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Your file - Votre référence
2BE-KAZ

Our file - Notre référence
9545-1 / #86599

June 2006

Richard Dwyer
Licensing Trainee
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0 *Via Email*

Re: 2BE-KAZ - Pacific Ridge Exploration Ltd. - Kazan Falls Project - Type B Licence Application

On behalf of Indian and Northern Affairs Canada (INAC) I have reviewed the application for a Type B licence by Pacific Ridge Exploration Ltd. For its Kazan Falls Project . The following advice is provided pursuant to INAC's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NW&NSRT), *Arctic Waters Pollution Prevention Act* (AWPPA), and the *Department of Indian Affairs and Northern Development Act* (DIAND Act).

Background Information

Pacific Ridge Exploration Ltd. (Pacific Ridge) is applying for a Type B licence for water use and disposal of wastes associated with its Kazan Falls Project. The licence application requests the use of freshwater to support domestic and exploration drilling uses within the project area (NTS Map No. 55M 10-15) from June 1, 2006 to September 15, 2009. The proponent anticipates a daily freshwater demand of 21.5 m^3 from local sources, of which 6.5 m^3 is to be used for domestic uses and 15 m^3 for the operation of diamond drill rigs. In addition to diamond drilling, the exploration program will involve mapping, geophysical, and soil sampling analyses. Pacific Ridge is exploring its project area for uranium deposits.

A main drill camp capable of accommodating 14 people has been planned for this project. The proposed camp-site is approximately 5 km south of the Kazan Falls along the Kazan River. This site is located 65 km southeast of the Hamlet of Baker Lake and has a coordinate of 63˚42'N, 95˚45'W. Small fly-camps capable of supporting 4 people for 7-10 days at a time are also planned. All camps will be temporary and be properly removed or shut-down prior to the end of each field season.

Pacific Ridge has submitted Spill Contingency and Abandonment and Reclamation Plans for review along with its licence application.

INAC Comments

INAC recommends that the following comments be taken into consideration when reviewing this licence application.

SPILL CONTINGENCY / HAZARDOUS MATERIALS

- All fuel caches shall be located above the high water mark of any water body. Furthermore, INAC recommends the use of secondary containment, such as self-supporting insta-berms, when storing barreled fuel on location rather than relying on natural depressions.

- The proponent shall ensure that any hazardous materials, including waste oil, receive proper treatment and disposal at an approved treatment facility.

- The Spill Contingency Plan's INAC Water Resources Inspector contact information should be revised. The appropriate telephone number is (867) 975-4289 and fax number is (867) 975-6445.

- INAC recommends that the Spill Contingency Plan include the contact information of the On-site Coordinator and any other key project personnel.

- INAC recommends that a copy of the Spill Contingency Plan and appropriate Material Safety Data Sheets be stored within each spill response kit. Having copies of this Plan accessible to project personnel may is an important aspect of promoting appropriate spill response procedures.

DRILLING OPERATIONS

- For drilling operations on ice, the proponent should ensure that all drill cuttings are disposed of in a sump or removed from the project area for appropriate treatment. Furthermore, the drill water returned to the environment should conform to the CCME Guidelines for the Protection of Aquatic Life. The proponent should consult the Government of British Columbia's Ministry of Environment's Ambient Water Quality Guidelines (Criteria) for Turbidity, Suspended and Benthic Sediments, referenced by the CCME Guidelines. These Guidelines state that induced suspended sediment concentration should not exceed background levels by more than 25 mg/L at any given time when background levels are between 25 and 250 mg/L. When background exceeds 250 mg/L, suspended sediments should not be increased by more than 10% of the measures background level at any onetime.

- INAC recommends that the proponent respond to question 21 of the Exploration / Remote Camp Supplementary Questionnaire regarding the use of drill additives, i.e., list their brand names and properties. A response to this question cannot be found in the Spill Contingency Plan as indicated by the proponent in the Questionnaire.

- Should the drill hole penetrate below the permafrost layer, the drill hole should be permanently sealed and capped to prevent induced contamination of groundwater or salinization of surface waters due to artesian flow.

- If the proponent penetrates below the permafrost layer, INAC requests that the proponent notify the Nunavut Water Board and itself of permafrost depth for future reference and data management purposes.

- INAC recommends that the proponent follow the Mineral Exploration Guidelines for Saskatchewan (Saskatchewan Mineral Exploration and Government Advisory Committee, 2005) with regard to uranium exploration best management practices. In particular, the proponent is advised to comply with the following guidelines.

    - Drill mud solids or cuttings with a uranium concentration greater than 0/05% are to be disposed of down the drill hole and sealed.

    - Any drill hole that encounters mineralization with a uranium content greater than 1.0% over a length of >1 meter, and with a meter-percent concentration >5.0, should be sealed by grouting for the initial 15 m below the ground's active surface layer, the entire length of the mineralization zone below the permafrost, and 15 m above the non-permafrost area if these conditions are encountered. Should the drill hole not go beyond permafrost conditions, there will be no need to place grouting beyond the 15 m below the active surface layer due to permafrost encapsulation.

    - Gamma radiation levels measures at 1 m from the surface of core storage areas should be reduced to 1.0 µSv and in no instance will the level be allowed to exceed 2.5 µSv. When core is found to exceed the levels identified, the Nunavut Water Board should be contacted for review and approval of the handling procedures (INAC requests that it also be notified of such occurrences). Instruments that measure radiation in counts per second must be converted to µS according to the specifications of that instrument.

CAMPS

- INAC recommends that the ashes of burned combustible wastes be raked to remove non-combustible wastes (e.g., tinfoil and iron nails) prior to being buried on-site or delivered to an approved waste disposal facility along with non-combustible wastes.

Indian and Northern Affairs Canada requests notification of any changes in the proposed project, as further review may be necessary. Please do not hesitate to contact me if you have any questions or comments with regards to the foregoing by telephone (867) 975-4555 or by email via abernethyd@inac-ainc.gc.ca.

Sincerely,

Original signed

David W. Abernethy
Water Resources Coordinator

cc. Jim Rogers - Manager of Water Resources, Indian and Northern Affairs Canada, Iqaluit