



**Environment Environnement
Canada Canada**

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1st June 2011

Our File: 4703 001 131

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Re: NIRB 11EN024 – Part 4 Screening – Diamond Drilling – Belcher Islands – Canadian Orebodies Inc.

NWB BEL - Type B Water Licence Application – Belcher Island – Diamond Drilling - Qikqtani Region – Canadian Orebodies Inc.

Environment Canada's contribution to your request for specialist advice is based on the mandated responsibilities for the enforcement of **Section 36(3)** of the *Fisheries Act*, the *Canadian Environmental Protection Act* (CEPA), the *Migratory Birds Convention Act* (MBCA) *Regulations* and the *Species at Risk Act* (SARA).

Canadian Orebodies Inc. is proposing to conduct mining exploration activities on their Haig Inlet mineral claims located on the Belcher Islands, NU. Activities to include the following: airborne magnetic survey; ground prospecting; surface sampling; diamond drilling; and establishing a camp at the following co-ordinates: 56° 20' 18.8"N, 79°04'03.7"W.

Environment Canada (EC) supports the mitigation measures outlined in the proponent's application and offers the following comments and recommendations to the Nunavut Impact Review Board for consideration.

Comments and Recommendations

The proponent shall insure that any chemicals, fuel or wastes associated with the proposed project do not enter waters frequented by fish. It is a requirement of **Section 36(3)** of the *Fisheries Act* that all effluent discharged into water frequented by fish, be non-deleterious.

Spill Contingency

The proponent has listed on page 8 of their Contingency Plan the following contact information for EC: **"24 hr. emergency pager 867-766-3737"**. The number is no longer in service. Also, on page 9 of the proponent's Contingency Plan they list Jim Nobel, Environmental Enforcement Officer with contact numbers. The number is no longer valid and should be removed from their Contingency Plan. The proponent is not required to notify EC in the event of a spill as the 24 Hour Spill Line is required to contact EC in the event of a spill.

EC recommends that drip pans, or other similar preventative measures, should be used when refuelling equipment.

Spills are to be documented and reported to the NWT/NU 24 hour Spill Line at (867)920-8130. EC recommends that all releases of harmful substances, regardless of quantity, are immediately reported where the release:

- is near or into a water body;
- is near or into a designated sensitive environment or sensitive wildlife habitat;
- poses an imminent threat to human health or safety; or;
- poses an imminent threat to a listed species at risk or its critical habitat.

Artesian flow

If the proponent encounters artesian flow, the hole shall be immediately plugged and capped. Provide the following information to the Nunavut Impact Review Board: co-ordinates of the drill hole; the depth at which flow was encountered; and means employed to plug and seal the hole.

Incineration

The proponent states that they will be using the A400 (A) Inciner8, two stage incinerator, to burn combustible camp waste. The proponent should ensure that combustible waste is burned in a device that promotes efficient combustion and reduction of emissions and is capable of meeting the emissions limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions. The proponent should provide documentation from the manufacturer of the A400 (A) Inciner8 incinerator that it does meet the CWS Standards.

Hazardous Waste

The proponent should obtain authorization from the Hamlet in order to dispose of non combustible solid and hazardous waste at their landfill. EC is of the opinion that hazardous waste should be shipped off site for disposal at licenced facilities in the south and that confirmation and authorization be obtained from the facility prior to shipment. Under the ***Canadian Environmental Protection Act*** (CEPA 1999) and the Interprovincial Movement of Hazardous Wastes Regulations, the transportation of hazardous wastes between Nunavut and the provinces requires the proponent to complete movement documents. The Hamlet of Sanikiluaq will ultimately be responsible for the hazardous waste if it allows the proponent to dispose of the waste at their landfill site.

Drilling Additives

EC assessed inorganic chloride salts and concluded that these salts in high concentrations are harmful to the environment. As a result, the proponent should ensure that when using calcium chloride (CaCl₂) for drilling purposes that return water is contained in a properly constructed sump and located in such a manner as to ensure that the contents do not migrate out from the sump. Please note that the proponent should not rely on permafrost integrity to contain and isolate drilling wastes.

Wildlife and Species at Risk

Section 6 (a) of the ***Migratory Birds Regulations*** states that no one shall disturb or destroy the nests or eggs of migratory birds. If active nests are encountered during project activities, the nesting area should be avoided until nesting is complete (i.e., the young have left the nest).

EC recommends that food, domestic wastes, and petroleum-based chemicals (e.g., greases, gasoline, and glycol-based antifreeze) be made inaccessible to wildlife at all times. Such items can attract predators of migratory birds such as foxes, ravens, gulls, and bears. Although these animals may initially be attracted to the novel food sources, they often will also eat eggs and young birds in the area. These predators can have significant negative effects on the local bird populations.

Section 5.1 of the ***Migratory Birds Convention Act*** prohibits persons from depositing substances harmful to migratory birds in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

In order to reduce aircraft disturbance to migratory birds, Environment Canada recommends the following:

- Fly at times when few birds are present (e.g., early spring, late fall, winter)
- If flights cannot be scheduled when few birds are present, plan flight paths that minimize flights over habitat likely to have birds and maintain a minimum flight altitude of 650 m (2100 feet).
- Minimize flights during periods when birds are particularly sensitive to disturbance such as migration, nesting, and moulting.

- Plan flight paths to avoid known concentrations of birds (e.g., bird colonies, moulting areas) by a lateral distance of at least 1.5 km. If avoidance is not possible, maintain a minimum flight altitude of 1100 m (3500 feet) over areas where birds are known to concentrate.
- Avoid the seaward side of seabird colonies and areas used by flocks of migrating waterfowl by 3 km.
- Avoid excessive hovering or circling over areas likely to have birds.
- Inform pilots of these recommendations and areas known to have birds.

The following comments are pursuant to the *Species at Risk Act* (SARA), which came into full effect on June 1, 2004. Section 79 (2) of SARA, states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, Environment Canada suggests that species on other Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner. The Table below lists species that may be encountered in the project area that have been assessed by COSEWIC as well as their current listing on Schedules 1-3 of SARA (and designation if different from that of COSEWIC). Project impacts could include species disturbance, destruction of habitat and attraction to operations.

Terrestrial Species at Risk potentially within project area ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western population)	Special Concern	Pending	Government of Nunavut

¹ The Department of Fisheries and Oceans has responsibility for aquatic species.

² Environment Canada (EC) has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Nunavut Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

- For any Species at Risk that could be encountered or affected by the project, the proponent should note any potential adverse effects of the project to the species, its habitat, and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at www.sararegistry.gc.ca for information on specific species.
- If Species at Risk are encountered or affected, the primary mitigation measure should be avoidance. The proponent should avoid contact with or disturbance to each species, its habitat and/or its residence.
- Monitoring should be undertaken by the proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of Species at Risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.
- For species primarily managed by the Nunavut Government, the Nunavut Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.
- Mitigation and monitoring measures must be taken in a way that is consistent with applicable recovery strategies and action/management plans.

The Canadian Wildlife Service of Environment Canada is interested in observations of birds, especially observations of birds identified as Species at Risk (e.g. Ivory Gull or Red Knot). Observations can be reported through the NWT/NU Bird Checklist program.

NWT/NU Bird Checklist Survey
 Canadian Wildlife Service, Environment Canada
 5019 - 52 Street, 4th Floor
 P.O. Box 2310
 Yellowknife NT, X1A 2P7
 Phone: 867.669.4773
 Email: NWTChecklist@ec.gc.ca

All mitigation measures identified by the proponent and additional measures suggested herein should be strictly adhered to in conducting project activities. This will require awareness on the part of the proponents' representatives (including contractors) conducting operations in the field. Environment Canada recommends that all field operations staff be made aware of the

proponent's commitments to these mitigation measures and provided with appropriate advice / training on how to implement these measures.

Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds and Species at Risk, but will not necessarily ensure that the proponent remains in compliance with the ***Migratory Birds Convention Act***, ***Migratory Birds Regulations***, and the ***Species at Risk Act***. The proponent must ensure they remain in compliance during all phases and in all undertakings related to the project.

The proponent should insure that they have the required permits in place prior to conducting any field activities.

EPO should be notified of changes in the proposed or permitted activities associated with this application.

Please do not hesitate to contact me at (867) 669-4744 or ron.bujold@ec.gc.ca with any questions or comments.

Yours truly,



Ron Bujold
Environmental Assessment Technician

cc: Carey Ogilvie (Head, EA-North, EPO)
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James Hodson (Environmental Assessment Officer, CWS, Yellowknife, NT)
Allison Dunn (Sr. Environmental Assessment Coordinator, EPO, EC, Iqaluit, NU)