



Tata Steel Minerals Canada Ltd.

Spring Survey of Caribou in the Vicinity of the DSO3 Sector April 2011

Final Report

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Groupe Hemispheres

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Cover page photographs:

Foreground: Part of the sector surveyed, south-west of the Howells River

Background: Old ptarmigan tracks in the crusted snow



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1 CONTEXT

Tata Steel Minerals Canada Ltd. is the proponent of the Direct-Shipping Ore Project (“DSOP”), two components of which, known respectively as the Elross Lake Area Iron Ore Mine (“ELAIOM”) and the Joan Lake Direct Shipping Ore Project (“JLDSOP”), are located in the Province of Newfoundland and Labrador.

The ELAIOM was released from further environmental assessment by the Government of Newfoundland and Labrador (“GNL”) on January 5, 2011, while the JLDSOP was released on March 16, 2011.

In both cases, a condition of the release was that TSMC must continue the spring surveys carried out in 2009 and 2010 (D’Astous and Trimper 2009, 2010a, 2010b) to ascertain the presence of sedentary caribou in the vicinity of the proposed mines.

The area of the Ungava Peninsula, near the ELAIOM and the JLDSOP, includes the ranges of both migratory and sedentary caribou. The George River Caribou Herd (GRCH), a migratory ecotype, was estimated at 385 000 individuals in 2001 (based on a post-calving estimate) (Couturier *et al.* 2004) but was estimated at only 74 000 in 2010 (Dr Steeve Côté, Caribou-Ungava pers. comm.). When the herd migrates through the Schefferville area, hunting provides large quantities of country food for local residents. However satellite telemetry done by MRNF in 2009, 2010 and 2011 and observations by local residents (R. McKenzie, pers. comm.) confirmed that George River caribou did not migrate through this area during the fall and winter of 2008-2009, 2009-2010 and 2010-2011.

Sedentary caribou formerly occurred in the vicinity of Schefferville. The McPhadyen Caribou Herd (MCH) was identified in the area in the mid-1980s (Phillips 1982, Saint-Martin 1987, Bergerud *et al.* 2008). As sedentary caribou are classified as endangered in Canada and in Labrador (COSEWIC 2001, Newfoundland and Labrador *Endangered Species Act*), the GNL is concerned that those caribou may occur in the vicinity of the ELAIOM.

The present report describes the survey conducted by TSMC in April, 2011.

1.1 Objectives

The main objective of the survey was to determine whether sedentary caribou were present within a specified radius of the TSMC DSO project sites immediately prior to the calving season and to estimate the age and confirm the sex of each animal encountered. In the absence of GNL representatives, no capturing or collaring was planned during this survey.

2 METHODOLOGY

2.1 Field Preparation

In 2009, a survey area, delineated as a radius of 50 km centred on the ELAIOM, was established (D’Astous and Trimper 2009). The study area approved by GNL in 2010 (K. Miller, Ecosystem Management Ecologist, Government of Newfoundland and Labrador, pers. comm.) consisted of a radius of 20 km centred on the ELAIOM. This same 20 km radius was used in this survey.

As was the case in 2009 and 2010, before the start of the survey letters prepared by TSMC explaining its objectives were sent to the leaders of the First Nations concerned, namely Innu Nation, Innu Takuaikan Uashat mak Mani-Utenam (ITUM), Naskapi Nation of Kawawachikamach (NNK) and Nation Innu Matimekush-Lac John (NIMLJ). This contact was important for information purposes, but also to direct the survey aircraft away from spring hunting parties. Upon arrival in Schefferville, the Study Team received

confirmation that goose hunting would not begin until the following weekend. Because of this timing and the shorter radius of interest in 2010, the entire study area could be surveyed.

2.2 Field Techniques

The survey was completed on April 27, 2011. Survey lines were overflown with an Astar 350BA helicopter at an altitude of approximately 100 m (AGL) and at an average speed of 160-200 km/hr depending on conditions and/or habitat. Flight lines were spaced every 4 km, with transects oriented in a NW/SE direction consistent with the topography. All observations, tracks, land use and other relevant information, such as weather and start and end times of each transect, were recorded by the navigator. All tracks observed were identified if possible (e.g., ptarmigan, wolf, fox, etc.). If fresh caribou tracks were encountered, the tracks were to be followed off the survey line in an effort to locate the origin. A total of 14 hours was flown in the helicopter, including ferry from and return to Sept-Îles, Quebec. The spring conditions made it possible to take advantage of persistent snow cover and ice conditions for tracking (Appendix I).

3 RESULTS

3.1 Caribou

No caribou or confirmed tracks of caribou were observed (Figure 1).

3.2 Other Wildlife

A few other animals were observed, and the location of those observations are shown on Figure 1. First, a Bald eagle was seen between Lac Guillard and Lac Guillet, in the northern section of the study area. One hare was also seen on the east shore of Elross Lake. Also, a bear, freshly out of hibernation was seen walking near Evelin Lake, in the south-eastern section of the study area. Finally, seven ptarmigan were observed, all on the western side of the study area. Four of them were in flight, while the other three were on the ground.

Some tracks were also observed. Four sets of wolf tracks were observed between the north and the east limits of the study area. Fourteen otter tracks and seven fox tracks were also identified all over the study area, two of the fox tracks being associated with hare tracks. Finally, some possible weasel tracks were observed between Lac Deschabert and Lac la Militière, but they were old, and this observation cannot be confirmed.

4 DISCUSSION

In 2009, only three sightings of caribou (*Rangifer tarandus caribou*) totalling seven individuals were confirmed over a much larger area than flown in 2010 and 2011 (i.e., approximately 50 km radius versus 20 km). No sightings were made in 2011.

The 2009 body measurements indicated that the two caribou measured in the study area probably belonged to the migratory ecotype (D'Astous and Trimper 2009). Moreover, the only caribou captured in 2009 had joined the GRCH (D'Astous and Trimper 2010a). Based on the absence of caribou observations in 2011 and based on the 2009 (D'Astous and Trimper 2009) and 2010 (D'Astous and Trimper 2010b) results accumulated to date, there has been no evidence that the study area is used by sedentary caribou during the pre-calving period in recent years.

5 CONCLUSION

The caribou observed in the 2009 were most probably all migratory caribou. The 2010 and 2011 surveys were completed under good tracking conditions, but no caribou were observed. The results from those three surveys indicate that it is unlikely that sedentary caribou are currently present in the study area during the pre-calving period.

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APPENDICES

APPENDIX I
PHOTO OF THE SNOW COVER



Photo 1. Snow Condition Prevailing at the Time of the 2011 Survey