- FINAL REPORT -

MELIADINE WEST GOLD PROJECT: WILDLIFE BASELINE STUDIES 2008

Submitted to:
Comaplex Minerals Corporation
Suite 901, 1015-4th Street SW
Calgary, Alberta
T2R 1J4

Prepared by:
Golder Associates Ltd.
#300, 10525 – 170th Street
Edmonton, Alberta
T5P 4W2

December 2008 **07-1373-0055**

EXECUTIVE SUMMARY

Golder Associates Ltd. (Golder) completed baseline wildlife surveys at the Meliadine West Gold Project (Project) in June and July, 2008. These wildlife baseline studies build upon previous studies conducted by Arc Wildlife Services in 1998, 1999, and 2000 (Jalkotzy, 1999, 2000a, b). The focus of the 2008 field program was to gather data to complement previously collected data that may be required to prepare an environmental effects assessment and to guide project design and environmental mitigation. This data report summarizes the results of studies during the 2008 field season.

Aerial surveys for caribou were completed in June and July 2008 over an 8,500 km^2 study area. Surveys for upland breeding birds were completed in the Project area as well as the Discovery area. Raptor nest surveys were conducted over suitable habitat within 10 km of the Project area as well as along the proposed road alignment to Rankin Inlet. Fox den surveys were completed in June in the vicinity of the Project. Aerial surveys for waterfowl were completed in June and July 2008 within four strata, each covering an area of 32 km^2 in the overall study area during each survey.

Observations from the 2008 field work include:

- 117 and over 5,000 caribou were observed during June and July surveys, respectively;
- 62% of caribou groups observed in July included calves;
- 32 bird species, including six upland bird species, were observed in the study area;
- sandhill crane nesting within the study area was confirmed;
- peregrine falcon and rough-legged hawk nesting was confirmed within the study area;
- Arctic fox were present throughout study area;
- waterfowl, raptors, fox dens and caribou were observed along the proposed all-weather road; and
- three wolves and one muskox were observed incidentally within the study area.

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ACRONYMS

AGL	above ground level
BQCMB	Beverly and Qamanirjuaq Caribou Management Board
Comaplex	Comaplex Minerals Corporation
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CWS	Canadian Wildlife Service
GNDoE	Government of Nunavut Department of Environment
GPS	global positioning system
n	number
PRISM	Program for Regional and International Shorebird Monitoring
Project	Meliadine West Gold Project
SARA	Species at Risk Act
SD	standard deviation
UTM	universal transverse mercator
VEC	Valued Ecosystem Component
ZOI	zone of influence

UNITS

ha	hectares
km	kilometres
km^2	square kilometres
km/hr	kilometres per hour
m	metres
%	percent

1 INTRODUCTION

1.1 BACKGROUND

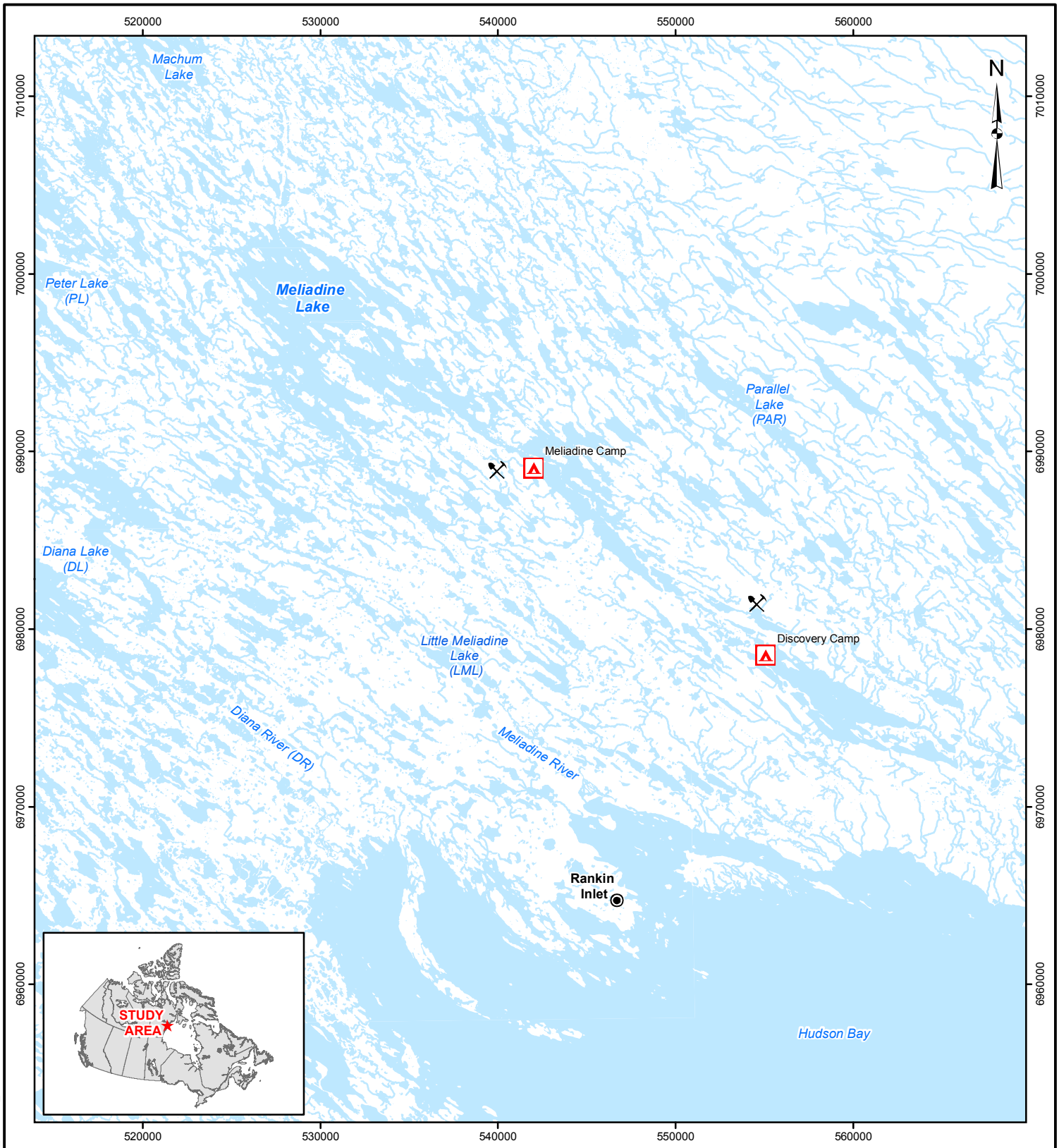
Comaplex Minerals Corporation (Comaplex) proposes to construct and operate a gold mine, known as the Meliadine West Gold Project (Project) 30 kilometres (km) northwest of Rankin Inlet, and 80 km south of Chesterfield Inlet in the Kivalliq Region of Nunavut (Figure 1-1). The proposed Project site is located on a peninsula between the east, south and west basins of Meliadine Lake on Inuit Owned Land.

The Project area is within the zone of continuous permafrost approximately 400 km north of the tree line with typical sub-arctic vegetation. The terrain is dominated by glacial landforms that include drumlins of glacial till, eskers consisting of gravels and sands and numerous shallow lakes. The glacial deposits form low relief ridges oriented in a northwest-southeast direction. Regional drainage patterns are controlled by these ridges and the prevailing permafrost.

Meliadine Lake covers an area of 107 square kilometres (km^2) with a maximum length of 31 km (Environment Canada 1973). It features a highly convoluted shoreline (465 km in length) and over 200 islands. Most of the lake drains via the Meliadine River, which originates at the south end of the lake and flows through a series of waterbodies and short river segments into Hudson Bay (distance of 39 km). A second, smaller outflow from the west basin of Meliadine Lake drains into Peter Lake, which discharges into Hudson Bay through the Diana River system (distance of 70 km).

Several small watersheds drain into Meliadine Lake from a large peninsula between the east, south, and west basins of Meliadine Lake. These peninsula watersheds comprise networks of lakes, ponds, and interconnecting streams.

WMC International Ltd. under took a multi-year gold exploration program in the Project area in 1995. That program included wildlife baseline studies from 1998 to 2000 (Jalkotzy 1999, 2000a, b). Those studies focused on caribou, foxes, swans, loons and waterfowl, sandhill cranes, and raptors.



LEGEND

- CAMP
- PROPOSED MINE SITE
- WATERCOURSE
- WATERBODY

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

LOCATION OF THE MELIADINE WEST GOLD PROJECT

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	DE	26 Sep. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 1-1

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1.2 OBJECTIVES

Comprehensive environmental baseline data were collected between 1998 and 2000 by Arc Wildlife Services Limited (Jalkotzy 1999, 2000a, b). The focus of the 2008 field program was to gather data that complemented previously collected data for the environmental effects assessment and to guide project design and environmental mitigation for a project that could include mining, milling and refining, and an all-weather road connecting the Project with Rankin Inlet.

A Valued Ecosystem Component (VEC) is defined as an environmental attribute or component perceived as important for social, cultural, economic, and ecological reasons. It is generally used to focus the environmental assessment on those species and issues that are important to the local, affected communities and environmental regulators, in this case the regulators include the Kivalliq Inuit Association, Government of Nunavut, and the Government of Canada. A VEC is typically identified in consultation with local communities and regulators. Recent mining developments in the North, such as the Diavik Diamond Mine, Ekati Diamond Mine, Snap Lake Diamond Mine, Doris North Gold Mine, and Meadowbank Project (in the Northwest Territories and Nunavut), employed similar approaches to environmental assessment. Species were selected based on their potential as a VEC. Species selection was also based on Terms of Reference and requests for information from territorial governments, Environment Canada, and regional Inuit associations (e.g., Kivalliq Inuit Association) in recent environmental impact statements and developers project assessment reports in the Northwest Territories and Nunavut.

Additional wildlife data will serve the following purposes:

- identify local wildlife VECs;
- provide opportunity to focus wildlife data collection on the VECs as part of the anticipated wildlife monitoring program for the Project;
- collect wildlife data along the proposed road from Rankin Inlet to the Project site;
- understand VEC habitat associations; and
- document natural variability in parameters such as abundance, distribution, and productivity for each VEC.

The 2008 wildlife studies were organized as a series of surveys designed to update and augment the existing baseline data for all major categories of

terrestrial wildlife including species at risk within the study area and the proposed road corridor from Rankin Inlet to the Project.

The baseline wildlife studies were designed to collect data for a wide range of species, and the field programs were designed so that data and methods can be integrated into a wildlife effects monitoring program upon Project approval. In most cases, the surveys focused on a particular target species (e.g., caribou) or group of species (e.g., waterfowl), but each survey was also used to gather information on a larger range of species.

1.3 STUDY AREA

The general study area comprises about 8 500 km^2, based on a 52 km radius centered on the proposed mine site (Figure 1-2). The proposed mine is located approximately 24 km north of Rankin Inlet, Nunavut. Rankin Inlet lies on the west coast of Hudson Bay. The landscape is dominated by sub-arctic heath tundra vegetation. The proportion of the area surveyed within the 52 km radius was dependent on the particular survey conducted. For example, a greater proportion of the 52 km radius area was surveyed for caribou than was surveyed for upland breeding birds due to survey method and logistics. Details and extent of individual surveys are described below.

A 2 km wide corridor along the proposed all-weather road alignment between Rankin Inlet and the Project was also surveyed. This road will be a spur off the existing road from Rankin Inlet to Little Meliadine Lake and will continue north for approximately 17 km to the Project site. A proposed extension to the Discovery area was also surveyed. It will continue east for approximately 10 km from the proposed road (Figure 1-3). The proposed route follows ATV trails along eskers for much of its length and had been previously marked by Project employees.

Both traditional and scientific knowledge indicate that barren-ground caribou of the Qamanirjuaq herd may use this area during seasonal migrations (Beverly and Qamanirjuaq Caribou Management Board [BQCMB 1999]). It is also within the seasonal ranges of a number of other species including wolves, wolverines, raptors, and waterfowl. Numerous migratory passerine and shorebird species breed in the uplands and lowlands of this tundra habitat. Six of the species found in the study area are of concern to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), two of which are listed under the Species at Risk Act (SARA) (Table 1-1).

Table 1-1 Species of Concern in the Study Area

Species	COSEWIC Status[a]	SARA Status[b]	Nunavut Status[c]	Record of Presence in Project Area[d]
Polar Bear	special concern	-	sensitive	observed within the Project area (1998, 1999, 2000)
Grizzly Bear	special concern	-	sensitive	Mark Ittinuar- observations northwest of project area
Wolverine	special concern	-	sensitive	Mark Ittinuar- observations northwest of project area
Grey Wolf	not at risk	-	sensitive	observed within Project area (2008)
Peregrine Falcon (tundra)	special concern	schedule 3 special concern	may be at risk	observed within Project area (1998,1999, 2000) confirmed nesting (2008)
Short-eared Owl	special concern	schedule 3 special concern	sensitive	observed within Project area (2000, 2008)
Common Eider	-[e]	-	sensitive	observed within Project area (2008)
Northern Pintail	-	-	sensitive	observed within Project area (1998, 2008)
Least Sandpiper	-	-	sensitive	observed within Project area (2008)
Semipalmated Sandpiper	-	-	sensitive	observed within Project area (2008)
Horned Lark	-	-	sensitive	observed within Project area (1998, 2008)
American Tree Sparrow	-	-	sensitive	observed within Project area (2008)
Snow Bunting	-	-	sensitive	observed within Project area (2008)
White-crowned Sparrow	-	-	sensitive	observed within Project area (2008)
American Pipit	-	-	sensitive	observed within Project area (1998, 2008)

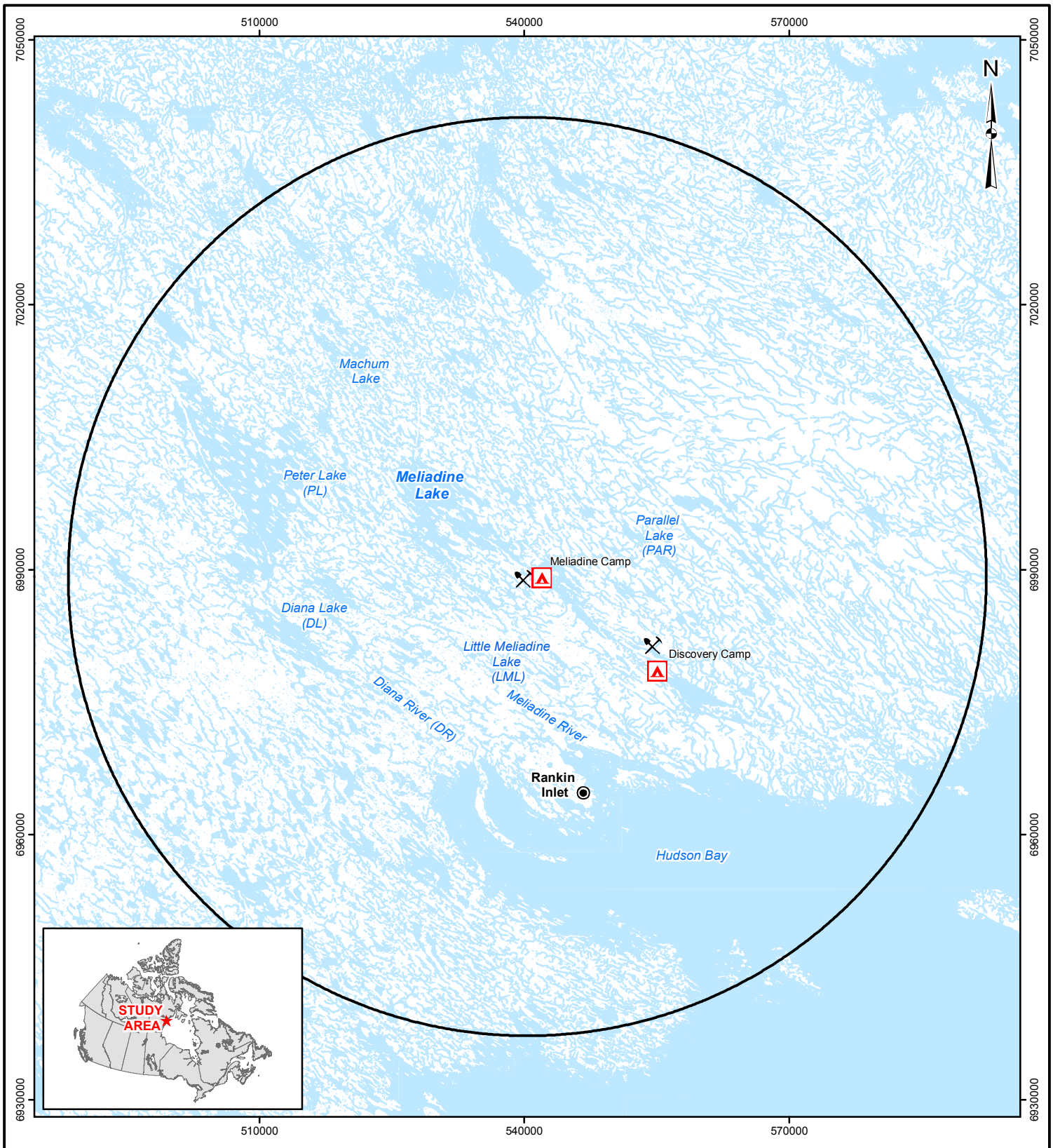
a COSEWIC Status: Committee on the Status of Endangered Wildlife in Canada. http://www.cosewic.gc.ca/eng/sct1/searchform_e.cfm, 30 July 2008

b SARA Status: Species at Risk Act. http://www.sararegistry.gc.ca/default_e.cfm, 30 July 2008

c Nunavut Wild Species – General Status of Wild Species in Nunavut. Government of Nunavut. Department of Sustainable Development. 33pp.

d Information obtained from Jalkotzy 1999, 2000a, 2000b and from Mark Ittinuar of Rankin Inlet during 2008 field programs.

e "-" indicates that species is not listed under COSEWIC or SARA



LEGEND

- CAMP
- PROPOSED MINE SITE
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

MELIADINE WEST GOLD PROJECT WILDLIFE BASELINE FIELD PROGRAM STUDY AREA, 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055		SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008	
GIS	DE	29 Oct. 2008	
CHECK	LY	02 Dec. 2008	
REVIEW	MJ	02 Dec. 2008	

FIGURE: 1-2

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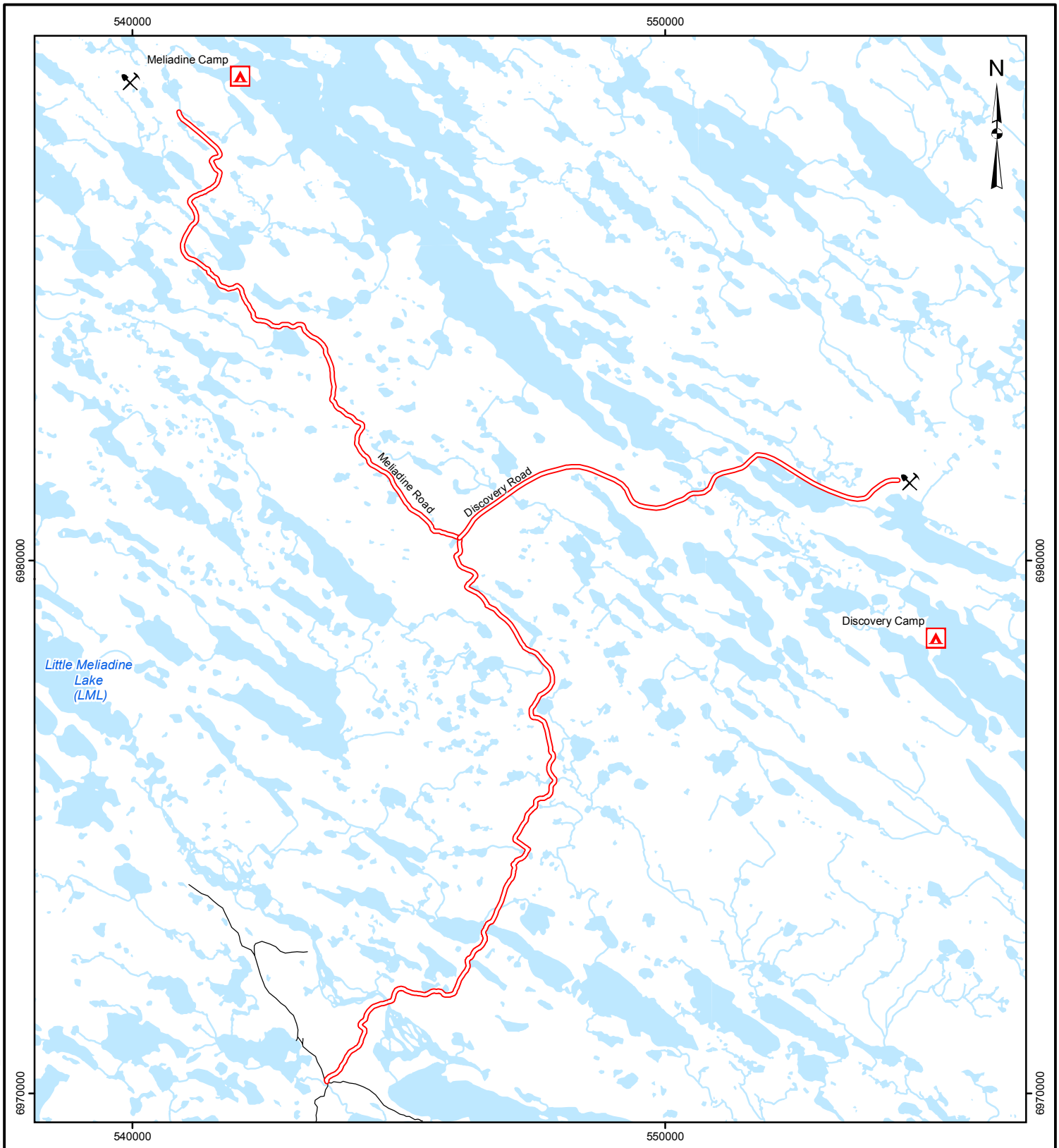

LEGEND

- CAMP
- PROPOSED MINE SITE
- ROAD - MUNICIPAL
- ROAD - PROPOSED ALIGNMENT
- WATERCOURSE
- WATERBODY

REFERENCE

Base data obtained from NTDB.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

PROPOSED ALL-WEATHER ROAD SURVEY ROUTE, 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	21 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 1-3

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1.4 SAMPLING PROGRAM IN 2008

Data were collected on caribou, raptors, shorebirds, waterfowl, upland birds, and fox dens in June and July, 2008 (Table 1-2). Field work in the study area commenced on June 11, 2008 with breeding bird surveys. Raptor nest and fox den surveys were done opportunistically on foot while completing the upland bird survey. Waterfowl surveys were done in the late morning and early afternoon, after peak upland bird survey hours.

The summer surveys took place between July 21 and 23, 2008 and consisted of aerial surveys for caribou, waterfowl, and raptor nesting. Incidental wildlife observations were noted and waypoints were taken during all field programs.

Aerial surveys of the proposed all-weather road route from Rankin Inlet to the Project as well as the leg extending to the Discovery Project site (Figure 1-3) were completed once in June and once in July. The sampling program for the road is discussed in more detail in Section 7.

Table 1-2 Schedule of 2008 Baseline Field Work

Survey	Date	Duration	Golder Staff (community assistant)	Transport
Caribou Aerial (Wildlife) Surveys	June 12 and 13[a], 17	1 day each survey	2 (1)	Caravan (Fixed Wing)
Raptor Nest Occupation Survey	June 11 to 18	0.5 day	1 (1)	On Foot
PRISM (Shorebird Survey) Plots	June 11 to 18	0.5 day	2	On Foot
Waterfowl and Loon Surveys (Northern Migration)	June 11 to 18	0.5 day	2	Helicopter
Upland Breeding Bird Point Counts	June 11 to 18	5 days	2 (1)	On Foot
Fox Den Surveys	June 11 to 18	0.5 day	2 (1)	On Foot / Helicopter
Proposed All-Weather Road Aerial Survey	June 17 and 18[a]	<0.5 day	2 (1)	Helicopter
Caribou Aerial (Wildlife) Surveys	July 21 and 22[a]	1 day	2	Caravan (Fixed Wing)
Raptor Productivity Survey	July 23	0.5 day	2	Helicopter
Waterfowl and Loon Surveys (Brood Rearing)	July 22 and 23	0.5 day	2	Helicopter
Proposed All-Weather Road Aerial Survey	July 23	<0.5 day	2	Helicopter

a aerial survey of area was completed over two days

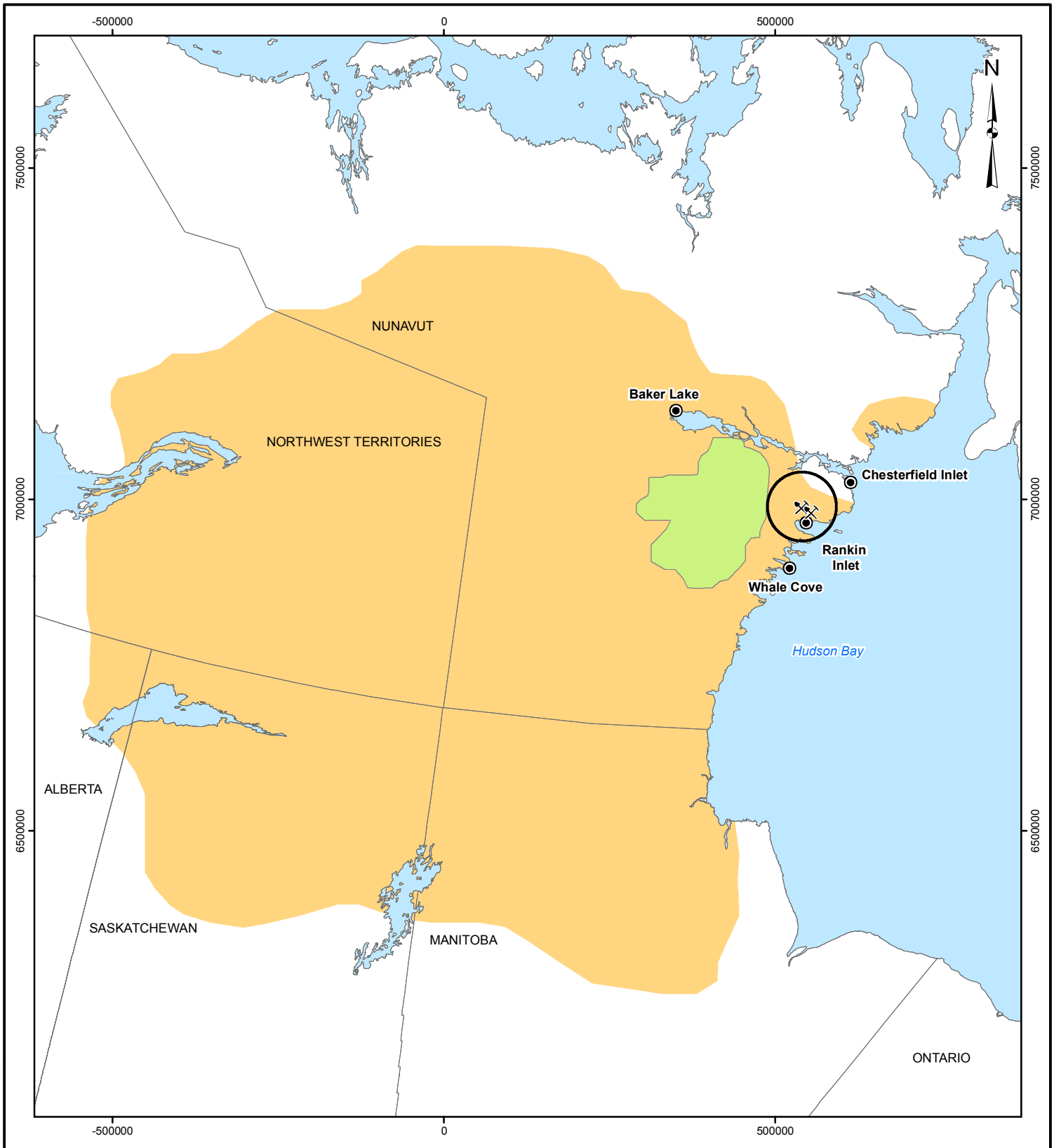
2 CARIBOU

2.1 OBJECTIVES

Previous baseline survey data documenting the distribution of caribou during the winter, calving, and post-calving periods suggest that the study area lies within the seasonal range of the Qamanirjuaq (Kaminuriak) barren-ground caribou herd (Jalkotzy 1999, 2000a, b). The year-round range of this herd occupies an area from northern Manitoba and Saskatchewan in the south to south-western Nunavut and south-eastern Northwest Territories in the north (BQCMB 1999, Figure 2-1). Caribou are migratory, and movements and range use varies annually (Wakelyn 1999). The annual distribution and life history of this population has been previously documented (Banfield 1954, Kelsall 1968, Thomas 1969, Parker 1972, Heard 1973).

Migration from the southern winter range to the calving grounds occurs mid-March to late May (BQCMB 1999). The traditional calving grounds of the Qamanirjuaq herd are located west of the Project study area, and south of Baker Lake (BQCMB 2008; Figure 2-1). Specific calving areas can vary from year to year; however, the traditional calving grounds have historically remained in the same general location (BQCMB 2008; Figure 2-1). After calving, in early June, caribou form larger groups and by mid-July aggregations of many thousands may move over the tundra landscape en masse. The herds occupy the calving ground and post-calving areas until the end of July when a rapid summer migration to the treeline occurs. In some years a migration north back towards the calving grounds can take place in August in response to flies. The timing of the fall migration south of the treeline occurs from October to December (BQCMB 2008).

The objective of the caribou aerial surveys in 2008 was to document the seasonal distribution, behaviour, habitat associations, and abundance of caribou within the study area.



LEGEND

- PROPOSED MINE SITE
- ANNUAL RANGE
- TRADITIONAL CALVING GROUND
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

REFERENCE

Base data obtained from NTDB. Caribou ranges obtained from BQCMB 2008.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

ANNUAL RANGE AND CALVING GROUND OF THE QAMANIRJUAQ CARIBOU HERD

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	02 Dec. 2008		
CHECK	LY	10 Dec. 2008		
REVIEW	MJ	10 Dec. 2008		

FIGURE: 2-1

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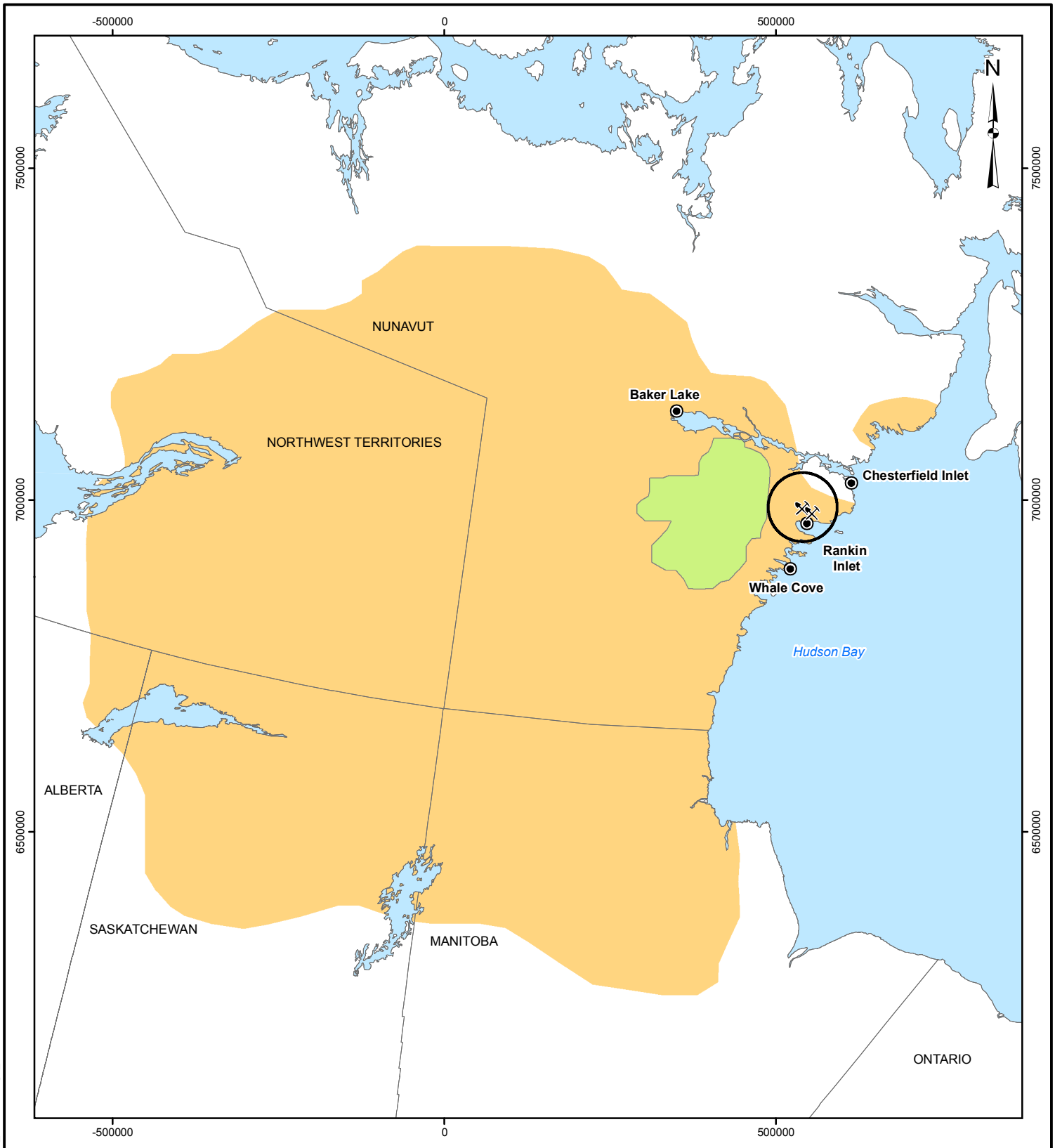

LEGEND

- PROPOSED MINE SITE
- ANNUAL RANGE
- TRADITIONAL CALVING GROUND
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

REFERENCE

Base data obtained from NTDB. Caribou ranges obtained from BQCMB 2008.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

ANNUAL RANGE AND CALVING GROUND OF THE QAMANIRJUAQ CARIBOU HERD

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	02 Dec. 2008		
CHECK	LY	10 Dec. 2008		
REVIEW	MJ	10 Dec. 2008		

FIGURE: 2-1

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2.2 METHODS

In 2008, three caribou aerial surveys were completed over the study area. Due to the large area, aerial surveys were completed over two days for two of the three aerial surveys. The total area was surveyed twice in mid-June (June 12 and 13, and 17) and once in late July (July 21 and 22). June surveys occurred during the calving period and the July survey occurred during the post-calving period.

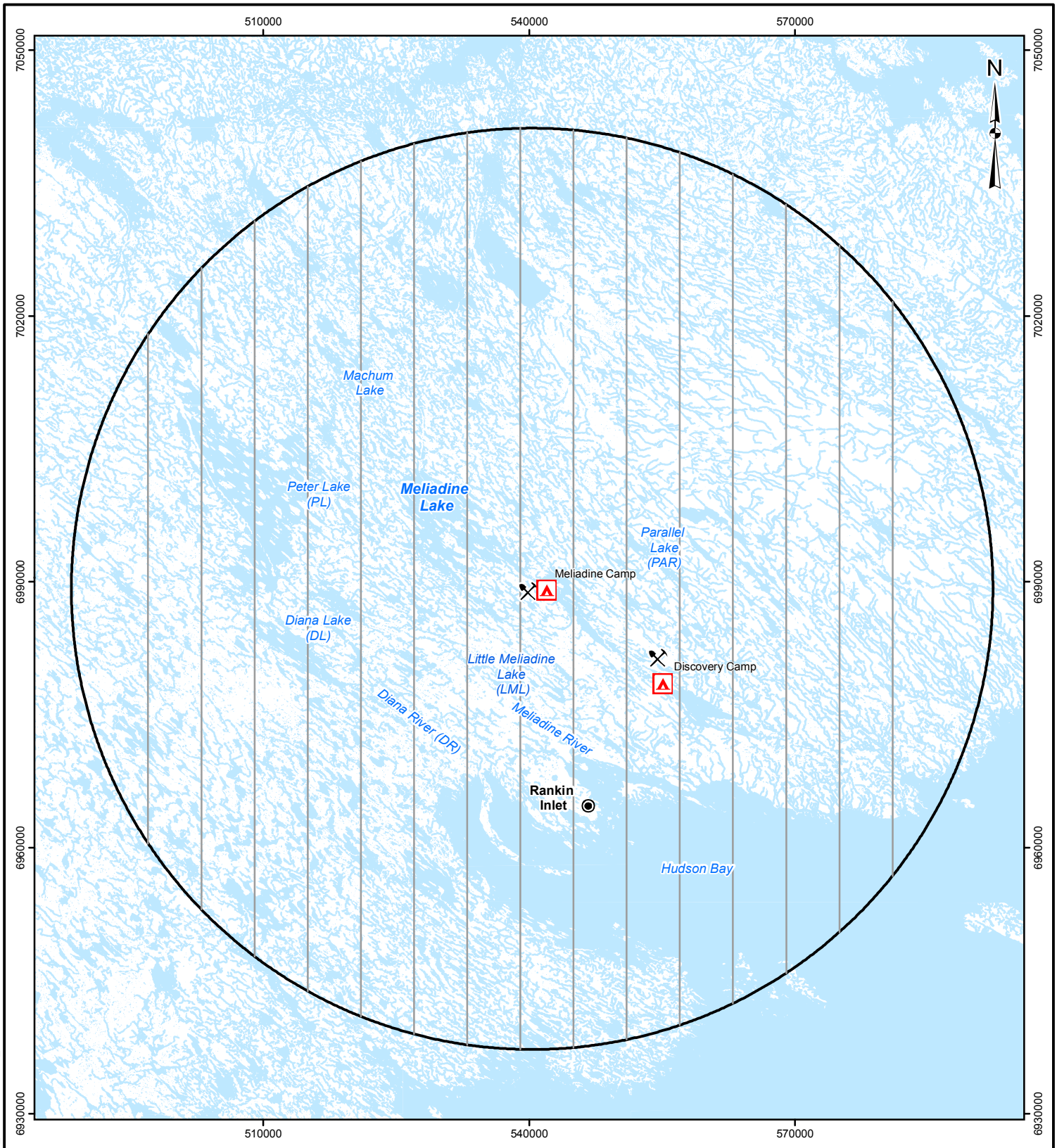
Surveys were conducted on 15 north-south transect lines, spaced 6 km apart over an 8 500 km^2 study area (52 km radius), surrounding the Project site (Figure 2-2). The study area size was designed to encompass the potential zone of influence (ZOI) to caribou that may result from future mining activities (Johnson et al. 2005), while still practical in terms of logistical constraints. Johnson et al. (2005) found that the ZOI from mining activities may extend up to 30 km from a development. Recently, after consultation with Government of Nunavut, the study area for caribou surveys at the Doris North Gold Project was enlarged to encompass the ZOI suggested by Johnson et al. (2005). The size of the study area for the Project is large enough to capture potential mine-related effects on caribou (i.e., includes the ZOI) and provide control data (i.e. outside the ZOI).

Transects were spaced at 6 km intervals. An area 500 m wide on either side of the aircraft was scanned by observers, covering approximately 1 334 km^2 or 16 percent (%) of the study area. Coverage is designed so that baseline studies can be incorporated into wildlife effects monitoring. Approved monitoring programs in the NWT and Nunavut have approximately 15% coverage of the study area (Golder 2008a, b). Transects were flown using a Cessna Caravan 208, at a speed of 150 to 180 kilometres per hour (km/h) and a minimum altitude of 200 m above ground level (AGL), following the methods used in previous aerial surveys (Jalkotzy 1999, 2000a, b). The survey crew included the pilot and three observers during the June surveys and two observers during the July survey. Navigation was by global positioning system (GPS) following the predetermined route based on the transect lines. Location was confirmed occasionally by the pilot with the use of a 1:250 000 scale topographic map.

Wildlife observations were recorded by way of GPS waypoints. When possible, caribou were identified as cows, bulls, or calves and group size was recorded. Groups were classified during the post-calving period (July) as nursery (adults with calves) or non-nursery (adults without calves). The dominant behaviour of the group (i.e.; bedded, feeding, alert, walking, trotting, running, standing, or courting/sparring) was recorded, as was the habitat type of each location. Habitat type was classified based on landcover classification as defined in Matthews et al. (2001). Matthews et al. (2001) classified vegetation within the Kitikmeot/Slave Geological Province. Although this study area falls outside of

the Kitikmeot/Slave Geological Province, this classification encompasses the Southern Arctic ecozone. This study area is located in the Southern Arctic ecozone. It is expected that this classification is representative of the vegetation that occurs within the study area. At the regional scale, vegetation cover in the Project area is dominated by heath tundra and heath boulder habitat types. These habitat types also dominate the northern arctic portion of the Kitikmeot/Slave Geological Province.

Caribou observed off-transect were recorded as incidental observations with the number of individuals and a waypoint recorded. Although the surveys targeted caribou, observations of other non-migratory wildlife species and incidental wildlife sign (e.g. dens) were also documented. These observations are discussed in their respective sections.



LEGEND

- CAMP
- PROPOSED MINE SITE
- AERIAL SURVEY TRANSECT
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

REFERENCE

Base data obtained from NTDB.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

CARIBOU AERIAL SURVEY TRANSECTS, JUNE AND JULY 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	21 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 2-2

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2.3 RESULTS

In June, 37 groups of caribou and a total of 117 individuals were observed during the two aerial surveys (Figure 2-3). The majority of caribou observed in June were in the northern portion of the study area (Figure 2-3). No nursery groups were observed during the June surveys. Given the small number of caribou observed and the lack of nursery bands observed during the first survey, calving occurred outside the study area. During the single July survey, over 5, 000 caribou were observed, including many nursery groups (Figure 2-4). Caribou observed in July congregated on the west side of the study area, west of Diana and Peter Lakes (Figure 2-4).

Mean group size and total number of groups was higher during the July post-calving period than the June calving period (Table 2-1). There were two records of very large herds during the July survey, each estimated at approximately 2 000 caribou (Appendix I). Although, not recorded during an aerial survey, caribou in the thousands have been seen within the study area in July prior to 2008 (Jalkotzy 2000a, b). The mean density of caribou observed on the study area during aerial surveys in 2008 ranged from 0.027 to 4.438 caribou per km^2 (Table 2-2).

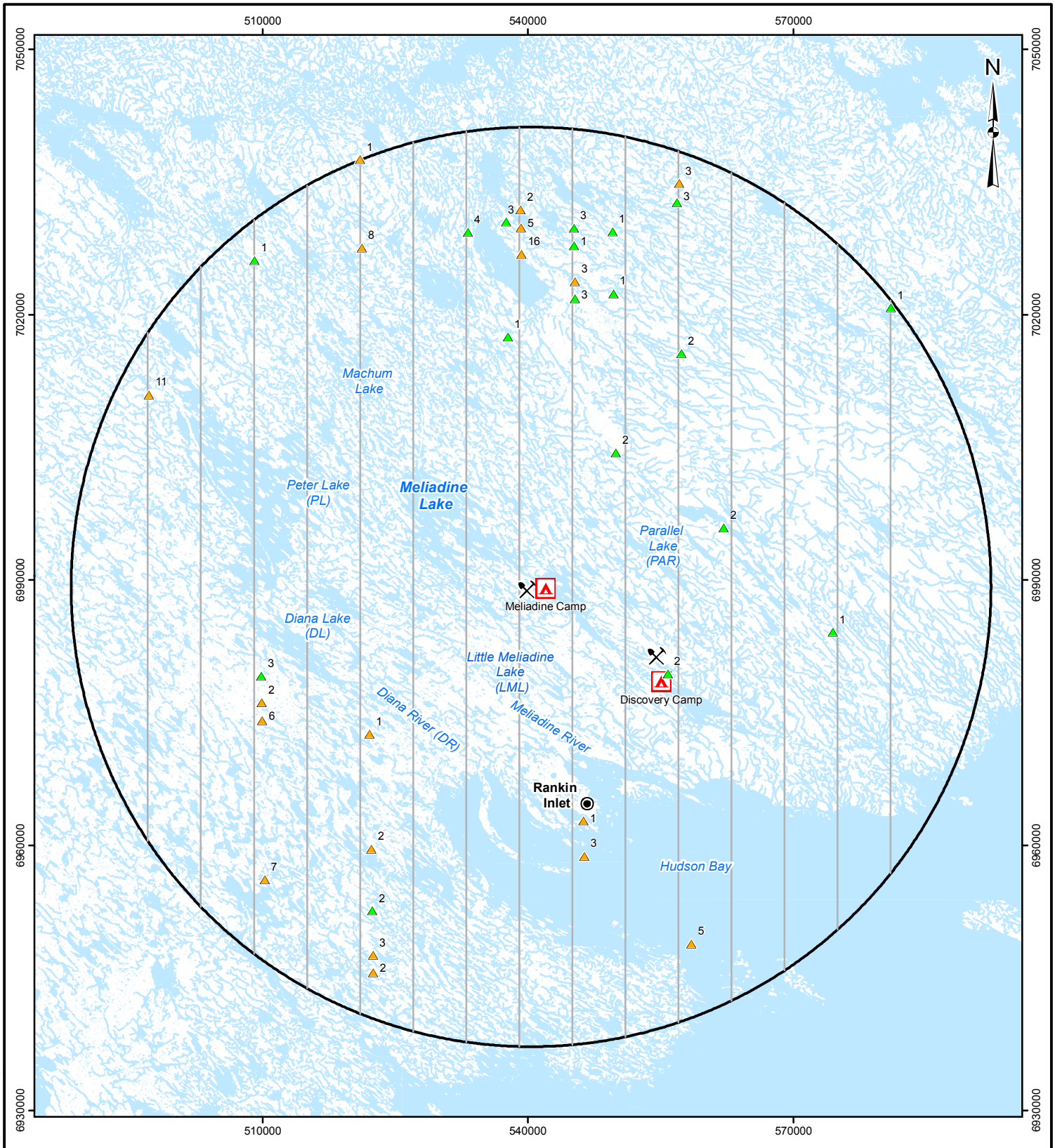
Table 2-1 Number of Caribou Groups Observed and Mean Group Size, 2008

Survey date	Calving Period[a]			Post-Calving Period[a]		
	Number of Groups	Mean Group Size ± SD	Total Caribou Observed	Number of Groups	Mean Group Size ± SD	Total Caribou Observed
June 12 and 13	18	2.00±0.97	36	-	-	-
June 17	19	4.26±3.96	81	-	-	-
July 21 and 22	-	-	-	21	281.91± 611.87	5 920

a Beverly and Qamanirjuaq Caribou Management Board (BQCMB) 1999

Table 2-2 Caribou Densities during Calving and Post-Calving Aerial Surveys, 2008

Survey Date	Mean Density Caribou/km^2
Calving Period (June 12 and 13)	0.027
Calving Period (June 17)	0.061
Post –Calving Period (July 21 and 22)	4.438



LEGEND

- CAMP
- CARIBOU OBSERVED JUNE 12 - 13*
- CARIBOU OBSERVED JUNE 17*
- PROPOSED MINE SITE
- AERIAL SURVEY TRANSECT
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

* NUMBER INDICATES CARIBOU GROUP SIZE

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

GROUP SIZE AND DISTRIBUTION OF CARIBOU OBSERVED, JUNE 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	DE	02 Dec. 2008		
CHECK	LY	10 Dec. 2008		
REVIEW	MJ	10 Dec. 2008		

FIGURE: 2-3

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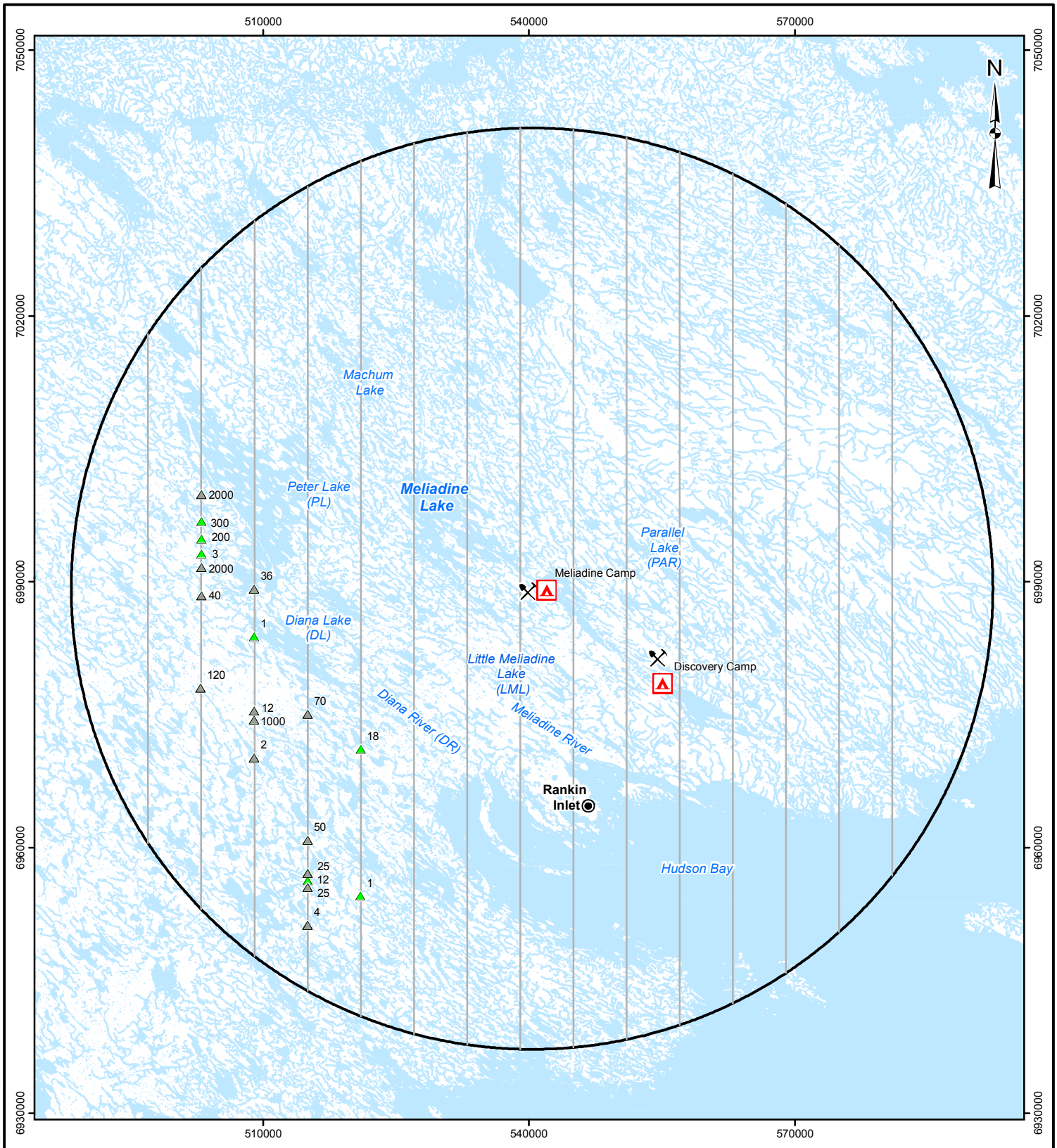

LEGEND

- CAMP
- CARIBOU *
- NURSERY GROUP *
- PROPOSED MINE SITE
- AERIAL SURVEY TRANSECT
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

* NUMBER INDICATES CARIBOU GROUP SIZE

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

GROUP SIZE AND DISTRIBUTION OF CARIBOU OBSERVED, JULY 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055		SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008	
GIS	PT	21 Nov. 2008	
CHECK	LY	02 Dec. 2008	
REVIEW	MJ	02 Dec. 2008	

FIGURE: 2-4

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Group composition was recorded during both surveys. During the June surveys, a total of 117 adult caribou were observed: 9 males, 9 females, and 99 individuals of unknown sex. No calves were observed in June. During the July survey, approximately 5920 caribou were observed, of which 535 were identified as adults. Sex was not recorded. During the post-calving period, the proportion of nursery groups was also documented. Overall, 62% of groups observed in July included calves. No calves were observed in June surveys. During all surveys, the majority of caribou groups observed were standing or walking (Figure 2-5). Feeding behaviour was observed during the July (i.e., post-calving) survey, but not in June (i.e., calving period).

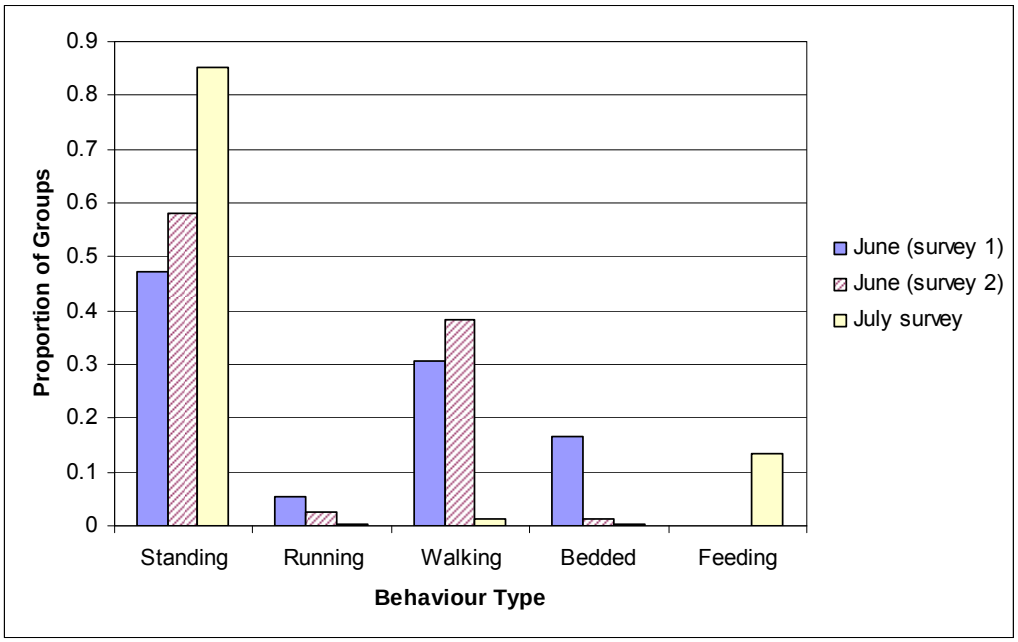


Figure 2-5 Percent of Caribou Groups Displaying Various Behaviours (June and July Surveys, 2008)

Habitat associations were recorded in the field, based on the dominant landcover types as defined in Matthews et al. (2001). Figure 2-6 shows the distribution of caribou groups across habitat types in the two survey periods. Caribou groups were most frequently observed in heath tundra in both periods. Caribou were also observed in sedge wetlands in both survey periods and in esker habitat during the July survey.

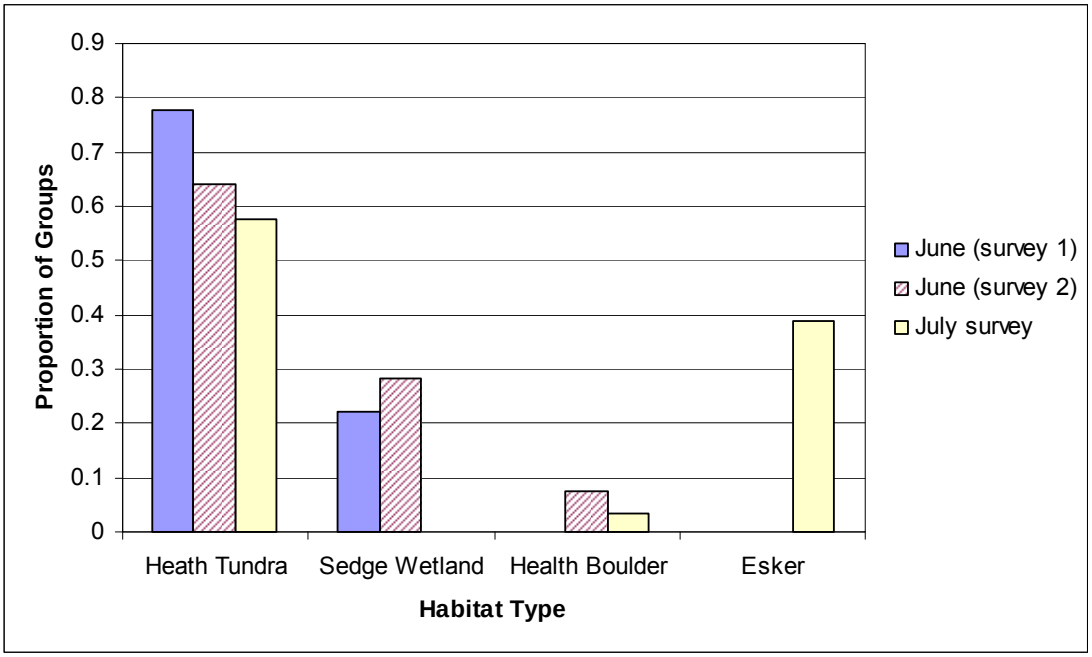


Figure 2-6 Percent of Caribou Groups Observed in Various Habitats (June and July 2008)

3 FOX DENS

3.1 OBJECTIVES

Arctic foxes are a common terrestrial carnivore species in the Project area (Jalkotzy 2000a, b), and dens have previously been identified in the study area (Hubert and Associates 2007). Wolverines, grizzly bears, polar bears, and wolves occur at lower densities within the region (M. Campbell, biologist, pers. comm. in Jalkotzy 1999). Other small carnivores like ermine may be as common although densities have not been documented in past baseline data collection (Jalkotzy 2000b).

Arctic foxes are dependent on den sites for reproduction and generally use the same den throughout a breeding season, unless disturbed (Angerbjörn et al. 1997). Eberhardt et al. (1983) found that some adult and juvenile foxes have den fidelity in successive years. Dens are often large and well-defined structures that can be used for generations (Frafjord 2002). In tundra habitat, dens are generally large and conspicuous with lush vegetation which makes them easily detectable (Smits et al 1988). Inactive dens could be due to low prey concentrations in the area, disturbance, or instability of the burrow (Dalerum et al. 2002).

The objective of the fox den surveys was to determine the locations of Arctic fox den sites and monitor for occupancy and reproductive success within the study area, focusing on a 10 km radius from the Project site. Surveys were completed in the spring season (June) when pup emergence from the den occurs and in the summer season (July) when pup survival can be monitored. An effective way to census their population is by monitoring these sites.

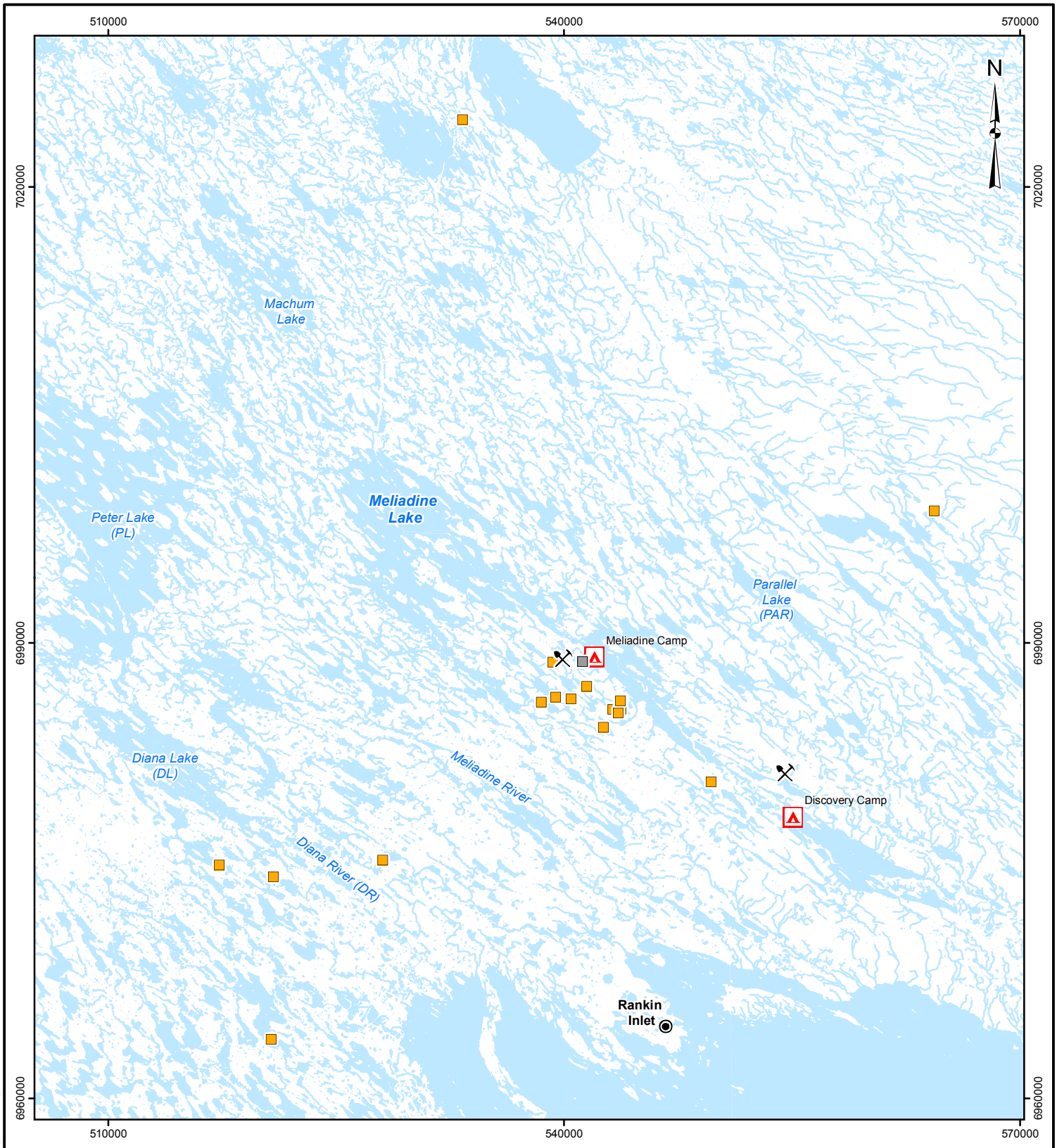
3.2 METHODS

Fox dens were recorded opportunistically during all wildlife surveys including aerial surveys and on foot during upland bird surveys. Observations by Project staff were also recorded. Eskers were targeted as these are common locations for dens. Careful observation was made to confirm that Arctic ground squirrel burrows were not incorrectly identified as fox dens. When den sites were located, a survey of the immediate area was done to look for recent signs of occupancy (e.g.; digs, fresh scat, tracks, hair, bedding material, and recent prey items) and a GPS waypoint of the location was taken.

3.3 RESULTS

Twenty-one fox den sites were observed in total in the study area (Appendix II). One report of an occupied den near a drill site in the vicinity of the portal location was obtained from Project employees (Figure 3-1). No dens observed in June appeared to have pups but due to the limited amount of time spent on observations, it is possible that pups may have been present at some and not recorded. No active dens (i.e. with pups) were recorded during the July aerial wildlife survey or were recorded by Project employees. The July survey of dens was conducted during the aerial wildlife survey, so some of these dens may have been used successfully to rear young, although no definitive evidence was observed from the air. Two dens noted as being active during the June surveys did not show evidence of current activity in July.

Arctic fox are a common resident of the survey area but no conclusions can be made about population size and rearing success in 2008. Results from 1998-2000 found that Arctic fox were common in the intensive study area (Jalkotzy 1998, 2000a, b). In the past Arctic fox have become persistent scavengers in the vicinity of camp and nuisance animals by the end of the summer.



LEGEND

- CAMP
- FOX DEN - ACTIVE
- FOX DEN
- PROPOSED MINE SITE
- WATERCOURSE
- WATERBODY

10 0 10

SCALE 1:350,000 KILOMETRES

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

LOCATION OF FOX DEN SITES IN THE STUDY AREA, JUNE AND JULY 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	18 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 3-1

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4 UPLAND BIRDS

4.1 OBJECTIVE

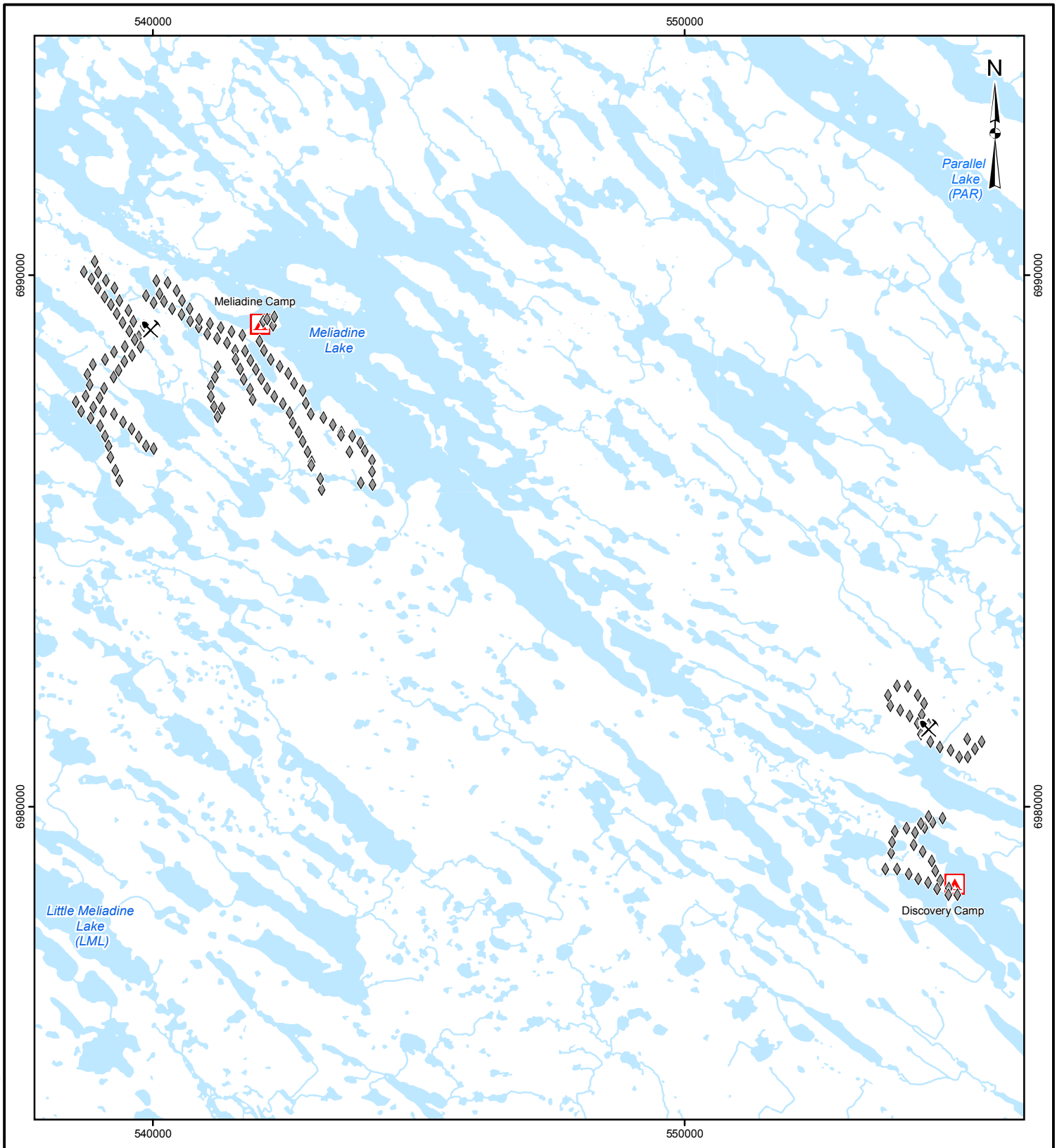
Upland birds (i.e.; songbirds, shorebirds) are often used in monitoring programs because they are a diverse group of species that can be easily surveyed and are indicators of the overall health of ecosystems. During the breeding period, natural and human-induced (e.g.; mining activities) disturbances may contribute to changes in density and species richness of bird communities. For example, a recent eight-year study at the Ekati Diamond Mine indicated temporal changes in the richness and density of bird species associated with landscape scale and population level effects (Smith et al. 2005).

To date, there has been no baseline data collected in the Project area; therefore, the objective of this component was to collect data in the area of the preliminary perimeter for the Project footprint and outside of the proposed mine footprint to determine the composition and abundance of upland bird species (i.e. songbirds, shorebirds) and their habitat associations in the area. The intent is to establish benchmarks for upland bird species relative abundance and richness.

4.2 METHODS

4.2.1 Upland Bird Point Count Survey

From June 11 to 18, 2008, 136 point counts (plots) were completed within and immediately adjacent to the potential mine footprint, and another 30 near the Discovery deposit (Figure 4-1). Point counts are best suited for collecting data on songbirds because point counts primarily detect birds by sound (i.e. singing birds). Plots focused on and extended out from the potential mine footprint. Plots were located 50 m apart with approximately 100 m between transects. The distance between transects was to avoid the re-counting individuals from adjacent plots, which would artificially inflate the number of birds in the area.



LEGEND

- BIRD PLOT
- CAMP
- PROPOSED MINE SITE
- WATERCOURSE
- WATERBODY

3 0 3

SCALE 1:100,000 KILOMETRES

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

UPLAND BIRD PLOT LOCATIONS, JUNE 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	18 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 4-1

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Surveys were performed using standard point count procedures between the hours of 2 a.m. and 10 a.m to coincide with peak bird activity (i.e actively singing males). All birds seen or heard in the plot within three and five minute intervals were recorded. Birds recorded within three minutes can be used to supply data to the annual North American Breeding Survey (Environment Canada 2004). Birds recorded within five minutes were used to create a species list for the Project. Flyovers and birds observed outside of the plot were recorded as incidentals and used to provide a comprehensive species list, but were excluded from the analysis of plot data. Data recorded included: GPS location of plot, observation number, time of observation, species, number of individuals, habitat (based on dominant landcover type; Matthews et al. 2001), and behavioural activity (i.e.; flushed, territorial calls or displays, nest or nest with eggs, flyovers). The numbers of plots per habitat type were selected based on the relative dominance within the potential mine footprint and Discovery area; therefore, most plots were in heath tundra habitat. Seven habitat types were surveyed:

- Heath boulder (n=3 plots, 2% of plots surveyed);
- Heath bedrock (n=2 plots, 1% of plots surveyed);
- Heath tundra (n=95 plots, 57% of plots surveyed);
- Sedge Wetland (n=34 plots, 21% of plots surveyed);
- Tussock-hummock (n=30 plots, 18% of plots surveyed); and
- Esker (n=2 plots, 1% of plots surveyed)

Species richness was calculated as the maximum number of bird species observed within a habitat type.

4.2.2 Shorebird Survey

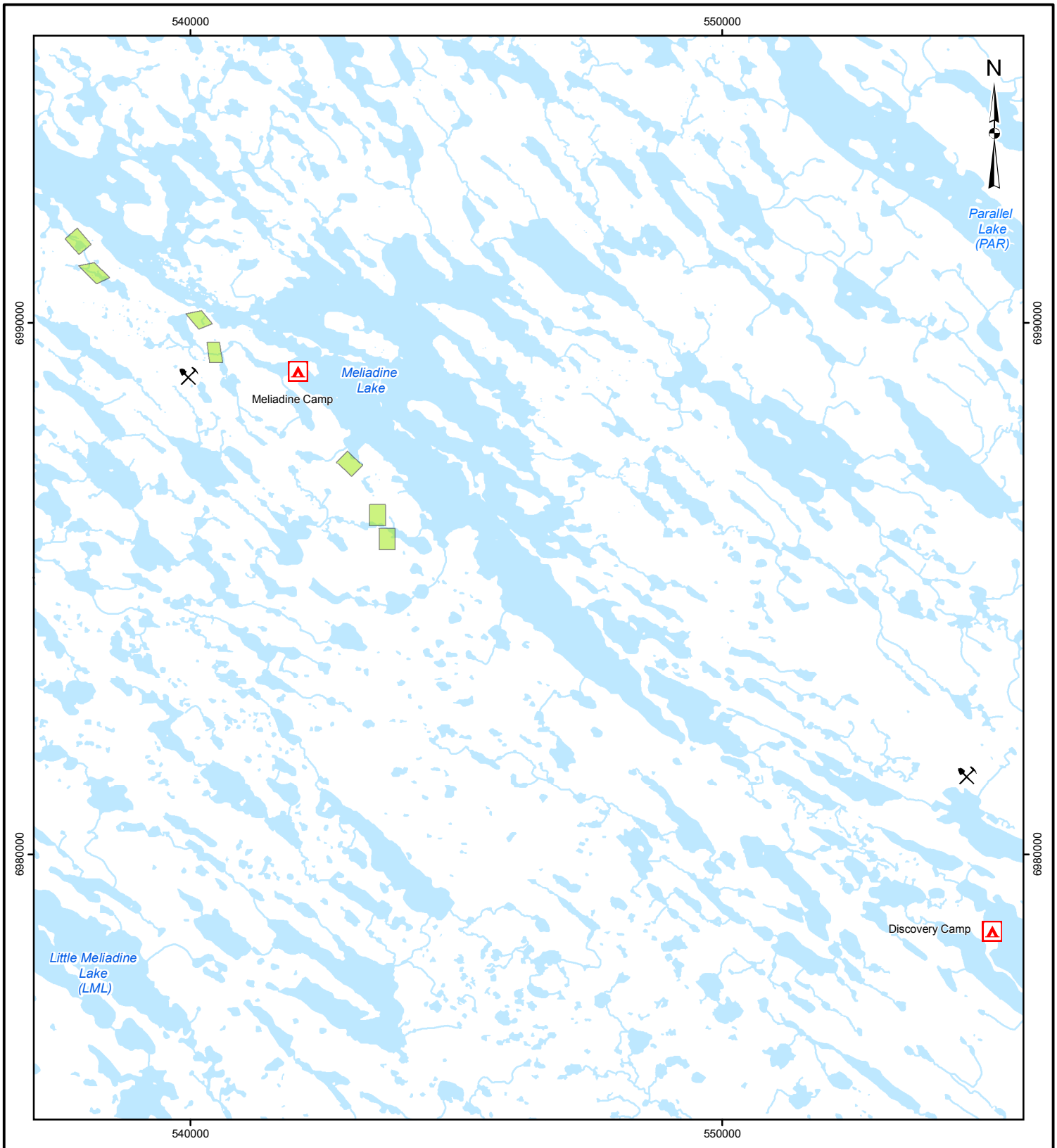
Shorebird surveys followed the rapid survey method as described in the 2008 Program for Regional and International Shorebird Monitoring (PRISM) manual (Canadian Wildlife Service [CWS] 2008). Plot size was 300 m by 400 m (12 hectare [ha] area) and attempts were made to select monotypic habitat type. Habitat types were classified based on shorebird habitat suitability: good (sedge wetland), fair (tussock/hummock, heath tundra, esker), and poor (heath bedrock, heath boulder) (CWS 2008).

Plot locations are shown on Figure 4-2. To complete the rapid survey, the plot was systematically investigated by a pair of surveyors, recording all bird sign (i.e.; birds, nests, other sign) on a plot map. Each survey took approximately one

hour to complete. Surveyors walked slowly through the plot along a 400 m long transect. At the end of each 400 m transect, surveyors walked 50 m along the plot perimeter and then made another pass through the plot along another 400 m transect (CWS 2008). Surveyors were separated by approximately 25 m while walking transects so that any bird on transect was never further than 12.5 m from one of the two surveyors. During these 4 transect passes (i.e.; 2 by each observer), each observer focused on the immediate 25 m surrounding area. In contrast to the passive upland bird point counts, which detected birds by sound, the shorebird surveys relied on actively flushing birds, as shorebirds tend to be more cryptic than songbirds.

Plot maps were drawn on map sheets provided by CWS and GPS coordinates for plot corners were recorded. Maps included boundaries of habitat types, pond outlines, and other prominent features. Each shorebird and songbird observation record included a pair, male, female, or individual of unknown sex. Presence was also recorded for bird species other than shorebirds or songbirds that were encountered in the plot. Nests and probable nests including a description of nest characteristics were documented using another data sheet. Habitat data sheets were also completed for each plot describing the major habitat type(s) in the plot.

After each survey, a rapid survey summary form was prepared from the information recorded. On this form, observed nests, probable nests (based on bird behaviour), pairs, and singles of each songbird species and shorebird species were recorded. This summary provides the total number of resident birds recorded for the plot during the summer of 2008.



LEGEND

- CAMP
- PROPOSED MINE SITE
- WATERCOURSE
- SHOREBIRD PRISM PLOT AREA *
- WATERBODY

* LABELLING INDICATES PLOT NAME

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

SHOREBIRD PRISM PLOT LOCATIONS, JUNE 2008

Golder Associates
Calgary, Alberta

PROJECT NO. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	27 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 4-2

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4.3 RESULTS

4.3.1 Upland Bird Point Count Survey

Upland bird surveys were completed in 166 plots in 2008 (Figure 4-1), with 30 plots located in the Discovery area. Eight species were recorded, including incidentals (Appendix III). Seven songbird species were recorded within the plots.

Lapland longspurs, horned larks, and savannah sparrows were the most common birds observed, with 50, 48, and 39 observations, respectively. Within the 50 m plot, snow buntings and white-crowned sparrows were only recorded in the Meliadine West area while redpolls were observed only in the Discovery area.

Variation in species richness among habitats was relatively high. Species richness ranged from one to six across the six different habitat types (Table 4-1). When species richness was examined by habitat type (Table 4-1) more species were observed in heath tundra, tussock/hummock, and sedge wetland. These habitat types dominate this arctic ecozone and were the most frequently surveyed. Lapland longspur and horned lark observations were highest in heath tundra and savannah sparrow observations were highest in sedge wetland (Table 4-2). Species richness between locations was similar, but may be biased by the lower number of survey plots in the Discovery area (Table 4-3).

Table 4-1 Species Richness According to Habitat Type, 2008

Species	Species Presence					
	Heath Tundra	Tussock / Hummock	Sedge Wetland	Heath Boulder	Heath Bedrock	Esker
Lapland Longspur	√	√	√			√
Horned Lark	√	√	√	√	√	
American Pipit	√	√				
Savannah Sparrow	√	√	√			
Redpoll species		√				
White-crowned Sparrow	√					
Snow Bunting				√		
Unknown	√	√	√			
Species Richness	6	6	4	2	1	1

Table 4-2 Number of Individuals Recorded per Habitat Type, 2008

Species	Heath Tundra	Tussock / Hummock	Sedge Wetland	Heath Boulder	Heath Bedrock	Esker
Lapland Longspur	36	9	4			1
Horned Lark	35	5	5	2	1	
American Pipit	5	1				
Savannah Sparrow	9	11	19			
Redpoll species		1				
White-crowned Sparrow	1					
Snow Bunting				3		
Unknown	1	1	1			

Table 4-3 Species Richness in Meliadine West and Discovery Areas within the Study Area, 2008

Habitat Type	Species Richness
Meliadine West	7
Discovery Area	5

4.3.2 Shorebird Survey

Seven shorebird plots were surveyed in June 2008. Three shorebird species were recorded in the Project area: least sandpiper, semipalmated sandpiper and semipalmated plover. Of these three species, only one pair of semipalmated plovers was recorded (Table 4-4). The small number of observations may be related to the number of plots surveyed as well as the relative lack of good shorebird nesting habitat in the area.

Table 4-4 PRISM Survey Results

Plot #	Habitat Type	Habitat Quality	Shorebird Species Observed	Number	Sex	Incidental Species
1	sedge wetland	good	none	0	-	2 long-tailed ducks
2	tussock / hummock	fair	none	0	-	1 Lapland longspur
3	heath tundra	poor	none	0	-	none
4	tussock / hummock	fair	none	0	-	1 Lapland longspur
5	heath tundra	poor	none	0	-	none
6	tussock / hummock	fair	semipalmated plover	2	pair	2 sandhill cranes with nest
7	sedge wetland	good	none	0	-	2 savannah sparrows

5 WATERFOWL

5.1 OBJECTIVE

Lakes, ponds, and wetlands of the tundra in the Project area host numerous migratory waterfowl species that comprise a breeding assemblage of tundra swans, loons, sandhill cranes, Canada and snow geese, and ducks. Waterfowl species richness is considered a valuable indicator for the quality of wetland habitats. The objectives of this component were to document species richness of waterfowl in the study area, establishment of nesting territories, and brood-rearing.

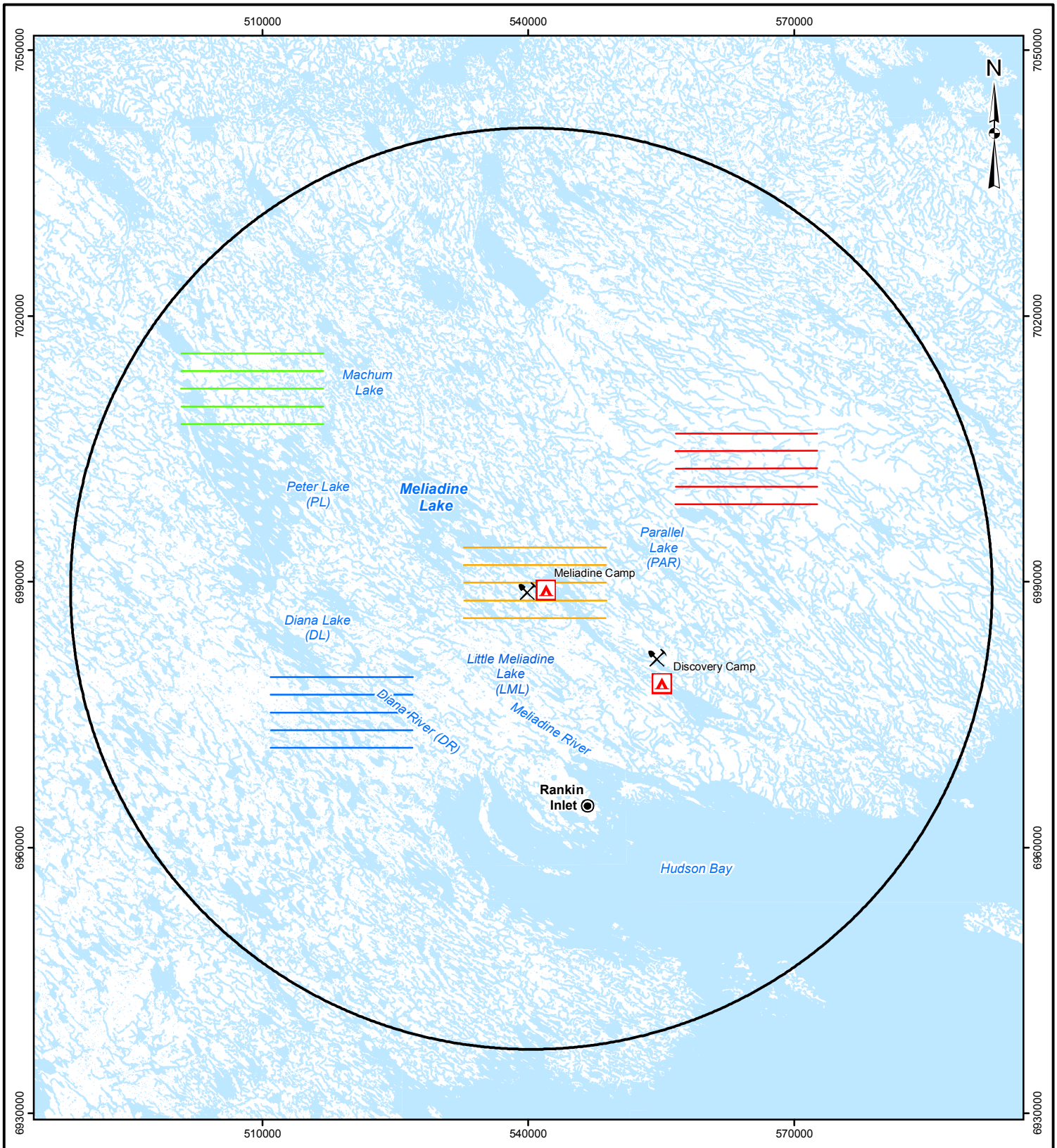
5.2 METHODS

Aerial surveys for waterfowl were conducted on June 15 and 16, and July 22 and 23, 2008. Each survey covered four separate strata: Mine, North, South, and East (Figure 5-1). The stratum known as 'Mine' covers the potential mine site footprint. The other three strata serve as undisturbed reference areas, representative of the study area. A Discovery stratum was not completed due to the late addition of this location to the field survey work; however, the four strata are considered representative of the overall study area.

Each stratum was surveyed with five 16 km long transects oriented in an east-west direction, spaced 2 km apart. Transects were flown by helicopter at a speed of 80 to 100 km/hr at an altitude of 45 m (Hines et al. 2000, 2003), following previous baseline aerial waterfowl survey techniques (Jalkotzy 1999, 2000a, b). Each stratum took approximately one hour of flying time to complete. Two observers recorded all waterfowl, sandhill cranes, and herring gulls, plus incidental wildlife sightings, observed within 200 m of either side of the aircraft (Larned et al. 2003). Observations were recorded for each species identified in one of the following categories:

- single – lone males or females;
- pair – male and female in close association;
- grouped males – two to four males in close association; and
- other groups – all remaining groups of three or more individuals in close association that could not be separated as singles or pairs. A group of two males and one female was recorded as one pair and a single male.

Surveys occurred during the spring migration/establishment of nesting territories (June), and the brood rearing (July) periods. The number of young waterfowl in a brood was also recorded during the brood rearing period (July survey).



LEGEND

- CAMP
- PROPOSED MINE SITE
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

WATERFOWL TRANSECT

- EAST STRATUM
- MINE STRATUM
- NORTH STRATUM
- SOUTH STRATUM

15 0 15

SCALE 1:600,000 KILOMETRES

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

WATERFOWL AERIAL SURVEY STRATA, JUNE AND JULY 2008

Golder Associates
Calgary, Alberta

PROJECT NO. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	27 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 5-1

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5.3 RESULTS

Aerial waterfowl surveys recorded three to nine species within the four strata established in 2008 (Table 5-1) (Appendix IV). More waterfowl were observed in July than in June (Figure 5-2 and 5-3). During the June surveys, many lakes and wetlands still had some ice cover, while in July, all water was ice-free. Canada geese were seen most frequently, followed by sandhill cranes, tundra swans, and herring gulls. Canada geese accounted for almost 62% of all waterfowl observed and were found throughout the survey area in both June and July, except for the East stratum. The East stratum had the fewest waterfowl observations of the four strata in both June and July, while the South stratum had the most waterfowl during the June survey and the North stratum had the most observations during the July survey (Table 5-1) (Figure 5-2 and 5-3).

During the July survey, species richness was slightly lower than during the June surveys (Table 5-1). Between 3 and 9 species were detected overall, and two species: tundra swan and Canada goose were observed with broods. Four and ten broods were recorded for those species, respectively (Table 5-2, Figure 5-4).

Loons, swans, and cranes were surveyed in 1998 and 1999 (Jalkotzy 1999, 2000a, b). Similar to results in 1998 and 1999, Pacific loons were more common than red-throated and common loons during the 2008 surveys. However, Jalkotzy (1999, 2000a, b) recorded more Pacific loons in 1998 and 1999 than were recorded in 2008. Differences may be due to differing survey intensity, as both aerial and ground surveys were done in 1998 and 1999. The number of common loons detected was similar to results from 1998 and 1999. However, more red-throated loons were detected in 2008 than in 1998 and 1999 (i.e. 6, 3, and 1, respectively). In June 2008, loons were found in the North, South and Mine strata, while in July loons were found primarily in the North stratum.

Tundra swans and sandhill cranes were intensively surveyed in 1998 and 1999 (Jalkotzy 1999, 2000a, b). The number of swans observed during the waterfowl aerial surveys in 2008 was lower than the number of swans observed in 1998 and 1999, which again may be due to survey intensity. In 2008, tundra swans appeared to be concentrated in the Mine stratum. Data from 1998 and 1999 suggest that tundra swans select lakes based on size for nesting (Jalkotzy 1999, 2000a, b). A similar number of sandhill cranes were reported between 1998 and 2008 (83 and 78 cranes, respectively) and less were reported in 1999 (44 cranes).

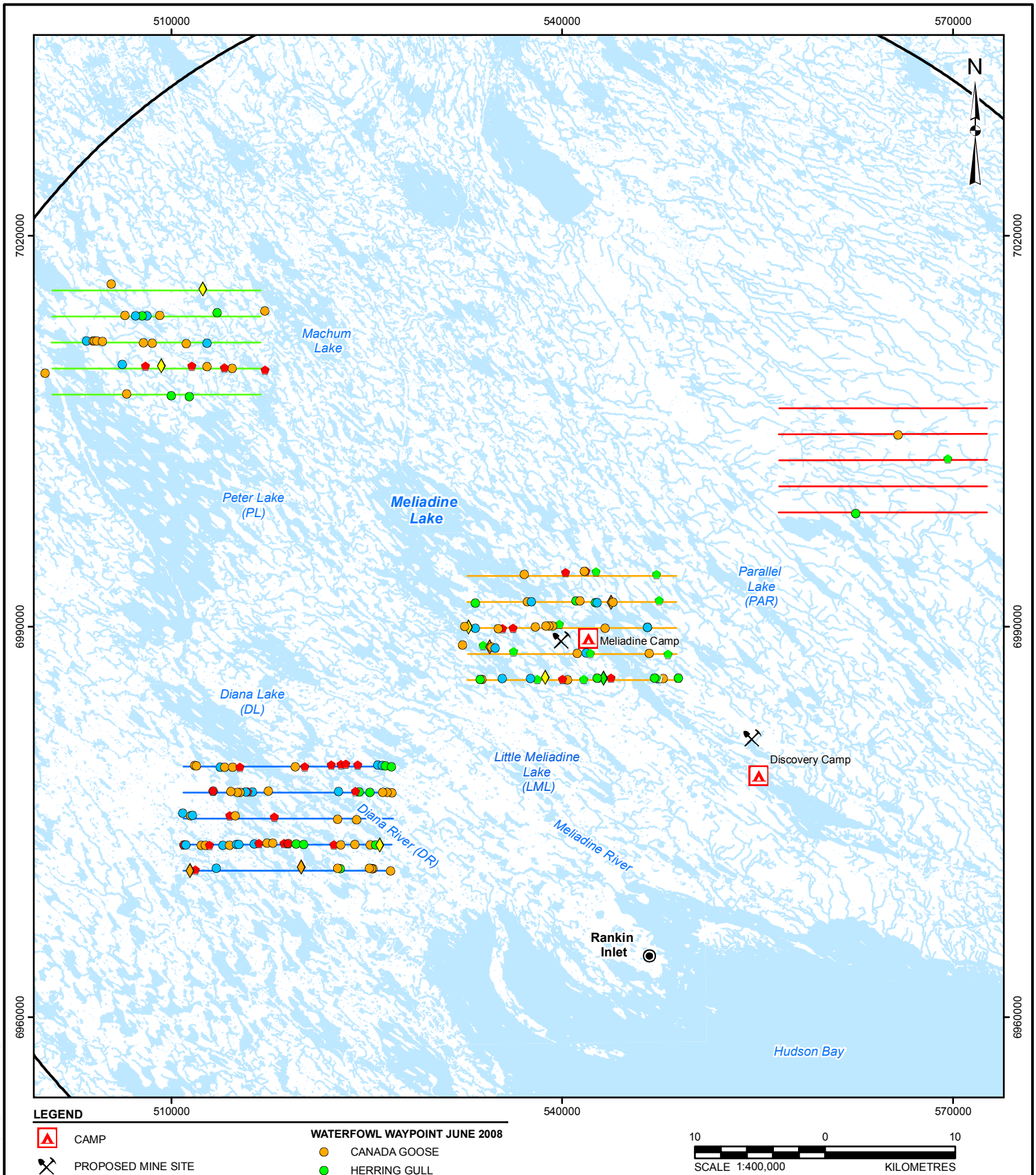
Table 5-1 Waterfowl Observations and Species Richness among Survey Strata, June and July 2008

Species	Mine Stratum		North Stratum		South Stratum		East Stratum	
	June	July	June	July	June	July	June	July
Red-throated loon	0	0	0	1	0	5	0	0
Pacific loon	4	0	3	5	2	0	0	0
Common loon	0	2	0	3	0	0	0	0
Red-breasted Merganser	1	0	0	6	0	0	0	0
Tundra swan	16	40	0	0	0	0	1	0
Canada goose	38	21	25	128	77	102	4	95
Snow goose	0	0	0	2	0	0	0	15
Northern pintail	2	0	0	0	3	0	0	0
Scaup species	2	0	0	0	0	0	0	0
Long-tailed duck	15	1	11	1	21	6	0	0
Sandhill crane	9	6	5	9	25	24	0	1
Herring Gull	9	3	4	6	15	12	1	0
Unknown duck species	1	1	0	1	0	2	0	0
Species richness	**9**	**6**	**5**	**8**	**6**	**4**	**3**	**3**
Total observations	**97**	**74**	**48**	**162**	**143**	**151**	**6**	**111**

Table 5-2 Number of Broods and Young Observed within Survey Strata, July 2008

Species	Mine Stratum	North Stratum	South Stratum	East Stratum
Tundra swan	4 (12)	0 (0)	0 (0)	0 (0)
Canada goose	3 (11)	4 (15)	3 (15)	0 (0)
Total	**7 (23)**	**4 (15)**	**3 (15)**	**0 (0)**

Note: number in parentheses indicates total number of young observed.



LEGEND

- CAMP
- PROPOSED MINE SITE
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA

WATERFOWL TRANSECT

- EAST STRATUM
- MINE STRATUM
- NORTH STRATUM
- SOUTH STRATUM
- WATERBODY

WATERFOWL WAYPOINT JUNE 2008

- CANADA GOOSE
- HERRING GULL
- LONG-TAILED DUCK
- NORTHERN PINTAIL
- PACIFIC LOON
- RED-BREASTED MERGANSER
- SANDHILL CRANE
- SCAUP SPECIES
- TUNDRA SWAN
- UNKNOWN DUCK SPECIES

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

WATERFOWL OBSERVATIONS WITHIN SURVEY STRATA, JUNE 2008

Golder Associates
Calgary, Alberta

PROJECT NO. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	24 Sep. 2008		
GIS	PT	27 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 5-2

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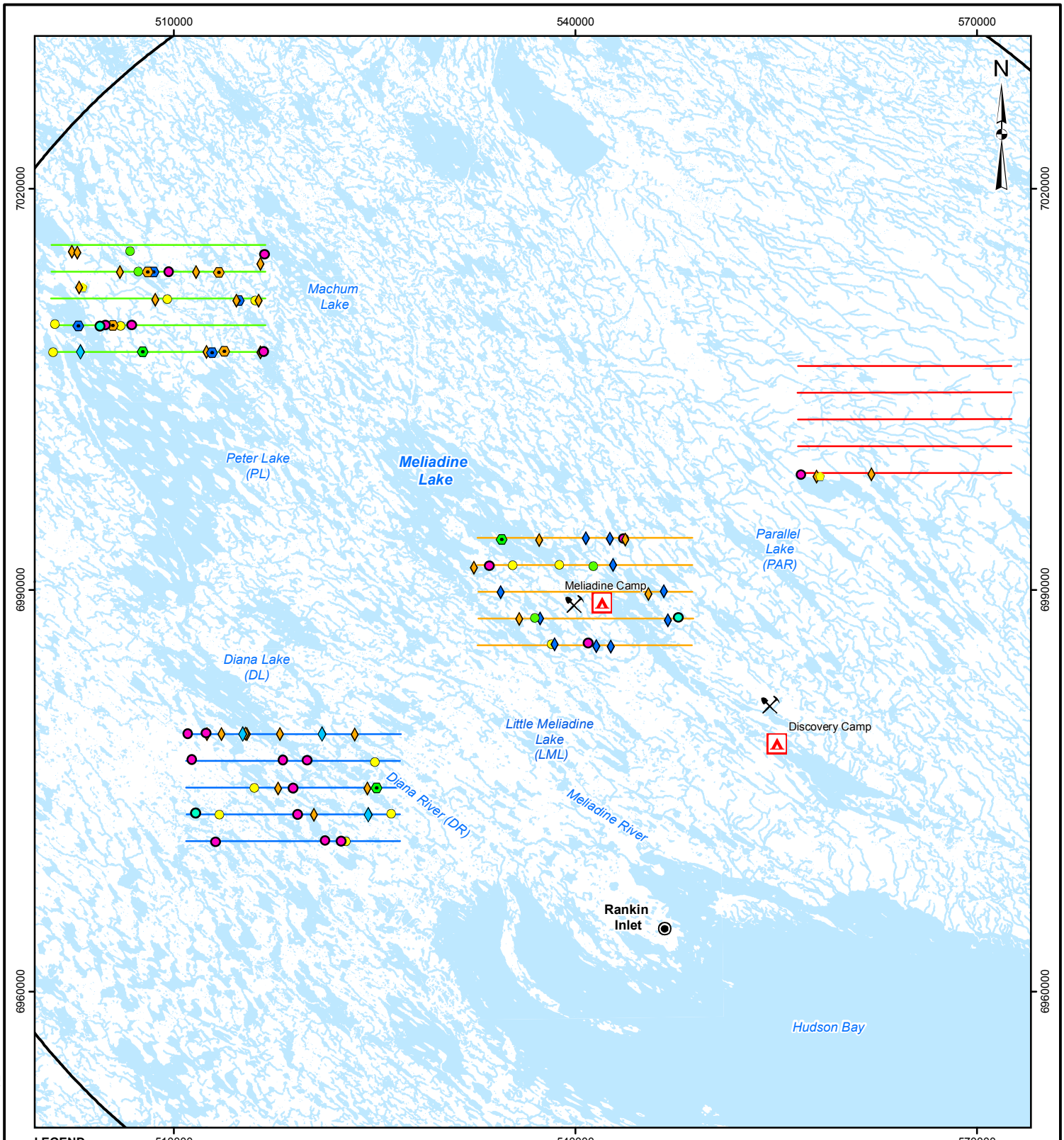

LEGEND

- CAMP
- PROPOSED MINE SITE
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

WATERFOWL TRANSECT

- EAST STRATUM
- MINE STRATUM
- NORTH STRATUM
- SOUTH STRATUM

WATERFOWL WAYPOINT JULY 2008

- CANADA GOOSE
- COMMON LOON
- HERRING GULL
- LONG-TAILED DUCK
- PACIFIC LOON
- RED-BREASTED MERGANSER
- RED-THROATED LOON
- SANDHILL CRANE
- SNOW GOOSE
- TUNDRA SWAN
- UNKNOWN DUCK SPECIES

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

WATERFOWL OBSERVATIONS WITHIN SURVEY STRATA, JULY 2008

Golder Associates
Calgary, Alberta

PROJECT NO. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	24 Sep. 2008		
GIS	PT	27 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 5-3

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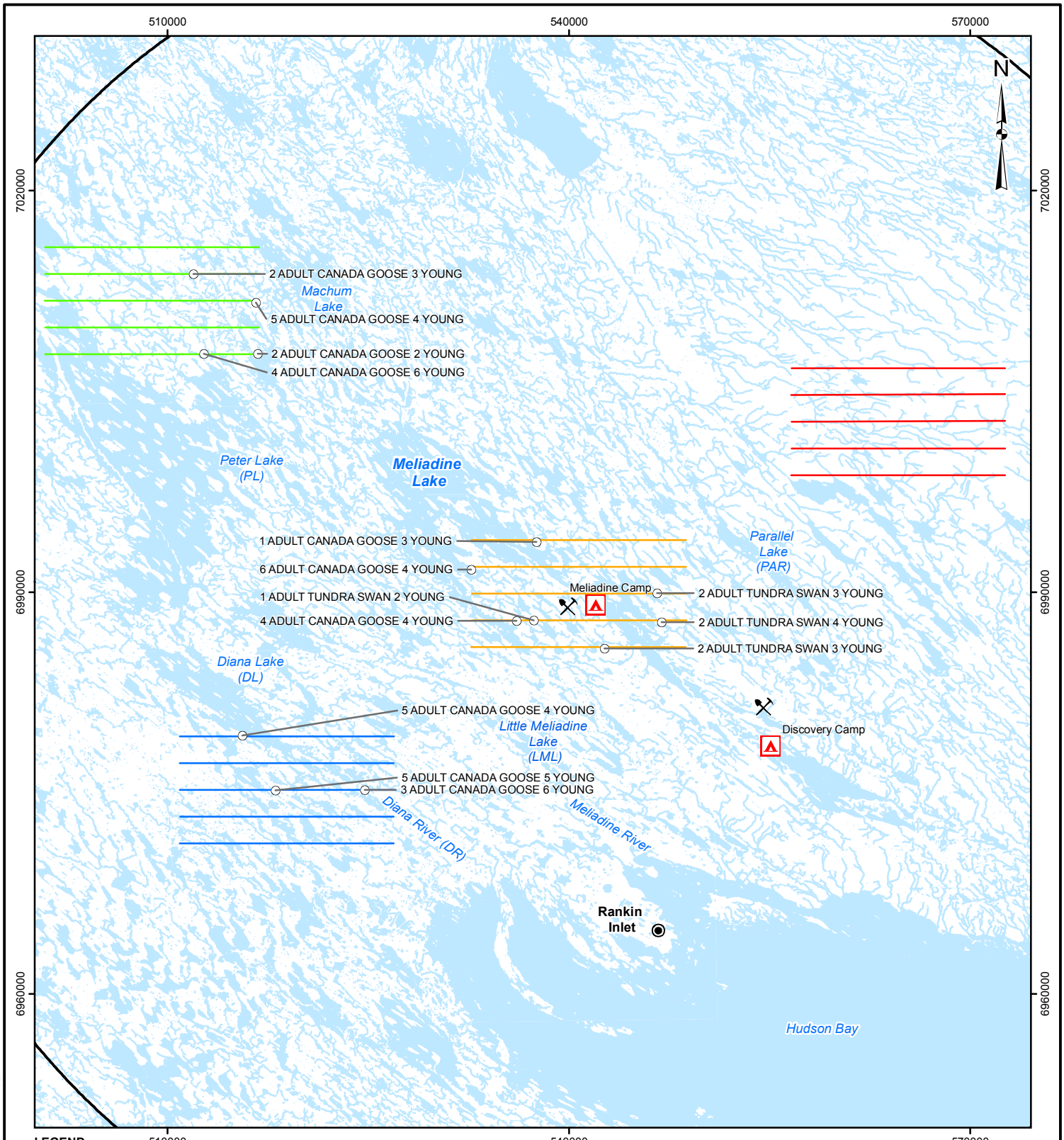

LEGEND

- CAMP
- PROPOSED MINE SITE
- WATERFOWL BROOD JULY 2008
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

WATERFOWL TRANSECT

- EAST STRATUM
- MINE STRATUM
- NORTH STRATUM
- SOUTH STRATUM

10 0 10

SCALE 1:400,000 KILOMETRES

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

WATERFOWL BROOD OBSERVATIONS WITHIN SURVEY STRATA, JULY 2008

Golder Associates
Calgary, Alberta

PROJECT NO. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	24 Sep. 2008		
GIS	PT	27 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 5-4

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6 RAPTORS

6.1 OBJECTIVE

The Rankin Inlet area is known for the high density of peregrine falcon nesting on cliffs surrounding the community, and has been the subject of long-term and intensive studies (Johnstone 1998, Court et al. 1988). Previous baseline studies identified four raptor species in the study area: short-eared owl, snowy owl, rough-legged hawk, and peregrine falcon (Jalkotzy 1999, 2000a, b). The tundra peregrine falcon and short-eared owl are listed as species of special concern by COSEWIC (2008) and SARA (2008), and are listed as 'may be at risk' or 'sensitive' respectively, by the Government of Nunavut (2000). The objective of raptor nest surveys was to determine the distribution, occupancy rate, nest success rate, and productivity of raptors nesting in the study area. The selection of a breeding site in the spring is a sensitive stage of the raptor reproductive period. Effects of disturbance may become evident with reduced nest site occupancy (Fyfe and Oldendorff 1976).

6.2 METHODS

Unstructured surveys of raptor nesting habitat were conducted to locate nest sites. During previous baseline studies (1998 to 2000), peregrine falcon and rough-legged hawk nest sites were identified. This historical data set and subsequent surveys led to the identification of additional potential nesting sites in the study area (Figure 6-1). It is recognized that, due to the proximity of the study are to Rankin Inlet, many of the raptor nests within the study area are subject to sources of disturbance other than the Project (particularly from boats, snow machines, ATVs and cabins), which compromises the usefulness of raptor nest monitoring as a tool for Project-related impact monitoring. As such, only known nest sites within a 10 km radius of the Project and the all-season road were monitored.

Two raptor surveys were conducted in 2008. During the initial mid-June survey, all nests were found opportunistically either during the upland breeding bird surveys or during aerial surveys for caribou and waterfowl. The purpose of the June survey was to determine occupancy of historical nest sites and to identify new nests. The second survey, in late July, used a helicopter to locate nests and determine the success and productivity of each nest site. The July survey re-surveyed all nest sites found in June, and identified additional nest sites within approximately 10 km of the Project site. Surveys were not conducted during snow or rain, to avoid exposing eggs or chicks.

During the July aerial survey, observers flew close to suspected or previously known nest sites in the study area. Proof of occupancy was determined by observing at least one adult bird at the nest, two birds in flight in close proximity to the nest, or finding a nest containing eggs or young. Any new nest sites located during these surveys and during other wildlife surveys were recorded and added to the raptor nest site database. All nests were recorded, but unoccupied nests within 200 m of an occupied nest were considered alternate nest sites within the same territory of that nesting pair (Court et al 1988). Nests were considered successful only if young birds were observed at the site. Productivity was calculated both as the number of young per occupied nest, as well as per successful nest.

6.3 RESULTS

In 2008, eight occupied nests were located within the study area based on the presence of at least one adult at the nest, two adults in close proximity to the nest or presence of eggs or young (Figure 6-1). Ten unoccupied nests were recorded within the study area. Two unoccupied nests had sign of species presence and were classified to species based on feathers and scat present in the area (Table 6-1, Nest Number E8-01 and C8-01). Four unoccupied nests were found within 200 m of occupied nests and were therefore considered part of an occupied territory (Court et al. 1988). These nests were considered alternate nests within the territory of the nesting pair (Table 6-1).

Most nests were found during the July survey and were located on cliffs along Meliadine Lake, north and east of camp. Three raptor species were identified in the study area: short-eared owl, rough-legged hawk, and peregrine falcon. All occupied raptor nests were peregrine falcon or rough-legged hawk nests. Two unoccupied nests had sign of species presence. One nest located in the Discovery area was classified as an unoccupied rough-legged hawk nest and one nest located west of the Project was classified as an unoccupied short-eared owl nest. One short-eared owl was observed during an aerial waterfowl survey in June, confirming species presence in the area. Other unoccupied nests were likely either rough-legged hawk or peregrine falcon nests but confirmation could not be made without sign or adult presence.

Peregrine falcons and rough-legged hawks nested successfully in the Project area in 2008 (Table 6-1). Three occupied peregrine falcon nests were located on cliffs. One nest likely contained young because an adult peregrine refused to leave the nest during a flyover; however, young were not observed. A second nest was considered successful because it contained four nestlings during the July survey (Table 6-1). A third peregrine nest was attended to by two adults and contained three eggs during the July survey. Due to the late presence of eggs in July and

the lack of observation of eggs or young at the first nest, nest productivity was not calculated for this species (Table 6-2).

Six rough-legged hawk nests were located, of which five were located on cliffs. Five rough-legged hawk nests were considered occupied. One large stick nest was found on top of a large boulder, approximately 3 m above the ground, with four nestlings occupying it in July. Five of five occupied nests produced 19 fledglings, for a productivity rate of 3.8 per nest (Table 6-2).

Table 6-1 Raptor Nest Site Occupancy, Reproduction, and Nest Success, 2008

Nest Number	Species	Location (12V NAD 83)	Number Observed		
			Adults	Eggs (June)	Young (July)
F8-01	Peregrine falcon	548111 6977843	2	-	Unknown[a]
D8-01	Peregrine falcon	550593 6982562	1	-	4
F8-02	Peregrine falcon	548107 6977852	2	-	3[b]
A8-01	Rough-legged hawk	539067 6990610	2	4	4
E8-01	Rough-legged hawk	554519 6981459	0	0	0
A8-02	Rough-legged hawk	541061 6992004	0	-	3
A8-03	Rough-legged hawk	541663 6991524	1	-	4
B8-01	Rough-legged hawk	548190 6989362	1	-	4
B8-02	Rough-legged hawk	546950 6990506	0	-	4
C8-01	Short-eared owl	539253 6986433	0	0	0
G8-01	Unoccupied	538851 6965842	0	0	0
G8-01	Unoccupied	546212 6972309	0	0	0
A8-04 (A)[c]	Unoccupied	541413 6991587	0	-	0
A8-05 (A)[c]	Unoccupied	541180 6991881	0	-	0
B8-05	Unoccupied	546195 6990334	0	-	0
D8-02 (A)[c]	Unoccupied	550527 6982569	0	-	0
F8-03 (A)[c]	Unoccupied	548226 6982569	0	-	0
F8-04	Unoccupied	547729 6978126	0	-	0

a adult would not flush from nest

b eggs observed during July survey

c sites shown with A in parentheses are considered alternate nest sites due to proximity to another occupied nest

- denotes nest was not observed in this month

Table 6-2 Raptor Nest Site Productivity per Occupied and Successful Site by Species, 2008

Species	Productivity[a]	2008
Peregrine Falcon[b]	Occ. Prod.	3.5
	Succ. Prod.	unknown
Rough-legged Hawk	Occ. Prod.	3.8
	Succ. Prod.	3.8

a Productivity measured as total young/eggs per occupied nest (Occ. Prod.) or total young per successful nest (Succ. Prod.)

b Productivity calculated based on 2 nests with occupancy observed

LEGEND

- CAMP
- PROPOSED MINE SITE

RAPTOR NEST

- PEREGRINE FALCON
- ROUGH-LEGGED HAWK
- SHORT-EARED OWL
- UNOCCUPIED NEST
- UNOCCUPIED NEST SITE

- ROAD - EXISTING
- ROAD - PROPOSED ALIGNMENT
- WATERCOURSE
- WATERBODY

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

LOCATION OF RAPTOR NEST SITES IN THE STUDY AREA, JUNE AND JULY 2008

Golder Associates
Calgary, Alberta

PROJECT NO. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	DE	16 Dec. 2008		
CHECK	LY	16 Dec. 2008		
REVIEW	MJ	16 Dec. 2008		

FIGURE: 6-1

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7 PROPOSED ALL-WEATHER ROAD OBSERVATIONS

7.1 OBJECTIVES

Surveys of a 2 km wide corridor following the proposed all-weather road alignment between Rankin Inlet and the Project targeted waterfowl and fox dens, but observations of all other species were also recorded. This road alignment, a spur off the existing road from Rankin Inlet to Little Meliadine Lake, will continue north for approximately 17 km to the Project site. A proposed extension to the Discovery area was also surveyed. It will continue east for approximately 10 km from the proposed road (Figure 1-3). The proposed route follows existing ATV trails on eskers and had been previously marked by Project employees. The objective of these surveys is to provide baseline data on wildlife presence near the proposed road.

7.2 METHODS

The proposed all-weather road alignment was flown by helicopter at a speed of 80 to 100 km/hr and an altitude of 45 m (Hines et al. 2000, 2003), following previous baseline aerial waterfowl survey techniques (Jalkotzy 1999, 2000a, b). Two observers recorded all waterfowl, sandhill cranes, herring gulls, raptors, wildlife sightings, and wildlife sign (e.g. fox dens) observed within 200 m of either side of the aircraft (Larned et al. 2003). The first survey of the proposed alignment was flown over the course of two days, June 17 and 18. The second survey of the alignment was flown on July 23.

Surveys occurred during the spring migration/establishment of nesting territories (June), and the brood rearing (July) periods for waterfowl. The number of young in a brood was also recorded during the brood rearing period. The proposed all-weather road alignment is within the caribou study area, so caribou along the proposed all-weather road were documented as part of the caribou study. However, any caribou observed during this survey are also reported here.

7.3 RESULTS

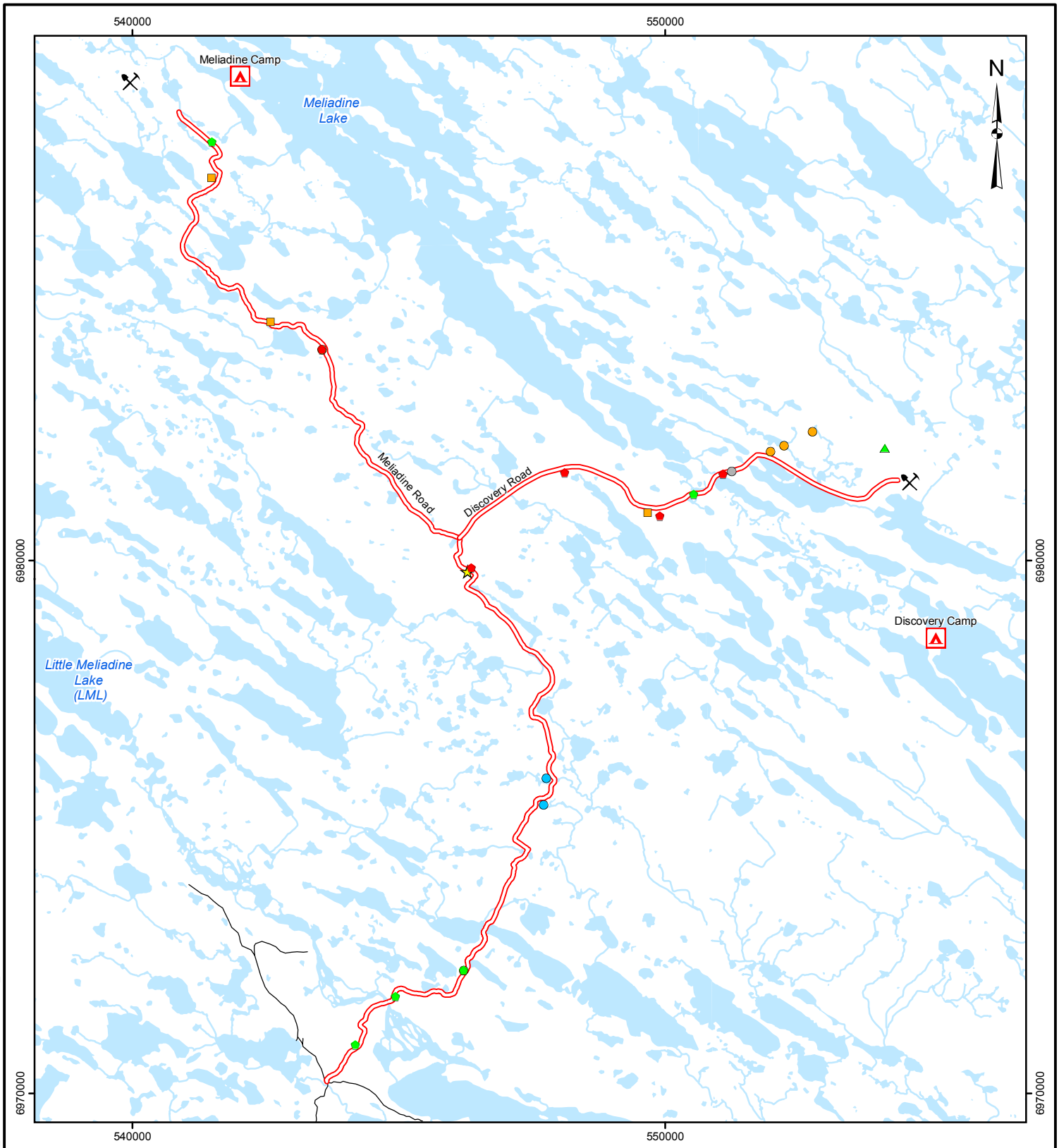
Four species of waterfowl, sandhill cranes, one rough-legged hawk, and one herring gull were observed along the proposed all-weather road alignment (Table 7-1). Tundra swans, sandhill cranes, Canada geese, long-tailed duck, and a herring gull were observed during the June survey. Common loons, sandhill cranes and a tundra swan were observed during the July survey. No broods or

young were observed during either survey. More species were observed in June than July.

Four caribou were observed during the June survey while none were observed during the July survey (Figure 7-1 and 7-2). Two arctic fox dens were observed in June and one additional observation was made in July. No active dens were observed. One rough-legged hawk was observed during the June survey while no raptors were observed during the July survey (Figure 7-1 and Figure 7-2).

Table 7-1 Waterfowl Observed Along Proposed All-Weather Road Route, June and July 2008

Species	Survey	
	June	July
Common loon	0	2
Tundra swan	22	1
Canada goose	7	0
Long-tailed duck	5	0
Sandhill crane	6	7
Herring gull	1	0
TOTAL	**41**	**10**
Species Richness	**5**	**3**



LEGEND

- CAMP
- PROPOSED MINE SITE
- ROAD - MUNICIPAL
- ROAD - PROPOSED ALIGNMENT
- WATERCOURSE
- WATERBODY
- CANADA GOOSE
- CARIBOU
- FOX DEN
- HERRING GULL
- LONG-TAILED DUCK
- ROUGH-LEGGED HAWK
- SANDHILL CRANE
- TUNDRA SWAN

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

PROPOSED ALL-WEATHER ROAD AERIAL SURVEY OBSERVATIONS, JUNE 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	21 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 7-1

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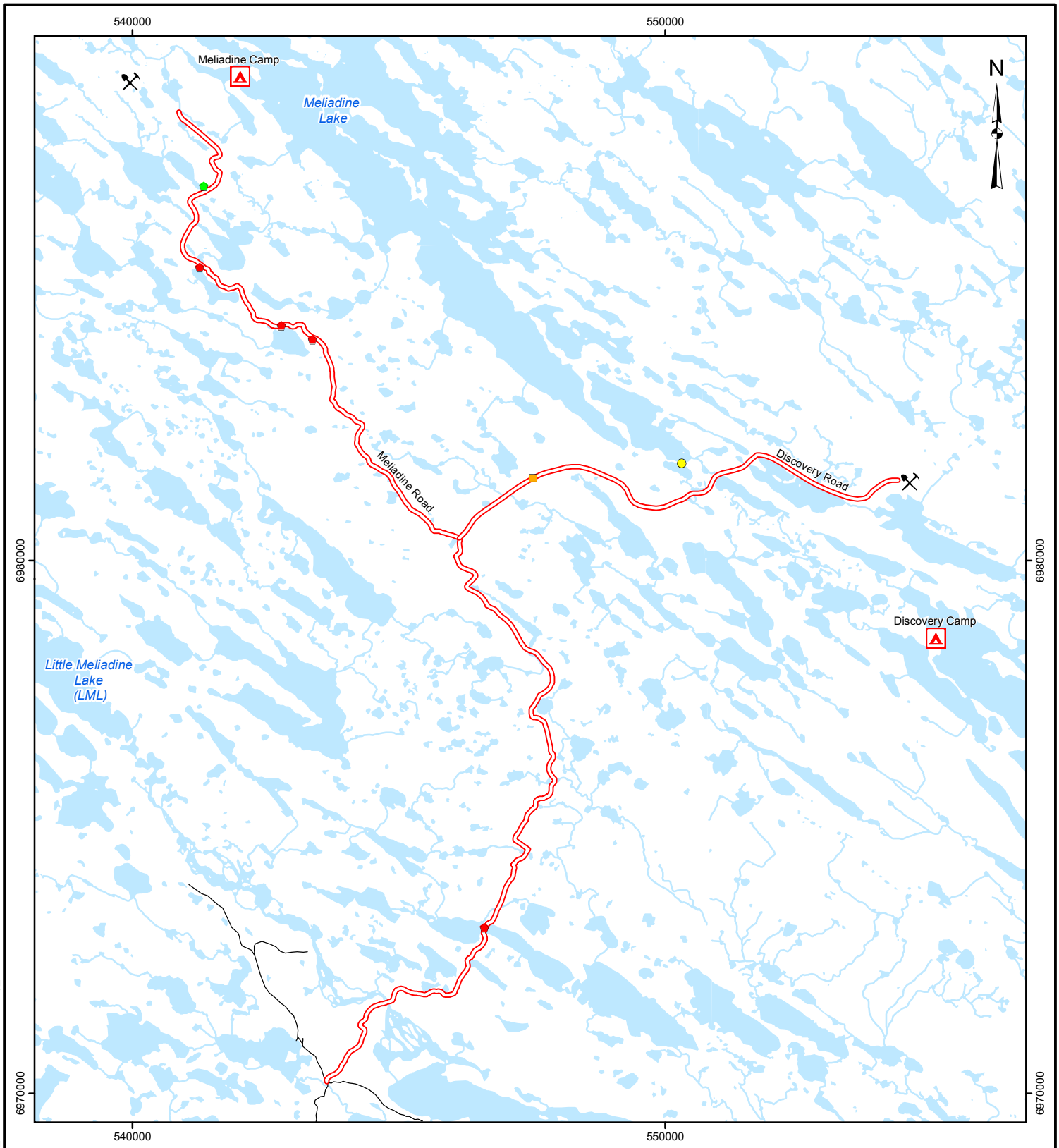

LEGEND

- CAMP
- PROPOSED MINE SITE
- ROAD - MUNICIPAL
- ROAD - PROPOSED ALIGNMENT
- WATERCOURSE
- WATERBODY
- COMMON LOON
- FOX DEN
- SANDHILL CRANE
- TUNDRA SWAN

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

PROPOSED ALL-WEATHER ROAD AERIAL SURVEY OBSERVATIONS, JULY 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	18 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 7-2

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8 INCIDENTAL WILDLIFE OBSERVATIONS

Mammals recorded incidentally during this summer's surveys included Arctic ground squirrels, Arctic hare as well as sign of lemmings and ermine. Polar bears were not recorded this season. However, polar bears have been recorded in the study area and around the Meliadine Camp in 1998, 1999, and 2000. In 1998, a female with a single cub were observed travelling north along Meliadine Lake and in 1999 a single polar bear was observed 18 km north of the camp (Jalkotzy, 1999, 2000a). On July 8, 2000 a single polar bear was observed 10 km east of the Discovery camp (Jalkotzy 2000b). One muskox and three wolves were also observed in the Project study area in 2008 (Figure 8-1; Table 8-1). Grizzly bears, muskox, wolves, and wolverine were not documented during previous baseline surveys.

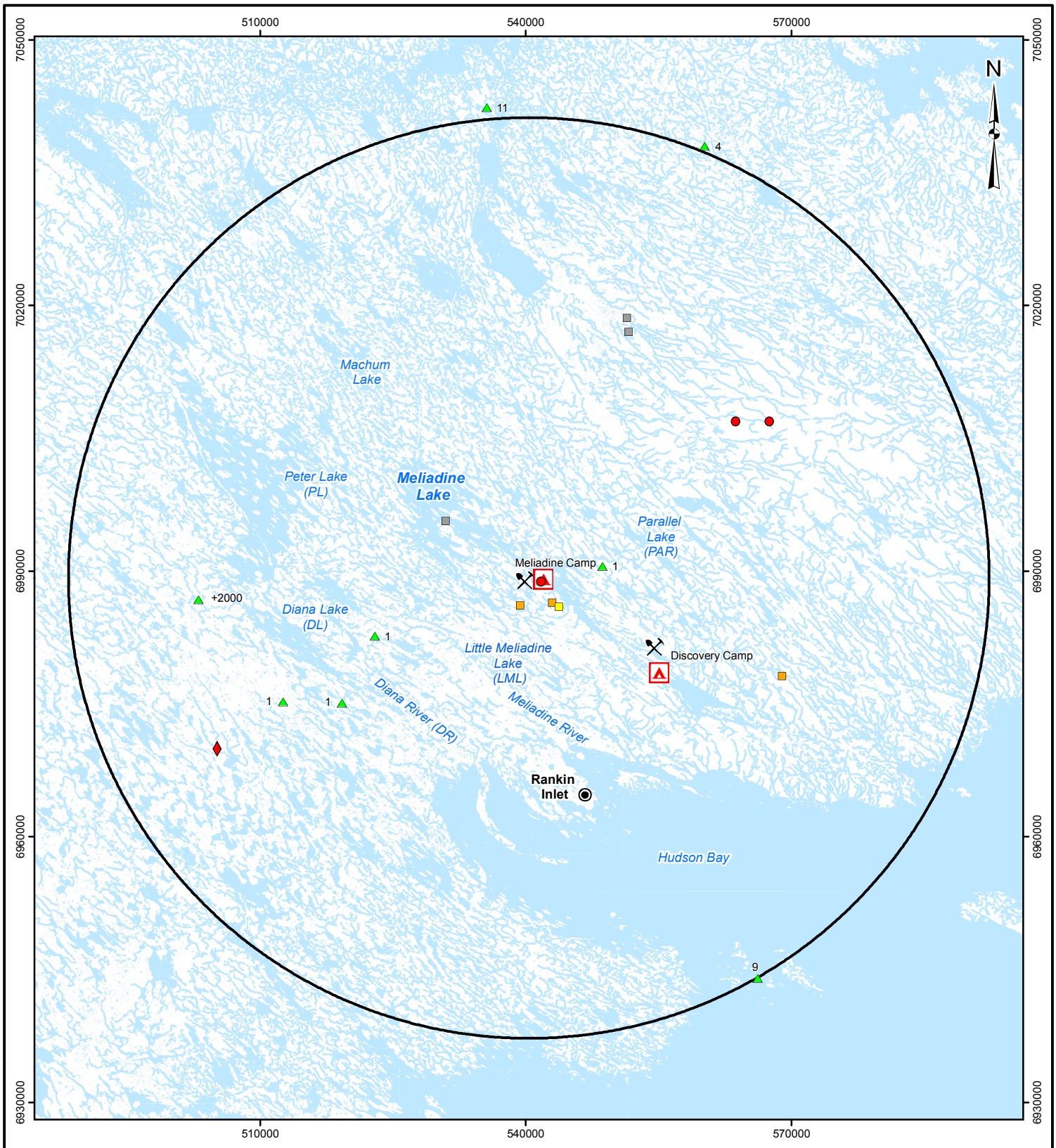
Caribou were observed incidentally during aerial surveys in June and July. During the June 13 caribou aerial survey, 24 caribou were observed off-transect and during the July 21 caribou aerial survey, one large nursery group of approximately 2,000 individuals was observed off-transect. Three caribou were observed during the waterfowl surveys, in June; four caribou were observed during the July surveys.

Table 8-1 Incidental Wildlife Observations in the Study Area, 2008

Species	Number of Individuals	Date Observed	UTMs	
			Easting	Northing
Muskox	1	30-Jul-08	505113	6969736
Wolf	1	14-Jun-08	530932	6995455
Wolf	1	12-Jun-08	551419	7018410
Wolf	1	12-Jun-08	551419	7018410
Arctic Fox	1	13-Jun-08	539371	6985940
Arctic Fox	1	13-Jun-08	542983	6986231
Arctic Fox[a]	1	14-Jun-08	543761	6985791
Arctic Fox	1	22-Jul-08	568938	6978123
Arctic Hare	1	13-Jun-08	541751	6988742
Arctic Hare	1	16-Jun-08	563771	7006873
Arctic Hare	1	16-Jun-08	567560	7006850
Caribou	11	13-Jun-08	535601	7042441
Caribou	4	13-Jun-08	560201	7038041
Caribou	9	13-Jun-08	566200	6944043
Caribou	3	16-Jun-08	563990	7000566
Caribou	~2 000	21-Jul-08	503015	6986822
Caribou	1	22-Jul-08	548672	6990581
Caribou	1	23-Jul-08	519229	6975146
Caribou	1	23-Jul-08	512613	6975376
Caribou	1	23-Jul-08	522971	6982695

a dead

A list of bird species observed in the study area during field programs in June and July 2008 is presented in Appendix V. Species recorded only as incidentals were: short-eared owl, American wigeon, northern shoveler, common eider, willow ptarmigan, American golden plover, semipalmated sandpiper, least sandpiper, common raven and American tree sparrow. The waterfowl species and American tree sparrow were recorded in the hamlet of Rankin Inlet, while the other species were recorded as incidentals during the waterfowl and breeding bird surveys.



LEGEND

- CAMP
- PROPOSED MINE SITE
- WATERCOURSE
- TERRESTRIAL REGIONAL STUDY AREA
- WATERBODY

INCIDENTAL WILDLIFE

- ARCTIC FOX
- ARCTIC FOX (DEAD)
- ARCTIC HARE
- CARIBOU*
- MUSKOX
- WOLF

* NUMBER INDICATES CARIBOU GROUP SIZE

REFERENCE

Base data obtained from NTDB. Wildlife data obtained from field survey. Incidental wildlife obtained from aerial and ground observations.
Projection: UTM Zone 15 Datum: NAD 83

PROJECT

COMAPLEX MINERALS
MELIADINE WEST

TITLE

LOCATION OF INCIDENTAL WILDLIFE OBSERVATIONS, JUNE AND JULY 2008

Golder Associates
Calgary, Alberta

PROJECT No. 07-1373-0055			SCALE AS SHOWN	REV. 0
DESIGN	PS	02 Jun. 2008		
GIS	PT	27 Nov. 2008		
CHECK	LY	02 Dec. 2008		
REVIEW	MJ	02 Dec. 2008		

FIGURE: 8-1

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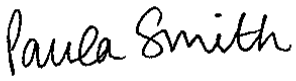
9 CLOSURE

We trust the above meets your present requirements. If you have any questions or require additional details, please contact the undersigned.

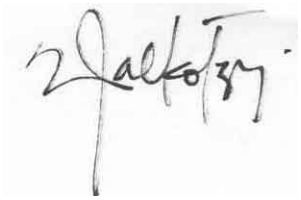
GOLDER ASSOCIATES LTD.

Report prepared by:

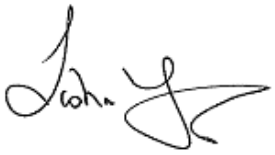


Paula Smith, B.Sc.
Biologist

Report reviewed by:



Martin Jalkotzy, M.E.Des.
Senior Wildlife Biologist



Lasha Young, M.Sc.F
Wildlife Biologist

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APPENDIX I

CARIBOU AERIAL SURVEY DATA

Table I-1 Caribou Aerial Survey Data

Date	Number	Group Composition	Behaviour	Habitat	Easting	Northing
12/06/2008	3	adult	S	HT	509840	6979198
12/06/2008	1	adult	S	HT	509082	7026191
12/06/2008	2	adult	R	HT	522387	6952652
13/06/2008	4	adult	W	HT	533195	7029392
13/06/2008	3	adult	B	HT	537519	7030532
13/06/2008	1	adult	S	HT	537729	7017534
13/06/2008	3	adult	B	HT	545194	7029842
13/06/2008	1	adult	S	SW	545227	7027842
13/06/2008	3	adult	S	HT	545324	7021842
13/06/2008	1	adult	W	SW	549551	7029434
13/06/2008	1	adult	S	SW	549664	7022435
13/06/2008	2	adult	S	HT	549955	7004436
13/06/2008	2	adult	S	HT	555800	6979442
13/06/2008	2	adult	W	SW	557350	7015641
13/06/2008	3	adult	W	SW	556850	7032741
13/06/2008	2	adult	S	HT	562148	6995938
13/06/2008	1	adult	S	HT	574469	6984140
13/06/2008	1	adult	W	HT	581032	7020841
17/06/2008	11	adult	S	HT	497115	7011043
17/06/2008	7	adult	W	SW	510210	6956202
17/06/2008	6	adult	W	HBo	509921	6974200
17/06/2008	2	adult	W	SW	509888	6976199
17/06/2008	2	adult	R	HT	522499	6945653
17/06/2008	3	adult	S	HT	522467	6947653
17/06/2008	2	adult	S	HT	522275	6959651
17/06/2008	1	adult	B	HT	522066	6972650
17/06/2008	8	adult	S	HT	521179	7027642
17/06/2008	1	adult	S	HT	521017	7037641
17/06/2008	2	adult	S	SW	539163	7031942
17/06/2008	5	adult	S	HT	539195	7029942
17/06/2008	16	adult	W	HT	539243	7026942
17/06/2008	3	adult	S	SW	546339	6958849
17/06/2008	1	adult	S	SW	546275	6962849
17/06/2008	3	adult	S	SW	545292	7023843
17/06/2008	5	adult	S	SW	558451	6948949
17/06/2008	3	adult	S	HT	557065	7034941
21/07/2008	2000	nursery	S	E	503027	6999915
21/07/2008	300	adult	F	E	503020	6996865
21/07/2008	200	adult	F	HBo	503037	6994885
21/07/2008	3	adult	W	HT	503020	6993209
21/07/2008	2000	nursery	S	HT	503017	699168
21/07/2008	2	nursery	W	HT	508986	6970182
21/07/2008	1000	nursery	S	HT	508982	6974478
21/07/2008	36	nursery	S	HT	508995	6989225
21/07/2008	12	adult	W	HT	515003	6956326
21/07/2008	1	adult	F	HT	520297	6954596
21/07/2008	18	adult	R	HT	520994	6971145
21/07/2008	40	nursery	F	HT	503008	6988488
21/07/2008	120	nursery	F	HT	503000	6978074
21/07/2008	12	nursery	B	HT	508959	6975487
21/07/2008	1	adult	W	HT	508983	6983878
21/07/2008	70	nursery	F	HT	515033	6975127
21/07/2008	50	nursery	W	HT	515013	6960886
21/07/2008	25	nursery	F	HT	515008	6957179
21/07/2008	25	nursery	F	HT	515011	6955550
21/07/2008	4	nursery	F	SW	514993	6951297
22/07/2008	1	nursery	F	SW	545022	7042065

APPENDIX II

FOX DEN ACTIVITY AND LOCATION DATA

Table II-1 Fox Den Locations

Fox Den Number	Easting	Northing	Active (June)
1	543742	6986022	√
2	543687	6985809	
3	543219	6985676	
4	543654	6986075	
5	543727	6985682	
6	543570	6985417	
7	538494	6986145	
8	539257	6988764	
9	539455	6988764	
10	540462	6986349	
11	543695	6986236	
12	520851	6974642	
13	520701	6963943	
14	533301	7024490	
15	542584	6984482	
16	541479	6987180	
17	549668	6980893	
18	541201	6988792	√
19	517305	6975377	
20	528064	6975693	
21	564391	6998709	

APPENDIX III

UPLAND BREEDING BIRD POINT COUNT DATA

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8001	541533	6988623	83	HT	AL	12/06/2008	3:56:00 AM	5	2	E	0-1	horned lark	HOLA	2	<50m (0-3 min)	Meliadine West
CM8001	541533	6988623	83	HT	AL	12/06/2008	3:56:00 AM	5	2	E	0-1	horned lark	HOLA	1	<50m (3-5 min)	Meliadine West
CM8001	541533	6988623	83	HT	AL	12/06/2008	3:56:00 AM	5	2	E	0-1	unknown bird spp.	UNKN	1	fly-over (0-3 min)	Meliadine West
CM8001	541533	6988623	83	HT	PS	12/06/2008	3:48:00 AM	0	2	W	1	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8002	541669	6988908	83	HT	PS	12/06/2008	3:48:00 AM	0	2	W	1	horned lark	HOLA	2	<50m (0-3 min)	Meliadine West
CM8003	541379	6988763	83	HT	AL	12/06/2008	4:14:00 AM	5	2	E	2	horned lark	HOLA	1	>50m (3-10 min)	Meliadine West
CM8003	541379	6988763	83	HT	AL	12/06/2008	4:14:00 AM	5	2	E	2	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8003	541379	6988763	83	HT	AL	12/06/2008	4:14:00 AM	5	2	E	2	lapland longspur	LALO	1	<50m (3-5 min)	Meliadine West
CM8004	54146	6988978	83	HT	PS	12/06/2008	4:04:00 AM	0	10	N	1	horned lark	HOLA	2	>50m (0-3 min)	Meliadine West
CM8004	54146	6988978	83	HT	PS	12/06/2008	4:04:00 AM	0	10	N	1	savannah sparrow	SAVS	1	<50m (3-5 min)	Meliadine West
CM8005	541194	6988852	83	HT	AL	12/06/2008	4:30:00 AM	8	5	E	1	horned lark	HOLA	1	<50m (3-5 min)	Meliadine West
CM8005	541194	6988852	83	HT	AL	12/06/2008	4:30:00 AM	8	5	E	1	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8005	541194	6988852	83	HT	AL	12/06/2008	4:30:00 AM	8	5	E	1	lapland longspur	LALO	2	fly-over (3-5 min)	Meliadine West
CM8005	541194	6988852	83	HT	AL	12/06/2008	4:30:00 AM	8	5	E	1	lapland longspur	LALO	1	fly-over (0-3 min)	Meliadine West
CM8005	541194	6988852	83	HT	AL	12/06/2008	4:30:00 AM	8	5	E	1	sandhill crane	SACR	2	>50m (0-3 min)	Meliadine West
CM8005	541194	6988852	83	HT	AL	12/06/2008	4:30:00 AM	8	5	E	1	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8006	541260	6989053	83	HT	PS	12/06/2008	4:18:00 AM	0	5	N	1	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8006	541260	6989053	83	HT	PS	12/06/2008	4:18:00 AM	0	5	N	1	lapland longspur	LALO	2	<50m (0-3 min)	Meliadine West
CM8007	541008	6988940	83	HT	AL	12/06/2008	4:43:00 AM	8	0		1	horned lark	HOLA	1	>50m (3-5 min)	Meliadine West
CM8007	541008	6988940	83	HT	AL	12/06/2008	4:43:00 AM	8	0		1	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8007	541008	6988940	83	HT	AL	12/06/2008	4:43:00 AM	8	0		1	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8007	541008	6988940	83	HT	AL	12/06/2008	4:43:00 AM	8	0		1	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8007	541008	6988940	83	HT	AL	12/06/2008	4:43:00 AM	8	0		1	savannah sparrow	SAVS	1	fly-over (0-3 min)	Meliadine West
CM8008	541052	6989131	83	HT	PS	12/06/2008	4:32:00 AM	2	5	N	0	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8008	541052	6989131	83	HT	PS	12/06/2008	4:32:00 AM	2	5	N	0	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8009	540845	6989059	83	HT	AL	12/06/2008	5:03:00 AM	7	5	E	2	horned lark	HOLA	2	>50m (0-3 min)	Meliadine West
CM8009	540845	6989059	83	HT	AL	12/06/2008	5:03:00 AM	7	5	E	2	lapland longspur	LALO	2	<50m (0-3 min)	Meliadine West
CM8009	540845	6989059	83	HT	AL	12/06/2008	5:03:00 AM	7	5	E	2	lapland longspur	LALO	1	fly-over (0-3 min)	Meliadine West
CM8010	540853	6989210	83	HT	PS	12/06/2008	4:44:00 AM	2	15	N	1	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8010	540853	6989210	83	HT	PS	12/06/2008	4:44:00 AM	2	15	N	1	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8011	540684	6989178	83	HT	AL	12/06/2008	5:12:00 AM	7	-1	W	2	lapland longspur	LALO	1	fly-over (0-3 min)	Meliadine West
CM8011	540684	6989178	83	HT	AL	12/06/2008	5:12:00 AM	7	-1	W	2	sandhill crane	SACR	1	>50m (3-5 min)	Meliadine West
CM8011	540684	6989178	83	HT	AL	12/06/2008	5:12:00 AM	7	-1	W	2	unknown bird spp.	UNKN	2	fly-over (3-5 min)	Meliadine West
CM8012	540677	6989411	83	TH	PS	12/06/2008	4:59:00 AM	2	<5	N	1	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8012	540677	6989411	83	TH	PS	12/06/2008	4:59:00 AM	2	<5	N	1	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8013	540523	6989304	83	TH	AL	12/06/2008	5:37:00 AM	7	0		2	horned lark	HOLA	1	<50m (3-5 min)	Meliadine West
CM8013	540523	6989304	83	TH	AL	12/06/2008	5:37:00 AM	7	0		2	lapland longspur	LALO	1	<50m (3-5 min)	Meliadine West
CM8013	540523	6989304	83	TH	AL	12/06/2008	5:37:00 AM	7	0		2	savannah sparrow	SAVS	1	<50m (3-5 min)	Meliadine West
CM8013	540523	6989304	83	TH	AL	12/06/2008	5:37:00 AM	7	0		2	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8014	540528	6989565	83	HT	PS	12/06/2008	5:16:00 AM	3	5	NW	1	Canada goose	CAGO	0	fly-over (0-3 min)	Meliadine West
CM8014	540528	6989565	83	HT	PS	12/06/2008	5:16:00 AM	3	5	NW	1	common redpoll	CORE	1	fly-over (0-3 min)	Meliadine West
CM8014	540528	6989565	83	HT	PS	12/06/2008	5:16:00 AM	3	5	NW	1	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8014	540528	6989565	83	HT	PS	12/06/2008	5:16:00 AM	3	5	NW	1	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8015	540348	6989406	83	HT	AL	12/06/2008	5:52:00 AM	7	0		2	horned lark	HOLA	1	>50m (3-5 min)	Meliadine West
CM8015	540348	6989406	83	HT	AL	12/06/2008	5:52:00 AM	7	0		2	unknown bird spp.	UNKN	2	>50m (0-3 min)	Meliadine West
CM8016	540433	6989748	83	HT	PS	12/06/2008	5:35:00 AM	3	5	N	1	American pipit	AMPI	3	<50m (0-3 min)	Meliadine West
CM8016	540433	6989748	83	HT	PS	12/06/2008	5:35:00 AM	3	5	N	1	Canada goose	CAGO	3	fly-over (0-3 min)	Meliadine West
CM8016	540433	6989748	83	HT	PS	12/06/2008	5:35:00 AM	3	5	N	1	Canada goose	CAGO	1	<50m (0-3 min)	Meliadine West
CM8016	540433	6989748	83	HT	PS	12/06/2008	5:35:00 AM	3	5	N	1	white-crowned sparrow	WCSP	1	<50m (0-3 min)	Meliadine West
CM8017	540195	6989543	83	SW	AL	12/06/2008	6:05:00 AM	8	0		1	horned lark	HOLA	2	<50m (3-5 min)	Meliadine West
CM8017	540195	6989543	83	SW	AL	12/06/2008	6:05:00 AM	8	0		1	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8017	540195	6989543	83	SW	AL	12/06/2008	6:05:00 AM	8	0		1	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8017	540195	6989543	83	SW	AL	12/06/2008	6:05:00 AM	8	0		1	sandhill crane	SACR	1	<50m (0-3 min)	Meliadine West
CM8017	540195	6989543	83	SW	AL	12/06/2008	6:05:00 AM	8	0		1	savannah sparrow	SAVS	1	<50m (3-5 min)	Meliadine West
CM8018	540260	6989900	83	HBou	PS	12/06/2008	6:00:00 AM	4	20	N	2	horned lark	HOLA	2	<50m (3-5 min)	Meliadine West
CM8018	540260	6989900	83	HBou	PS	12/06/2008	6:00:00 AM	4	20	N	2	snow bunting	SNBU	3	<50m (0-3 min)	Meliadine West
CM8019	539999	6989519	83	HT	AL	12/06/2008	6:24:00 AM	8	0		2	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8020	540051	6989933	83	HBou	PS	12/06/2008	6:12:00 AM	3	20	N	3	semipalmated plover	SEPL	1	<50m (0-3 min)	Meliadine West
CM8021	539850	6989659	83	HT	AL	12/06/2008	6:39:00 AM	7	0		2	horned lark	HOLA	1	>50m (3-5 min)	Meliadine West
CM8022	540110	6989687	83	HT	PS	12/06/2008	6:29:00 AM	5	5	W	2	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8022	540110	6989687	83	HT	PS	12/06/2008	6:29:00 AM	5	5	W	2	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8022	540110	6989687	83	HT	PS	12/06/2008	6:29:00 AM	5	5	W	2	savannah sparrow	SAVS	1	>50m (3-5 min)	Meliadine West
CM8023	539754	6988688	83	SW	AL	13/06/2008	2:56:00 AM	5	<5	NE	2	unknown bird spp.	UNKN	1	>50m (0-3 min)	Meliadine West
CM8024	539642	6988829	83	SW	PS	13/06/2008	2:53:00 AM	3	0		2	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8025	539587	6988526	83	HT	AL	13/06/2008	3:11:00 AM	5	5	E	2	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8026	539454	6988695	83	HT	PS	13/06/2008	3:04:00 AM	3	<5	N	2	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8027	539443	6988421	83	HT	AL	13/06/2008	3:23:00 AM	5	5	W	2	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8028	539251	6988594	83	HT	PS	13/06/2008	3:16:00 AM	2	0		1	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8028	539251	6988594	83	HT	PS	13/06/2008	3:16:00 AM	2	0		1	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8029	539334	6988248	83	HT	AL	13/06/2008	3:37:00 AM	5	2	SW	2	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8029	539334	6988248	83	HT	AL	13/06/2008	3:37:00 AM	5	2	SW	2	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8030	539081	6988450	83	HT	PS	13/06/2008	3:29:00 AM	2	5	S	2	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8031	539246	6988123	83	SW	AL	13/06/2008	3:57:00 AM	6	0		3	horned lark	HOLA	1	>50m (3-5 min)	Meliadine West
CM8031	539246	6988123	83	SW	AL	13/06/2008	3:57:00 AM	6	0		3	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8032	538857	6988357	83	HT	PS	13/06/2008	3:42:00 AM	3	<5	N	3	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8033	539069	6987908	83	SW	AL	13/06/2008	4:12:00 AM	6	0		2	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8033	539069	6987908	83	SW	AL	13/06/2008	4:12:00 AM	6	0		2	savannah sparrow	SAVS	1	>50m (3-5 min)	Meliadine West
CM8033	539069	6987908	83	SW	AL	13/06/2008	4:12:00 AM	6	0		2	unknown bird spp.	UNKN	1	fly-over (3-5 min)	Meliadine West
CM8034	538755	6988175	83	SW	PS	13/06/2008	3:40:00 AM	3	0		2	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8034	538755	6988175	83	SW	PS	13/06/2008	3:40:00 AM	3	0		2	horned lark	HOLA	1	>50m (3-5 min)	Meliadine West
CM8034	538755	6988175	83	SW	PS	13/06/2008	3:40:00 AM	3	0		2	savannah sparrow	SAVS	3	<50m (0-3 min)	Meliadine West
CM8035	538979	6987729	83	SW	AL	13/06/2008	4:32:00 AM	6	0		2	Canada goose	CAGO	1	fly-over (3-5 min)	Meliadine West
CM8035	538979	6987729	83	SW	AL	13/06/2008	4:32:00 AM	6	0		2	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8035	538979	6987729	83	SW	AL	13/06/2008	4:32:00 AM	6	0		2	sandhill crane	SACR	1	>50m (0-3 min)	Meliadine West
CM8035	538979	6987729	83	SW	AL	13/06/2008	4:32:00 AM	6	0		2	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8035	538979	6987729	83	SW	AL	13/06/2008	4:32:00 AM	6	0		2	savannah sparrow	SAVS	2	<50m (0-3 min)	Meliadine West
CM8036	538796	6987979	83	SW	PS	13/06/2008	4:06:00 AM	3	0		2	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8036	538796	6987979	83	SW	PS	13/06/2008	4:06:00 AM	3	0		2	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8037	538866	6987555	83	HT	AL	13/06/2008	4:47:00 AM	7	0		2	lapland longspur	LALO	3	<50m (0-3 min)	Meliadine West
CM8037	538866	6987555	83	HT	AL	13/06/2008	4:47:00 AM	7	0		2	unknown bird spp.	UNKN	2	fly-over (3-5 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8038	538719	6987769	83	SW	PS	13/06/2008	4:23:00 AM	2	0		2	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8039	539052	6987475	83	HT	AL	13/06/2008	5:15:00 AM	6	<5	SW	3	lapland longspur	LALO	3	<50m (0-3 min)	Meliadine West
CM8040	538532	6987658	83	HT	PS	13/06/2008	4:35:00 AM	2	0		2	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8041	539250	6987427	83	HT	AL	13/06/2008	5:29:00 AM	6	2	W	3	lapland longspur	LALO	3	>50m (3-5 min)	Meliadine West
CM8042	538636	6987477	83	HT	PS	13/06/2008	4:51:00 AM	2	<5	S	2	savannah sparrow	SAVS	2	<50m (0-3 min)	Meliadine West
CM8043	539418	6987272	83	HT	AL	13/06/2008	5:44:00 AM	7	1	E/SE	3	lapland longspur	LALO	2	>50m (0-3 min)	Meliadine West
CM8043	539418	6987272	83	HT	AL	13/06/2008	5:44:00 AM	7	1	E/SE	3	lark sparrow	LASP	3	fly-over (3-5 min)	Meliadine West
CM8044	538810	6987348	83	HT	PS	13/06/2008	5:04:00 AM	2	<5	S	2	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8045	539580	6987147	83	HT	AL	13/06/2008	6:02:00 AM	7	5	SW	4	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8046	538991	6987207	83	TH	PS	13/06/2008	5:20:00 AM	2	<5	s	2	horned lark	HOLA	1	<50m (3-5 min)	Meliadine West
CM8046	538991	6987207	83	TH	PS	13/06/2008	5:20:00 AM	2	<5	s	2	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8046	538991	6987207	83	TH	PS	13/06/2008	5:20:00 AM	2	<5	s	2	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8047	539721	6986993	83	HT	AL	13/06/2008	6:17:00 AM	7	3	SW	5	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8048	539083	6987015	83	TH	PS	13/06/2008	5:32:00 AM	2	0		2	least sandpiper	LESA	2	<50m (0-3 min)	Meliadine West
CM8048	539083	6987015	83	TH	PS	13/06/2008	5:32:00 AM	2	0		2	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8049	539852	6986830	83	HT	AL	13/06/2008	6:35:00 AM	7	0		4-5	unknown bird spp.	UNKN	2	>50m (3-5 min)	Meliadine West
CM8050	539153	6986826	83	SW	PS	13/06/2008	5:45:00 AM	0	0		3	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8051	539994	6986772	83	SW	AL	13/06/2008	6:48:00 AM	8	0	NW	4-5	unknown bird spp.	UNKN	1	<50m (0-3 min)	Meliadine West
CM8052	539181	6986614	83	HT	PS	13/06/2008	5:58:00 AM		<5	SW	3	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8053	541719	6988610	83	HT	AL	14/06/2008	4:58:00 AM	6	0		1	horned lark	HOLA	5	<50m (0-3 min)	Meliadine West
CM8053	541719	6988610	83	HT	AL	14/06/2008	4:58:00 AM	6	0		1	lapland longspur	LALO	2	fly-over (3-5 min)	Meliadine West
CM8053	541719	6988610	83	HT	AL	14/06/2008	4:58:00 AM	6	0		1	lapland longspur	LALO	2	<50m (0-3 min)	Meliadine West
CM8054	539280	6986373	83	TH	PS	14/06/2008	6:21:00 AM	0	5	sw	3	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8055	541814	6988435	83	HT	AL	14/06/2008	5:16:00 AM	6	1	s/se	1	horned lark	HOLA	2	<50m (3-5 min)	Meliadine West
CM8055	541814	6988435	83	HT	AL	14/06/2008	5:16:00 AM	6	1	s/se	1	lapland longspur	LALO	2	>50m (0-3 min)	Meliadine West
CM8055	541814	6988435	83	HT	AL	14/06/2008	5:16:00 AM	6	1	s/se	1	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8055	541814	6988435	83	HT	AL	14/06/2008	5:16:00 AM	6	1	s/se	1	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8055	541814	6988435	83	HT	AL	14/06/2008	5:16:00 AM	6	1	s/se	1	lapland longspur	LALO	1	<50m (3-5 min)	Meliadine West
CM8056	539353	6986171	83	HT	PS	14/06/2008	6:33:00 AM	0	5	sw	5	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8057	541920	6988262	83	HT	AL	14/06/2008	5:35:00 AM	8	0		0	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8057	541920	6988262	83	HT	AL	14/06/2008	5:35:00 AM	8	0		0	lapland longspur	LALO	1	<50m (3-5 min)	Meliadine West
CM8057	541920	6988262	83	HT	AL	14/06/2008	5:35:00 AM	8	0		0	lapland longspur	LALO	2	>50m (0-3 min)	Meliadine West
CM8057	541920	6988262	83	HT	AL	14/06/2008	5:35:00 AM	8	0		0	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8057	541920	6988262	83	HT	AL	14/06/2008	5:35:00 AM	8	0		0	savannah sparrow	SAVS	2	>50m (3-5 min)	Meliadine West
CM8058	541986	6988804	83	HT	PS	14/06/2008	4:46:00 AM	2	10	N	1	American pipit	AMPI	1	<50m (3-5 min)	Meliadine West
CM8058	541986	6988804	83	HT	PS	14/06/2008	4:46:00 AM	2	10	N	1	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8058	541986	6988804	83	HT	PS	14/06/2008	4:46:00 AM	2	10	N	1	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8059	542023	6988085	83	HT	AL	14/06/2008	5:49:00 AM	6	0		1	lapland longspur	LALO	2	>50m (3-5 min)	Meliadine West
CM8059	542023	6988085	83	HT	AL	14/06/2008	5:49:00 AM	6	0		1	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8059	542023	6988085	83	HT	AL	14/06/2008	5:49:00 AM	6	0		1	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8059	542023	6988085	83	HT	AL	14/06/2008	5:49:00 AM	6	0		1	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8060	542072	6988618	83	HT	PS	14/06/2008	12:00:00 AM	1	5	S		horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8060	542072	6988618	83	HT	PS	14/06/2008	12:00:00 AM	1	5	S		horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8060	542072	6988618	83	HT	PS	14/06/2008	12:00:00 AM	1	5	S		lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8061	542130	6987911	83	HT	AL	14/06/2008	6:03:00 AM	61	N/NW	1		horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8061	542130	6987911	83	HT	AL	14/06/2008	6:03:00 AM	61	N/NW	1		lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8061	542130	6987911	83	HT	AL	14/06/2008	6:03:00 AM	61	N/NW	1		lapland longspur	LALO	2	>50m (0-3 min)	Meliadine West
CM8062	542202	6988451	83	HT	PS	14/06/2008	5:13:00 AM	2	10	S	1	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8062	542202	6988451	83	HT	PS	14/06/2008	5:13:00 AM	2	10	S	1	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8062	542202	6988451	83	HT	PS	14/06/2008	5:13:00 AM	2	10	S	1	savannah sparrow	SAVS	1	>50m (3-5 min)	Meliadine West
CM8063	542266	6987757	83	HT	AL	14/06/2008	6:16:00 AM	6	1	N/NW	1	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8063	542266	6987757	83	HT	AL	14/06/2008	6:16:00 AM	6	1	N/NW	1	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8064	542370	6988328	83	HT	PS	14/06/2008	5:28:00 AM	2	5	S	3	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8064	542370	6988328	83	HT	PS	14/06/2008	5:28:00 AM	2	5	S	3	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8064	542370	6988328	83	HT	PS	14/06/2008	5:28:00 AM	2	5	S	3	savannah sparrow	SAVS	1	fly-over (0-3 min)	Meliadine West
CM8065	542425	6987623	83	HT	AL	14/06/2008	6:29:00 AM	6	0		2-3	horned lark	HOLA	1	<50m (3-5 min)	Meliadine West
CM8065	542425	6987623	83	HT	AL	14/06/2008	6:29:00 AM	6	0		2-3	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8065	542425	6987623	83	HT	AL	14/06/2008	6:29:00 AM	6	0		2-3	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8065	542425	6987623	83	HT	AL	14/06/2008	6:29:00 AM	6	0		2-3	lapland longspur	LALO	1	fly-over (0-3 min)	Meliadine West
CM8066	542532	6988187	83	HT	PS	14/06/2008	5:44:00 AM	2	5	S	2	lapland longspur	LALO	2	>50m (0-3 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8066	542532	6988187	83	HT	PS	14/06/2008	5:44:00 AM	2	5	S	2	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8067	542551	6987455	83	SW	AL	14/06/2008	6:42:00 AM	6	0		2	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8067	542551	6987455	83	SW	AL	14/06/2008	6:42:00 AM	6	0		2	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8068	542641	6988002	83	SW	PS	14/06/2008	5:58:00 AM	2	0		2	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8068	542641	6988002	83	SW	PS	14/06/2008	5:58:00 AM	2	0		2	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8068	542641	6988002	83	SW	PS	14/06/2008	5:58:00 AM	2	0		2	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8069	542614	6987263	83	HT	AL	14/06/2008	7:08:00 AM	6	1	NE	2-3	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8069	542614	6987263	83	HT	AL	14/06/2008	7:08:00 AM	6	1	NE	2-3	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8069	542614	6987263	83	HT	AL	14/06/2008	7:08:00 AM	6	1	NE	2-3	unknown bird spp.	UNKN	1	>50m (3-5 min)	Meliadine West
CM8070	542803	6987872	83	TH	PS	14/06/2008	6:12:00 AM	8	<5	E	1	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8070	542803	6987872	83	TH	PS	14/06/2008	6:12:00 AM	8	<5	E	1	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8071	542728	6987092	83	HT	AL	14/06/2008	7:21:00 AM	60	1	N/NW	2-3	horned lark	HOLA	1	fly-over (3-5 min)	Meliadine West
CM8071	542728	6987092	83	HT	AL	14/06/2008	7:21:00 AM	60	1	N/NW	2-3	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8072	542858	6987627	83	SW	PS	14/06/2008	6:28:00 AM	1	0		3	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8072	542858	6987627	83	SW	PS	14/06/2008	6:28:00 AM	1	0		3	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8072	542858	6987627	83	SW	PS	14/06/2008	6:28:00 AM	1	0		3	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8072	542858	6987627	83	SW	PS	14/06/2008	6:28:00 AM	1	0		3	unknown bird spp.	UNKN	1	fly-over (0-3 min)	Meliadine West
CM8073	542798	6986908	83	HT	AL	14/06/2008	7:39:00 AM	6	0		2-3	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8073	542798	6986908	83	HT	AL	14/06/2008	7:39:00 AM	6	0		2-3	lapland longspur	LALO	2	>50m (3-5 min)	Meliadine West
CM8073	542798	6986908	83	HT	AL	14/06/2008	7:39:00 AM	6	0		2-3	unknown bird spp.	UNKN	1	<50m (0-3 min)	Meliadine West
CM8074	542955	6987432	83	HT	PS	14/06/2008	6:48:00 AM	3	5	E	2	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8074	542955	6987432	83	HT	PS	14/06/2008	6:48:00 AM	3	5	E	2	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8075	542895	6986721	83	HT	AL	14/06/2008	7:54:00 AM	7	0	S	2-3	horned lark	HOLA	1	>50m (3-5 min)	Meliadine West
CM8075	542895	6986721	83	HT	AL	14/06/2008	7:54:00 AM	7	0	S	2-3	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8075	542895	6986721	83	HT	AL	14/06/2008	7:54:00 AM	7	0	S	2-3	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8076	543189	6987363	83	SW	PS	14/06/2008	7:06:00 AM	4	<5	N	2	lapland longspur	LALO	2	>50m (0-3 min)	Meliadine West
CM8077	542965	6986462	83	TH	AL	14/06/2008	8:19:00 AM	7	0		3	lapland longspur	LALO	2	<50m (0-3 min)	Meliadine West
CM8078	543371	6987225	83	SW	PS	14/06/2008	7:18:00 AM	4	0		3	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8079	543132	6986206	83	SW	AL	14/06/2008	8:39:00 AM	7	0		3	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8079	543132	6986206	83	SW	AL	14/06/2008	8:39:00 AM	7	0		3	least sandpiper	LESA	1	fly-over (0-3 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8079	543132	6986206	83	SW	AL	14/06/2008	8:39:00 AM	7	0		3	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8080	543532	6987085	83	SW	PS	14/06/2008	7:38:00 AM	4	0		2	lapland longspur	LALO	2	>50m (0-3 min)	Meliadine West
CM8080	543532	6987085	83	SW	PS	14/06/2008	7:38:00 AM	4	0		2	least sandpiper	LESA	1	<50m (0-3 min)	Meliadine West
CM8080	543532	6987085	83	SW	PS	14/06/2008	7:38:00 AM	4	0		2	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8081	543159	6986002	83	HT	AL	14/06/2008	9:02:00 AM	7	>5	NW	3	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8082	543729	6987018	83	HT	PS	14/06/2008	7:55:00 AM	4	<5	N	3	lapland longspur	LALO	3	<50m (0-3 min)	Meliadine West
CM8082	543729	6987018	83	HT	PS	14/06/2008	7:55:00 AM	4	<5	N	3	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8083	543682	6986714	83	HT	AL	14/06/2008	6:00:00 AM	4	2	NW	3-4	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8084	543884	6986885	83	HT	PS	14/06/2008	8:07:00 AM	3	<5	N	4	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8084	543884	6986885	83	HT	PS	14/06/2008	8:07:00 AM	3	<5	N	4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8085	539719	6988886	83	HT	AL	14/06/2008	6:24:00 AM	2	<5	SE	3-4	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8086	543970	6986735	83	SW	PS	14/06/2008	8:18:00 AM	4	0		3	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8086	543970	6986735	83	SW	PS	14/06/2008	8:18:00 AM	4	0		3	least sandpiper	LESA	1	<50m (0-3 min)	Meliadine West
CM8086	543970	6986735	83	SW	PS	14/06/2008	8:18:00 AM	4	0		3	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8087	539538	6988990	83	SW	AL	14/06/2008	6:38:00 AM	3	0		3-4	savannah sparrow	SAVS	2	<50m (0-3 min)	Meliadine West
CM8088	544103	6986558	83	HT	PS	14/06/2008	8:30:00 AM	4	5	NW	3	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8089	539410	6989146	83	HT	AL	14/06/2008	6:50:00 AM	3	2	SE	4-5	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8089	539410	6989146	83	HT	AL	14/06/2008	6:50:00 AM	3	2	SE	4-5	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8089	539410	6989146	83	HT	AL	14/06/2008	6:50:00 AM	3	2	SE	4-5	unknown bird spp.	UNKN	1	fly-over (0-3 min)	Meliadine West
CM8090	544108	6986346	83	HT	PS	14/06/2008	8:38:00 AM	4	10	N	4	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8090	544108	6986346	83	HT	PS	14/06/2008	8:38:00 AM	4	10	N	4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8091	539307	6989321	83	HT	AL	14/06/2008	4:00:00 AM	5	1	S/SE	4	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8091	539307	6989321	83	HT	AL	14/06/2008	4:00:00 AM	5	1	S/SE	4	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8092	544116	6986100	83	EC	PS	14/06/2008	8:59:00 AM	4	5	S	4	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8092	544116	6986100	83	EC	PS	14/06/2008	8:59:00 AM	4	5	S	4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8092	544116	6986100	83	EC	PS	14/06/2008	8:59:00 AM	4	5	S	4	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8093	539188	6989490	83	HT	AL	14/06/2008	7:10:00 AM	5	2-3	W	4	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8094	543893	6986131	83	TH	PS	14/06/2008	9:14:00 AM	4	<5	S	4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8094	543893	6986131	83	TH	PS	14/06/2008	9:14:00 AM	4	<5	S	4	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8095	539074	6989630	83	TH	AL	15/06/2008	7:22:00 AM	4	0		4	herring gull	HERG	1	fly-over (0-3 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8095	539074	6989630	83	TH	AL	15/06/2008	7:22:00 AM	4	0		4	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8095	539074	6989630	83	TH	AL	15/06/2008	7:22:00 AM	4	0		4	unknown bird spp.	UNKN	1	>50m (3-5 min)	Meliadine West
CM8096	543516	6987029	83	HT	PS	15/06/2008	5:52:00 AM	0	5	N	5	Canada goose	CAGO	2	<50m (0-3 min)	Meliadine West
CM8096	543516	6987029	83	HT	PS	15/06/2008	5:52:00 AM	0	5	N	5	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8096	543516	6987029	83	HT	PS	15/06/2008	5:52:00 AM	0	5	N	5	horned lark	HOLA	1	>50m (3-5 min)	Meliadine West
CM8097	538951	6989797	83	HT	AL	15/06/2008	7:37:00 AM	5	1	N	4-5	sandhill crane	SACR	1	>50m (0-3 min)	Meliadine West
CM8097	538951	6989797	83	HT	AL	15/06/2008	7:37:00 AM	5	1	N	4-5	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8098	539812	6989087	83	SW	PS	15/06/2008	6:26:00 AM	0	0		4	Canada goose	CAGO	1	>50m (0-3 min)	Meliadine West
CM8098	539812	6989087	83	SW	PS	15/06/2008	6:26:00 AM	0	0		4	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8098	539812	6989087	83	SW	PS	15/06/2008	6:26:00 AM	0	0		4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8099	538832	6989965	83	TH	AL	15/06/2008	7:53:00 AM	6	0		4-5	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8099	538832	6989965	83	TH	AL	15/06/2008	7:53:00 AM	6	0		4-5	sandhill crane	SACR	2	>50m (0-3 min)	Meliadine West
CM8100	539616	6989172	83	SW	PS	15/06/2008	6:43:00 AM	0			4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8100	539616	6989172	83	SW	PS	15/06/2008	6:43:00 AM	0			4	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8101	541196	6988320	84	TH	AL	15/06/2008	5:00:00 AM	4	0		4-5	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West
CM8102	539520	6989376	83	SW	PS	15/06/2008	6:54:00 AM	0	0		4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8103	541145	6988119	83	HT	AL	16/06/2008	5:13:00 AM	4	2	N	4-5	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8103	541145	6988119	83	HT	AL	16/06/2008	5:13:00 AM	4	2	N	4-5	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8104	539350	6989562	83	SW	PS	15/06/2008	7:07:00 AM	2	0		4	lapland longspur	LALO	1	fly-over (0-3 min)	Meliadine West
CM8104	539350	6989562	83	SW	PS	15/06/2008	7:07:00 AM	2	0		4	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8105	541075	6987955	83	TH	AL	16/06/2008	5:23:00 AM	4	0		4-5	lapland longspur	LALO	1	<50m (3-5 min)	Meliadine West
CM8105	541075	6987955	83	TH	AL	16/06/2008	5:23:00 AM	4	0		4-5	savannah sparrow	SAVS	1	<50m (3-5 min)	Meliadine West
CM8106	539261	6989800	83	SW	PS	16/06/2008	7:21:00 AM	4	0		4	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8106	539261	6989800	83	SW	PS	16/06/2008	7:21:00 AM	4	0		4	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8106	539261	6989800	83	SW	PS	16/06/2008	7:21:00 AM	4	0		4	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8107	541074	6987756	83	HT	AL	16/06/2008	5:37:00 AM	4	4	S	4-5	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8107	541074	6987756	83	HT	AL	16/06/2008	5:37:00 AM	4	4	S	4-5	lapland longspur	LALO	2	>50m (3-5 min)	Meliadine West
CM8108	539100	6989945	83	TH	PS	15/06/2008	7:36:00 AM	3	0		4	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8109	541130	6987563	83	HT	AL	16/06/2008	5:48:00 AM	4	3		4-5	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8109	541130	6987563	83	HT	AL	16/06/2008	5:48:00 AM	4	3		4-5	lapland longspur	LALO	3	>50m (0-3 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8109	541130	6987563	83	HT	AL	16/06/2008	5:48:00 AM	4	3		4-5	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8110	538957	6990096	83	TH	PS	15/06/2008	7:51:00 AM	3	<5	S	4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8110	538957	6990096	83	TH	PS	15/06/2008	7:51:00 AM	3	<5	S	4	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8111	541201	6987380	83	TH	AL	16/06/2008	6:04:00 AM	4	0		4-5	savannah sparrow	SAVS	1	>50m (0-3 min)	Meliadine West
CM8111	541201	6987380	83	TH	AL	16/06/2008	6:04:00 AM	4	0		4-5	unknown bird spp.	UNKN	1	>50m (3-5 min)	Meliadine West
CM8112	538891	6990302	83	EC	PS	15/06/2008	7:59:00 AM	3	10	SE	5	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8113	555114	6978386	83	HT	AL	18/06/2008	3:41:00 AM	3	1	SE	2	American pipit	AMPI	2	>50m (0-3 min)	Discovery
CM8114	541536	6988458	83	TH	PS	16/06/2008	4:51:00 AM	1	0		4	horned lark	HOLA	2	<50m (0-3 min)	Meliadine West
CM8114	541536	6988458	83	TH	PS	16/06/2008	4:51:00 AM	1	0		4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8115	554955	6978514	83	HT	AL	18/06/2008	3:55:00 AM	4	0		2	American pipit	AMPI	2	>50m (0-3 min)	Discovery
CM8116	541624	6988272	83	TH	PS	16/06/2008	5:04:00 AM	2	<5	N	4	horned lark	HOLA	1	>50m (3-5 min)	Meliadine West
CM8116	541624	6988272	83	TH	PS	16/06/2008	5:04:00 AM	2	<5	N	4	lapland longspur	LALO	2	<50m (0-3 min)	Meliadine West
CM8117	554796	6978652	83	HT	AL	18/06/2008	4:08:00 AM	4	0		3	American pipit	AMPI	3	>50m (3-5 min)	Discovery
CM8117	554796	6978652	83	HT	AL	18/06/2008	4:08:00 AM	4	0		3	savannah sparrow	SAVS	1	>50m (0-3 min)	Discovery
CM8118	541693	6988082	83	TH	PS	16/06/2008	5:13:00 AM	1	0		4	lapland longspur	LALO	2	>50m (0-3 min)	Meliadine West
CM8118	541693	6988082	83	TH	PS	16/06/2008	5:13:00 AM	1	0		4	lapland longspur	LALO	1	fly-over (0-3 min)	Meliadine West
CM8119	554696	6978828	83	TH	AL	18/06/2008	4:22:00 AM	4	0		2	lapland longspur	LALO	1	>50m (3-5 min)	Discovery
CM8119	554696	6978828	83	TH	AL	18/06/2008	4:22:00 AM	4	0		2	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8120	541811	6987898	83	SW	PS	16/06/2008	5:23:00 AM	2	0		4	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8120	541811	6987898	83	SW	PS	16/06/2008	5:23:00 AM	2	0		4	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8121	554628	6979018	83	TH	AL	18/06/2008	4:33:00 AM	4	0		1-2	lapland longspur	LALO	3	>50m (3-5 min)	Discovery
CM8122	541857	6987697	83	HT	PS	16/06/2008	5:36:00 AM	1	0		4	unknown bird spp.	UNKN	0	unknown	Meliadine West
CM8123	554462	6979196	83	HT	AL	18/06/2008	4:47:00 AM	4	3	N	2	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8123	554462	6979196	83	HT	AL	18/06/2008	4:47:00 AM	4	3	N	2	lapland longspur	LALO	1	>50m (3-5 min)	Meliadine West
CM8124	541277	6987536	83	HT	PS	16/06/2008	6:02:00 AM	2	15	S	4-5	lapland longspur	LALO	1	<50m (0-3 min)	Meliadine West
CM8124	541277	6987536	83	HT	PS	16/06/2008	6:02:00 AM	2	15	S	4-5	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8125	554293	6979321	83	HT	AL	18/06/2008	5:01:00 AM	4	3	N	2	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8125	554293	6979321	83	HT	AL	18/06/2008	5:01:00 AM	4	3	N	2	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8126	542055	6989172	83	HT	PS	17/06/2008	5:55:00 AM	4	10	W	1	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8126	542055	6989172	83	HT	PS	17/06/2008	5:55:00 AM	4	10	W	1	horned lark	HOLA	1	<50m (0-3 min)	Meliadine West

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8126	542055	6989172	83	HT	PS	17/06/2008	5:55:00 AM	4	10	W	1	lapland longspur	LALO	1	>50m (0-3 min)	Meliadine West
CM8126	542055	6989172	83	HT	PS	17/06/2008	5:55:00 AM	4	10	W	1	white-crowned sparrow	WCSP	1	>50m (0-3 min)	Meliadine West
CM8127	554317	6979550	83	HT	AL	18/06/2008	5:13:00 AM	4	0		3	horned lark	HOLA	2	>50m (0-3 min)	Discovery
CM8127	554317	6979550	83	HT	AL	18/06/2008	5:13:00 AM	4	0		3	lapland longspur	LALO	1	>50m (3-5 min)	Discovery
CM8127	554317	6979550	83	HT	AL	18/06/2008	5:13:00 AM	4	0		3	unknown bird spp.	UNKN	1	>50m (0-3 min)	Discovery
CM8128	542241	6989098	83	TH	PS	17/06/2008	6:20:00 AM	4	10	S	1	horned lark	HOLA	1	>50m (0-3 min)	Meliadine West
CM8128	542241	6989098	83	TH	PS	17/06/2008	6:20:00 AM	4	10	S	1	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8129	554500	6979641	83	HT	AL	18/06/2008	5:26:00 AM	4	0		3	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8129	554500	6979641	83	HT	AL	18/06/2008	5:26:00 AM	4	0		3	lapland longspur	LALO	1	>50m (3-5 min)	Discovery
CM8130	542269	6989257	83	TH	PS	17/06/2008	6:41:00 AM	4	10	N	1	American pipit	AMPI	1	fly-over (0-3 min)	Meliadine West
CM8130	542269	6989257	83	TH	PS	17/06/2008	6:41:00 AM	4	10	N	1	savannah sparrow	SAVS	1	<50m (0-3 min)	Meliadine West
CM8131	554646	6979747	83	SW	AL	18/06/2008	5:38:00 AM	4	0		2-3	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8131	554646	6979747	83	SW	AL	18/06/2008	5:38:00 AM	4	0		2-3	lapland longspur	LALO	2	>50m (3-5 min)	Discovery
CM8132	542134	6989217	83	HT	PS	17/06/2008	6:52:00 AM	5	10	NW	1	American pipit	AMPI	1	<50m (0-3 min)	Meliadine West
CM8132	542134	6989217	83	HT	PS	17/06/2008	6:52:00 AM	5	10	NW	1	semipalmated plover	SEPL	1	<50m (0-3 min)	Meliadine West
CM8133	554833	6979823	83	HT	AL	18/06/2008	5:53:00 AM	4	0		3	lapland longspur	LALO	1	>50m (3-5 min)	Discovery
CM8133	554833	6979823	83	HT	AL	18/06/2008	5:53:00 AM	4	0		3	lapland longspur	LALO	1	<50m (0-3 min)	Discovery
CM8134	554949	6978387	83	TH	PS	18/06/2008	3:39:00 AM	-2	<5	S	2	American pipit	AMPI	1	>50m (3-5 min)	Discovery
CM8134	554949	6978387	83	TH	PS	18/06/2008	3:39:00 AM	-2	<5	S	2	American pipit	AMPI	1	<50m (0-3 min)	Discovery
CM8135	554426	6981404	83	TH	AL	18/06/2008	6:47:00 AM	4	0		3	common redpoll	CORE	1	<50m (0-3 min)	Discovery
CM8135	554426	6981404	83	TH	AL	18/06/2008	6:47:00 AM	4	0		3	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8135	554426	6981404	83	TH	AL	18/06/2008	6:47:00 AM	4	0		3	savannah sparrow	SAVS	1	>50m (0-3 min)	Discovery
CM8136	554736	6978492	83	HT	PS	18/06/2008	3:53:00 AM	-2	5	N	1	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8137	554606	6981265	83	SW	AL	18/06/2008	7:00:00 AM	4	1	S	3	savannah sparrow	SAVS	1	<50m (0-3 min)	Discovery
CM8138	554567	6978610	83	TH	PS	18/06/2008	4:05:00 AM	-3	<5	S	3	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8138	554567	6978610	83	TH	PS	18/06/2008	4:05:00 AM	-3	<5	S	3	unknown bird spp.	UNKN	1	<50m (0-3 min)	Discovery
CM8139	554781	6981157	83	TH	AL	18/06/2008	7:13:00 AM	4	0		2-3	common redpoll	CORE	2	fly-over (0-3 min)	Discovery
CM8139	554781	6981157	83	TH	AL	18/06/2008	7:13:00 AM	4	0		2-3	lapland longspur	LALO	1	<50m (0-3 min)	Discovery
CM8139	554781	6981157	83	TH	AL	18/06/2008	7:13:00 AM	4	0		2-3	savannah sparrow	SAVS	1	>50m (0-3 min)	Discovery
CM8140	554374	6978680	83	HT	PS	18/06/2008	4:15:00 AM	-3	<5	S	3	lapland longspur	LALO	1	<50m (0-3 min)	Discovery

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8141	554985	6981098	83	HT	AL	18/06/2008	7:25:00 AM	5	1	S	3	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8141	554985	6981098	83	HT	AL	18/06/2008	7:25:00 AM	5	1	S	3	savannah sparrow	SAVS	1	>50m (3-5 min)	Discovery
CM8142	554197	6978772	83	TH	PS	18/06/2008	4:26:00 AM	-3	<5	S	3	common redpoll	CORE	2	fly-over (0-3 min)	Discovery
CM8142	554197	6978772	83	TH	PS	18/06/2008	4:26:00 AM	-3	<5	S	3	herring gull	HERG	1	fly-over (3-5 min)	Discovery
CM8143	555150	6980975	83	HT	AL	18/06/2008	7:39:00 AM	5	0		2-3	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8144	553977	6978867	83	HT	PS	18/06/2008	4:38:00 AM	-3	<5	S	2	horned lark	HOLA	1	<50m (0-3 min)	Discovery
CM8144	553977	6978867	83	HT	PS	18/06/2008	4:38:00 AM	-3	<5	S	2	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8145	555308	6980976	83	SW	AL	18/06/2008	7:50:00 AM	6	0		2-3	savannah sparrow	SAVS	3	>50m (0-3 min)	Discovery
CM8146	553760	6978866	83	SW	PS	18/06/2008	4:52:00 AM	-3	0		3	Canada goose	CAGO	1	fly-over (0-3 min)	Discovery
CM8147	555441	6981123	83	TH	AL	18/06/2008	8:11:00 AM	6	1	SE	2-3	common redpoll	CORE	1	fly-over (3-5 min)	Discovery
CM8147	555441	6981123	83	TH	AL	18/06/2008	8:11:00 AM	6	1	SE	2-3	lapland longspur	LALO	2	fly-over (0-3 min)	Discovery
CM8147	555441	6981123	83	TH	AL	18/06/2008	8:11:00 AM	6	1	SE	2-3	savannah sparrow	SAVS	1	<50m (0-3 min)	Discovery
CM8147	555441	6981123	83	TH	AL	18/06/2008	8:11:00 AM	6	1	SE	2-3	savannah sparrow	SAVS	1	>50m (0-3 min)	Discovery
CM8148	553867	6979167	83	HT	PS	18/06/2008	5:06:00 AM	-3	0		3	unknown bird spp.	UNKN	0	unknown	Discovery
CM8149	555571	6981265	83	HT	AL	18/06/2008	8:25:00 AM	7	0		2-3	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8149	555571	6981265	83	HT	AL	18/06/2008	8:25:00 AM	7	0		2-3	savannah sparrow	SAVS	1	>50m (3-5 min)	Discovery
CM8150	553882	6979375	83	HT	PS	18/06/2008	5:12:00 AM	-2	0		3	horned lark	HOLA	1	<50m (0-3 min)	Discovery
CM8151	555299	6981310	83	HT	AL	18/06/2008	8:45:00 AM	6	0		3	horned lark	HOLA	1	<50m (0-3 min)	Discovery
CM8151	555299	6981310	83	HT	AL	18/06/2008	8:45:00 AM	6	0		3	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8151	555299	6981310	83	HT	AL	18/06/2008	8:45:00 AM	6	0		3	savannah sparrow	SAVS	1	>50m (3-5 min)	Discovery
CM8151	555299	6981310	83	HT	AL	18/06/2008	8:45:00 AM	6	0		3	unknown bird spp.	UNKN	1	>50m (0-3 min)	Discovery
CM8152	553934	6979576	83	HT	PS	18/06/2008	5:25:00 AM	-2	0		3	horned lark	HOLA	1	<50m (0-3 min)	Discovery
CM8152	553934	6979576	83	HT	PS	18/06/2008	5:25:00 AM	-2	0		3	lapland longspur	LALO	1	<50m (0-3 min)	Discovery
CM8152	553934	6979576	83	HT	PS	18/06/2008	5:25:00 AM	-2	0		3	sandhill crane	SACR	2	>50m (0-3 min)	Discovery
CM8154	554161	6979636	83	TH	PS	18/06/2008	5:34:00 AM	-1	0		2	unknown bird spp.	UNKN	0	unknown	Discovery
CM8156	554426	6979719	83	TH	PS	18/06/2008	5:46:00 AM	2	<5	W	2	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8156	554426	6979719	83	TH	PS	18/06/2008	5:46:00 AM	2	<5	W	2	lapland longspur	LALO	1	<50m (0-3 min)	Discovery
CM8158	554573	6979860	83	HT	PS	18/06/2008	5:56:00 AM	2	0		2	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8160	554369	6981613	83	HT	PS	18/06/2008	6:14:00 AM	2	5	S	3	American pipit	AMPI	1	>50m (0-3 min)	Discovery
CM8160	554369	6981613	83	HT	PS	18/06/2008	6:14:00 AM	2	5	S	3	common redpoll	CORE	3	fly-over (0-3 min)	Discovery

Table III-1 Upland Breeding Bird Point Count Data

Plot Number	Easting	Northing	NAD	Ecotype	Observer	Date	Time	Temperature (C)	Slope (°)	Aspect	Wind	Species	Species Code	Number	Observation Type	Location
CM8160	554369	6981613	83	HT	PS	18/06/2008	6:14:00 AM	2	5	S	3	horned lark	HOLA	2	<50m (0-3 min)	Discovery
CM8160	554369	6981613	83	HT	PS	18/06/2008	6:14:00 AM	2	5	S	3	savannah sparrow	SAVS	1	>50m (0-3 min)	Discovery
CM8162	559213	6981748	83	SW	PS	18/06/2008	6:35:00 AM	3	0		3	American pipit	AMPI	1	fly-over (3-5 min)	Discovery
CM8162	559213	6981748	83	SW	PS	18/06/2008	6:35:00 AM	3	0		3	common redpoll	CORE	1	fly-over (0-3 min)	Discovery
CM8162	559213	6981748	83	SW	PS	18/06/2008	6:35:00 AM	3	0		3	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8162	559213	6981748	83	SW	PS	18/06/2008	6:35:00 AM	3	0		3	savannah sparrow	SAVS	1	<50m (0-3 min)	Discovery
CM8164	554041	6981854	83	SW	PS	18/06/2008	6:45:00 AM	4	0		3	American pipit	AMPI	1	>50m (0-3 min)	Discovery
CM8164	554041	6981854	83	SW	PS	18/06/2008	6:45:00 AM	4	0		3	common redpoll	CORE	1	fly-over (0-3 min)	Discovery
CM8164	554041	6981854	83	SW	PS	18/06/2008	6:45:00 AM	4	0		3	horned lark	HOLA	1	>50m (0-3 min)	Discovery
CM8164	554041	6981854	83	SW	PS	18/06/2008	6:45:00 AM	4	0		3	savannah sparrow	SAVS	1	<50m (0-3 min)	Discovery
CM8166	553855	6981938	83	HBed	PS	18/06/2008	6:56:00 AM	3	5	S	3	savannah sparrow	SAVS	1	>50m (0-3 min)	Discovery
CM8166	553855	6981938	83	HBed	PS	18/06/2008	6:56:00 AM	3	5	S	3	semipalmated plover	SEPL	1	>50m (0-3 min)	Discovery
CM8168	553809	6982136	83	SW	PS	18/06/2008	7:08:00 AM	2	0		3	horned lark	HOLA	1	<50m (0-3 min)	Discovery
CM8168	553809	6982136	83	SW	PS	18/06/2008	7:08:00 AM	2	0		3	lapland longspur	LALO	1	>50m (3-5 min)	Discovery
CM8168	553809	6982136	83	SW	PS	18/06/2008	7:08:00 AM	2	0		3	savannah sparrow	SAVS	1	<50m (0-3 min)	Discovery
CM8170	553982	6982315	83	HBed	PS	18/06/2008	7:26:00 AM	3	5	S	3	common redpoll	CORE	1	fly-over (0-3 min)	Discovery
CM8170	553982	6982315	83	HBed	PS	18/06/2008	7:26:00 AM	3	5	S	3	horned lark	HOLA	1	<50m (0-3 min)	Discovery
CM8170	553982	6982315	83	HBed	PS	18/06/2008	7:26:00 AM	3	5	S	3	savannah sparrow	SAVS	1	>50m (3-5 min)	Discovery
CM8172	554185	6982302	83	HT	PS	18/06/2008	7:36:00 AM	3	10	S	3	common redpoll	CORE	2	fly-over (0-3 min)	Discovery
CM8174	554371	6982135	83	HT	PS	18/06/2008	7:46:00 AM	4	10	S	3	unknown bird spp.	UNKN	0	unknown	Discovery
CM8176	554487	6981978	83	HBou	PS	18/06/2008	7:57:00 AM	3	5	S	3-4	common redpoll	CORE	1	fly-over (0-3 min)	Discovery
CM8178	554446	6981771	83	HT	PS	18/06/2008	8:07:00 AM	4	<5	N	3-4	horned lark	HOLA	1	<50m (0-3 min)	Discovery
CM8178	554446	6981771	83	HT	PS	18/06/2008	8:07:00 AM	4	<5	N	3-4	lapland longspur	LALO	1	>50m (0-3 min)	Discovery
CM8180	554575	6981582	83	SW	PS	18/06/2008	8:17:00 AM	4	0		4	savannah sparrow	SAVS	1	<50m (0-3 min)	Discovery

APPENDIX IV

WATERFOWL AERIAL SURVEY DATA

Table IV-1 Waterfowl Aerial Survey Data

Strata	Date	Species	Species Code	Number of Adults	Number of Young
Mine	15/06/2008	tundra swan	TUSW	1	
Mine	15/06/2008	tundra swan	TUSW	1	
Mine	15/06/2008	sandhill crane	SACR	1	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	sandhill crane	SACR	1	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	herring gull	HEGU	1	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	long-tailed duck	LTDU	2	
Mine	15/06/2008	herring gull	HEGU	1	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	herring gull	HEGU	1	
Mine	15/06/2008	long-tailed duck	LTDU	2	
Mine	15/06/2008	northern pintail	NOPI	1	
Mine	15/06/2008	Canada goose	CAGO	3	
Mine	15/06/2008	tundra swan	TUSW	2	
Mine	15/06/2008	sandhill crane	SACR	1	
Mine	15/06/2008	red-breasted merganser	RBME	1	
Mine	15/06/2008	scaup species	-	2	
Mine	15/06/2008	herring gull	HEGU	1	
Mine	15/06/2008	tundra swan	TUSW	2	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	sandhill crane	SACR	1	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	Pacific loon	PALO	2	
Mine	15/06/2008	tundra swan	TUSW	2	
Mine	15/06/2008	long-tailed duck	LTDU	2	
Mine	15/06/2008	long-tailed duck	LTDU	2	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	herring gull	HEGU	2	
Mine	15/06/2008	herring gull	HEGU	1	
Mine	15/06/2008	long-tailed duck	LTDU	2	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	tundra swan	TUSW	1	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	Canada goose	CAGO	3	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	sandhill crane	SACR	1	
Mine	15/06/2008	sandhill crane	SACR	2	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	long-tailed duck	LTDU	1	
Mine	15/06/2008	Pacific loon	PALO	2	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	tundra swan	TUSW	1	
Mine	15/06/2008	northern pintail	NOPI	1	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	long-tailed duck	LTDU	1	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	Canada goose	CAGO	1	
Mine	15/06/2008	long-tailed duck	LTDU	1	
Mine	15/06/2008	tundra swan	TUSW	2	
Mine	15/06/2008	Canada goose	CAGO	2	
Mine	15/06/2008	long-tailed duck	LTDU	2	
Mine	15/06/2008	tundra swan	TUSW	1	

Table IV-1 Waterfowl Aerial Survey Data

Strata	Date	Species	Species Code	Number of Adults	Number of Young
Mine	15/06/2008	tundra swan	TUSW	1	
Mine	15/06/2008	sandhill crane	SACR	2	
Mine	15/06/2008	herring gull	HEGU	1	
Mine	15/06/2008	Canada goose	CAGO	5	
Mine	15/06/2008	unknown duck species	UNKN	1	
Mine	15/06/2008	tundra swan	TUSW	2	
Mine	15/06/2008	herring gull	HEGU	1	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	Pacific loon	PALO	1	
North	16/06/2008	Canada goose	CAGO	2	
North	16/06/2008	herring gull	HEGU	1	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	long-tailed duck	LTDU	4	
North	16/06/2008	herring gull	HEGU	2	
North	16/06/2008	long-tailed duck	LTDU	2	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	long-tailed duck	LTDU	1	
North	16/06/2008	Canada goose	CAGO	4	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	Canada goose	CAGO	3	
North	16/06/2008	long-tailed duck	LTDU	1	
North	16/06/2008	sandhill crane	SACR	1	
North	16/06/2008	Canada goose	CAGO	3	
North	16/06/2008	sandhill crane	SACR	1	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	sandhill crane	SACR	1	
North	16/06/2008	Pacific loon	PALO	2	
North	16/06/2008	sandhill crane	SACR	2	
North	16/06/2008	long-tailed duck	LTDU	2	
North	16/06/2008	Canada goose	CAGO	1	
North	16/06/2008	Canada goose	CAGO	4	
North	16/06/2008	herring gull	HEGU	2	
South	16/06/2008	Canada goose	CAGO	4	
South	16/06/2008	Canada goose	CAGO	4	
South	16/06/2008	long-tailed duck	LTDU	2	
South	16/06/2008	Canada goose	CAGO	3	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	sandhill crane	SACR	2	
South	16/06/2008	sandhill crane	SACR	5	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	Canada goose	CAGO	2	

Table IV-1 Waterfowl Aerial Survey Data

Strata	Date	Species	Species Code	Number of Adults	Number of Young
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	herring gull	HEGU	2	
South	16/06/2008	sandhill crane	SACR	2	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	Canada goose	CAGO	3	
South	16/06/2008	long-tailed duck	LTDU	2	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	long-tailed duck	LTDU	2	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	Canada goose	CAGO	4	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	northern pintail	NOPI	1	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	Canada goose	CAGO	4	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	northern pintail	NOPI	1	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	northern pintail	NOPI	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	long-tailed duck	LTDU	2	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	Canada goose	CAGO	2	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	long-tailed duck	LTDU	2	
South	16/06/2008	Canada goose	CAGO	10	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	Canada goose	CAGO	11	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	long-tailed duck	LTDU	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	herring gull	HEGU	2	

Table IV-1 Waterfowl Aerial Survey Data

Strata	Date	Species	Species Code	Number of Adults	Number of Young
South	16/06/2008	sandhill crane	SACR	1	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	Canada goose	CAGO	1	
South	16/06/2008	herring gull	HEGU	1	
South	16/06/2008	Pacific loon	PALO	2	
East	16/06/2008	herring gull	HEGU	1	
East	16/06/2008	tundra swan	TUSW	1	
East	16/06/2008	Canada goose	CAGO	4	
Mine	22/07/2008	long-tailed duck	LTDU	1	
Mine	22/07/2008	Canada goose	CAGO	1	3
Mine	22/07/2008	tundra swan	TUSW	2	
Mine	22/07/2008	tundra swan	TUSW	2	
Mine	22/07/2008	sandhill crane	SACR	2	
Mine	22/07/2008	Canada goose	CAGO	2	
Mine	22/07/2008	tundra swan	TUSW	2	
Mine	22/07/2008	common loon	COLO	1	
Mine	22/07/2008	herring gull	HEGU	1	
Mine	22/07/2008	herring gull	HEGU	1	
Mine	22/07/2008	sandhill crane	SACR	2	
Mine	22/07/2008	Canada goose	CAGO	6	4
Mine	22/07/2008	tundra swan	TUSW	4	
Mine	22/07/2008	Canada goose	CAGO	5	
Mine	22/07/2008	tundra swan	TUSW	2	3
Mine	22/07/2008	unknown duck species	UNKN	1	
Mine	22/07/2008	tundra swan	TUSW	2	4
Mine	22/07/2008	tundra swan	TUSW	1	2
Mine	22/07/2008	common loon	COLO	1	
Mine	22/07/2008	Canada goose	CAGO	4	4
Mine	22/07/2008	herring gull	HEGU	1	
Mine	22/07/2008	tundra swan	TUSW	2	
Mine	22/07/2008	sandhill crane	SACR	2	
Mine	22/07/2008	tundra swan	TUSW	1	
Mine	22/07/2008	tundra swan	TUSW	2	3
North	22/07/2008	Canada goose	CAGO	10	
North	22/07/2008	Canada goose	CAGO	12	
North	22/07/2008	common loon	COLO	1	
North	22/07/2008	sandhill crane	SACR	2	
North	22/07/2008	Canada goose	CAGO	4	
North	22/07/2008	Pacific loon	PALO	1	
North	22/07/2008	Canada goose	CAGO	2	3
North	22/07/2008	sandhill crane	SACR	2	
North	22/07/2008	red-breasted merganser	RBME	1	
North	22/07/2008	Pacific loon	PALO	1	
North	22/07/2008	common loon	COLO	2	
North	22/07/2008	Canada goose	CAGO	13	
North	22/07/2008	snow goose	SNGO	2	
North	22/07/2008	Canada goose	CAGO	7	
North	22/07/2008	Canada goose	CAGO	20	
North	22/07/2008	herring gull	HEGU	1	
North	22/07/2008	red-breasted merganser	RBME	2	
North	22/07/2008	Canada goose	CAGO	35	
North	22/07/2008	herring gull	HEGU	1	
North	22/07/2008	Canada goose	CAGO	5	4
North	22/07/2008	sandhill crane	SACR	1	
North	22/07/2008	herring gull	HEGU	1	

Table IV-1 Waterfowl Aerial Survey Data

Strata	Date	Species	Species Code	Number of Adults	Number of Young
North	22/07/2008	Pacific loon	PALO	2	
North	22/07/2008	sandhill crane	SACR	2	
North	22/07/2008	unknown duck species	UNKN	2	
North	22/07/2008	red-breasted merganser	RBME	1	
North	22/07/2008	herring gull	HEGU	2	
North	22/07/2008	herring gull	HEGU	2	
North	22/07/2008	red-throated loon	RTLO	2	
North	22/07/2008	long-tailed duck	LTDU	1	
North	22/07/2008	Canada goose	CAGO	4	6
North	22/07/2008	red-breasted merganser	RBME	2	
North	22/07/2008	Pacific loon	PALO	1	
North	22/07/2008	Canada goose	CAGO	2	2
North	22/07/2008	sandhill crane	SACR	2	
South	23/07/2008	herring gull	HEGU	1	
South	23/07/2008	sandhill crane	SACR	1	
South	23/07/2008	sandhill crane	SACR	5	
South	23/07/2008	sandhill crane	SACR	1	
South	23/07/2008	unknown duck species	UNKN	2	
South	23/07/2008	sandhill crane	SACR	2	
South	23/07/2008	herring gull	HEGU	1	
South	23/07/2008	sandhill crane	SACR	2	
South	23/07/2008	Canada goose	CAGO	2	
South	23/07/2008	red-throated loon	RTLO	1	
South	23/07/2008	herring gull	HEGU	1	
South	23/07/2008	long-tailed duck	LTDU	6	
South	23/07/2008	Canada goose	CAGO	3	6
South	23/07/2008	sandhill crane	SACR	2	
South	23/07/2008	Canada goose	CAGO	5	5
South	23/07/2008	herring gull	HEGU	8	
South	23/07/2008	sandhill crane	SACR	1	
South	23/07/2008	sandhill crane	SACR	4	
South	23/07/2008	sandhill crane	SACR	2	
South	23/07/2008	herring gull	HEGU	1	
South	23/07/2008	Canada goose	CAGO	20	
South	23/07/2008	red-throated loon	RTLO	2	
South	23/07/2008	Canada goose	CAGO	12	
South	23/07/2008	Canada goose	CAGO	28	
South	23/07/2008	Canada goose	CAGO	5	4
South	23/07/2008	red-throated loon	RTLO	2	
South	23/07/2008	Canada goose	CAGO	10	
South	23/07/2008	Canada goose	CAGO	2	
South	23/07/2008	sandhill crane	SACR	1	
South	23/07/2008	sandhill crane	SACR	1	
East	23/07/2008	Canada goose	CAGO	45	
East	23/07/2008	Canada goose	CAGO	50	
East	23/07/2008	snow goose	SNGO	15	
East	23/07/2008	sandhill crane	SACR	1	

APPENDIX V

LIST OF BIRD SPECIES OBSERVED WITHIN THE STUDY AREA

Table V-1 List of Bird Species Observed Within the Studay Area

Complete Species List	Waterfowl Survey	Upland Breeding Bird Survey/PRISM Survey	Raptor Survey	Incidentals
Pacific Loon	Pacific Loon			
Common Loon	Common Loon			
Red-throated Loon	Red-throated Loon			
Tundra Swan	Tundra Swan			
Snow Goose	Snow Goose			
Canada Goose	Canada Goose			
American Wigeon				American Wigeon
Northern Pintail	Northern Pintail			
Northern Shoveler				Northern Shoveler
Scaup species	Scaup species			
Common Eider				Common Eider
Long-tailed Duck	Long-tailed Duck			
Red-breasted Merganser	Red-breasted Merganser			
Rough-legged Hawk			Rough-legged Hawk	
Peregrine Falcon			Peregrine Falcon	
Willow Ptarmigan				Willow Ptarmigan
Sandhill Crane	Sandhill Crane			
American Golden-Plover				American Golden-Plover
Semipalmated Plover		Semi-palmated Plover		
Semipalmated Sandpiper				Semipalmated Sandpiper
Least Sandpiper				Least Sandpiper
Herring Gull	Herring Gull			
Short-eared Owl			Short-eared Owl	
Common Raven				Common Raven
Horned Lark		Horned Lark		
American Pipit		American Pipit		
White-crowned Sparrow		White-crowned Sparrow		
Savannah Sparrow		Savannah Sparrow		
Lapland Longspur		Lapland Longspur		
Snow Bunting		Snow Bunting		
Common Redpoll		Common Redpoll		
American Tree Sparrow				American Tree Sparrow

TOTAL 32 species