

2016 Satellite-collared Caribou Telemetry Path

- Late Winter
- Spring

Legend

- | | | |
|---------------|-------------|-------------------------|
| Annual Range* | Qamanirjuaq | All-Weather Access Road |
| Ahiak | Wager Bay | Local Study Area |
| Beverly | | Regional Study Area |
| Lorillard | | |

* Official home ranges and calving grounds are from the following publication: Nagy, J. A., D. L. Johnson, N. C. Larter, M. W. Campbell, A. E. Derocher, A. Kelly, M. Dumond, D. Allaire, and B. Croft. 2011. Subpopulation structure of caribou (*Rangifer tarandus* L.) in arctic and subarctic Canada. Ecological Applications [doi:10.1890/10-1410.1].

0 50 100 150
Kilometres

Projection: UTM Zone 14 NAD83

Data Sources:
Natural Resources Canada, GeoBase®
National Topographic Database,
Agnico-Eagle Mines Limited,
Department of Environment
(Gov't of Nunavut)
Gov't of Northwest Territories



Figure 9.3: 2016 Caribou Telemetry Data – Late Winter and Spring Seasons (January 1 - May 25)

Meadowbank Gold Project

Prepared for:



AGNICO EAGLE

By:



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Spring (April 1 to May 25)

Seven Caribou migrated through the northern portion of the Meadowbank RSA (and LSA) during the spring period (**Figure 9.3**); the same number of collared animals was seen migrating through the RSA in 2015. These 2016 collared Caribou moved considerable distances from the Aberdeen Lake area towards Wager Bay and Lorillard calving grounds. During this time period, Meadowbank mine had one road closure because of Caribou presence near the AWAR (**Section 7.6** and **Appendix B**); a herd ranging in size from 100 to 500 Caribou was observed in the vicinity of the mine in mid- to late April. At least two collared individuals migrating through the RSA moved towards Wager Bay herd calving grounds northwest of Repulse Bay, while the remaining collared animals headed towards Lorillard herd calving grounds between Chesterfield Inlet and Wager Bay. One collared Caribou migrated north towards Adelaide Peninsula and the Ahiak calving grounds. Collared individuals wintering in the Bathurst Inlet area moved toward the Beverly and Ahiak calving grounds, but did not migrate near the Meadowbank RSA (**Figure 9.3**). Qamanirjuaq collared animals underwent an extensive northward migration from all wintering areas to calving grounds between Rankin Inlet and Arviat. Most Caribou collared in the Baker Lake area remained within areas frequented historically by Ahiak, Wager Bay, and Lorillard herds (see ranges in **Figure 9.3**).

Calving (May 26 to June 25)

No collared animals occurred within the Meadowbank RSA during the 2016 calving season. The greatest aggregation of collared Caribou during the calving season (excluding collared animals from the Qamanirjuaq herd) was on the Lorillard calving grounds between Chesterfield Inlet and Wager Bay (see **Figure 9.4**). A group of collared Caribou from the Wager Bay herd was observed at calving grounds between Repulse Bay and Kugaaruk. Most of the collared Caribou from the Qamanirjuaq herd remained near their traditional Qamanirjuaq calving grounds west of Rankin Inlet. Other collared Caribou (Ahiak herd) spent the calving season south of Adelaide Peninsula, in vicinity of Mcloughlin Bay and Chantrey Inlet (**Figure 9.4**).

Post-Calving (June 25 to July 31)

Collared Caribou in northern areas generally started moving south and west during the post-calving period. Collared animals from the more northern Wager Bay calving grounds moved south, joining Lorillard herd animals and remaining between Wager Bay and Chesterfield Inlet (**Figure 9.4**). Most collared animals from the Qamanirjuaq herd moved north along the southern edge of Chesterfield Inlet and Baker Lake, while some animals moved west into south central Nunavut and south to Arviat (**Figure 9.4**). No collared Caribou were situated within the Meadowbank LSA or RSA during most of the post-calving season, although three collared animals did reach the boundary of the RSA by the end of the season. Mine survey records indicate a herd of 20 Caribou near the Vault Area in early July (**Appendix A**).

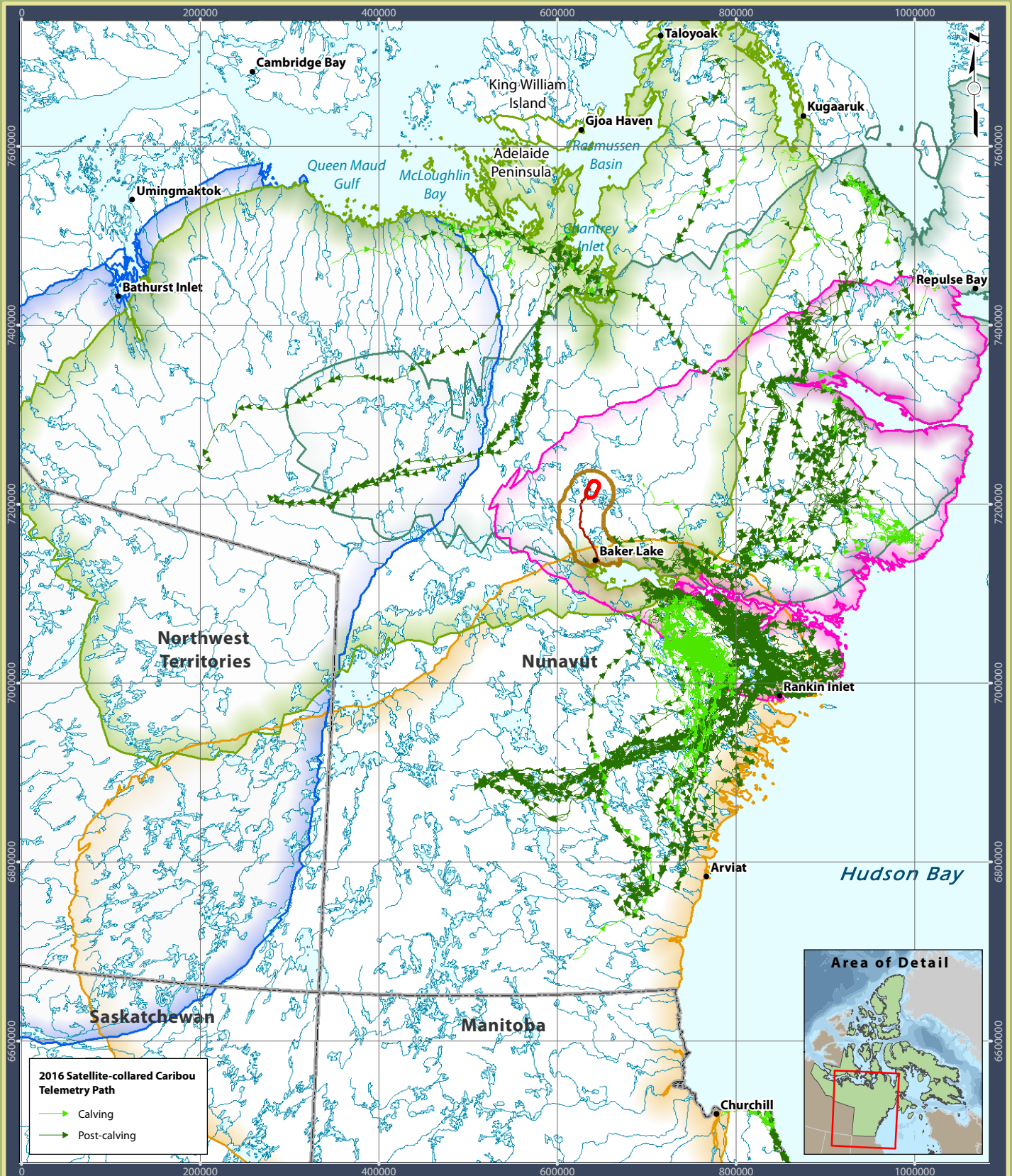


Figure 9.4: 2016 Caribou Telemetry Data – Calving and Post-calving Seasons (May 26 - July 31)

Meadowbank Gold Project

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AGNICO EAGLE

By:



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0 50 100 150
Kilometres

Projection: UTM Zone 14 NAD83

Data Sources:
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Late Summer (August 1 to September 15)

Many collared animals continued to move south during this period. Individuals from the Lorillard and Wager Bay herds moved closer to Baker Lake but remained on the north side of Chesterfield Inlet and east of the AWAR. Four individuals from the Lorillard herd were present in the RSA during late summer, but not within the mine LSA. Qamanirjuaq collared animals spread out considerably during this period, occurring from the south side of Chesterfield Inlet to northern Manitoba (**Figure 9.5**).

Fall (September 16 to October 14)

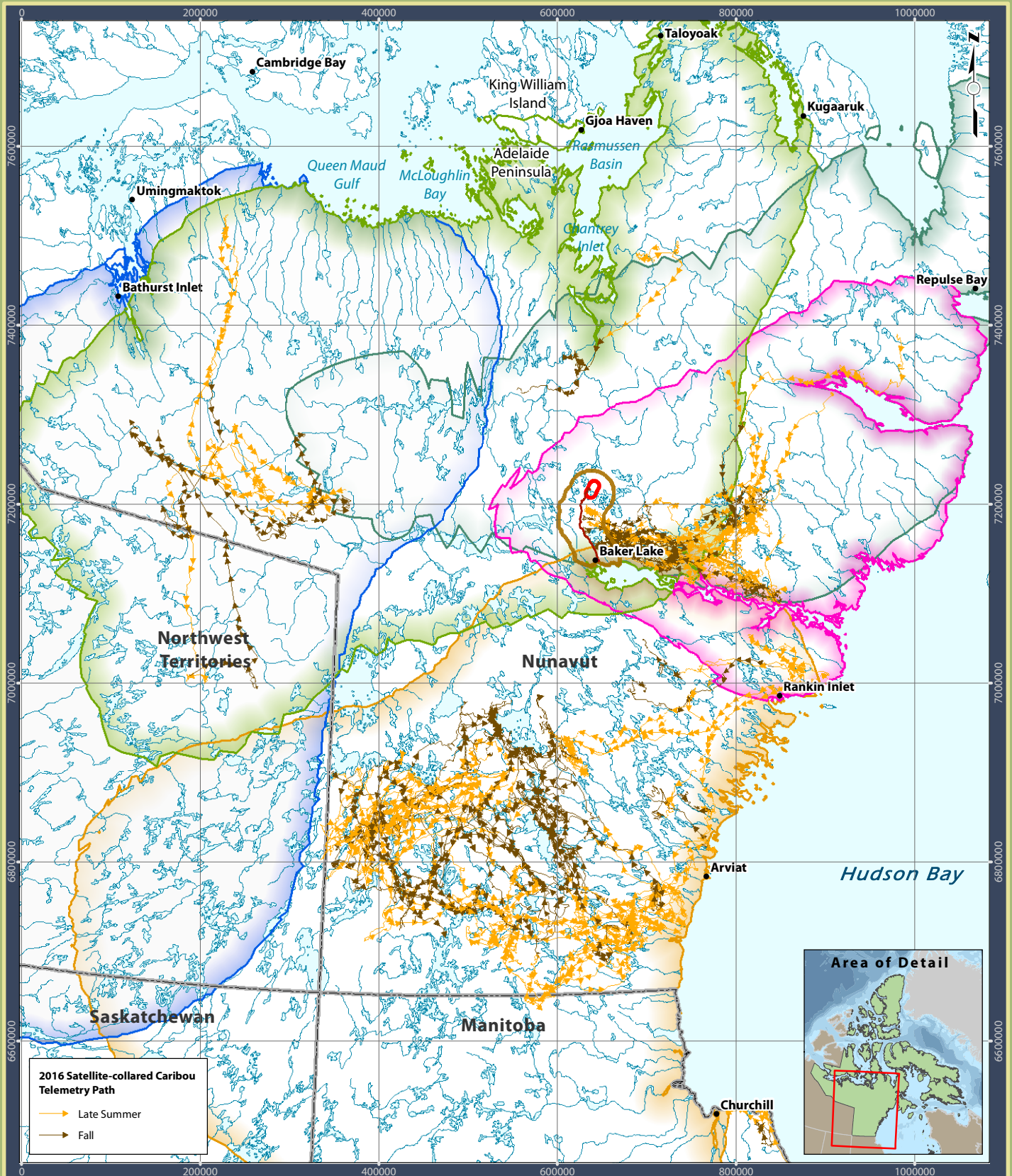
Ten collared Caribou, including three of four collared animals observed during the late summer period, remained within the RSA near Whitehills Lake on the east side of the AWAR before moving east to join collared Lorillard animals (see **Figures 9.2** and **9.5**). Only one collared animal briefly crossed the AWAR in early October before turning back and heading in this easterly direction. Increased numbers of Caribou were observed in the vicinity of the AWAR in September and October during mine and AWAR surveys. During the first 10 days of October, a herd of 500 to 1,000 Caribou was observed walking and grazing near the mine site (**Section 6.5** and **Appendix A**). One collared animal summering near Chantrey Inlet moved southwest towards other animals of the Ahiak herd (**Figure 9.5**). Collared Lorillard and Qamanirjuaq animals generally stayed in the same area as during the late summer period (**Figure 9.5**).

Fall Rut (October 15 to November 7)

In the fall rut season, individuals were generally distributed in four discrete areas: 1) east of Baker Lake and north of Chesterfield Inlet (Lorillard herd); 2) south and west of Bathurst Inlet and Umingmaktok (Ahiak herd); 3) south and east of Bathurst (possibly Ahiak or Beverley herd) and 4) in northern Manitoba and coastal areas around Rankin Inlet and Arviat (Qamanirjuaq herd) (**Figure 9.6**). One collared animal still remained within the Meadowbank RSA at the start of the fall rut.

Early Winter (November 8 to December 31)

In early winter, two collared animals from the Lorillard herd moved from east to west through the Meadowbank RSA (**Figures 9.6** and **9.7**). One collared individual (BL0450413) was moving west, then veered to the north in December (this same individual was observed near the AWAR in October, but did not cross the road, headed back towards the east and eventually moved up and around the mine). The second collared Caribou in the RSA in early winter (UK2016008) was moving in a west to south-west direction when its trajectory turned around close to the AWAR and headed back in an east to north-east direction. No collared animals crossed the AWAR during this period. Several collared individuals remained east and south of Bathurst Inlet (**Figure 9.6**). Most collared Caribou from the Qamanirjuaq herd split into two directions: 1) further south into northern Manitoba; and 2) further west into the Northwest Territories and Saskatchewan (**Figure 9.6**).



2016 Satellite-collared Caribou Telemetry Path

— Late Summer

— Fall

Legend

Annual Range*
 Ahikak
 Beverly
 Lorillard
 Qamanirjuaq
 Wager Bay
 All-Weather Access Road
 Local Study Area
 Regional Study Area

* Official home ranges and calving grounds are from the following publication: Nagy, J. A., D. L. Johnson, N. C. Larter, M. W. Campbell, A. E. Derocher, A. Kelly, M. Dumond, D. Allaire, and B. Croft. 2011. Subpopulation structure of caribou (*Rangifer tarandus* L.) in arctic and subarctic Canada. Ecological Applications [doi:10.1890/10-1410.1].

0 50 100 150
Kilometres

Projection: UTM Zone 14 NAD83

Data Sources:
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 National Topographic Database,
 Agnico-Eagle Mines Limited,
 Department of Environment
 (Gov't of Nunavut)
 Gov't of Northwest Territories



Figure 9.5: 2016 Caribou Telemetry Data – Late Summer and Fall Seasons (August 1 - October 14)

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By:



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2016 Satellite-collared Caribou Telemetry Path

— Fall Rut

— Early Winter

Legend

Annual Range*

- Ahiak
- Beverly
- Lorillard
- Qamanirjuaq
- Wager Bay
- All-Weather Access Road
- Local Study Area
- Regional Study Area

* Official home ranges and calving grounds are from the following publication: Nagy, J. A., D. L. Johnson, N. C. Larter, M. W. Campbell, A. E. Derocher, A. Kelly, M. Dumond, D. Allaire, and B. Croft. 2011. Subpopulation structure of caribou (*Rangifer tarandus* L.) in arctic and subarctic Canada. Ecological Applications [doi:10.1890/10-1410.1].

0 50 100 150
Kilometres

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Department of Environment
(Gov't of Nunavut)
Gov't of Northwest Territories



Figure 9.6: 2016 Caribou Telemetry Data – Fall Rut and Early Winter Seasons (October 15 - December 31)

Meadowbank Gold Project

Prepared for:

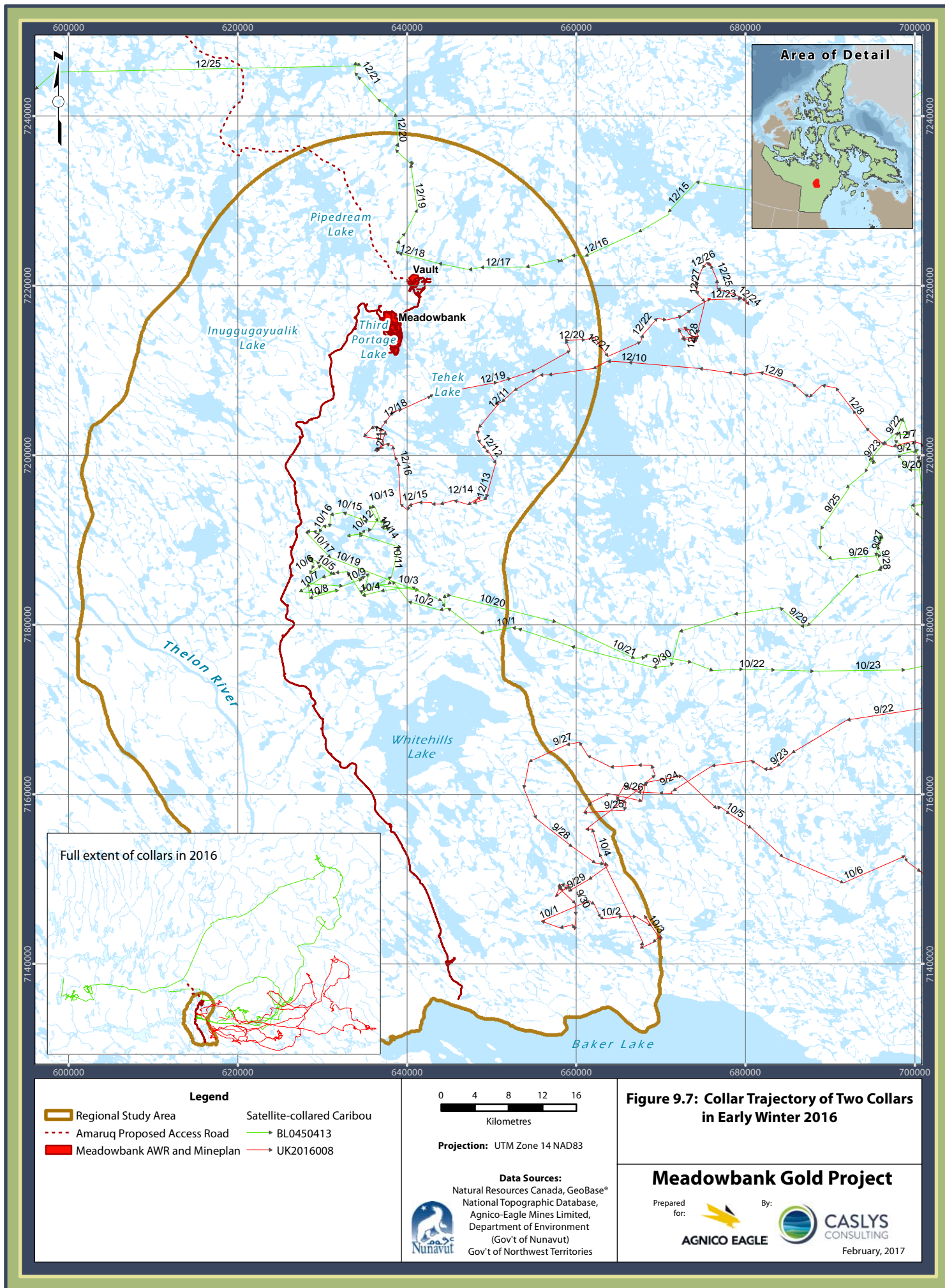


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All Seasons

An overview of collared Caribou distribution in 2016 for all seasons is provided in **Figure 9.1**. These data include all remaining active collars from 2013, 2015, and 2016 deployments around the Baker Lake area. General trends in seasonal distribution are evident and are in most cases comparable to findings from previous years for animals collared in this area. Collared Caribou calved (medium green symbol) in four distinct areas: 1) McLoughlin Bay (Ahiak herd); 2) the base of the Boothia Peninsula, between Rasmussen Basin and Kugaaruk (Ahiak herd); 3) between Chesterfield Inlet and Wager Bay (Lorillard herd); and 4) south of Chesterfield Inlet in the traditional calving grounds of the Qamanirjuaq herd. As in most monitoring years to date, no collared Caribou were found within the Meadowbank RSA during the calving or post-calving seasons. In winter, animals were either north of the Thelon River system from east of Baker Lake to east of Bathurst Inlet, or on Qamanirjuaq wintering grounds (see discussion below).

Within the Meadowbank RSA, collared Caribou were present during the spring, late summer, fall, and early winter, but their movements appeared more restricted than in previous monitoring years (**Figure 9.2**). Collared Caribou moved across the northern edge of the Meadowbank RSA (and LSA) during spring migration, moving up and around the mine site but not across the AWAR. Limited to no movement of collared Caribou across the Meadowbank RSA and AWAR was observed during the fall migration (see **Figure 9.2**), and some collared animals displayed a deflection pattern away from the AWAR during this period (**Figure 9.7**). Agnico Eagle continues to work with the GN to evaluate the collaring and monitoring data to ensure the protection of regional caribou movements.

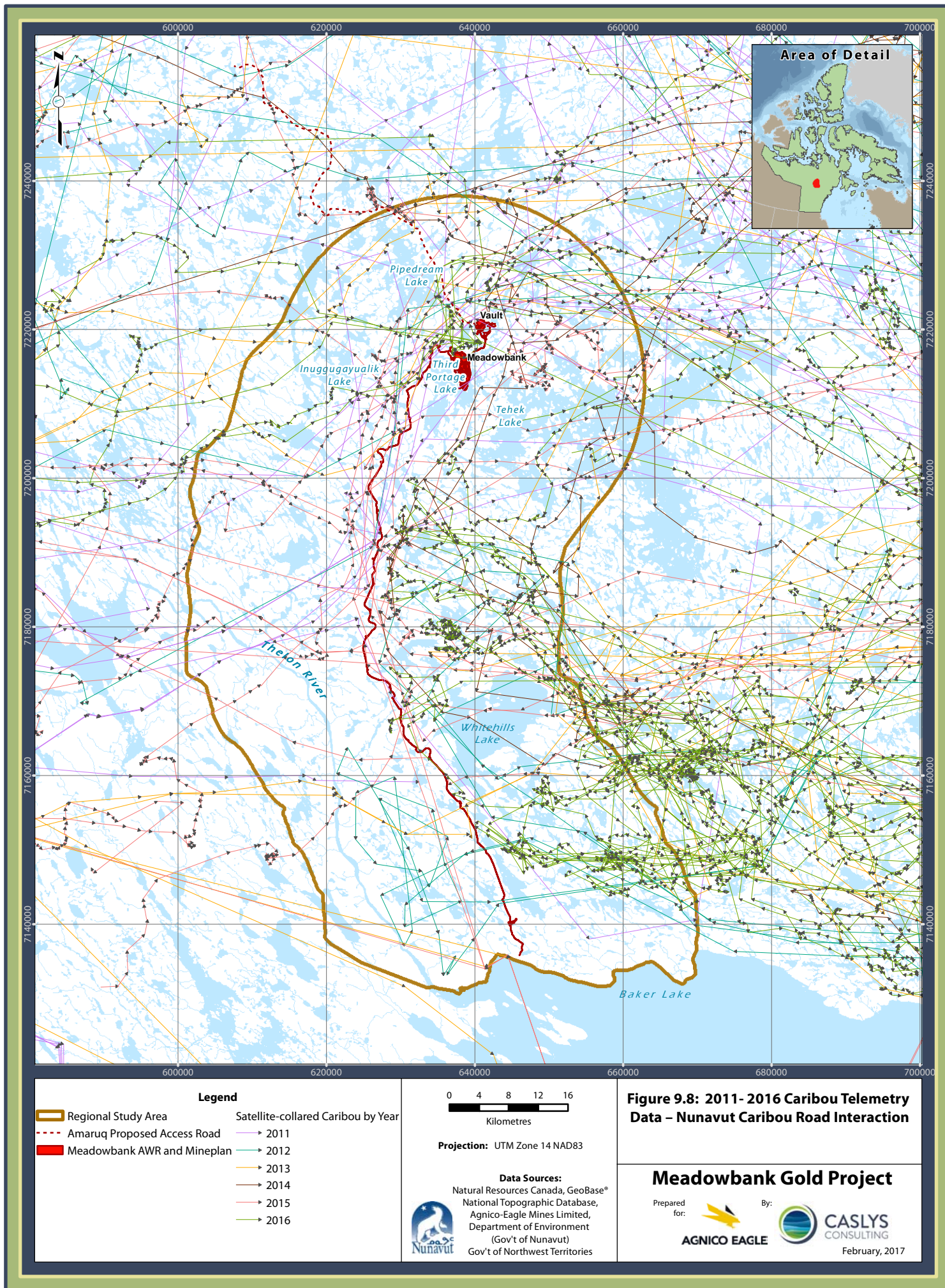
At the end of 2016, 24 satellite collars originally deployed near Baker Lake continued to be active and tracked, with results being downloaded on a regular basis. Caribou collaring maps are posted at the Meadowbank mine site for staff to observe; however, maps are slightly out of date and do not depict current locations.

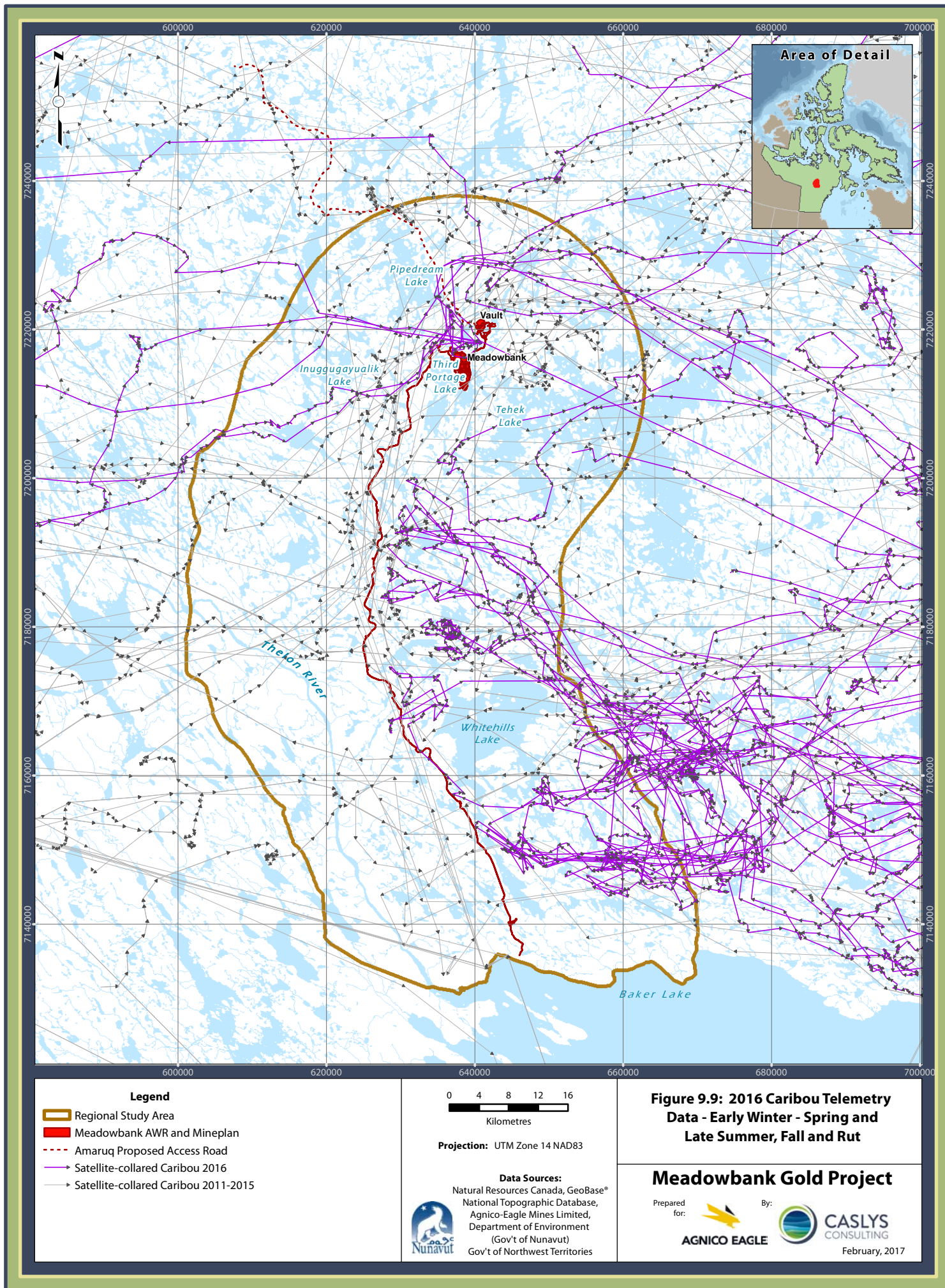
9.7 CARIBOU MIGRATION PATTERNS

A summary of Caribou migration patterns, which synthesizes migration information from satellite-collaring data to 2012 and was developed by the GN for the spring and fall migrations, was provided in the 2014 annual report. As these figures have not been updated, they are not discussed in this year's report.

Figure 9.8 shows all walk lines of collared Caribou within the Meadowbank RSA since 2011 (six years of data). Collared animals are observed throughout the RSA (typically around spring and fall migratory periods), but more movement has been recorded on the western side of the AWAR since data collection began in 2011. A pattern of animals being deflected from the AWAR appears to be evident. This pattern can be seen in **Figure 9.2**, which includes all 2016 data, and **Figure 9.9**, which highlights 2016 movement in the RSA to comparable historic data.

In 2017, Agnico Eagle will discuss within the HTO the best path forward to ensure caribou data continue to integrate elders and local HTO input.





9.8 ACCURACY OF IMPACT PREDICTIONS

A summary of the impact predictions identified in the TEMP is provided in **Table 9.1**. The 2016 satellite-collaring data were compared to the impact prediction thresholds to evaluate adherence to the impact predictions and the provision of adaptive management, as either a necessary or proactive measure.

Table 9.1: Accuracy of Impact Predictions – Satellite-collaring Data

Potential Effect	Threshold	Threshold Exceeded (2016)	Adaptive Management Implemented	Status
Sensory Disturbance	Mine-related construction and operation activities will not preclude Caribou and Muskoxen from using suitable habitats beyond 500 m of mine buildings, facilities and roads. Threshold is unnatural caribou use patterns beyond 1,000 m.	POSSIBLE	YES. Road closures and notices. Further analysis will be conducted by GN (in partnership with Agnico Eagle)	Satellite-collaring data Daily and weekly mine-site ground surveys AWAR Road Surveys
Hunting by Baker Lake Residents	Caribou herds will not be significantly affected by year-round access to the RSA.	Not Completed in 2016	NA	Satellite-collaring data Hunter Harvest Study

9.9 MANAGEMENT RECOMMENDATIONS

The satellite-collaring data depict Caribou movements within and through the Meadowbank RSA and LSA during the spring, late summer, fall, and early winter seasons with no occurrences during the other seasons. As observed in 2015, the AWAR may be altering natural movements patterns by collared Caribou (see **Figures 9.2, 9.7, 9.8 and 9.9**). A more detailed analysis of Caribou monitoring, collar data, hunter harvest activity, and other potential influences on Caribou movement and migration will be conducted in 2017 to determine whether project-related effects are occurring.

Agnico Eagle environment department should continue to closely monitor Caribou movement in the weeks leading up to spring and fall migrations using the latest available satellite-collaring and AWAR survey data as well as incidental reports from staff utilizing the AWAR on a regular basis (e.g., security personnel). Notification and announcements, staff re-education, specific dispatch protocols, and temporary road closures should continue to be implemented, as in previous years, as a proactive adaptive management strategy.

SECTION 10 • SUMMARY

The 2016 Wildlife Monitoring Summary Report describes the data collected to date from the various monitoring programs, and describes natural and mine-related variability and potential mine-related effects within wildlife populations.

In 2016, monitoring efforts continued to focus on areas immediately around the mine site and AWAR and Vault Road. At this local scale and within this year's work plan, emphasis was on monitoring presence and success of raptors, as well as monitoring and management of wildlife presence near the mine facilities and infrastructure. More regional-scale monitoring efforts focused on Caribou movement through ongoing satellite-collaring studies.

Available data up to 2016 indicate a possible effect from mine-related activities, especially the AWAR, to migrating Caribou. No collared Caribou crossed the AWAR from east to west during fall migration in 2016, and deflection patterns were observed. Further studies will be conducted in 2017 to determine if project-related effects have occurred. No proactive closure of the AWAR was required in the fall of 2016 since no large herds of Caribou were observed to be approaching the road, further supported by lower than typical Caribou numbers recorded along the AWAR during regular surveys.

A Muskox herd of 15 to 30 individuals was observed around the LSA from May to mid-June, and along AWAR for the remainder of June. Road closures were required as a proactive protective measure for Muskox on three occasions during this period, which is not a pattern previously observed.

In 2016, the threshold level of one mortality was exceeded for mine-related waterfowl mortality. In addition, possible disruption of Caribou movement patterns may have occurred; therefore, discussions with HTO and GN personnel will be planned in 2017 to address the need for more targeted monitoring or analysis of Caribou movement in the area around Meadowbank, including hunter harvest activity, and possibly more effective management and mitigation strategies. A summary of potential project effects, threshold levels, and the 2016 monitoring results is provided in **Table 10.1**.

Monitoring programs will continue to evolve throughout the life of the mine, contingent on data quality objectives and the necessity for adaptive management strategy implementation and subsequent effectiveness monitoring. Adjustments to the intensity and frequency of monitoring and the extent of statistical analyses will vary between years depending on observed trends to date, data gap analysis, and determinations of effect.

Table 10.1: Potential Project Effects, Thresholds, and Results of Monitoring in 2016.

Potential Effect	Thresholds	Monitoring Methods	Frequency	Completed in 2016	Threshold Exceeded (2016)
Vegetation (Wildlife Habitat)					
Habitat Loss	Mine Site – 867 ha AWAR – 281ha	Ground Surveys, Mapping, GIS Analysis	Every three years (next is 2017)	NO	NA
Habitat Degradation by Contamination	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Habitat Reclamation following Mine Closure	NA	Ground Surveys, Vegetation Plots, Mapping	Every three years to 11 years post-closure	NO	NA
Ungulates					
Habitat Loss and Degradation	Growing – 240 ha of High Suitability Habitat Winter – 191 ha of High Suitability Habitat	Ground Surveys, Mapping, GIS Analysis	Every three years (next in 2017)	NO	NA
Sensory Disturbance	Mine Site - 500m AWAR – 1,000m	Ground Surveys, Satellite-collaring	Daily / weekly	YES	POSSIBLE Indication of disturbance (follow up work by GN on road-related effects)
Vehicle Collisions	1 individual	Ground surveys, Collision Reporting System	Mine site – daily AWAR - >1/week	YES	NO No mortality in 2016
Hunting by Baker Lake Residents	20% Change in Harvest Patterns in RSA from Historic	Hunter Harvest Study	Yearly	NO	NA
Other Mine-related Mortality	1 individual	Ground surveys	Daily	YES	NO No mortality at mine to date
Exposure to Contaminated Water or Vegetation	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA

Table 10.1: Continued.

Potential Effect	Thresholds	Monitoring Methods	Frequency	Completed in 2016	Threshold Exceeded (2016)
Predatory Mammals					
Project-related Mortality	1 individual	Ground Surveys, Collision Reporting System	Mine site – daily AWAR - >1/week	YES	NO
Small Mammals					
Habitat Loss and Degradation	178 ha of High Suitability Habitat	Ground Surveys, Mapping, GIS Analysis	Every three years (next in 2017)	NO	NA
Project-related Mortality	100 Individuals	Ground Surveys, Collision Reporting System	Mine site-daily AWAR - >1/week	YES	NO
Exposure to Contaminated Water or Vegetation	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Raptors					
Healthy Prey Populations	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Disturbance of Nesting Raptors	1 Nest Failure	Active Nest Monitoring	Nests within 200 m - daily Nests from 200 to 1000 m - weekly	YES	NO
Project-related Mortality	1 individual	Ground Surveys, Collision Reporting System	Mine site - daily AWAR - >1/week	YES	NO

Table 10.1: Continued.

Potential Effect	Thresholds	Monitoring Methods	Frequency	Completed in 2016	Threshold Exceeded (2016)
Waterbirds					
Habitat Loss and Degradation	518 ha of High Suitability Habitat	Ground Surveys, Mapping, GIS Analysis	Every three years (next in 2017)	NO	NA
Disturbance of Nesting Waterfowl	1 Nest Failure	Waterfowl Nest Surveys	Yearly - for active nests within 200 m	YES	NO
Exposure to Contaminated Water or Vegetation	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Project-related Mortality	1 individual	Ground Surveys, Collision Reporting System	Mine site - daily AWAR - >1/week	YES	YES 1 dead juvenile Merganser during Phaser Lake fish-out
Other Breeding Birds					
Habitat Loss and Degradation	322 ha of High Suitability Habitat	Ground Surveys, Mapping, GIS Analysis	Every three years (next in 2017)	NO	NA
Project-related Mortality	50 Individuals Per Year	Ground Surveys, Collision Reporting System	Mine site - daily AWAR - >1/week	YES	NO
Exposure to Contaminated Water or Vegetation	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Changes in Breeding Bird Populations	20% Change from Natural	Breeding Bird Plots and Transects	PRISM – every three years (next in 2018) Transects - suspended	NO	NA

SECTION 11 • LITERATURE CITED

- Agnico Eagle Mines Ltd. (AEM) 2014. Meadowbank Gold Mine Project. Wildlife Protection and Response Plan. Version 3.
- Cumberland Resources Ltd. 2006. Meadowbank Gold Mine Project Terrestrial Ecosystem Management Plan (TEMP). Final Report, December 2006.
- Final Environmental Impact Statement (FEIS). 2005. Environmental Impact Statement – Meadowbank Gold Project. Cumberland Resources Ltd.
- Interdisciplinary Systems (IDS) Ltd. 1978. Effects of exploration and development in the Baker Lake area. Vol. 1 - Study area. Prepared for the Department of Indian Affairs and Northern Development, Ottawa, Ontario. 309 pp + maps.
- Nagy, J. A., D. L. Johnson, N. C. Larter, M. W. Campbell, A. E. Derocher, A. Kelly, M. Dumond, D. Allaire, and B. Croft. 2011. Subpopulation structure of caribou (*Rangifer tarandus* L.) in arctic and subarctic Canada. *Ecological Applications* 21: 2334-2348.



MEADOWBANK GOLD MINE PROJECT
2016 WILDLIFE MONITORING SUMMARY

APPENDIX A

2016 Wildlife Observation Records

Meadowbank Wildlife Log - January 2016

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2016-01-06	10:30	Observation	Arctic Hare	1	Meadowbank Dispatch	Running	Randy S.	None
2016-01-06	9:30	Observation	Raven	4	Sludge Dump	Eating	Randy S./Tom T.	None
2016-01-07	9:30	Observation	Caribou	8	Near Vault Camp on the Road	Grazing	Randy S./Tom T.	Caribou were 100+ meters from the road.
2016-01-07	10:00	Observation	Caribou	2	Vault Ring Road	Walking on Haul Road	Randy S./Tom T.	Blocked access to Vault pit and slowly deterred Caribou away from Vault Haul Roads.
2016-01-09	10:30	Observation	Caribou	2	Vault Ring Road	Walking on Haul Road	Martin T.	Blocked access to Vault pit and slowly deterred Caribou away from Vault Haul Roads.
2016-01-10	9:00	Observation	Fox	1	Site Services area	Walking on road going to Nova Camp	Randy S.	None
2016-01-10	12:00	Observation	Fox	2	Incinerator area	Running	Randy S.	None
2016-01-10	16:00	Reported	Caribou	2	Vault Ring Road	Running	Mine Dispatch	Scouted the area around Vault including the ring road, nothing was observed.
2016-01-11	14:00	Reported	Caribou	2	Vault Ring Road	Grazing	Mine Dispatch	Checked area, and deterred caribou away from haul truck road
2016-01-14	10:00	Reported	Caribou	2	Vault Ring Road	Grazing	Mine Dispatch	Checked area, and deterred caribou away from haul truck road
2016-01-15	9:00	Observation	Caribou	2	Vault parking area	Grazing	Ian B.	Pushed them away following with truck behind them. Caribou are persistent. They were going away and then coming back.
2016-01-15	11:00	Observation	Caribou	2	Vault Ring Road	Grazing	Ian B.	Deterred them off haul road. Could not see where they went as weather was deteriorating.
2016-01-15	11:20	Observation	Caribou	8	Wally Lake area	Grazing	Jamie K.	Caribou were about 20 meters from the road. Environmental technician observed them for few minutes. Looks like they will not go anywhere inside the Mining area.
2016-01-16	17:00	Observation	Caribou	2	Vault Ring Road	Grazing	Ian B.	Looked for them. It is hard to see them in the dark.
2016-01-17	9:00	Observation	Fox	1	East dike	Walking in circles	Jean-Michel D.	Monitored the area. Fox look blind and possibly injured. Upon inspecting fox - it is blind but not injured.
2016-01-17	13:30	Deterring	Caribou	2	Vault WTP	Not known	Jamie K./Robin A.	Deterred them from Vault parking area. Caribous are coming back.
2016-01-17	16:15	Others	Fox	1	East dike	Not known	Jamie K.	Environmental Technician monitored the area. Fox could not be seen.
2016-01-19	17:00	Observation	Fox	3	Meadowbank Landfill	Walking around	Randy S.	They ran off when technician pulled in with truck.
2016-01-20	11:00	Deterring	Caribou	2	Vault Ring Road	Walking	Robin A./Randy S.	Used flares and screamers to deter them towards WTP
2016-01-21	10:00	Observation	Caribou	8	Vault parking area	Walking	Ian B.	Caribou were at Vault parking, worker used truck to pushed them towards Phaser Lake.
2016-01-21	10:00	Observation	Caribou	2	Vault Camp	Grazing	Robin A./Randy S.	None
2016-01-22	8:00	Observation	Caribou	2	Vault Camp	Grazing	Mine Dispatch	None
2016-01-22	11:40	Observation	Caribou	5	Vault Camp	Grazing	Randy S./Victor U.	None
2016-01-22	14:44	Reported	Wolverine	1	Dogleg Lake area	Running	Randy S.	Wolverine observed chasing a caribou.
2016-01-23	3:51	Reported	Caribou	15	Vault road	Grazing	Mine Dispatch	Went to area, no caribou were observed - heading back when the sun is out.
2016-01-23	9:45	Reported	Wolverine	1	EMR	Running	Daniel A.	None
2016-01-24	11:00	Observation	Fox	1	Hazmat area	Running	Randy S.	None
2016-01-24	14:15	Observation	Caribou	2	Vault Ring Road	Grazing	Randy S.	Caribou deterred when Environmental Technician pulled in area with truck.
2016-01-25	16:00	Observation	Wolf	5	Vault road (east side)	Running	Randy S./Jason B.	Wolf was chasing caribou
2016-01-25	16:25	Observation	Caribou	2	Vault parking area	Running	Randy S./Tom T./Robin A.	Deterred onto tundra with pick up trucks

2016-01-27	10:00	Observation	Caribou	2	Vault Camp area	Grazing	Tom T.	Stayed in the area. Caribou tried to cross road to get to Vault Camp. Shot 2 deterrents in the air to keep them on tundra. Caribou went approximately 100 yards away from the road but stayed in the area.
2016-01-28	9:30	Reported	Caribou	1	Bay Goose	Running	NB - Dewatering	Caribou was seen running away from 7 wolves.
2016-01-28	9:30	Reported	Wolf	7	Bay Goose	Running	NB - Dewatering	Wolf was chasing Caribou from Bay Goose towards the Lake.
2016-01-29	11:30	Observation	Caribou	2	Vault Camp area	Grazing	Tom T.	None - Caribou were 100+ yards from the road
2016-01-31	15:00	Reported	Caribou	2	Vault Camp	Running	MA - Mine	Mine Dept called Environmental Department to report a near miss with Caribou and pick up. Environmental technicians went to assess the area. Pick up truck was travelling on Vault Road near the Vault Camp when 2 Caribou ran across the berm at Vault Camp and onto the tundra
2016-01-31	15:30:00	Observation	Caribou	2	Across from Vault Camp	Lying down	Tom T./Martin T.	Environmental technicians stayed in the area for approximately 30 mins. Fired 4 scare cartridges to move Caribou away from road

Meadowbank Wildlife Log - February 2016

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2016-02-02	9:45	Observation	Caribou	2	Vault Camp	Grazing	Tom T	Stayed in the area for approximately 15mins. Fired 4 scare cartridges when caribou moved close to the road
2016-02-02	15:00	Reported	Wolverine	1	Near Vault Road	Running North	Mine HTR driver	No action - reported that animal was quite far from the road
2016-02-02	18:15	Observation	Fox	1	Warehouse row 7	Crossing road	Tom T/ Martin T	Waited until animal crossed the road - animal was heading towards TPL
2016-02-06	8:22	Reported	Caribou	2	Entrance to Vault road	Grazing, walking SE	Mine Dispatch	Monitored caribou, steadily heading Southeast of Vault road. Observed when caribou were about 200 m from the Vault road
2016-02-06	17:00	Observation	Caribou	2	Kitchen at Vault camp	Unknown	Eric R	Environmental Dept monitored the area but didn't see caribou.
2016-02-06	17:03	Observation	Fox	1	Pit E Dump	Walking	Peter U	Monitored the Pit E dump area and part of East dike.
2016-02-07	14:00	Observation	Caribou	2	Kitchen at Vault camp	Grazing, walking SE	Jamie K	Deterred them by walking towards them
2016-02-09	10:00	Observation	Caribou	2	Kitchen at Vault camp	Grazing, walking SE	Jamie K	Deterred them by walking towards them
2016-02-09	14:03	Reported	Caribou	2	Ring road by Phase 2	Grazing, walking SE	Mine Dispatch	Checked around the area where they were reported, did not observe.
2016-09-10	9:00	Reported	Caribou	2	Ring road	Walking	Mine Dispatch	Environmental Dept monitored the area but didn't see caribou.
2016-02-10	16:50	Reported	Caribou	2	Kitchen at Vault camp	Walking	Unknown	Environmental Dept monitored the area but didn't see caribou.
2016-02-15	0:27	Reported	Caribou	2	Kitchen at Vault camp	Walking	Mine Dispatch	None
2016-02-15	8:30	Reported	Caribou	2	Tower at vault	Walking	Mine Dispatch	Were by the tower but off the road. Monitored for a while kept away from road.
2016-02-16	10:30	Observation	Caribou	2	Vault Explosive Area	Walking, grazing	Manon T	Were on the road. Walked away when approached them with pick up. Grazing at 100m from the road.
2016-02-16	11:00	Observation	Caribou	2	East of Vault Road halfway to Vault	Grazing	Manon T	Were 200m from the road. No action.
2016-02-17	8:45	Reported	Caribou	2	Crossing Vault Road to Vault Camp	Walking	Mine Dispatch	Environmental Dept monitored the area but didn't see caribou.
2016-02-21	9:00	Observation	Caribou	2	Crossing Vault Road to Vault Camp	Running	Tom T/Randy S	Deterred them by walking towards them
2016-02-22	8:30	Observation	Caribou	2	Crossing Vault Road to Vault Camp	Walking	Tom T/Randy S	Deterred them by walking towards them
2016-02-22	15:00	Reported	Arctic hare	8	East Dike	Grazing	Orest/Dewatering	None
2016-02-23	8:00	Observation	Caribou	3	Vault road (east side)	Grazing	Tom T/Randy S	Monitored caribou. They are 1km away from road.
2016-02-25	6:00	Reported	Ptarmigan	1	Push back	Hiding	Mine Dispatch	Environmental Dept was informed that a ptarmigan was injured and hiding under Drill #1
2016-02-25	8:00	Observation	Ptarmigan	1	Push back	Hiding	Erika V	Checked under drill #1 and the ptarmigan flew out of the pit (bird was not injured). Ptarmigan was not seen afterwards.
2016-02-27	14:20	Reported	Wolves	2	AWAR km 86	Walking	Ronnie N	None
2016-02-27	15:00	Observation	Caribou	3	Crossing Vault Road to Vault Camp	Walking	Tom T/Randy S	No action needed as caribou were far from the road
2016-02-29	7:34	Reported	Wolverine	1	Across from Airstrip near Fresh Water Barge road	Walking	Site Services	No action. Wolverine was reported turning away from camp and going towards TPL
2016-02-29	15:00	Observation	Caribou	3	Crossing Vault Road to Vault Camp	Grazing	Tom T/Randy S	No action; far from vault road

Meadowbank Wildlife Log - March 2016

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2016-03-01	4:34	reported	wolverine	1	AWAR km 103	running	Phillippe	None
2016-03-01	9:00	observation	Caribou	6	Fresh Water Barge road	grazing	Tom T/Randy S	None.Caribou were far from the road.
2016-03-01	15:30	reported	Caribou	6	AWAR km 105	grazing	BL Dispatch	None.Caribou were far from the road.
2016-03-08	9:00	observation	Caribou	5	Fresh water barge hill	grazing	Unknown	None.Caribou were far from the road.
2016-03-09	8:00	observation	Caribou	4	AWAR km 104	grazing	Jamie K/Fanny L	None.Caribou were far from the road.
2016-03-10	5:30	observation	wolverine	1	Sludge Dump	grazing	Jamie K/Fanny L	Deterred.
2016-03-10	5:45	observation	Caribou	5	Fresh water barge hill	grazing	Jamie K/Fanny L	Were scared away by the wolverine.
2016-03-12	14:10	observation	Arctic Hare	3	Baygoose Dyke	Running away	Jamie K/Fanny L	None
2016-03-13	9:00	observation	Caribou	6	China sump	grazing	Jamie K/Robin A	None
2016-03-13	9:22	observation	Caribou	4	Fresh water barge hill	grazing	Jamie K	None
2016-03-16	13:30	observation	Caribou	12	Saddle Dam area	grazing	Randy S	None.Caribou were far from the road.
2016-03-16	15:25	reported	Caribou	12	Saddle Dam area	grazing	Jay	None.Caribou were far from the road.
2016-03-16	16:30	observation	Arctic Hare	2	Incinerator area	Running	Randy S	None
2016-03-17	10:45	observation	Caribou	10	Saddle Dam area	grazing	Randy S	None.Caribou were far from the road.
2016-03-17	11:10	observation	Arctic Fox	1	Incinerator area	running	Randy S	None. They ran away from the area.
2016-03-18	15:00	observation	Caribou	3	Vault camp	running	Randy S	Parked truck on left side of the road opening to prevent caribou from running on the haul truck road; Caribou ran on to the tundra and started grazing
2016-03-19	9:40	observation	Arctic Fox	1	Incinerator area	running	Randy S/Robin A	None
2016-03-19	8:45	observation	Arctic Fox	1	East dike	running	Randy S	None
2016-03-20	19:00	observation	wolverine	1	Site service building	running	Randy S	Monitored where the Wolverine was moving until it was a safe distance from camp
2016-03-22	13:00	observation	Caribou	4	Fresh water barge hill	Laying down	Randy S/Tom T	None
2016-03-22	14:00	reported	Musk-Ox	5	EMR	grazing	Peters expediting	None
2016-03-23	9:00	observation	Caribou	10	Saddle Dam area	grazing	Tom T/Randy S	None.Caribou were far from the road.
2016-03-24	9:00	observation	Caribou	4	EMR Hill	walking	Tom T/Randy S	None.Caribou were far from the road.
2016-03-24	20:05	reported	Caribou	10+	AWAR km 83	grazing	BL Dispatch	None
2016-03-25	15:00	observation	Arctic fox	1	Incinerator area	running	Randy S	Drove toward ash bin and the fox ran over berm leading to lake.
2016-03-25	10:30	observation	Caribou	12	EMR Hill	grazing	Tom T	None
2016-03-26	10:30	observation	Caribou	30	Between Np-2 and emulsion	grazing	Tom T	None
2016-03-28	9:20	observation	Arctic Hare	2	Airstrip	running	Tom T/Randy S	None
2016-03-28	18:00	reported	Caribou	5	Airstrip	running	Dewatering Dept	Caribou were moving toward lake/ no action needed/no planes landing or leaving.
2016-03-29	7:05	reported	Caribou	3	EMR Hill	walking	Unknown	None
2016-03-29	8:30	reported	Caribou	12	AWAR km 61	walking	Unknown	None
2016-03-29	15:40	reported	Caribou	30	AWAR km 60	Grazing	Donald G	None.Caribou were far from the road.
2016-03-29	15:00	observation	Arctic Hare	2	FGL air sampler	grazing	Fanny L/Tom T	None
2016-03-29	14:00	reported	Caribou	2	Airport tower	running	Airport Controller	Deterred them off the airstrip.
2016-03-29	17:30	observation	Caribou	3	3rd portage lake	crossing	Fanny L/Tom T	None
2016-03-30	9:00	observation	Caribou	5	East of vault road	grazing	Fanny L/Tom T	None
2016-03-30	10:45	observation	Caribou	8	WTP	grazing, then walking away	Fanny L	Deterred them.
2016-03-30	11:40	observation	Caribou	8	EMR hill	Laying down	Fanny L	None

Meadowbank Wildlife Log - April 2016

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2016-04-03	12:00	observation	Caribou	7	Between storm water dike and airstrip	grazing	Jerome C	None
2016-04-03	21:05	observation	Caribou	100	AWAR Km 4	grazing	Thomas E	None
2016-04-04	11:40	observation	Caribou	30	Vault Road	grazing	Jamie K/Fanny L	Informed Vault supervisor. He will let Enviro Dept know when caribou get too close to the road
2016-04-04	17:00	observation	Caribou	30	Vault Road	grazing	Jamie K/Fanny L	Informed Vault supervisor. He will let Enviro Dept know when caribou get too close to the road
2016-04-05	9:45	Deterring	Caribou	2	airstrip	walking	airport tower	Deterred. They left northwest of the airstrip.
2016-04-05	9:45	Deterring	Caribou	3	NW of airstrip	Laying down	Fanny L	Deterred
2016-04-05	9:45	Deterring	Caribou	3	NW of airstrip	grazing	Fanny L	Deterred
2016-04-05	12:45	Deterring	Caribou	2	airstrip	walking	airport tower	Deterred
2016-04-05	14:00	Observation	Fox	1	Outside the kitchen	sleeping	Richard Jackson	Monitored the area. Not seen.
2016-04-05	11:50	Observation	Caribou	10	west of Saddle dam on the lake	Lying down	Fanny L	None
2016-04-05	15:00	Observation	wolverine	1	TPL	running away	Jamie K/Fanny L	None
2016-04-06	10:00	observation	Caribou	100	Vault Road	grazing	Jamie K/Fanny L	Kept monitoring. Mine dispatch notified.
2016-04-06	15:30	observation	Caribou	100	MBK Waste Dump	grazing	Jamie K/Fanny L	Kept monitoring. Mine dispatch notified.
2016-04-07	16:30	Deterring	wolf	1	Fuel farm/Core shack/Nova Camp/Quarry 23	walking around	Jamie K/Fanny L	Deterred
2016-04-07	9:30	observation	caribou	100	MBK Waste Dump	grazing/sleeping	Jamie K/Fanny L	Kept monitoring. Mine dispatch notified.
2016-04-09	18:15	observation	Caribou	10	North cell TSF	walking	Jamie K/Fanny L	Monitored the area to assess where they are heading out.
2016-04-09	21:15	reported	wolf	1	Outside Front Desk	walking	Jamie K/LO	Monitored the area. Followed him to Goose pit.
2016-04-09	21:00	monitoring	Caribou	10	EMR Hill	walking	Robin A	None.
2016-04-10	13:10	reported	wolf	1	Secondary Crusher	walking	Unknown	Followed wolf towards Third Portage Lake and Fresh water barge
2016-04-10	21:00	observation	wolf	1	Bay Goose area	lying down	Jamie K/Robin A	Has not moved since last deterring
2016-04-10	9:00	Observation	caribou	50	Vault road	walking, grazing, lying down	Jamie K/Fanny L	Reported to Mine dispatch to inform their drivers to use caution when on the Vault road.
2016-04-10	15:35	reported	wolf	1	incinerator area	walking, sniffing	Unknown	Was spotted near the Incinerator than towards Assay lab, Contractor FGL area, than back to the Incinerator area. Left the FGL area passing behind Overpad to Bay Goose area and lied down by a Waste rock. Deterred him.
2016-04-11	13:25	reported	wolf	1	Vault road heading north	walking and observing	Nelson B	Followed him to Vault magazine and away from mine site.
2016-04-11	13:00	reported	caribou	10	Between Quarry 23 and South cell	grazing	Unknown	Monitored the area.
2016-04-11	14:10	observation	caribou	50	SW of Vault camp	grazing and lying down	Jamie K/Fanny L	None.
2016-04-11	7:45	monitoring	wolf	1	Bay Goose area	Unknown	Jamie K/Fanny L	Was not in the area where we last observed it from the night before
2016-04-13	18:00	observation	wolf	1	secondary crusher	walking	Joe SS	Followed it.
2016-04-13	18:35	observation	wolf	1	AWAR km 105	walking	Security	None.
2016-04-14	8:00	observation	caribou	500	vault road turn lake	grazing	Tom T	None.

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2016-04-14	9:30	observation	caribou	30	west side of Vault road	grazing	Tom T/Robin A	None.
2016-04-15	16:00	observation	Caribou	200+	Drill Trail Lake near Vault Road	grazing	Tom T	None. Continue monitoring the area.
2016-04-16	10:00	reported	Fox	2	Bottom of Pit A Ramp	walking	Tom T	Monitored the area. Waited for fox to head off site to leave.
2016-04-16	11:00	observation	Caribou	300+	Between NP2 and Drill Trail/Turn Culverts	grazing and lying down	Tom T	None. Continue to monitor area in the event Haul Truck road needs to be closed if Caribou want to cross.
2016-04-17	15:00	observation	Caribou	100+	Vault Road	grazing and lying down	Brian I	None.
2016-04-18	10:25	reported	wolverine	1	KM5 Amarug Rd	walking and observing	Jean-Francois B	None.
2016-04-20	10:00	monitoring	caribou	7	South of Vault Refuge	grazing and lying down	Brian I	None
2016-04-22	16:30	reported	Wolf	1	Primary Crusher ramp	walking towards FGL	Tom T	Followed it.
2016-04-22	9:00	observation	Caribou	50+	KM2 Vault Road	grazing and lying down	Tom T	None
2016-04-22	9:15	observation	Caribou	100+	Vault Camp	grazing and lying down	Tom T	None
2016-04-22	13:20	observation	wolf	1	AWAR km 15	walking on Tundra	Randy S	None
2016-04-22	17:35	reported	Caribou	12	Airstrip	Walking towards TPL	Tom T	Responded to call and stayed in the area until the plane left site.
2016-04-22	15:00	reported	Wolf	1	Sana Crusher	lying down	Tom T	Responded to call. Wolf appears sick. Deterents used - wolf did not respond. The wolf eventually moved and crossed over to the central dike
2016-04-23	8:30	observation	Caribou	12	Airstrip	Grazing on top of the hill across the lake at the airstrip	Tom T/Randy S	None
2016-04-23	9:15	observation	Caribou	100+	Saddle Dam area	Grazing	Tom T/Randy S	None
2016-04-23	9:00	observation	Caribou	100+	Vault Road	grazing/laying down	Tom T/Randy S	None
2016-04-24	9:45	observation	Caribou	100+	Vault Road	grazing/laying down	Tom T/Randy S	None
2016-04-24	10:10	observation	Fox	1	Incinerator area	Running	Randy S	None
2016-04-24	15:00	observation	Wolverine	1	Tailings Pond	Running	Tom T/Randy S	None
2016-04-25	8:30	observation	Caribou	1	Airstrip	grazing/walking	Tom T/Randy S	None
2016-04-25	12:30	observation	Caribou	3	On lake near Bay Goose Dike	walking SE	Tom T/Randy S	None
2016-04-25	18:00	reported	Caribou	4	Emulsion Plant	Walking towards Third Portage Lake	Nick - Dyno	None
2016-04-26	15:00	observation	Caribou	7	Small Lake between NP2 and Turn Lake	grazing/walking	Tom T/Randy S/Fanny L	None
2016-04-26	18:10	reported	Caribou	25-30	AWAR km 20	walking	Peter T	None
2016-04-27	11:25	observation	Caribou	7	Airstrip	grazing/walking	Tower/ Fanny L	Deterred away from airstrip
2016-04-27	9:41	observation	Caribou	7	Airstrip	grazing/walking	Tom T/Randy S	None
2016-04-27	10:00	Observation	wolves	3	China sump/tailings	Unknown	Unknown	None
2016-04-27	14:40	observation	wolf	1	China sump/tailings	Unknown	Jerome C	Wolf not seen during patrol
2016-04-28	10:30	Monitoring	Caribou	2	Vault Road	grazing	Jamie K/Fanny L	Monitored the area.
2016-04-28	5:30	observation	caribou	300	Vault road	grazing/walking	Levi Q	None
2016-04-28	10:34	observation	Caribou	15	Km 57 AWAR	Unknown	Alex A	None
2016-04-28	11:45	observation	Caribou	8	TPL Outside kitchen	grazing	Jamie K/Fanny L/Martin T	None
2016-04-28	13:22	observation	Caribou	7 to 9	AWAR km 18	Unknown	Unknown	None
2016-04-28	7:15	Observation	Caribou	2	Vault Road	grazing	Jamie K/Fanny L	Patrol following reported observation.

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2016-04-29	7:45	observation	Caribou	14	Fresh water barge hill	grazing	Jamie K/Fanny L	None
2016-04-29	10:15	observation	caribou	~150	Emulsion plant	grazing	Jamie K/Fanny L	None
2016-04-29	10:28	observation	caribou	9	Fresh water barge hill	grazing	Jamie K/Fanny L	None
2016-04-29	15:00	observation	Caribou	50	Vault Road	walking/running south	Fanny L	None
2016-04-29	16:30	Observation	Caribou	35	Vault Road	walking west	Martin T	None
2016-04-29	8:00	observation	Caribou	13	Vault Road	walking/grazing	Jamie K/Fanny L	None. Monitored the area.
2016-04-29	14:07	observation	caribou	12	AWAR Km 94	grazing	Jamie K/Victor U	Stopped when caribou were observed, notified Baker Lake Dispatch to inform drivers using the AWAR to slow down when they observe caribou near the road
2016-04-30	9:20	observation	Caribou	20	Vault Road	walking away, west	Fanny L	Monitored the area.
2016-04-30	8:50	observation	Caribou	15	Airstrip	grazing	Tower/ Fanny L	None
2016-04-30	8:50	observation	arctic hares	3	Airstrip	running	Fanny L	None
2016-04-30	8:42	observation	wolf	1	China sump/tailings	walking	Junior K	Notified Environment Department.

Meadowbank Wildlife Log - May 2016

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2016-05-01	7:50	Detering	Wolf	1	Fresh water barge	walking and chasing caribou	Fanny L, Jamie K	Deterred
2016-05-01	8:00	observation	Caribou	15	Airstrip	being chased by wolf, walking north west	Fanny L, Jamie K	None
2016-05-01	8:20	observation	Caribou	10	Tailings Pond	walking NW and away from wolf	Fanny L, Jamie K	None
2016-05-01	11:00	observation	Wolf	1	China sump/tailings	came into sludge dump	Fanny L, Jamie K	Deterred
2016-05-01	11:25	observation	Caribou	8	Airstrip	grazing	Fanny L, Jamie K	None
2016-05-02	7:49	observation	Caribou	?	EMR hill	Unknown	Shannon R	None
2016-05-02	7:49	observation	Caribou	16	AWAR Km 33	Unknown	Ronnie N	None
2016-05-02	10:30	observation	Fox	1	Vault Pit	running	Fanny L	Deterred
2016-05-02	10:35	observation	Caribou	15	Vault Road	grazing	Fanny L	None
2016-05-02	17:06	observation	Caribou	12	AWAR Km 105	grazing and lying down	Site Services	None. Advised drivers to slow down.
2016-05-03	9:35	Reported	Caribou	1	AWAR Km 86	staying in the middle of the road	Ernie	None. Advised drivers to slow down.
2016-05-03	10:00	observation	Caribou	20	Tailings Pond	grazing	Fanny L	None. Advised airport controller.
2016-05-03	15:40	observation	Wolverine	1	Airstrip	running	Nolan A	None
2016-05-04	8:45	observation	Arctic hare	2	Airstrip	Running	Fanny L, Jamie K	None
2016-05-04	8:50	observation	Caribou	12	Tailings Pond	laying down / grazing	Fanny L, Jamie K	None. Advised airport controller.
2016-05-04	9:15	Reported	Caribou	?	AWAR km 91	grazing	Nolan A	None. Advised drivers to slow down.
2016-05-04	3:15	reported	Wolf	1	China sump/tailings	walking	Ray C	Reported, not seen.
2016-05-04	3:20	observation	Caribou	15	Airstrip	laying down	Fanny L	None
2016-05-05	10:15	observation	Caribou	15	Airstrip	grazing	Airport controler	Deterred. Not effective.
2016-05-05	11:20	Detering	Caribou	15	Airstrip	running	Airport controller Fanny L/Jamie K	None
2016-05-05	11:30	observation	Wolverine	1	Tailings Pond	running away	Fanny L, Jamie K	None
2016-05-06	11:45	Observation	Caribou	19	Airstrip	laying down / grazing	Fanny L/ Mickael BA	None
2016-05-06	13:40	Reported	Wolverine	1	Fresh water barge	running	Joe	Reported, not seen.
2016-05-07	11:20	observation	Musk-Ox	~30	Vault Road	running	Fanny L/ Mickael BA	None
2016-05-07	11:50	observation	Caribou	19	Tailings Pond	grazing	Fanny L/ Mickael BA	None
2016-05-07	13:10	reported	Musk-Ox	?	Vault road	going towards Vault road	Ian C	None
2016-05-07	13:46	observation	Musk-Ox	~30	Vault road	running	Fanny L/ Mickael BA/Jamie K	Monitored the area.
2016-05-08	8:00	reported	Musk-Ox	16	Vault Road	grazing	Unknown	Monitored the area.
2016-05-08	8:05	observation	Caribou	2	Vault Road	grazing	Fanny L, Jamie K	None
2016-05-08	11:20	reported	Musk-Ox	16	Vault Road	laying down / grazing / walking	Dispatch call	Monitored the area.
2016-05-08	21:00	reported	Grizzly	1	AWAR km 102	walking	Chesley F	Reported, not seen.
2016-05-09	5:20	reported	Musk-Ox	15	Portage RSF	walking	Roch C	None
2016-05-09	9:00	observation	Ptarmigan	30	EMR	flying west	Fanny L, Jamie K	None
2016-05-09	10:00	Observation	Musk-Ox	18	Camp	walking/grazing	dispatch, Fanny L	Monitored the area.
2016-05-09	13:00	Observation	Musk-Ox	18	Camp	walking/grazing	Fanny L	None
2016-05-10	7:30	observation	Fox	2	Vault Pit	walking	Fanny L/ Mickael BA	Deterred. Not effective.
2016-05-10	8:30	observation	Caribou	2	Vault camp area	grazing	Fanny L/ Mickael BA	none
2016-05-10	9:30	observation	Caribou	100+	AWAR km 49	grazing	Randy S/Alex	None
2016-05-10	10:00	observation	Caribou	50+	AWAR km 89	grazing	Randy S/Alex	None
2016-05-10	10:40	observation	Ptarmigan	8	AWAR km 103	walking	Randy S/Alex	None
2016-05-10	11:15	observation	Caribou	26	EMR hill	walking	Randy S/Alex	None
2016-05-10	11:50	observation	Ptarmigan	13	Exploration camp	walking	Randy S/Alex	None
2016-05-11	9:45	observation	Caribou	3	Vault road	grazing	Chesley F	None
2016-05-11	10:00	observation	Musk-Ox	20	Vault camp area	walking	Randy S/Mickael BA	None
2016-05-11	14:30	observation	Caribou	10	West diversion ditch	walking	Randy S/Mickael BA	None
2016-05-11	16:15	observation	Musk-Ox	20	Vault camp area	Grazing	Randy S/Mickael BA/Tom T	None
2016-05-11	16:45	observation	Wolf	1	Fresh Water Barge	Walking	Randy S/Mickael BA/Tom T	Monitored the area.
2016-05-12	11:30	observation	Musk-Ox	22	Vault Parking	Grazing	Randy S/Mickael BA/Tom T	None
2016-05-12	15:45	observation	Caribou	20	Vault Road	Grazing	Randy S/ Tom T	None
2016-05-12	15:55	observation	Musk-Ox	22	Vault camp area	laying down	Randy S/ Tom T	None
2016-05-13	8:00	observation	Musk-Ox	22	Vault camp area	laying down	Randy S/ Tom T/Mickael BA	None

2016-05-13	9:30	reported	Caribou	9	Vault RSF	grazing	Randy S/Mickael BA	None
2016-05-13	16:00	observation	Peregrine falcon	1	West diversion ditch	flying north	Randy S/Mickael BA	Monitored the area.
2016-05-14	9:30	observation	Ptarmigan	15	East dike	walking	Randy S/Tom T	None
2016-05-14	13:50	observation	Ptarmigan	12	EMR hill	sitting in the tundra	Randy S/Mickael BA	None
2016-05-14	15:00	observation	Caribou	9	Vault camp area	grazing	Randy S/Mickael BA	None
2016-05-14	15:00	observation	Musk-Ox	22	Vault camp area	sitting in the tundra	Randy S/Mickael BA	Monitored the area.
2016-05-15	14:55	reported	Caribou	10	Vault camp area	grazing	Mine dispatch	None
2016-05-15	13:50	observation	Caribou	5	Thrid Portage Lake	walking	Randy S/Mickael BA	None
2016-05-16	15:00	observation	Musk-Ox	22	Vault parking	grazing	Randy S/Mickael BA	None
2016-05-16	16:00	observation	Caribou	10	Vault Road	grazing	Randy S/Mickael BA	Monitored the area.
2016-05-17	8:00	observation	Caribou	20	Old WTP	grazing	Randy S/Tom T	None
2016-05-17	8:30	observation	Geese	100+	Freshwater barge	flying	Randy S/Tom T	None
2016-05-17	9:00	observation	Geese	38	Tailings Pond	swimming	Randy S/Tom T/Robin A	Deterred. Not effective.
2016-05-17	13:00	observation	Musk-Ox	22	Vault camp area	grazing	Randy S/Mickael BA	None
2016-05-17	15:00	observation	Rough legged hawk	1	Portage pit	flying	Randy S/Mickael BA	None
2016-05-18	9:20	observation	Ptarmigan	10	Vault camp area	walking	Randy S/Mickael BA	None
2016-05-18	10:30	observation	Musk-Ox	24	Vault camp area	lying down	Randy S/Mickael BA	None
2016-05-18	11:00	observation	Caribou	4	Airstrip	walking	Randy S/Mickael BA	None
2016-05-18	12:10	observation	Caribou	5	Assay Lab	grazing	Randy S/Mickael BA/Robin A/Tom T	Monitored the area.
2016-05-18	13:15	observation	Caribou	7	Vault Road	grazing	Randy S/Mickael BA	None
2016-05-18	15:30	observation	Gyrfalcon	1	Vault Road	flying	Randy S/Mickael BA	None
2016-05-19	8:00	observation	Musk-Ox	24	Vault camp area	grazing	Randy S/Mickael BA	None
2016-05-19	8:30	observation	Geese	30+	Tailings Pond	swimming	Randy S/Mickael BA	Deterred
2016-05-19	8:50	observation	Caribou	6	EMR hill	grazing	Randy S/Mickael BA	None
2016-05-19	9:00	observation	Caribou	9	Geology core shack	grazing	Randy S/Mickael BA	None
2016-05-21	10:35	observation	Musk-Ox	24	Vault camp	grazing	Randy S/Erika V	None
2016-05-21	10:00	Observation	Caribou	8	Vault road	grazing	Randy S	None
2016-05-21	16:10	observation	Geese	100+	South Cell Tailings Pond	floating	Randy S	Deterred
2016-05-21	17:00	observation	Caribou	30	North Cell tailings pond	grazing	Randy S	Deterred
2016-05-22	9:00	observation	Musk-Ox	24	Vault Camp	grazing	Randy S/Patrick A	None
2016-05-22	13:30	Observation	Caribou	30	Vault road	walking	Randy S	Monitored the area.
2016-05-22	14:00	observation	Peregrine falcon	1	Vault road	flying	Randy S	None
2016-05-22	16:00	observation	Caribou	12	Tailings Pond	walking	Randy S	None
2016-05-23	8:00	observation	Caribou	11	Vault Road	grazing	Randy S	None
2016-05-23	9:15	observation	Musk-Ox	24	Vault Camp	lying down/grazing	Randy S/Patrick A	None
2016-05-23	10:40	observation	Caribou	16	NP2 Lake	lying down	Randy S	None
2016-05-23	16:00	observation	Snow owl	1	Sludge dump	sitting on top of pump	Randy S	None
2016-05-25	8:00	Reported	Caribou	~20	Airstrip	grazing	Air traffic tower	None
2016-05-25	8:30	observation	Caribou	8	Vault Road	grazing	Jamie K	Advised driver to slow down.
2016-05-25	8:30	observation	Musk-Ox	18	Vault Road	grazing and lying down	Jamie K	Advised driver to slow down.
2016-05-26	7:00	Reported	Caribou	1	Portage Pit A	walking	Mine supervisor	Reported, not seen.
2016-05-26	7:10	Reported	Wolf	1	Third Portage lake	walking	Airport Tower Controller	None
2016-05-26	10:45	observation	Wolf	2	Third Portage lake	walking then lying down	Jamie K/Patrick A	None
2016-05-26	10:45	observation	Canada geese	12	Airstrip	grazing	Jamie K/Patrick A	None
2016-05-26	11:15	observation	Caribou	10	China sump/tailings	grazing	Jamie K/Patrick A	None
2016-05-27	8:30	observation	Eagle	1	Old DWP plant	eating a cracass	Patrick A	None
2016-05-27	5:10	observation	Wolf	2	North Tailings pond	walking	Ronald - Site Services	None
2016-05-27	7:30	observation	Caribou	?	Vault Road	walking/grazing	Mine Supervisor	None
2016-05-28	10:00	observation	Wolverine	1	EMR	walking	Warehouse student	None
2016-05-28	10:00	observation	Grizzly	1	EMR	walking	Warehouse student	None
2016-05-28	10:00	observation	Caribou	?	EMR	grazing	Warehouse student	None
2016-05-29	13:10	observation	Snow geese	?	Unknown	flying	Jamie K/Patrick A	None
2016-05-29	13:45	observation	Peregrine falcon	1	Vault road	flying	Jamie K	None
2016-05-30	7:45	observation	Snow geese	30	EMR	grazing/walking	Jamie K/Patrick A	None
2016-05-30	10:15	observation	Caribou	7	Vault road	walking	Patrick A	None
2016-05-30	10:25	observation	Musk-Ox	21	Vault road	lying down	Patrick A	None

Meadowbank Wildlife Log - June 2016

Date	Time	Location	Wildlife Species	Quantity	Behavior	Observer Name #1	Observer Name #2	Action
6/1/2016	7:30:00 AM	Vault Area	Musk-ox	21	Resting	Jamie K		No action required
6/1/2016	9:00:00 AM	Vault Area	Canada geese	15	Grazing	Jamie K	Patrick A	No action required
6/1/2016	8:30:00 AM	Vault Area	Musk-ox	24	Resting	Jamie K	Patrick A	No action required
6/2/2016	8:30:00 AM	Tailings Storage Facility	Long tailed ducks	10	Swimming	Jamie K		Deterred. Successful
6/4/2016	9:00:00 AM	Tailings Storage Facility	Long tailed ducks	20	Swimming	Jamie K		Deterred. Successful
6/5/2016	4:30:00 PM	Goose Pit	Rough legged hawk	1	Flying	Tom T		No action required
6/5/2016	11:00:00 AM	AWAR	Musk-ox	30	Grazing	Security		No action required
6/5/2016	10:30:00 AM	AWAR	Sandhill cranes	3	Walking	Tom T		No action required
6/6/2016	9:00:00 AM	Tailings Storage Facility	Long tailed ducks	20	Swimming	Tom T	Mickael BA	Deterred. Successful
6/8/2016	3:00:00 PM	Portage Rock Storage Facility	Canada geese	4	Swimming	Randy S		No action required
6/8/2016	11:00:00 AM	Tailings Storage Facility	Rough legged hawk	1	Flying	Randy S		No action required
6/8/2016	8:30:00 AM	AWAR	Canada geese	40	Flying	Randy S		No action required
6/9/2016	9:30:00 AM	Tailings Storage Facility	Duck	30	Swimming	Tom T		Deterred. Unsuccessful
6/11/2016	9:00:00 AM	Vault Area	Canada geese	30	Flying	Randy S	Mickael BA	No action required
6/11/2016	1:00:00 PM	Portage Pit	Canada geese	20	Flying	Randy S	Mickael BA	No action required
6/11/2016	11:00:00 AM	Camp	Fox	1	Walking	Tom T	Randy S	Monitored the area
6/11/2016	10:00:00 AM	Tailings Storage Facility	Duck	30	Swimming	Randy S	Tom T	Deterred. Unsuccessful
6/12/2016	3:00:00 PM	Airstrip	Wolf	1	Running	Security		Monitored the area but no sight
6/13/2016	2:00:00 PM	Vault Area	Rough legged hawk	1	Flying	Randy S	Mickael BA	No action required
6/13/2016	2:00:00 PM	Portage Rock Storage Facility	Canada geese	3	Swimming	Randy S	Mickael BA	No action required
6/13/2016	11:00:00 AM	Portage Rock Storage Facility	Canada geese	5	Swimming	Randy S	Mickael BA	No action required
6/15/2016	10:00:00 AM	Camp	Fox	1	Running	Randy S	Mike A	No action required
6/17/2016	11:30:00 AM	AWAR	Caribou	7	Unknown	PEL David Kautaq		No action required
6/17/2016	1:30:00 PM	AWAR	Musk-ox	2	Unknown	AFS Paul Diego		No action required
6/18/2016	2:30:00 PM	Vault Area	Wolf	1	Walking	Patrick A	Derek O	Monitored the area
6/20/2016	3:30:00 PM	AWAR	Musk-ox	20	Unknown	Stephane		No action required
6/21/2016	12:00:00 PM	AWAR	Musk-ox	29	Grazing	Timothy A	Patrick Ahern	Monitored the area
6/21/2016	8:00:00 AM	Unknown	Wolf	1	Unknown	Ronnie N		No action required
6/22/2016	12:30:00 PM	AWAR	Musk-ox	25	Resting	Fanny Laporte	Patrick Ahern	No action required
6/23/2016	8:30:00 AM	AWAR	Musk-ox	29	Unknown	Jamie K		No action required
6/23/2016	9:30:00 AM	AWAR	Musk-ox	29	Grazing	Fanny Laporte	Jamie Kataluk	Monitored the area
6/24/2016	9:00:00 AM	AWAR	Caribou	3	Walking	Paul Niego - Arctic Fuel driver		No action required
6/24/2016	9:00:00 AM	AWAR	Musk-ox	29	Grazing	Dino Stagg		Monitored the area
6/24/2016	9:00:00 AM	AWAR	Musk-ox	1	Grazing	Thomas Elytok		No action required
6/25/2016	12:00:00 PM	AWAR	Musk-ox	6	Unknown	Donald G		No action required
6/25/2016	12:00:00 PM	AWAR	Caribou	12	Unknown	Donald G		No action required
6/25/2016	11:30:00 AM	AWAR	Wolf	1	Unknown	Donald G		No action required
6/26/2016	9:00:00 AM	AWAR	Caribou	6	Unknown	Deno S		No action required
6/26/2016	10:00:00 AM	AWAR	Grizzly	1	Unknown	Joshep H		No action required
6/27/2016	4:30:00 AM	Unknown	Musk-ox	4	Grazing	Randy P		No action required