Kiggavik Project

Environmental Impact Statement

Tier 3 Technical Appendix 9D

Archaeological Mitigation Plan

December 2011

TABLE OF CONTENTS

1 INTRODUCTION

The AREVA Resources Canada Inc. (AREVA) Archaeological Mitigation Plan (Plan) applies to the Kiggavik Project (Project) located approximately 80 km west of Baker Lake. The Plan will be in effect during the construction, operation, and decommissioning of the Project. In addition, the Plan will be made available to operational remote areas, the Project, AREVA's Baker Lake office and AREVA's corporate office.

1.1 PURPOSE AND SCOPE

Under the Nunavut Land Claims Agreement "…the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to the Inuit" (Article 33, Section 2.2). As such, AREVA is committed to devising a mitigation plan to manage archaeological sites within the Kiggavik Local Study Assessment.

The Plan will be reviewed on an annual basis and updated as required to keep the information current and consistent with regulatory and procedural changes. Any changes and/or amendments to the Plan will be submitted to the appropriate regulatory agencies for approval.

.

2 MITIGATION PLAN

Construction and exploration activities associated with the Kiggavik Project have the potential to impact archaeological sites. Poor soil formation processes in the subarctic result in heritage resources that generally occur on the ground surface or immediately below the surface or light vegetation cover. Archaeological sites in this environment can be easily disturbed. Impacts can result from project activities such as clearing and leveling of ground for the construction of roads, airstrips and buildings, and the removal of overburden and bedrock for pit and quarry excavation. Additional impacts can be created by such things as exploratory drilling equipment, laydown areas and vehicular traffic. These activities can compress or remove soils and disturb surface features, which compromises the integrity of archaeological sites. Artifacts may be displaced, resulting in the loss of valuable contextual data, or artifacts and features may be destroyed, resulting in the complete loss of heritage information. Impacts to archaeological sites are permanent and non-reversible.

Avoidance is the preferred mitigation option for the protection of archaeological sites. Ideally archaeological assessments or baseline data collection is conducted early in development planning so that site avoidance can be built into initial project plans. According to Territorial regulations, archaeological sites must be avoided by a minimum of 30 m by proposed developments. Three years of archaeological baseline studies have been carried out for the Kiggavik project by Golder between 2007 and 2009 (Golder 2008, 2009 to 2010), as well as three years by Max Friesen between 1988 and 1991 (Friesen 1989, 1992). This has resulted in the recording of 111 archaeological sites in the LSA. The location of known archaeological sites and features have been provided to AREVA project planners (AREVA, 2011). This data may enable infrastructure plans to be revised such that some development features are relocated or redesigned to avoid known sites. Avoidance is often easier for linear developments such as roads, but may not be possible in all circumstances.

In cases where avoidance is not possible, a mitigation plan must be devised to thoroughly document and evaluate a site before it is impacted. In this process archaeological sites first need to be assessed to determine potential significance. As the baseline studies for the Kiggavik Project focused on site discovery and inventory, the majority of sites (n=107) have been recorded, but not assessed. As with the baseline site inventory, assessment must be conducted by a qualified archaeologist holding a valid Nunavut Territory Archaeologist Permit. Assessment may include, but not be limited to, detailed mapping, surface collection, and subsurface testing to evaluate the site. Sites located on bare rock outcrops or areas with little vegetation would minimally require detailed mapping and systematic surface inspection/artifact collection. Subsurface testing may be required at those sites with soil deposition or vegetation cover to determine the presence of buried deposits. In rare instances, those sites exhibiting potential for greater archaeological and cultural interpretation (e.g. buried components, high artifact/feature density, and diagnostic tools) may require full scale excavation to recover an

adequate sample of the site before it is impacted. Once a detailed assessment has been completed, appropriate mitigation measures can be devised in coordination with the Department of Culture, Language, Elders and Youth, Nunavut.

It should be noted that even the most thorough investigation may not identify all archaeological materials that may be present in the project area. It is advised that if unanticipated archaeological materials or features are encountered, the following procedures will be followed:

1) All construction activity in the vicinity will immediately cease.

2) The Territorial Archaeologist and a qualified consulting archaeologist will be contacted. The potential significance of the cultural materials will first be assessed, and then mitigative options will be identified.

3) If the cultural remains are determined to be significant enough to warrant further action and they cannot be avoided, the qualified consultant in consultation with the Territorial Archaeologist, Inuit Heritage Trust and representatives of local communities will determine an appropriate course of action.

4) In the case of human remains, the RCMP will be contacted. If remains are determined to be archaeological, representatives of local communities as well as the Inuit Heritage Trust will be contacted to determine how to appropriately deal with the remains. Options could include avoidance or potentially respectful removal and reburial.

3 REFERENCES

AREVA Resources Canada (2011). Kiggavik Project EIS. Technical Appendix 9B – Archaeology Baseline, December 2011

Friesen, M.T. 1989. Kiggavik Uranium Mine Project, Baker Lake, North West Territories Canada. Environmental Assessment. Supporting Document No. 9, Archaeology. Prepared by Beak Consultants Ltd. for Urangesellschaft Canada Ltd.

Friesen, M.T. 1992. Archaeological Investigations in the Vicinity of the Kiggavik Uranium Mine Project, District of Keewatin, North West Territories: The 1991 Field Season (Permit No. 91-704).

Golder Associates Ltd. 2008. *Archaeological Baseline Collection for the Kiggavik Uranium Project Nunavut 2007, Permit No. 2007-015A*. Report on File with the Department of Culture, Language, Elders and Youth, Igloolik.