



Environment Canada    Environnement Canada

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*Via Email*

**RE:    NWB2KUG0305 – Coronation Minerals Inc. - Application for Exploration  
Licence – Renewal – Type ‘B’  
NWB6HLC0406 – Matrix Aviation Solutions – Hope Lake Project –  
Amendment – Type ‘B’**

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Coronation Minerals Inc. has applied for a water licence to permit the use of fresh water and disposal of waste associated with exploration activities in the Dismal Lake area of Nunavut (Kitikmeot region). Exploratory diamond drilling will be occur on Crown Land with the latitudes of 67° 15'N to 67° 45'N and longitudes of 115° 45'W to 116° 40'W. The project will have a camp located approximately 35 km from the Hamlet of Kugluktuk.

A separate proponent, Matrix Aviation Solutions, will construct an exploration camp to be used by Coronation Minerals Inc. throughout their project activities. This proponent has requested an amendment to their type 'B' water licence NWB6HLC0406 for water use and waste disposal associated with camp operations at their Hope Lake camp (coordinates: 67° 26' 42", 116° 27' 10"). Due to the fibreglass insulation contamination found at the fresh water source of the previously selected exploration camp site, the proponent is requesting that a new camp be located 2 km northwest of the Hope Lake airstrip (coordinates: 67° 26' 088"N, 116° 24' 85"W). Fresh water will be acquired from an unnamed lake which is approximately 1.5 km long by 0.75 km in width.



**<NWB2KUG0305>**

Coronation Minerals Inc. has requested that its NWB2KUG0305 water licence have a two-year lifespan from July 2005 to July 2007. Fresh water will be acquired from nearby ponds, lakes, and streams to support diamond drilling activities. The maximum volume of fresh water that will be consumed in a 24-hour period for diamond drill operations has been forecasted at 43,000 litres. Please note that water supply pumps will only be used when coring into the ground and water will be recycled whenever possible.

A fuel cache will be established at the airstrip. This cache will hold no more than 50 – 205 litre drums of P50 heating fuel, 50 – 305 litre drums of aviation fuel, and 10 – 205 litre drums of gasoline. The proponent has submitted a spill contingency plan which provides the Nunavut Water Board with a chain of command, a plan of action, a list of equipment within spill response kits, and relevant material safety data sheets to demonstrate preparation measures for potential fuel spills. Environment Canada recommends that Coronation Minerals Inc. revise its spill contingency plan to provide detailed procedures for response to fuel spills on snow, ice, and muskeg in addition to the submitted procedures for fuel spills on land and water.

**<NWB6HLC0406>**

Matrix Aviation Solutions' exploration camp will accommodate 24 people but it is anticipated that an average of 10 people will live in this camp at any given time. The proponent has requested that its exploration camp licence be valid from June 2005 to July 2007. Seasonal occupation is planned for 15 March to 15 October. After the camp is no longer in use, all tents, equipment, fuel drums, and other infrastructure associated with the camp will be removed and shipped to Yellowknife, leaving the site in a similar condition to what it was prior to the camp's establishment.

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Environment Canada reminds both Coronation Minerals Inc. and Matrix Aviation Solutions that all permits and approvals are required prior to the commencement of any work.

Environment Canada recommends that the following conditions be applied throughout all stages of the project (NWB2KUG0305 and NWB6HLC0406):

**GENERAL**

- The proponent shall not deposit, nor permit the deposit of any fuel, drill cuttings, chemicals, wastes, or sediment into any water body. According to the *Fisheries Act*, Section 36(3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
- EC requests further information regarding the source of the fibreglass insulation contamination at the previous camp location. If either of the proponents have caused the contamination, measures should be taken to remediate the lake and remove the source of the contamination. EC is available to assist the proponents in developing an appropriate action plan.



### DRILLING

- EC would like to inform the proponent that the *Canadian Environmental Protection Act* lists CaCl as a toxic substance. The proponent shall therefore ensure that if CaCl is used as a drill additive, all sumps containing CaCl are properly constructed and located in such a manner as to ensure that the contents will not enter any water body.
- Drilling additives or muds shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or demonstrated to be non-toxic.
- For “on-ice” drilling, return water released must be non-toxic and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment Guidelines for the Protection of Freshwater Aquatic Life (i.e., 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
- Land based drilling should not occur within 30 m of the high water mark of any water body. Drilling wastes from the land based drilling shall be disposed of in a sump such that the contents do not enter any water body.
- If an artesian flow is encountered, the drill hole shall be immediately plugged and permanently sealed.

### CAMPS

- The proponent shall not store materials on the surface ice of lakes or streams, except that which is for immediate use.
- Environment Canada recommends the use of an approved incinerator for the disposal of combustible camp wastes.
- Any sumps, including those created for the disposal of drill cuttings, shall be located above the high water mark of any water body and in such a manner as to prevent the contents from entering any water body frequented by fish. Further, all sumps shall be backfilled upon completion of the field season and contoured to match the surrounding landscape.

### FUEL STORAGE/SPILL CONTINGENCY/HAZARDOUS MATERIALS

- All fuel caches shall be located above the high water of any water body. Further, EC recommends the use of secondary containment, such as self-supporting insta-berms, when storing barrelled 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 facility.
- Drip pans, or other similar preventative measures, shall be used when refuelling equipment on site.



#### MIGRATORY BIRDS

- EC recommends that all activities be conducted outside the migratory bird breeding season, which extends from approximately 1 June to 15 July. These dates are approximate, and if active nests (i.e., nests containing eggs or young) are encountered outside of these dates, the proponent should avoid the area until nesting is complete (i.e., the young have left the nest). Paragraph 6(a) of the *Migratory Birds Regulations* states that no one shall disturb or destroy the nests or eggs of migratory birds.

If there are any changes in the assignment of the water licence, EC should be notified, 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 at (867) 975-4631 or by email via [david.abernethy@ec.gc.ca](mailto:david.abernethy@ec.gc.ca).

Regards,

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