussed below.

Table 4.3-10 Archaeology Sites in Kiggavik to Sissons Access Road Local Study Area

Borden No.	Permit/Year recorded	Site Type	Feature/Artifact Description	Site Size
LcLf-10	1991-704	Lithic scatter	2 debitage	unknown
LcLe-27	2008-034A	Campsite	1 tent outline; lithic scatter	100 m x 50 m
LcLe-28	2008-034A	Campsite	6 tent outlines	40 m x 70 m
LbLf-2	2009-010A	Campsite	1 tent outline	10 m x 10 m

LcLf-10

LcLf-10 was originally recorded in 1991 by Friesen during archaeological assessments for the Andrew Lake Ore Body as part of the original Kiggavik project (Friesen 1992). The site consists of two conjoining flakes located on an isolated knoll approximately 400 m east of Sleek Lake, and south of the creek entering Caribou Lake. LcLf-10 is found along the access road between the Kiggavik and Sissons Sites.

LcLe-27

LcLe-27 was recorded in 2008 during reconnaissance of AREVA's proposed Kiggavik Site access roads (Golder 2009). The site is a historic campsite and lithic scatter located northwest of Judge Sissons Lake. This site is comprised of one tent outline (oval shape) measuring 2.9 m by 2.5 m and built from 13 cobbles, as well as a lithic workshop area consisting of seven pieces of quartz debitage

[22] IQ-BL02 2008: *Camping areas were described near Shultz Lake, Judge Sissons Lake, and Annuguqq Lake.*

[23] EN BL CLC Sept 2008: *After the CLC visit to Kiggavik we stopped at Judge Sessions Lake on the way back to visit my mother's gravesite.*

and one quartz flake. A .22 calibre bullet was also observed on the surface. LcLe-27 is located adjacent to the road between the Kiggavik Site and Judge Sissons Lake.

LcLe-28

LcLe-28 was recorded in 2008 during reconnaissance of AREVA's proposed Kiggavik Site access roads (Golder 2009). The campsite is located on a low gravelly area below a rock outcrop to the north of Sissons Lake. This site consists of six tent outlines, five with associated hearths within the ring (Table 4.3-11). These stone circles have a diameter ranging from 4 m to 6 m, and were constructed from between 14 and 34 cobbles. No artifacts were identified on the surface. LcLe-28 is located adjacent to the road between the Kiggavik Site and Judge Sissons Lake.

Table 4.3-11 LcLe-28 Features

Feature No.	Feature Type	Dimensions (m)	Notes
1	Tent Ring	4.6 x 4.7	23 cobbles
2	Tent Ring	5.0 x 5.0	34 cobbles
3	Tent Ring	5.5 x 5.6	28 cobbles
4	Tent Ring	3.9 x 4.2	17 cobbles
5	Tent Ring	6.0 x 5.1	20 cobbles
6	Tent Ring	4.8 x 4.5	14 cobbles

LbLf-2

LbLf-2 was recorded in 2009 (Golder 2010). The site consists of one round tent outline located 800 m north of a narrow bay on the west shore of Judge Sissons Lake. The tent outline is composed of sparse cobbles that exhibit heavy lichen. The feature is situated on a well-drained, sandy rise of land in otherwise flat and featureless terrain. The site was observed during a low-level helicopter reconnaissance of the road from the Sissons Site to Judge Sissons Lake; as a result, feature dimensions were not recorded. LbLf-2 is located adjacent to the road between the Sissons Site and Judge Sissons Lake.

4.3.6 Airstrip

A reconnaissance was carried out on the proposed Pointer Lake Airstrip during the 2007 field season (Golder 2008). A low-level helicopter survey and pedestrian reconnaissance was carried out on the proposed landform. No archaeology sites were identified. No additional archaeology sites were reported within the proposed airstrip as a result of the IQ, Engagement and TLU interviews (Appendix 3A and 3B).

4.3.7 Dock Site

The proposed dock site was examined as part of the 2013 field season (Golder 2014). A pedestrian reconnaissance was carried out within the proposed marshalling area and along the shore where the dock will be located.

As a result of baseline fieldwork for AREVA, one archaeological site was recorded within the Dock Site LSA (Table 4.3-12). A review of the IQ, Engagement and TLU data (Appendix 3A and 3B) indicated that no additional archaeology sites have been reported within the proposed Dock Site area.

Table 4.3-12 Archaeology Sites in Dock Site Local Study Area

Borden No.	Permit/Year Recorded	Site Type	Feature/Artifact Description	Site Size
LbLx-26	2013-027A	Campsite	2 round tent outlines; 1 box hearth	50 m x 50 m

LbLx-26 is a small campsite documented approximately 3 km east of the community of Baker Lake and 130 m north of the shore of Baker Lake. The site is near the southeast corner of the proposed marshalling area. The site consists of two tent outlines spaced approximately 25 m apart on a beach ridge, with a box hearth situated in between these two features (Table 4.3-13). One tent ring was built from large boulders measuring up to 40 cm to 50 cm tall; the second ring was constructed from a loose configuration of smaller cobbles.

There was also evidence of more recent habitation near the campsite. A tent ring with anchor rocks was observed approximately 400 m to the west of the campsite associated with modern refuse and plywood. Two recent caches associated with modern plastic and wood refuse were also noted approximately 100 m to the north of the campsite. Both caches were empty with no evidence of their former contents. Contemporary plywood cabins are located a few hundred meters to the east of the caches.

Table 4.3-13 LbLx-26 Features

Feature No.	Feature Type	Dimensions (m)	Notes
1	Tent Outline	2.6 m x 2.4	Oval shape; large boulders used in construction (40-50 cm tall walls)
2	Tent Outline	5 m x 5.4 m	Round shape; 55 cobbles
3	Hearth	n/r	Box hearth
n/r = not recorded			

4.3.8 Grave Sites

As a result of interviews conducted as part of the IQ, Engagement and TLU studies for the Kiggavik Project, a number of elders from Baker Lake reported the presence of grave sites within the RSA. This included areas along Judge Sissons (Qikiqqtarjualik) Lake and Qamanaujaq Lakes found immediately to the east (EN-BL CLC Sept 2008[24]; IQ-BL04 2008[25]; IQ-BL06 2008[26]; IQ-BL13 2008[27]); the northwest shore of Quglungnil'naaq Lake; the south end of Audra (Anigguq) Lake (EN-BL CLC Apr 2008[28]; IQ-BL10 2008[29]; IQ-BL16 2008[30]; IQ-BL18 2008[31]), as well as the Thelon River system including Schultz and Qamanaajuk lakes. It should be noted; however, that no graves were identified within the LSA.

In an effort to relocate some of these graves, a helicopter and pedestrian survey was conducted by Golder in 2009. Areas examined include the north shore of Judge Sissons Lake and Qamanaujaq Lakes. However, despite a thorough investigation of these areas, no evidence of graves could be found.

A helicopter survey was also conducted along portions of Schultz Lake and the Thelon River where five graves were identified at three different sites. It should be noted that not all reported grave locations on Schultz Lake/Thelon River were examined during baseline studies, nor were reported grave locations near the south end of Anigguq Lake, or the northwest shore of Quglungnil'naaq Lake examined. The three sites with associated graves recorded by Golder in 2009 on the Thelon River system are discussed below.

[24] EN BL CLC Sept 2008: After the CLC visit to Kiggavik we stopped at Judge Sessions Lake on the way back to visit my mothers gravesite.

[25] IQ-BL04 2008*: I also knew of the graves of [community member] somewhere at Qikiqqtarjualik Lake, but I'm not sure exactly where.*

[26] IQ-BL06 2008: *I heard there's a grave at* Qikiqqtarjualik *Lake of a white man.*

[27] IQ-BL13 2008*: I have heard of graves somewhere between Qikiqqtarjualik Lake and the long inlet at Aberdeen Lake.*

[28] EN-BL CLC Apr 2008: *I have my Father's grave at the very end of Anniguq Lake*.

[29] IQ-BL10 2008: *I know there are graves at the end of Anigguq Lake, and somewhere at Timmangiqtuarvik is where my grandmother has a grave.*

[30] IQ-BL16 2008: *[Community member's] mother is buried at Aberdeen, and there are more graves at Anigguq Lake, around Nuvuriktuq hill.*

[31] IQ-BL18 2008*: I have only heard that at Anigguq Lake, there might be the graves of [community member] and others.*

LdLd-8

LdLd-8 is located on a small peninsula at the southeast corner of Schultz Lake, near the mouth of an inlet. The grave consists of a large cairn of rocks with a white wooden cross. A concentration of archaeology sites recorded by Harp in 1958 is also located nearby. LdLe-1, a tent ring and inuksuk, is located approximately 360 m to the northeast.

LeLg-1

LeLg-1 is located on a high ridge on the north side of the Thelon River between Qamanaarjuk and Aberdeen Lake. Two stone cairn graves with white wooden crosses were observed approximately 500 m apart on the same broad, cobble strewn ridge. One grave was closed with a plywood "casket" visible under the rocks, while the other consisted of a shallow, circular walled enclosure that was open with bones visible inside.

LeLh-1

LeLh-1 is located approximately 10 km west of LeLg-1, where two graves were identified on a rocky ridge overlooking the Thelon River, which lies 2.5 km to the south. The southernmost grave consists of a large cairn of rocks covering a plywood “casket” with a white wooden cross. The second grave is located 210 m northwest of the first and also consists of a cairn of rocks covering a plywood “casket.” According to W. Noah (2009, pers. comm.), the first grave belongs to Alirqtisaq and the second to Nanau’naaq, brothers of John Killulark, a local resident of Baker Lake. The graves date to the mid 20th Century. Two caches, one open and one closed are also located northwest of the southernmost grave.

4.3.9 Spiritual Sites

A number of elders from Baker Lake reported spiritual sites or areas within the RSA as a result of interviews conducted for the IQ and Traditional Land Use studies (Appendix 3A and 3B). The majority seem to occur along Schultz and Qamanaajuk Lakes, which are over 12 km north of the LSA. Several accounts relate to large, often foggy hills that cannot be passed or where people get lost (IQ-BL02 2008[32]; IQ-BL06 2008[33]; IQ-BL09 2008[34]; IQ-BL13 2008[35]; IQ-BL16 2008[36]). Areas

[32] IQ-BL02 2008: *It is said a thick fog forms as you go on top of that hill, and you start to get really happy, and start playing while you are getting lost.*

closer to the LSA were identified, including the north end of Long Lake (BL14 2008[37]), and a hill at the "*end of Anigguq Lake on the west side*" (IQ-BL13 2008). However, these spiritual sites are in excess of 1 km from the LSA and not in direct conflict with the proposed development. None of the local assistants who accompanied the baseline archaeological surveys between 2007 and 2013 identified additional spiritual sites within the LSA.

[33] IQ-BL06 2008: *The only area I have heard about is Qangiqluarjuk. There's a hill you cannot go to or go through, because something starts happening.*

[34] IQ-BL09 2008: *The only spiritual site I have heard about is the one close to the Thelon River. There's a hill that gets foggy, I heard of it as Kinnga'tuaq. I heard you cannot go there or pass through.*

[35] IQ-BL13 2008: *The only spiritual site I have heard about is around the area where we cached meat, on the south side of Schultz Lake, at a high hill. You cannot go through the lower part of the hill because there is a mud area that can catch and kill caribou*.

[36] IQ-BL16 2008: *One [spiritual site] I never forget is beside the Kangirqluarjuk area. I think they call that spot Kivvaat. You can get lost there.That hill gets really foggy too. While you are there, you just go in circles and can get lost in the fog, although you can get out of it.*

[37] IQ-BL14 2008*: I know of an area where you are not allowed to go to, all around [north end of Long Lake] including the whole hill there.*

5 Summary

5.1 Summary of Archaeological Sites in the LSA

The information presented above is a summary of archaeological studies carried out in proximity to the proposed Kiggavik Project. It is a compilation of literature review, database information and field surveys that present a baseline inventory of existing archaeological conditions. A total of 373 archaeology sites are recorded within the RSA. Of these, 28 occur within the LSA (Table 5.1-1).

Table 5.1-1 Documented Archaeology Sites in Local Study Area

Project Component	Archaeology sites in LSA
All-Season Access Road	18
Winter Access Road	1
Kiggavik Site	4
Sisson Site	0
Airstrip	0
Kiggavik - Sissons Access Road	4
Dock Site	1
Total	28

The results of current and past studies indicate that the LSA is rich in archaeology sites. The densest concentration of sites occurs in three general areas:

- along the shores of Baker Lake;
- adjacent to the Thelon River; and
- the south end of Skinny Lake.

However, sites have been recorded on well drained knolls, and elevated landforms in intervening areas. The sites range from lithic scatter sites to complex multiple feature sites. The 28 known sites within the LSA can be classified according to four general site types (Table 5.1-2). Campsites are the most common, and contain, but are not restricted to, tent outlines that indicate habitation of a landform (n = 13). This is followed by lithic scatters/workshops that consist of debitage from stone tool manufacture with no associated features (n = 6); hunting sites, which include caches and blinds that relate to hunting activities (n = 5); and lookout sites, which include inuksuit or boulder markers placed at prominent locations (n = 4). Of the campsites, six contain single tent outlines. The remaining seven are multiple feature sites that contain at least two tent rings, as well as caches or lithic workstation features. This suggests multiple activities occurred at these areas. Of the hunting

sites, five contain single features, while one is a multiple feature site that contains caches, inuksuk and a fire pit. All four of the lookout sites are single feature sites.

Table 5.1-2 Documented Archaeology Sites in Local Study Area According to Type

Site Type	Frequency
Campsite	13
Lithic Scatter/Workshop	6
Hunting	5
Lookout	4
Total	28

Previous excavations of tent outlines by Friesen (1989) at LcLe-2 on Skinny Lake indicate the potential for archaeological interpretation in the region. This site produced a large lithic sample of debitage and tools including diagnostic Taltheilei Tradition projectile points. This is the only site to produce culturally diagnostic tools in the LSA. The majority of stone features in the LSA are likely affiliated with historically known and recent Caribou Inuit who continue to hunt in the region.

5.2 Status of Archaeological Sites in the LSA

The Archaeology Baseline Study focused on site discovery and inventory. This data will be incorporated into AREVA's final infrastructure plans to minimize potential impacts to known archaeological sites where possible. This applies particularly to the All Weather Access and Winter Access Road corridors where a final route has yet to be selected.

A summary of the 28 heritage resources identified in the baseline document is presented in Attachment I, along with their investigation status. The majority of these sites occur outside the 30 m avoidance buffer required by Territorial regulations. As the baseline fieldwork focused on site discovery, the majority of sites in the LSA (n=24) have been recorded to the basic level. This includes a sketch map, photographs, and recording with a handheld GPS. Detailed assessment and significance evaluation has not been carried out. Once the location of project components has been finalized and it is known which of these sites are in potential conflict with the project (i.e. within 30 m of project boundaries), they can be further assessed and evaluated. Detailed assessment may include, but not be limited to, detailed mapping, and subsurface testing. Sites located on bare rock outcrops or areas with little vegetation would minimally require detailed mapping and systematic surface inspection/artifact collection. Shovel testing may be required at those sites with soil deposition or vegetation cover to determine the presence of buried deposits. A small number of those sites exhibiting potential for greater archaeological interpretation (e.g. buried components, high artifact/feature density, diagnostic tools) may require full scale excavation. Once a detailed assessment has been completed, appropriate mitigation measures can be devised in coordination with the Nunavut Department of Culture and Heritage.

The remaining four sites in the LSA include three stone markers (LcLe-19, LcLe-20, and LcLe-22) and one open cache (LcLe-21) found within the Kiggavik mine site. All four features have been recorded and assessed. These features appear to be relatively recent. Local assistants Travis Mannik and Nick Tarraq who visited the sites during baseline studies indicated the features were recent and of low cultural importance. These sites are considered mitigated and no further assessment is recommended.

Finally, the gravesites (LdLd-8, LeLg-1 and LeLh-1) reported by local elders and included in the baseline document are located at three sites within the RSA. This includes locations on the Thelon River between Aberdeen Lake and Schultz Lake, and the southeast shore of Schultz Lake. These graves are outside the LSA, and as a result, will not be impacted by the Kiggavik Project.

6 References

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7 Glossary

Archaeology The study of past cultures through the scientific investigation of their material remains.

Archaeological Site A site where an archaeological artifact is found (Nunavut Archaeological and Palaeontological Sites Regulations, 2001).

"A site or work within the Nunavut Settlement Area of Archaeological, ethnological or historical importance, interest or significance or a place where an archaeological specimen is found, and includes explorers' cairns" (Nunavut Land Claims Agreement, Section 33.1, 1993).

Artifact "Any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated" (Nunavut Act, Nunavut Archaeological and Palaeontological Sites Regulations, 2001).

Borden Designation The Borden system of site designation is a nationally adopted system for providing archaeological sites a unique identification number. The system is a series of four letters determined by the latitude and longitude of the site followed by a number that is sequentially provided by the local regulatory agency (provincial or federal).

Box Hearth A specific type of feature created to build a fire. Three rocks are usually placed in a square pattern with one open side. The feature was used to create a small wind break and create a place to set containers to cook food and boil water.

BP Before present. Refers to the date of archaeological material or cultures relative to 1950. Example: 1,000 BP = 1,000 years before 1950 A.D. or approximately 1,000 A.D.

Cache A stone feature used to store meat, carcasses or equipment. Three forms are typically observed (after Stewart et al. 2000): i) a low cairn of loosely piled rocks used to store fresh meat or carcasses. A hollow is usually dug out of a gravel or rocky area, and heavy rocks are placed on the top and sides of a carcass (typically caribou). This often represents a fall carcass cache; ii) A more elaborate circular, walled cache used for storing dry meat or equipment. These may relate to spring abandonment of a winter camp; iii) A small circle of rocks similar to a small tent ring, with closely set rocks used to anchor a covering of skins over cached equipment.

Core A stone or source rock from which flakes have been intentionally removed.

Debitage Stone flakes or waste by-products from stone tool manufacture.

Feature	The remains of any non-portable human activity that can not be removed from a site without disturbing it (e.g., tent outline, cache).
Flake	A stone fragment intentionally detached from a source rock during tool manufacture.
Fox Trap	a long, low stone chamber with an entrance at one end that is closed by a drop slab of stone.
Graves	Graves observed in the region typically date to the 20th century and include a cairn of rocks on the surface covering a wooden plywood "casket" or human remains. Bones may be visible and the locations are often marked with a wooden cross.
Hide Drying Rings	a small (1 m diameter) ring of rocks, often on exposed bedrock or gravel, used to anchor hides while being processed.
Hunting Blind	A stone feature used to observe game while hunting. It can be a simple wall of two or more upright boulders, or a more complex semi-circular wall constructed of stacked rock.
Inuit Qaujimajatuqangit	Inuit traditional knowledge.
Kayak Stand	a double line of parallel boulders set in place to cradle kayaks for storage or repair.
Lithics	A general term used to refer to stone artifacts such as debitage or tools.
Inuksuk	Although several forms exist, those identified in this study include stacked stone features ranging from columns of flat rock or boulders, to anthropomorphic figures of more recent construction. Inuksuit (plural) have been interpreted as guides or markers strategically placed on terrain to mark trails, good hunting and fishing locations, spiritual places, or to help herd caribou during migrations (Hallenday 1994).
Lithic Scatter	A concentration of stone flakes resulting from the production or rejuvenation of stone tools.
Precontact	Refers to a time period prior to the arrival or contact with Europeans.
Qarmait	a substantial, circular walled dwelling made of rocks, usually associated with late fall encampments.
Shovel Test	A 50 cm by 50 cm subsurface test where the excavated soils and sediments are passed through a 6 mm mesh screen to maximize the return of artifacts.
Stone Marker	A feature similar in function to an inuksuk, but less complex in construction. They can range from a single rock put in place, to a small pile of rocks.

Tent Outlines

A formation of rocks used to anchor tents and usually associated with summer encampments. Two types are recognized: i) round outlines represent the remains of conical tents or tipi-like structures, and ii) square outlines represent the anchor rocks of square canvas tents that date from the Late Historic Period through to the 20th century.

Attachment A Archaeological Site Summary and Investigation Status

Table A- 1 Archaeological Site Summary and Investigation Status

Borden No.	Project Component	Year/Archaeological Investigation Permit No.	Site Type	Features/Artifacts	Site Investigation Status	Future Action
LcLa-33	All-Season Access Road	2008-024A	Hunting	Cache	Recorded	Avoidance or Detailed Assessment
LcLa-34	All-Season Access Road	2008-024A	Campsite	Square tent outline	Recorded	Avoidance or Detailed Assessment
LcLa-35	All-Season Access Road	2008-024A	Campsite	inuksuk, blind, pit (fire)	Recorded	Avoidance or Detailed Assessment
LcLa-36	All-Season Access Road	2008-024A	Campsite	Tent ring	Recorded	Avoidance or Detailed Assessment
LcLb-11	All-Season Access Road	2008-024A	Hunting	Cache	Recorded	Avoidance or Detailed Assessment
LcLb-12	All-Season Access Road	2008-024A	Campsite	Tent ring	Recorded	Avoidance or Detailed Assessment
LcLb-14	All-Season Access Road	2008-024A	Campsite	Tent ring	Recorded	Avoidance or Detailed Assessment
LcLb-15	All-Season Access Road	2008-024A	Hunting	Cache	Recorded	Avoidance or Detailed Assessment
LcLb-16	All-Season Access Road	2008-024A	Lookout	inuksuk, trail	Recorded	Avoidance or Detailed Assessment
LcLd-03	All-Season Access Road	2009-010A	Lithic scatter	30 debitage, bifacial core	Recorded	Avoidance or Detailed Assessment
LcLe-01	All-Season Access Road	1988-646	Lookout	3 tent rings; lithic scatter 150 debitage	Recorded	Avoidance or Detailed Assessment

Table A- 1 Archaeological Site Summary and Investigation Status

Borden No.	Project Component	Year/Archaeological Investigation Permit No.	Site Type	Features/Artifacts	Site Investigation Status	Future Action
LcLe-02	All-Season Access Road	1988-646	Campsite	2 tent rings;3 U-shaped features; 5 Taltheilei Points; excavated	Recorded	Avoidance or Detailed Assessment
LcLe-03	All-Season Access Road	1988-646	Lithic Workshop	lithic scatter; 20 debitage	Recorded	Avoidance or Detailed Assessment
LcLe-16	All-Season Access Road	LcLe-16	Lithic scatter	Debitage	Recorded	Avoidance or Detailed Assessment
LdLd-05	All-Season Access Road	2009-010A	Hunting	cache	Recorded	Avoidance or Detailed Assessment
LdLd-06	All-Season Access Road	2009-010A	Campsite	3 caches, 1 square tent outline, 1 round tent outline, work spot, hunting rest/equipment cache, lithic scatter	Recorded	Avoidance or Detailed Assessment
LdLd-07	All-Season Access Road	2009-010A	Campsite	1 round tent outline, lithic scatter approx. 150 debitage, retouched flake and bifacial point collected	Recorded	Avoidance or Detailed Assessment
LdLd-11	All-Season Access Road	2009-010A	Lithic Workshop	>100 debitage	Recorded	Avoidance or Detailed Assessment
LbLb-17	Winter Access Road	2009-010A	Campsite	1 round tent outline	Recorded	Avoidance or Detailed Assessment
LcLe-19	Kiggavik Site	2007-015A	Lookout	boulder marker (recent)	Assessed/Mitigated	No Further Assessment (Low Cultural Importance)

Table A- 1 Archaeological Site Summary and Investigation Status

Borden No.	Project Component	Year/Archaeological Investigation Permit No.	Site Type	Features/Artifacts	Site Investigation Status	Future Action
LcLe-20	Kiggavik Site	2007-015A	Lookout	boulder marker (recent)	Assessed/Mitigated	No Further Assessment (Low Cultural Importance)
LcLe-21	Kiggavik Site	2007-015A	Hunting	cache (recent)	Assessed/Mitigated	No Further Assessment (Low Cultural Importance)
LcLe-22	Kiggavik Site	2007-015A	Lookout	boulder marker (recent)	Assessed/Mitigated	No Further Assessment (Low Cultural Importance)
LcLf-10	Kiggavik-Sissons Access Road	1991-704	Lithic scatter	2 debitage	Recorded	Avoidance or Detailed Assessment
LcL2-27	Kiggavik-Sissons Access Road	2008-034A	Campsite	1 tent outline; lithic scatter	Recorded	Avoidance or Detailed Assessment
LcLe-28	Kiggavik-Sissons Access Road	2008-034A	Campsite	6 tent outlines	Recorded	Avoidance or Detailed Assessment
LbLf-2	Kiggavik-Sissons Access Road	2009-010A	Campsite	1 tent outline	Recorded	Avoidance or Detailed Assessment
LbLx-26	Dock	2013-027A	Campsite	2 tent outlines, 1 box hearth	Recorded	Avoidance or Detailed Assessment
LcLe-28	Kiggavik-Sissons Access Road	2008-034A	Campsite	6 tent outlines	Recorded	Avoidance or Detailed Assessment
LbLf-2	Kiggavik-Sissons Access Road	2009-010A	Campsite	1 tent outline	Recorded	Avoidance or Detailed Assessment

Table A- 1 Archaeological Site Summary and Investigation Status

Borden No.	Project Component	Year/Archaeological Investigation Permit No.	Site Type	Features/Artifacts	Site Investigation Status	Future Action
LbLx-26	Dock	2013-027A	Campsite	2 tent outlines, 1 box hearth	Recorded	Avoidance or Detailed Assessment
LdLd-08	Grave Visits	2009-010A	Grave	1 grave near LdLd-1	Outside Project Area- Not in Conflict	Outside Project Area- Not in Conflict
LeLg-01	Grave Visits	2009-010A	Grave	2 graves, one open	Outside Project Area- Not in Conflict	Outside Project Area- Not in Conflict
LeLh-01	Grave Visits	2009-010A	Grave	2 graves; 2 caches	Outside Project Area- Not in Conflict	Outside Project Area- Not in Conflict