NWB2SEP

March 28, 2002

DISTRIBUTION

Please find enclosed a copy of an application for a *Science Research License* from **Linda Kah, Department of Geological Sciences, University of Tennessee.**

Linda Kah's research is titled ***"Reef Evolution and Basin Development, Dismal Lakes and Parry Bay Groups"*** and is proposed to take place from June 1, 2002 to September 1, 2002.

As per the **Scientists Act** of Nunavut, community consultation is required before a Science Research Licence can be issued. The documentation is provided for your information and review. A ***Reviewer Recommendation Form*** is enclosed for your response by ~~March~~ May **10, 2002.**

Thank you for your continued assistance. Please contact our office if you have any questions or concerns regarding the above.

Susan Ignace Woodley

for Mary Ellen Thomas
Manager, Research Liaison

encl.

cc: Environmental Assessment Screener, NIRB
Chairperson, Kugluktuk HTO
Mayor/SAO, Municipality of Kugluktuk
Assistant Director of Wildlife Management, NWMB
Lands Manager, Kitikmeot Inuit Association
Manager of Regional Planning, NPC
Executive Director, NWB
Area Manager, DFO

INTERNAL

Original 1:250,000 maps and translated summary will be shipped asap.

These copies show camp locations + approximate foot transects.

Thanks.
- LCKah

, Fax: (867) 979-4681, Internet: iqrcnri@nunanet.com
) 979-6734, ᐅᖃᓕᒫ: (867) 979-4681, ᖃᓄᐃᑦ: iqrcnri@nunanet.com

Nunavummi Qaujisaqtulirijikkut /Nunavut Research Institute
Box 1720, Iqaluit, NT XOA OHO phone: (819) 979-4108 fax: (819) 979-4681 email: slcnri@nunanet.com

Reviewer Recommendation Form: Land &/or Water Based Research

Applicant Name:	**Linda Kah**
Project Name:	**Reef Evolution and Basin Development, Dismal Lakes and Parry Bay Groups**

Review Panel Name:	**Lands Manager, Kitikmeot Inuit Association**
Region:	**Kitikmeot**

Research Discipline: Geology

Panel Comments:

Requested Terms or Conditions:

Approved ☐ Rejected ☐	Annual ☐ or Multi-year ☐	Signature	Title:	Date

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SCIENTIFIC RESEARCH LICENCE APPLICATION

Emailed 3/15/02
Mailed 3/15/02

(Land, Freshwater & Marine Based Research)

This application fulfills the requirements for NIRB environmental screening

SECTION 1: APPLICANT INFORMATION

1. Applicant's full name and mailing address:

LINDA CHRISTINE KAH
DEPARTMENT OF GEOLOGICAL SCIENCES
1412 CIRCLE DRIVE
UNIVERSITY OF TENNESSEE
KNOXVILLE, TENNESSEE USA

Fax: (865) 974-2368
Phone: (865) 974-6399
E-mail: LCKAH@UTK.EDU

2. Field Supervisor (address, if different from above):
SEE ABOVE

Phone (radio or otherwise):

3. Other Personnel list (name and position):
PATRICK JEROME SCHUNEMAN (GRADUATE STUDENT)
MELONDEE BRYN MCINNISH (UNDERGRADUATE STUDENT)
1 FIELD ASSISTANT (TO BE NAMED)

Total # of personnel: 4 **Total # of person days:** 180 person days = 8 P.D.

SECTION 2: AUTHORIZATION NEEDED

4. List the organisations you will contact for necessary authorizations associated with the project. (See Appendix A & B):

(SEE BELOW) PLUS → CONTACTING - COPPERMINE HTA
- UMINGMAKTOK HTO

(SEE ALSO, SECTION 7, # 19)

5. List the active permits, licences, or rights related to the project and their expiry date:

NO ACTIVE PERMITS

APPLICATIONS SUBMITTED TO → KITIKMEOT INUIT ASSOCIATION
NUNAVUT WATER BOARD
DIAND

SECTION 3: PROJECT PROPOSAL DESCRIPTION

6. Project duration:

Period of operation: JUNE 25, 2002 to AUGUST 6, 2002

Proposed term of permit: JUNE 1, 2002 to SEPTEMBER 1, 2002

Project title: REEF EVOLUTION AND BASIN DEVELOPMENT, DISMAL LAKES & PARRY BAY GROUPS

7. Location(s) of data collection:

- Land Status Types: Crown, Commissioners', Inuit Owned Surface Lands, Inuit Owned Sub-Surface Lands, & Other
- Please ensure that maps of the project area are attached (1:50 000, 1:250 000) * SEE ATTACHED

Location Name	Region	Latitude (north) APPROXIMATE	Longitude (west) APPROXIMATE	NTS Map sheet #	(?) Land Status
SEPTEMBER LAKE	KITIKMEOT	67° 06'	115° 45'	0-86 O - 00	N/A
DISMAL LAKE	KITIKMEOT	67° 25'	117° 03'	0-86 N - 00	N/A
BEBENSEE LAKE	KITIKMEOT	67° 29'	118° 32'	0-86 M - 00	N/A
PARRY BAY	KITIKMEOT	67° 50'	107° 30'	0-77 A - 00	N/A
For additional sites, attach a separate page					

NON-TECHNICAL PROJECT PROPOSAL SUMMARY

* **8. On a separate page, please include a non-technical description of the project proposal, no more than 300 words, in English & Inuktituk (Inuinaktun, if in the West Kitikmeot). The project description should outline the project activities (research methods, camps, etc.) and their necessity, method of transportation, any structures that will be erected, expected duration of activity and alternatives considered. If the proposed activity fits into any long-term developments, please describe the projected outcome of the development for the area and its timeline.**

SECTION 4: MATERIAL USE

9. List equipment (including drills, pumps, aircrafts, etc.):

Equipment type and number	Size-dimensions	Proposed use
Rock hammers (3)	30-45 cm long	Removing small (5×7×3cm) rock samples from surface outcrops.

10. Detail fuel and hazardous materials use:

Fuels	Number of Containers	Capacity of Containers (gal & litres)
• Diesel	—	—
• Gasoline	—	—
• Aviation fuel	—	—
• Propane	—	—
• Other white gas	2-3	1 gallon (4 litres) - cooking fuel.
Hazardous Materials	**Number of Containers/Concentration**	**Capacity of Containers (gal & litres)**
• —	—	—
• —	—	—
• —	—	—

10. Describe method of fuel transfer:

N/A

11. Describe any procedures and materials in place to handle accidental spills. Please attach the spill contingency plan and other appropriate information about the hazardous materials associated with the proposed project.

N/A ACCIDENTAL SPILLS - MAX 4 LITERS -
- SATURATED MATERIAL WILL BE DUG UP, CONFINED, + REMOVED.

SECTION 5: WASTE DISPOSAL AND TREATMENT FACILITIES

12. Describe amount and methods of disposal:

Type of Waste	Projected Amount Generated	Method of Disposal	Additional Treatment Procedures
Sewage	N/A	N/A	N/A
Grey water	PERSONAL	BURIAL	N/A
Garbage	< 10 kg	PACK OUT	N/A
Overburden (organic soil, waste material,tailings)	N/A	N/A	N/A
Hazardous waste:	N/A	N/A	N/A
Other:	N/A	N/A	N/A

SECTION 6: RESTORATION AND ABANDONMENT PLANS

13. Describe or attach the proposed procedure for site restoration upon abandonment of any area associated with the project:

WE WILL BE FOLLOWING STANDARD, LOW-IMPACT BACKPACKING PRACTICES. TENT SITES WILL BE CHOSEN FOR MINIMAL IMPACT OF TUNDRA ENVIRONMENTS. ANY ROCKS USED TO STABILIZE TENTS WILL BE SCATTERED. THERE WILL BE NO CONSTRUCTION OR EXCAVATION IN THE REGIONS.

SECTION 7: ENVIRONMENTAL IMPACT

14. Indicate and describe the components of the environment that are near the project area, as applicable. Attach any relevant maps or information:

Type of species (common name,	Important Habitat Area (calving,	Critical time periods

associated herd, etc.)	staging, denning, migratory pathways, spawning, nesting, etc.)	(calving, post-calving, spawning, nesting, breeding, etc.)
Example: *Narwhal*	*Ice floe edge in Pond Inlet*	*June-July, around break-up*
Fish:	—	—
Caribou:	MIGRATORY PATHWAY	APRIL - MAY (PRIOR TO ARRIVAL)
Muskox:	N/A	N/A
Raptor: PEREGRIN / ROUGH LEGGED	NESTING	ALL SUMMER (CLIFFS)
Migratory Birds: VARIOUS	NESTING	ALL SUMMER (lowlands, grasslands)
Waterfowl: TUNDRA SWAN, LOONS	NESTING	ALL SUMMER (RARE IN REGION)
Seals:	N/A	N/A
Whales:	N/A	N/A
Narwhals:	N/A	N/A
Canid family (wolves, wolverines, foxes, etc.)	N/A	N/A
Bears (grizzly, polar, black): GRIZZLY	- RARE -	- RARE -
Other:		
Eskers:	N/A	N/A
Communities:	NONE IN IMMEDIATE REGION	N/A
Historical/Archaeological sites:	AWARE OF NONE	N/A

15. Indicate and describe other known uses of the area such as local development, traditional use (hunting/fishing/spiritual), outfitting, tourism, mineral development, research, etc.:

LIZ TURNER (NUNAVUT GEOSCIENCE CENTER) INFORMS ME →

(-) NO RESEARCH IN IMMEDIATE AREAS

(+) MINERAL DEVELOPMENT IN LARGER REGION – MUSKOX INTRUSION
– HOPE BAY PROJECT
– DIAMOND EXPLORATION

16. Describe the impacts of the proposed project activity on the environmental components and uses, in the area listed above:

NO/LITTLE IMPACT →

→ BARREN-GROUND CARIBOU WILL HAVE MIGRATED THROUGH THE REGION BEFORE [redacted] WE ARRIVE.

→ WATERFOWL AND MIGRATORY BIRDS WILL BE NESTING, IN LOW NUMBERS, THROUGHOUT THE NORTHERN LANDS – MOST NESTING WILL BE IN WATER + LOWLANDS, AWAY FROM ROCKS, AND EASILY AVOIDED.

→ RAPTOR NESTS OCCUR IN HIGH CLIFFS AND WILL BE AVOIDED.

17. What are some suggested mitigation measures for these impacts?

N/A.

SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS

18. List the community representatives that you have contacted about this proposed project:

Community	Name	Organisation	Date Contacted	Means	Telephone #	Fax #
Kugluktuk	Jack Kamak	Lands Manager	Feb. 28, 2002	e-mail	—	—
Kugluktuk	—	HTO	March 15, 2002	Fx	867-982-4908	867-982-4047
Umingmaktok	Peter Kapolak	HTO	March 15, 2002	e-mail	—	—
Iqaluit	Susan Woodley	NRI	Feb. 28, 2002	e-mail	867-979-4108	867-979-4681
Iqaluit	Liz Turner	Nunavut Geoscience	Feb. 28, 2002	e-mail	867-975-3539	867-979-0708

so in contact with...

19. Describe the level of involvement that the residents of Nunavut have had with respect to the proposed project. Elaborate on local employment opportunity, training programs, contracts, Inuit Impact Benefit Agreements (if applicable):

THIS IS AN EXTREMELY LOW-BUDGET EDUCATIONAL RESEARCH PROJECT... AND FUNDING PERMITS ONLY UNIVERSITY PERSONNEL FOR LIABILITY CONCERNS. I AM, HOWEVER, DISCUSSING OPPORTUNITIES TO USE MY WORK AS AN EDUCATION OPPORTUNITY FOR LOCAL COMMUNITIES – BY DESIGNING AN EDUCATION MODULE ABOUT THE GEOLOGY OF THE REGION

20. Describe and attach documentation regarding community concerns or support for the proposed project:

* WILL FORWARD WHEN/IF I AM CONTACTED ABOUT ANY CONCERNS.

21. Is there a Traditional Knowledge (TK) component to this research project? If yes, see Appendix C.

N/A

Applicant:

Linda C. Kah, ASSISTANT PROFESSOR, MAR. 09, 2002

Signature **Title** **Date**

Reef Evolution and Basin Development, Dismal Lakes and Parry Bay Groups

Today's magnificent tropical reefs show distinct growth patterns depending on the position of the reef relative to sea level, which controls the amount of sunlight that reaches the reef surface. Reefs that occur in deep water grow rapidly upward toward the ocean surface, where sunlight is more available, and in reefs that occur in shallow water spread outward. Over the lifetime of a reef, sea level changes are recorded in these growth patterns. By examining these growth patterns in ancient reefs, we can begin to understand the relationships between environmental and biological processes in the Earth's geologic past.

The Dismal Lakes Group (Coppermine region) and Parry Bay Group (Kent Peninsula) contain some of the Earth's oldest fossil reefs. These structures are ~1.3 billion years old and are similar in size to the Great Barrier Reef in Australia. However, these ancient structures were built entirely from photosynthetic bacteria, rather than corals with hard skeletons. In order to understand how single-cell organisms could construct such massive reefs, we are trying to reconstruct reef growth and compare it to that of other reefs of similar age.

Over 45 days, we will travel to four localities by float plane, set up mobile camps (4-person, 2-3 tents), and will follow standard low-impact backpacking practices (pack in, pack out). Our research will consist of measuring thickness of rock strata, photographing and mapping reef structures, and removing small (3x5x7 cm) rock samples from surface outcrops. These samples will be examined in the lab to determine how the reefs were cemented into rock. In commitment to both education and northern regions, I am designing a computer CD for local community schools that will show what these ancient geological formations, and similar ones elsewhere in the world, can teach us about the Earth's ancient past.

NATKANIITOT NAOVAKTOT EMAKMI ONALO HAVAKVIOLIKTONI, DISMAL LAKES ONALO KAGHAOYAKTUMI

Oblomi taya pinniktot taggiot ataniitot naovaktot emakni pinnikhivaktot emmap ataani taggiomi, ovalo hikkinikmi ataanot kaomavaktok. Ekkalgot naovaktot etinikni taggiop kanganot, ema hikkingop naopkakpagait, ovalo ekkalgottaok hiamayaktikpaktot. Ekkalogt naohimayut kangakyoak, taggioklo emmaoktaktaknia allangokpaktok naovakkamik ekkalgot. Ehivgoktaovaktot hapkoa otokkait ekalgot, kanokli ovagut kaoyihakpaktavut emmat aolanigit Nunakyoap kanggani.

Onataok Dismal Lakes Group (Kugluktup hivogani) onalo Kaggaogaktumi (Keelingoyami) pikakmiot Nunakyoap okanikhait oyagakat ekalgomiitot. Okoa ekalgot emaitot ~1.3 billion okioni enggilgaakyoaknitat ovalo Great Barrier Reef ovani Australia-mi. Kihime, okoa otokakyoat oyakat naohimayut oyagangokhimayut omayugaloat, tabkoa naovakhimayut oyakani takokhaovaktot. Kaoyimayami okoat kanok omavakhimayut oyaganggokhimayut, ovalgut ehivgiokpaktavut kanoklikiak ekkalgot okiokagiakhaita naonaikhakpaktavut.

Avakomayuni 45 obloni, ovagut aolakniaktogut hitamani nunanot tingmiakot kayalikot, tupiktoklota 4-nik inukaktokhanik, 2-3 tupikaklota), ovalo maliklogit atokpagait nunat kayagilogit (tangmaklota, tupiiyaklota). Ehivgiokhiniaktogut oyagaknik kanok oyakkat evyugigiyakhaita, piksalioklogit ovalo nunaoyalioklogit ekkalgot, pokkoklota mikaknik (3x5x7 cm) oyagaknik ehivgiogakhanik nunap kanganit. Oyakkat ehivgiogavut kanoklikiak ekkalgot naovaktot oyakkanot nipittotik. Okoa elihaotaniaktot sekogviknot ovalo okioktaktomiotanotlo, eliogakniaktatka kongiakhat CD-not sekogviit elihaotikhait oyagaknik kanok engilgaakyoak oyakkat naovaktot, ajikotaitlo ahini naonaikhakniaktavut, elihaotigilogit ovagut Nunakyoap naovaknianik enggilgaakpakyoak.

ᐃᒪᕐᒥ ᐱᕈᖅᑐᐃᑦ ᐊᒻᒪ ᐱᕈᖅᐸᓪᓕᐊᓂᖏᑦ, ᑎᔅᒪ ᑕᓯᑦ ᐊᒻᒪ ᐱᐊᓇ ᐃᒪᖏᑦ

ᐅᑉᐳᒥ ᓄᓇᒥ ᐱᕈᖅᑐᑦ ᑕᑯᒃᓴᐅᑎᑦᑎᕗᑦ ᐱᕈᕐᓂᐅᔪᓂᒃ ᒪᓕᒃᑯᒋᑦ ᐃᓂᕆᔭᖏᑦ ᐃᒪᕐᒥ ᐱᕈᕐᓂᐅᔪᑦ ᑕᓇᐅᕐᒥ ᑕᑯᒃᓴᐅᔪᑦ, ᓯᕿᑎᐅᑉ ᖃᐅᒪᓂᖓᓄᑦ ᑎᑭᑕᐅᖃᑦᑕᖅᑐᑦ ᓴᕿᔮᕐᓂᐅᔪᓂ ᐃᒪᕐᒥ ᐱᕈᖅᑐᓂ. ᐃᒪᕐᒥ ᐱᕈᖅᑐᑦ ᐃᑎᔪᓂ ᐃᒪᕐᒦᑦᑐᖅ ᕿᓪᓗᑦ ᔫᑲᔪᒥᒃ ᐱᕈᖅᐸᓪᓕᐊᖃᑦᑕᖅᐳᑦ ᑐᖅᑯᖅᓗᑎᒃ ᑕᓇᐅᑉ ᖄᖓᓄᑦ, ᓯᕿᓂᐅᑉ ᖃᐅᒪᓂᖓ ᐊᑐᐃᓐᓇᐅᓂᖅᓴᐅᑎᓪᓗᒍ, ᐊᒻᒪ ᐃᒪᕐᒥ ᐱᕈᖅᑐᓂ ᐃᒃᑲᑦᑐᓂ ᕿᒻᒧᑦ ᐃᖏᕿᖅᑲᑦᑕᖅᑐᓂ. ᖃᑯᓐᖑᒃᑲᓐᓂᖅᐸᓚᑦ ᐱᕈᖅᑐᑦ ᐃᒪᕐᒥ, ᑕᓇᐅᕐᒥ ᐊᓯᐊᓐᖑᖃᑦᑕᖅᐳᑦ ᑎᑎᕋᖅᑕᐅᕗᑦ ᖃᓄᖅ ᐱᕈᕐᓂᖁᔭᖏᑦᑕ ᐊᓯᐊᓐᖑᕐᓂᖏᑦᑕ ᐃᓕᕐᑯᓯᖏᑦ. ᖃᐅᔨᓴᖅᓱᒋᑦ ᑖᒃᑯᐊ ᐱᕈᕐᓂᐅᔪᑦ ᐃᒪᕐᒥ ᐱᕈᖅᑐᑐᖃᕐᓂ, ᑐᑭᓯᐅᒪᔾᔪᓕᐅᓐᓇᖅᐳᑦ ᐊᒃᑐᐊᓂᖃᕐᓂᖏᓐᓂᒃ ᐊᒻᒪ ᐆᒪᔪᐊᕈᓯᕐᓂᒃ ᐱᓕᕆᐊᖑᔪᓂ ᒪᓂᕿᒥ ᓯᓚᐅᑉ ᐃᓕᖅᑯᓯᖓ ᑐᑭᓯᐅᒪᓂᖅᓴᐅᔪᓐᓇᖅᐸᕗᑦ.

ᑎᔅᒧ ᑕᓯᖏᑦ (ᖁᕐᖑᖅᑐᑉ ᐃᓚᖓᓂ) ᐊᒻᒪ ᐱᐊᓇ ᐃᒪᖓᓂ (ᑭᐊᓐ ᐱᓂᐊᓐᓯᓚ) ᓄᑕᐅᓐᖏᓛᕐᓂᒃ ᓯᓚᕐᔪᐊᒥ ᐱᕈᖅᑐᕕᓂᖅᑕᐅᖅᐳᑦ ᐃᒪᕐᒥ ᐱᕈᖅᑐᓂᒃ. ᑖᒃᑯᐊ ᐱᕈᖅᑐᑦ ˙1.3 ᐱᓕᔭᓐᓂᒃ ᐅᑭᐅᖅᐳᑦ ᐊᒻᒪ ᐊᔾᔨᕐᓚᒃᐳᑦ ᐊᖏᓂᕆᔭᖏᑦᑎᒍᑦ ᐊᑐᕆᓕᔭᒥ ᐱᕈᖅᑐᓄᑦ ᐃᒪᕐᒥ. ᑭᓯᐊᓂ, ᑖᒃᑯᐊ ᓄᑕᐅᓐᖏᑦᑐᒻᒪᕆᐊᓗᐃᑦ ᓴᕿᑕᐅᓚᐅᖅᐳᑦ ᓯᕿᓂᕐᒧᑦ ᐱᕈᖅᑎᑕᐅᔾᔪᓯᖅᑲᖅᓗᑎᒃ, ᓯᕿᓂᕐᒥ ᑕᑯᓗᐊᖅᑕᐅᓐᖏᑦᑐᑎᑦ ᐱᕈᖅᑐᑦ ᐊᔾᔨᔭ ᐅᓐᖏᓪᓗᑎᒃ. ᑐᑭᓯᐅᒪᓂᖅᓴᐅᔪᒪᓗᒋᑦ ᐊᑕᐅᓯᕐᒥᒃ ᐱᕈᕐᐱᖅᖅᑐᑦ ᖃᓄᖅ ᐊᖏᓕᓗᐊᖅᑕᓇᐊᒃᓴᖏᓐᓂᒃ, ᓴᕿᒃᑎᒃᑲᓐᓂᕋᓱᒃᐳᑦ ᐱᕈᖅᑐᑦ ᐃᒪᕐᒥ ᐱᕈᕐᓂᐊᓴᖏᓐᓂᒃ ᐊᒻᒪ ᓴᓂᓪᓚᖅᑎᑦᑎᓇᓱᒃᓗᑕ ᐅᑭᐅᖅᑰᔭᖅᑕᖏᓐᓄᑦ ᐊᓯᖏᓐᓂᑦ ᐱᕈᖅᑐᓄᑦ.

ᐅᖓᑖᓄᑦ ᐅᑉᐳᐃᑦ 45 ᐃᖏᕐᕋᓂᐊᖅᐳᑦ ᓯᑕᒪᓄᑦ ᐃᒪᕐᓄᑦ ᐃᒫᒨᔪᒃᑯᑦ ᑎᖕᒥᐋᒃᑯᑦ, ᑕᖕᒫᕐᕕᖃᐅᕐᓗᑕ (ᓯᑕᒪᑦ 4 ᐃᓄᐃᑦ, 2-3 ᑐᐱᑦ), ᐊᒻᒪ ᒪᓕᒃᑕᖃᕐᓂᐊᖅᐳᑦ ᖁᓪᓕᓯᐅᖕᖏᑦᑐᒥᒃ ᐃᒃᐱᒋᔭᐅᑎᑦᑎᔾᔪᓯᐅᔪᓂᒃ (ᓇᖕᒪᒃᓗᑕ ᓇᒃᓴᑲᑦᑕᑦᑎᓐᓂᒃ). ᖃᐅᔨᓴᖅᑕᐳᑦ ᐃᓗᓕᖃᕐᓂᐊᖅᐳᖅ ᖃᐅᔨᓴᐃᓂᕐᒥᒃ ᐅᔭᖅᑦ ᐃᓕᖅᑯᓯᖏᓐᓂᒃ, ᐊᔾᔨᓕᐅᕆᓗᑕ ᓄᓇᖑᐊᑎᑐᑦ ᑎᑎᕋᐅᔭᕐᓗᑕ ᐃᒪᕐᒥ ᐱᕈᖅᑐᓂᒃ, ᐊᒻᒪ ᐂᖅᓯᓗᑕ ᒥᑭᑦᑐᓂᒃ (3ᐊ5ᐊ7 ᓯᐊᓐᑕᒦᑕᓂᒃ) ᐅᔭᖅᓂᒃ ᐃᒪᐅᑉ ᖃᓐᖓᓂᑦ ᐅᔭᖅᓂᑦ. ᑖᒃᑯᐊ ᖃᐅᔨᓴᖅᑕᐅᔪᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᐊᖅᐳᑦ ᖃᐅᔨᓴᐃᕝᕕᖕᒥ ᓇᓗᓇᐃᖅᓯᔪᒪᓗᑕ ᖃᓄᖅ ᐱᕈᖅᑐᑦ ᐃᒪᕐᒥ ᐅᔭᖃᓄᑦ ᐃᓂᖃᕐᑐᓇᐊᒃᓴᖏᓐᓂᒃ. ᑕᒪᐃᓐᓄᑦ ᐃᓕᓐᓂᐊᖅᑐᓕᓐᓂᕐᒧᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐊᕕᒃᑐᖅᓯᒪᓂᐅᔪᓂ ᐱᓕᕆᐊᕆᔭᑉ ᐃᓚᐅᖁᓗᒋᑦ, ᑎᑎᕋᐅᔭᖅᐳᖓ ᖃᓇᑦᑕᖑᐊᑎᒍᑦ ᓄᓇᒥᔭᐅᔪᒥ ᐃᓕᓐᓂᐊᕐᕕᖕᓂ ᐊᑐᖅᑕᐅᔪᒃᓴᒥᒃ ᑕᑯᒃᓴᐅᑎᑦᑎᓂᖅᑐᓂᒃ ᑖᒃᑯᓂᖓ ᓄᑕᐅᓐᖏᑦᑐᓂᒃ ᐱᕈᖅᑐᓂᒃ, ᐊᒻᒪ ᐊᔾᔨᕐᓚᒋᐊᓐᖏᓐᓂᒃ ᐊᓯᐊᓂ ᓯᓚᕐᔪᐊᑉ ᐱᕈᖅᑐᕕᓂᕐᓂᒃ, ᑕᒪᓐᓇ ᐃᓕᑦᑎᔾᔪᑎᒋᔭᐅᓇᖅᐸᕗᑦ ᓯᓚᐅᑉ ᖃᓄᐃᓕᖓᔾᔪᑎᖃᕝᕕᖓᓂᒃ ᐃᒻᒪᖃ.