DE BEERS CANADA EXPLORATION
KIKERK/KNIFE LAKE PROJECT DESCRIPTION

INTRODUCTION
De Beers Canada Inc.-Exploration (DBCE), a Canadian company located in Toronto, has prospected and explored for diamonds in the Kikerk Lake (*Kikkiktalik*) area of the Slave Geological Province from the 1990s until the present day. DBCE would like to continue that activity, and by means of the accompanying Nunavut Water Board (NWB) application, requests permission to renew its Type B licence to use water for domestic and exploration activities on its "Kikerk/Knife Lake" mineral property. No project activity would occur on Inuit-Owned Land.

STATUS OF PERMITS AND AUTHORISATIONS
De Beers Canada (DBC) currently holds five mineral claims in the Kikerk/Knife Lake area (*cf. MAP 1) – KL 08, KL 10, KL 11* and *KL 12,* as well as the adjoining *TREE 1* claim, all now taken to lease as, respectively: lease #4641, #4642, #4643, #4644 and #4600. DBC's total holdings equal 11 268.11 acres. All claims are on Crown land. In summer 2003, the *TREE 1* claim was transferred to DBCE from joint-venture partner, Rhonda Corporation.

DBCE holds a Class A land-use permit from Indian and Northern Affairs Canada (INAC) – *#N2003C0037* (valid until 01 February 2007) which allows for operation of a base camp and exploration by means of sediment sampling and geophysics, diamond drilling and trenching, and allows provision for bulk sampling of the Knife Lake kimberlite body by means of conventional large-diameter (LDDH) drilling.

DBCE also holds NWB water licence *#NWB2KIK0405 (*Nunavut Impact Review Board File *#03EN128)* which expires 31 December 2005 and is the focus of this application.

Prior to commencement of a programme in spring 2006, DBCE also will obtain a drilling authorisation from the Workers' Compensation Board (WCB), an Extended-Hours Permit from Nunavut Labour Standards and will ensure that the trenching contractor (likely NWT Rock Services) provides the necessary blasting permit required by the WCB. (Due to the limited amount of blasting, the WCB advises that a magazine permit may not be required).

PROPOSED ACTIVITIES AND THEIR NECESSITY
In order to determine if the claims area holds economic potential, active exploration comprised of prospecting, surficial sediment sampling, airborne and ground geophysical surveying and exploratory, delineation and evaluation drilling/sampling of numerous targets over a number of years is necessary. Without this level of care and effort, new kimberlite ore bodies, such as the Knife Lake kimberlite, will not be discovered and potential economic resources for Canada will remain unproven.

The remote location of the Kikerk/Knife Lake property (*Figure 1)*, harsh weather conditions, a highly variable winter drilling window and short summers mean that many more field seasons are required to find, test, analyse and understand resources than would be required in southern Canada; further, the cost of carrying out a field programme in the near-Arctic is high, which can mean that there may be occasional years in which no programme is conducted at all. Oftentimes, a claim life of 10 years is insufficient to "source" multiple mineral indicator trains across a large claims area, and thus exploration may continue on claims such as Knife Lake after they are taken to lease. As noted above, 5 DBCE claims on Crown land have been taken to lease (*Map 1*), so that exploration for and evaluation of resource may continue.

Camp Operation – Crown Land
It is proposed to construct a temporary tent camp at the nearby approved location on the Tree River (67° 00' 20" N. lat. – 113° 09' 01" W. long) commencing around 24 April 2006 (*Map 1* and *Photo 2*), depending on receipt of the renewed water licence. The fly-in camp would be similar in size and composition to our former "Rockinghorse camp" (*Photo 1),* equipped with sufficient sleep tents for up to 20 persons (e.g., 1 women's tent and 4 men's sleep tents), a kitchen, dry, office, contractor shack, first-aid shack, coreshack, generator shed, burn barrel or incinerator and latrine, as well as a helicopter landing area and camp-based fuel cache. A bear fence would not be erected unless summer activity were planned.

As the camp would be comprised of Weatherhaven-type tents, it would be dismantled and removed at the end of the 6-week 2006 programme. The camp could be re-established later, depending on results.

Drill and Trench Programme 2006 – Crown Land

In spring 2006 (approx. 01 May to 10 June), a 12-hole core-drilling programme producing the equivalent of HQ-diameter (6.5 cm) diameter core is planned at Knife Lake; the objective is to better constrain the surface expression and external pipe shape of the Knife Lake kimberlite, located at the north end of the small lake. A heli-portable fly rig, such as the LF-70 already used at Knife Lake in several past programmes, may be deployed. Specifications for this Boart Longyear rig were supplied with our prior application (December 2003).

A programme of 12 DDH is planned (*Map 2a, Figure 2),* with a total estimated end-of-hole depth of 2 300m; holes #1 and #3, #2 and #11, #4 and #5, #6 and #7, and #8 and #9 are to be drilled from the same setup.

A mechanical land-based trenching programme to collect 300t of kimberlite (100t x 3 trenches) is also planned during this time to gain a better understanding of diamond grade and stone distribution; tentative dates are for the last 2 weeks of May (21 May-03 June). Trenching (*Map 2b, Figure 3)* would occur to the northeast of Knife Lake, where the Knife Lake kimberlite pipe subcrops to land at the north and east, an area of approximately 3.5ha. Kimberlite recovered would be flown from Knife Lake by helicopter to the campsite 1.5km away or other suitable staging point nearby and then flown off-site by fixed-wing aircraft to Yellowknife, thence to the DBC processing facility in Grande Prairie, AB, with diamond recovery from the concentrate occurring at a De Beers facility in Johannesburg, SA.

Three kimberlite subunits in two areas within the Knife Lake kimberlite pipe subcrop to land and thus are accessible for land-based sampling. Three trench sites were selected – identified as Trench #1, #2 and #3 – based upon drilling information that indicates that the overburden is relatively thin at these locations; the perimeters of the trenches are no closer than 20m from lakeshore (Trench #2) and up to more than 40m (Trench #3). Overburden (bouldery groundcover) will be removed to expose the kimberlite at the trench sites. A backhoe/loader, likely rented with an operator from Kugluktuk, would be brought to site for this purpose. Blastholes will then be drilled to depths of approximately 3m at each trench site, using a compressed-air powered percussion drill supplied by the contractor (likely NWT Rock Services). A “powder factor” of 0.4kg of explosive per tonne of rock to be blasted, is anticipated; however, the specific amount will be determined on site by the contractor. The blasthole would be partially filled with the explosive charge to within 75cm of the surface; blastholes are not filled above the explosive charge. The kimberlite sample (blast rock) would then be removed from the trench by the backhoe/loader and deposited into orebags for transport off site. The surface area of each trench is estimated to be 10m x 10m. Trenches would be refilled with the overburden retained.

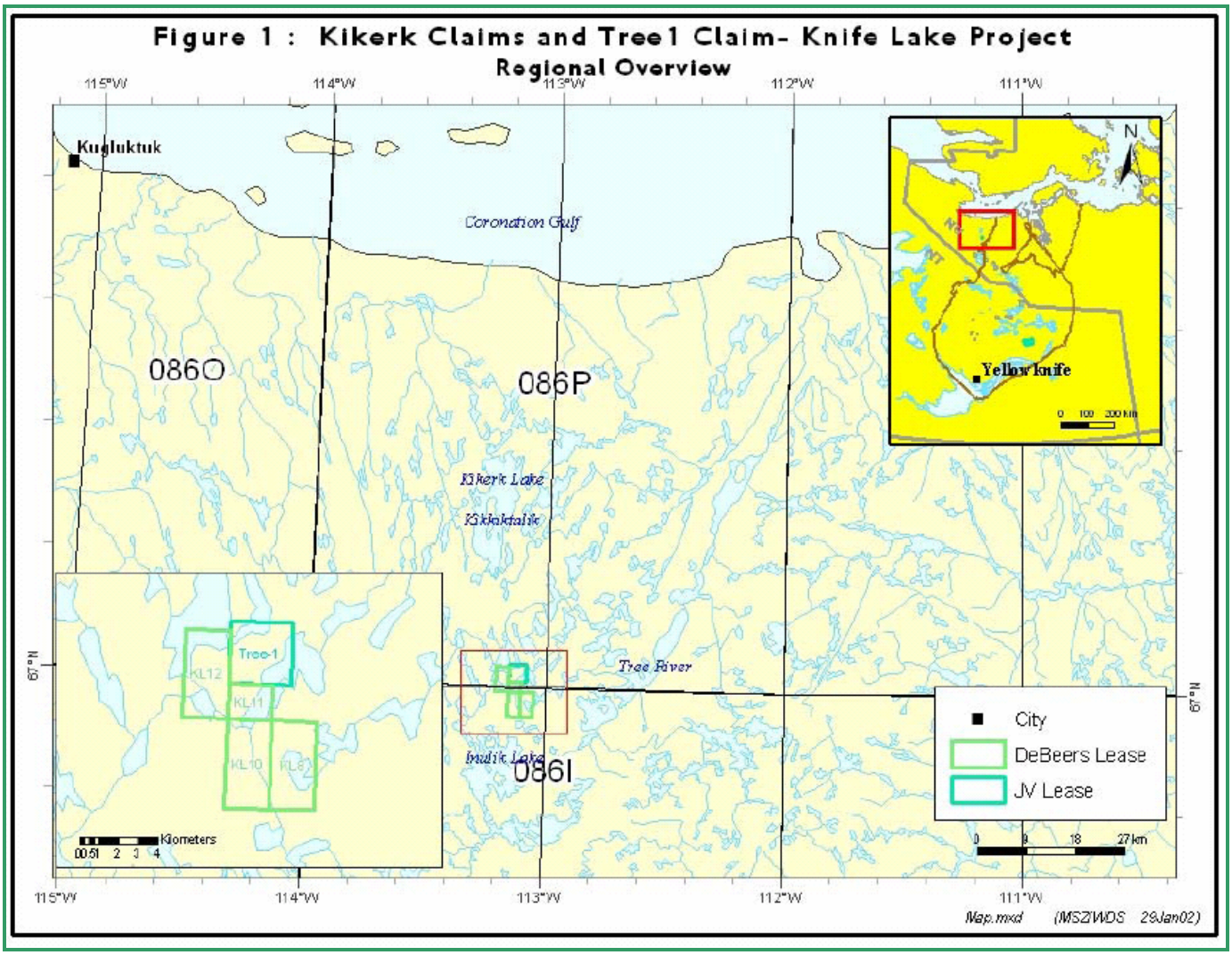
In no case would there be disturbance to any watercourse; exact locations of Trench #2 and Trench #3 would be established so as to be no closer than 5m from the South Stream of Knife Lake.

Drill Programme 2007 – Crown Land

Should results from the 2006 programme indicate that further (i.e., larger-volume) evaluation of the Knife Lake kimberlite is warranted – to gain further information on diamond grade and stone distribution – DBCE might consider a large-diameter drilling programme (with either a production rig alone to do both casing and sample recovery, or with both an LDDH casing rig and production rig). Drilling methodology similar to that used at DBC’s Kennady Lake (Gahcho Kué) Project, NT, in 2001-2002 would be employed, i.e., reverse-circulation air-assist production drilling which lowers the incidence of stone breakage typically encountered with reverse-circulation (water) alone. The large-diameter holes (LDDH) would be located near previous vertical core holes; however, the number of holes, exact locations and drillhole lengths cannot be determined at this time. It is hoped that allowance for a possible LDDH programme will remain within the licence when it is renewed; specific details would be provided at a relevant time, should that programme be planned to occur.

It should be noted that plans beyond 2006 are necessarily highly speculative and subject to change, depending on results and year-to-year budgets; whilst a programme may prove successful, there is also the possibility that a programme may prove unsuccessful, which is a disincentive to further work. INAC, other regulators and Kitikmeot residents, principally of Kugluktuk, shall be kept fully apprised as plans evolve.

Figure 1



Regional map of the Kikerk/Knife Lake area. Kugluktuk is 140km NW.

Figure 2

DE BEERS CANADA INC. - EXPLORATION
PROPOSED SPRING 2006 DRILL PROGRAMME

HOLE #	EASTING	NORTHING	LATITUDE - N	LONGITUDE-W	ELEVATION	PROPOSED DEPTH (m)	AZIMUTH	DIP (°)
KIK-P1	406190	7434370	67° 00' 50"	113° 09' 10"	395	250	0	-90
KIK-P3	406190	7434370	67° 00' 50"	113° 09' 10"	395	150	70	-45
KIK-P2	406150	7434330	67° 00' 48"	113° 09' 13"	395	150	290	-45
KIK-P11	406150	7434330	67° 00' 48"	113° 09' 13"	395	250	0	-90
KIK-P4	406080	7434230	67° 00' 45"	113° 09' 19"	395	250	0	-90
KIK-P5	406080	7434230	67° 00' 45"	113° 09' 19"	395	150	270	-45
KIK-P6	406180	7434140	67° 00' 42"	113° 09' 10"	395	250	0	-90
KIK-P7	406180	7434140	67° 00' 42"	113° 09' 10"	395	100	190	-45
KIK-P8	406260	7434310	67° 00' 48"	113° 09' 04"	395	250	0	-90
KIK-P9	406260	7434310	67° 00' 48"	113° 09' 04"	395	100	60	-45
KIK-P10	406150	7434190	67° 00' 44"	113° 09' 13"	395	200	0	-90
KIK-P12	406350	7434200	67° 00' 44"	113° 08' 57"	395	200	0	-90
						2,300.00		

Datum is NAD 27, Zone 12N

Figure 3

DE BEERS CANADA INC. - EXPLORATION
PROPOSED SPRING 2006 TRENCHING PROGRAMME

TRENCH #	EASTING	NORTHING	LATITUDE -N	LONGITUDE-W
#1	406190	7434410	67° 00' 51"	113° 09' 11"
#2	406271	7434190	67° 00' 44"	113° 09' 04"
#3	406297	7434190	67° 00' 45"	113° 09' 01"

Anticipated trench size: 10m x 10m

Datum is NAD 27, Zone 12N

DURATION OF PROJECT CAMP

As the Kikerk/Knife Lake Project remains active, the maximum length of time for a licence is requested – that being two years -- from 01 January 2006 (as the current licence expires on 31 December 2005) until 01 October 2008. This timeline allows for the period when no work can occur, i.e., the four months required for licence renewal, as well as the transitional seasons when no work can occur due to lack of sufficient ice for planes to land.

METHOD OF TRANSPORTATION

The core drill, tooling, other equipment (such as drill and pump shacks, generators, compressors, pumps, Poly-Drill filtration mud tank), fuel drums and occasionally personnel will be moved from site to site by helicopter; it is expected that Great Slave Helicopters of Yellowknife will provide this service. Personnel normally will go to and from the worksite by snowmobile during the 2006 programme.

A helicopter (e.g., an A-Star or Hughes 500D with pilot and engineer) would be based at the proposed camp to support the spring 2006 exploration drilling programme and be available for emergency transport, if required. Fixed-wing service will be required to mobilise, supply, resupply and demobilise the Kikerk/Knife Lake camp and to transport kimberlite samples; it is expected that Air Tindi of Yellowknife will provide this service. A Twin Otter and other aircraft, such as a Dash-7, will be deployed on a regularly-scheduled basis. The natural ice of the Tree River near camp, where blown clear of snow, will be used for aircraft landing and takeoff.

Around camp and the worksite, transportation will be by snowmobile; up to 3 snowmobiles will be based at camp for the use of camp personnel. Snowmobiles with komatiks are to be used for loading/offloading and transferring fuel to tent drums – not for overland travel away from camp. Three additional snowmobiles will be provided for the 2 shift drillers and foreman, as well as a snowmobile for the excavator operator, to travel back and forth to camp.

Due to the remote location, there are no viable alternatives to the aforementioned modes of transportation.

CAMP AND STRUCTURES

The Kikerk/Knife Lake camp will be a small (20-person) fly-in tent camp located on the east shore of a peninsula intruding the Tree River (*Map 1)*. This camp will be similar in size and composition to DBC's former Rockinghorse camp *(PHOTO 1),* and operated in compliance with a 31m setback from shore; the Knife Lake camp, however, would be comprised entirely of tents (Weatherhavens) and is to be completely removed at the end of the programme. The Kikerk/Knife Lake camp will contain an office, kitchen, dry (for washing and laundry), coreshack, contractor shack, generator shed, outhouse (with 2 divided privies or 2 Pacto waterless toilets) and 5 sleep tents, one of which is reserved for the cook/first-aid attendant. It is expected that 2 generators will be brought to site, one to serve as a spare during oil changes and other maintenance. Potable water would be drawn from the river through a screened waterline to prevent entrainment of fish, and water circulated through a boxed and heat-traced distribution system linking the kitchen and dry, with greywater from the kitchen and sinks/showers outfalling to a hand-dug sump pit; only biodegradable phosphate-free soaps will be used. If there are periods when a frost box is not possible, the line will be affixed with coil heaters and pumping closely monitored to guard against freezeup. Pacto bags from the latrine and kitchen waste will be burned or incinerated daily to limit animal attraction to the camp; if privies are used instead of Pactos, pits would be hand-dug, then refilled at programme closure; pits would be treated regularly with lime. There will be no structures erected away from camp, other than a temporary tarp shelter for the excavator; the contractor would provide a gen-set for powering a Herman Nelson. This shelter would serve as an emergency muster station, should it not be possible to reach the main camp, such as during a whiteout.

FUEL STORAGE

All fuel-handling, whether for camp, drilling or excavator equipment for the trenching, will be governed by the revised Kikerk/Knife Lake Spill Contingency Plan *(accompanying this application).*

A fuel storage area (drums of diesel and Jet-B fuel, segregated from each other) will be located beside the camp compound, sited the required distance from shore. A helicopter landing area will be designated; Jet-B drums will be positioned there, with empties separated from full drums and removed on backhauls. A separate storage area will be created for P40/P50 diesel drums, with empties removed on backhauls. Cylinders of propane (45kg size) will be stored by the kitchen and dry in an upright and secure position; empty cylinders will be removed on backhauls. There will be no other fuel cache on the property, although drums sufficient for daily needs will be stationed where required, e.g., at the drill and beside the temporary equipment shelter.

Approximately 200 drums of diesel (heating fuel and fuel for generators and pumps, and the excavator) will be required for the camp in spring 2006, with only up to about 25 full drums actually stored on site at any one time. Empty drums will be rotated out regularly on backhauls. It is estimated that 6 drums of petrol (unleaded gasoline) will be required for snowmobiles. Aviation-fuel use is estimated at 100 barrels. All fuels will be flown in. Oils required for the camp generators, water pump and snow machines (typically 1- and 2-L size) will be stored in the generator shed; tubs of oils and other lubricants required by the drill crew will be stored at drill-side. Compressed gases for welding will be chained and properly maintained at drill-side.

A spill-kit drum (set of pads, socks and/or pillows, disposal bags, gloves, goggles, Spagh-Zorb or peat moss, depending on kit manufacturer) will be present in camp, at the fuel/heli-pad area and at the drill. Additional absorbent pads and drip pails or pans will be present where fuel is transferred and under stationary equipment. Fuel transfer will be by means of hand wobble, electric or diesel fuel pump. Wooden cribs will be constructed to support fuel drums at tents, with absorbent padding and catch pails placed directly under drum valves; pails, fuel-line hoses, connections and valves will be checked daily, and the pails shovelled free of snow, as required.

POTABLE WATER, GREYWATER AND WASTES

Potable water will be pumped to a holding tank in the dry, supplied by poly-line inserted into the river offshore; suction line will be suitably screened to prevent entrainment of fish. Greywater line is to be insulated and heat-traced within a plywood utilidor and will outfall from the kitchen sink and lavatory basin and showers to a hand-dug sump (typical dimensions, as used at Rockinghorse camp, are 1m X 1m X 1.5m); sump will be covered in winter to prevent its being filled with snow. Kitchen waste will be burned or incinerated at least daily; where practical, cardboard boxes and packing will be recycled and office paper will be reused. No food scraps or other refuse will be left at the worksite; what is packed in for a shift will be packed out at the end of the shift.

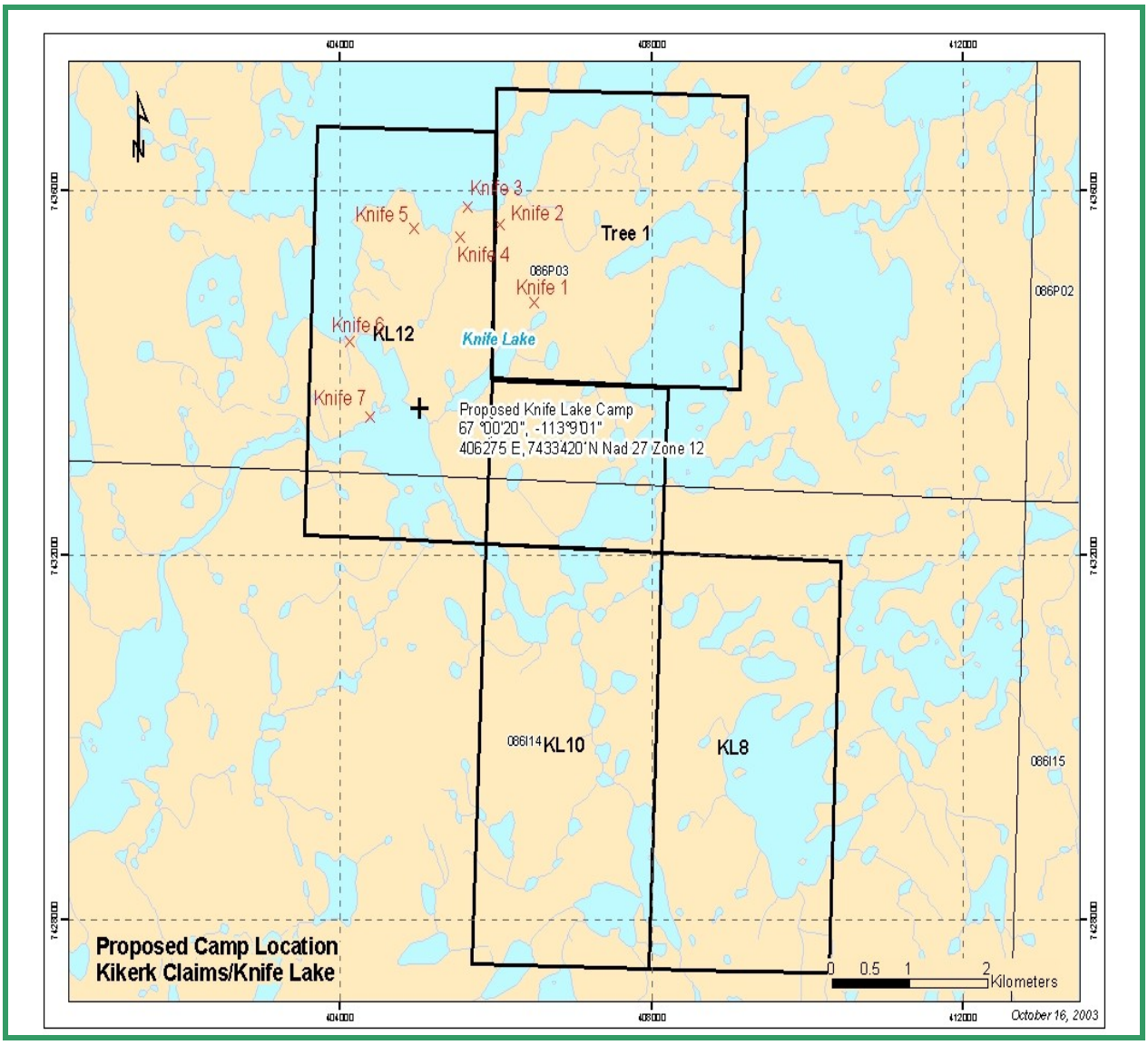
An outhouse will be constructed with either 2 plywood-divided privies or 2 Pacto toilets. Bagged wastes will be burned daily (if Pactos are used), along with other combustible waste, in either a fuel-fired incinerator (such as was used at our former Rockinghorse camp) or in a designated burn barrel (205 L sized drum) positioned at the edge of the camp compound. Non-combustible garbage, including metal waste and other bulky scrap, will be flown out for recycling or disposal at the Yellowknife landfill. Waste oil/filters/oily rags and waste fuel will be stored in discrete drums and flown out for proper disposal via a contractor. If a burn barrel is used instead of an incinerator, waste fuel can be recycled for burning combustibles.

POTENTIAL IMPACTS OF CAMP

Potential impacts of the Kikerk/Knife Lake exploration camp locally, regionally and to the hamlet of Kugluktuk 140 km away, are predicted to be minimal, given the commitment of De Beers Canada to its Environmental Policy, Environmental Management System (EMS) and its regulatory requirements.

The camp will amount to only a few hectares (4 ha are allowed under the current land-use permit), and the period of activity during any one year will be limited to approx. four or five months in total. Although any human habitation, whether an outfitter's camp or an exploration camp, could possibly result in inadvertent localised fuel spills, or untidy conditions which could in turn result in animal attraction and subsequent damage to property or injury to persons, it must be noted that such occurrences can be successfully controlled by constant vigilance of camp systems and practices. As per best practice, and guided by the DBCE EMS (*cf. Appendix 1D - CD-ROM)* and the company-wide Environmental Policy (*Appendix 1B),* all camp occupants are trained in environmental awareness, proper fuel handling, and in spill and fire response, as well as in safety responsibilities.

Figure 4



The proposed campsite is shown above, approx. 1.5km from the Knife Lake exploration area. Archaeological Site #1, north of the North Pond of Knife Lake, is the closest site to the work area. However, no sites are in jeopardy from the camp or worksite. An archaeological field survey could be conducted in summer 2006, if further evaluation is planned for 2007.

All camps not in use are properly closed, and areas where use is completed are reclaimed *(also cf. Abandonment and Restoration Plan, Appendix 6);* in the case of the Kikerk/Knife Lake camp, the structures will be removed at the end of the programme. In small camps, such as the Kikerk-Knife Lake camp, weekly written inspections are done of all facilities and systems, which inspections augment the daily checks performed by the camp attendant during his/her rounds. In larger DBC camps (i.e., those over 25 persons), daily inspections of all facilities and systems are conducted.

In addition, as one of the key objectives of the DBC Environmental Policy is continuous improvement, it is anticipated that the camp will be regularly inspected not only by regulators but by in-house auditing personnel. A site visit also may be organised for community visitors, such as elders, if the community of Kugluktuk so requests.

If further evaluation of the deposit is warranted beyond spring 2006, an environmental baseline data collection programme will be designed and implemented, expanding in 2007 to include a range of biophysical components, such as wildlife density and distribution, and fish population and habitat. What is planned for spring 2006 is continuation of a water-quality sampling programme to establish the baseline conditions in Knife Lake and in the area of the Tree River beside camp, with water samples collected before, during and after the drill programme by qualified technicians and submitted to EnviroTest Laboratories in Edmonton (a certified environmental laboratory) for analysis of total and dissolved metals and routines; an additional water-sampling event is planned for summer 2006, with additional archaeological surveying also possible.

The health and well being of wildlife is of great concern to De Beers Canada in all our operations. If numbers of caribou or muskox should enter an area where work is proceeding, all optional work will cease until the herd has moved on; in a camp context, this would mean foregoing optional operation of equipment, such as takeoff of helicopters. Wildlife will not be approached or disturbed by persons on foot or via equipment. A Wildlife Sighting Form *(Appendix 5)* routinely used at other DBC camps will be employed. Although the project area offers no esker habitat, DBC is aware of the general importance of glaciofluvial and glaciolacustrine landforms to bears, wolves, foxes and prey mammals, such as sik-siks, and limits habitat disruption wherever possible. Favourable esker habitat is located further south, off the property.

It is understood that archaeological and heritage resources also may be impacted by camp activities. To that end, camp personnel and contractors will be required to follow the Kikerk/Knife Lake Archaeological Protocol (*Appendix 4).* As a field survey was conducted of the Knife Lake area in summer 2003, and previously in 2001, the locations of 7 archaeological sites are known (*cf. Figure 4)*, and thus can be avoided by camp personnel; all archaeological reports are filed with our regulators, including the NWB. A further field survey specifically of the camp area and any possible equipment-transport routes is possible in summer 2006. There are no known deposits of carving stone.

Archaeological Assessment of Potential (2006) Winter Haul Route

The 2003 survey also examined a potential haul route which might be required in future years to move a large (non-heliportable) bulk-sampling rig or other heavy equipment, such as a loader, from the north shore of the Knife Lake peninsula to the drillsite (approx. 1.5km); no archaeological sites were found to exist in this flat, bouldery area (*cf. Summary Report – Appendix 10A, 2003 Application to NWB)*. It is not currently planned to move the trenching equipment (excavator) once in place; however, if this becomes necessary, the surveyed route will be used in spring 2006. A possible winter haul route between Kugluktuk and Knife Lake in 2007 would have to be investigated next year, if warranted; there are currently no details.

SPILL CONTINGENCY PLAN

The accompanying Kikerk/Knife Lake Spill Contingency Plan is informed by DBC's commitment to avoiding spills where possible, prompt action when spills occur and utmost concern for the environment, human health and safety. The DBC Environmental Policy (*Appendix 1B)* is contained within the DBCE EMS, which system will be kept on site in CD-ROM, digital format and, if required, in hard copy, for reference and for training purposes. Our comprehensive, updateable EMS came into effect in 2001 and is included as a CD-ROM with this application (*Appendix 1D)*.

BENEFITS TO INUIT

In all its projects, De Beers Canada hires locally to the extent possible. As the Kikerk/Knife Lake Project still is at the exploration stage, there are fewer opportunities for non-technical employment than with a more advanced project; however, opportunities for service provision do exist each season, and such opportunities (e.g., hotel accommodation, equipment and supplies) result in direct dollars to communities. Currently, it is planned that up to 2 Kitikmeot residents will be hired as camp staff during the spring programme. Various Kitikmeot services have been used in past programmes, and such use is expected to continue in 2006 and beyond, expanding *as* and *if* the programme expands.

De Beers Canada also plans to continue to visit the closest community, Kugluktuk, regularly in connection with its programmes to discuss with regulators and the community what is planned or has occurred. The last meeting occurred in February 2004. A meeting in regard to the 2006 programme is likely early in 2006, or at such time as is convenient to regulators and the community. If and when the project expands, opportunities for direct employment, service provision and other benefits also will expand. Whatever the project outcome, the De Beers Canada family looks forward to a co-operative and mutually beneficial relationship with the citizens of the Kitikmeot.

Prepared: 30 November 2005
Shirley Standafer-Pfister-YK-De Beers Canada