



Photo 3.1-13 Example of the monitoring view of Camera 51 at the future site of the South Dam of the TIA, September 2017.

It should be noted that there is a camera that is located at the Doris Lake outflow waterfall (Camera 15; see Figure 7 in the 2023 Report). A camera was placed in this location in 2015 to address a condition of Project Certificate No. 003 that wildlife activity at the waterfall shall be monitored (Revised Term and Condition 25). However, under the amendment to the Water License, mine water will be discharged via a submarine process into Roberts Bay instead of being discharged into the freshwater environment in Doris Creek. Camera 15 will continue to monitor wildlife activity at the Doris Lake outflow waterfall to address Revised Term and Condition 25; however, considering the change in the Project design with no mine water discharge into Doris Creek, Camera 15 is not being considered as a camera with a site specific monitoring objective under the revised study design as no effects to water quality are anticipated at this location.

In August 2022, two new cameras were deployed on either side of a culvert running under Windy Road (Photo 3.1-14 and Photo 3.4-3 in the 2023 Report). The cameras were set with the specific purpose of detecting caribou activity, after an Inuit Environmental Advisory Committee (IEAC) member noticed possible caribou trails from the culvert. The culvert is roughly 160 m north of one of the caribou crossing ramps (and camera 35). Both cameras are placed north of the culvert, facing south in order to record any caribou passing through the culvert (Photo 3.1-14). These cameras will be included in wildlife event summaries starting in 2023.

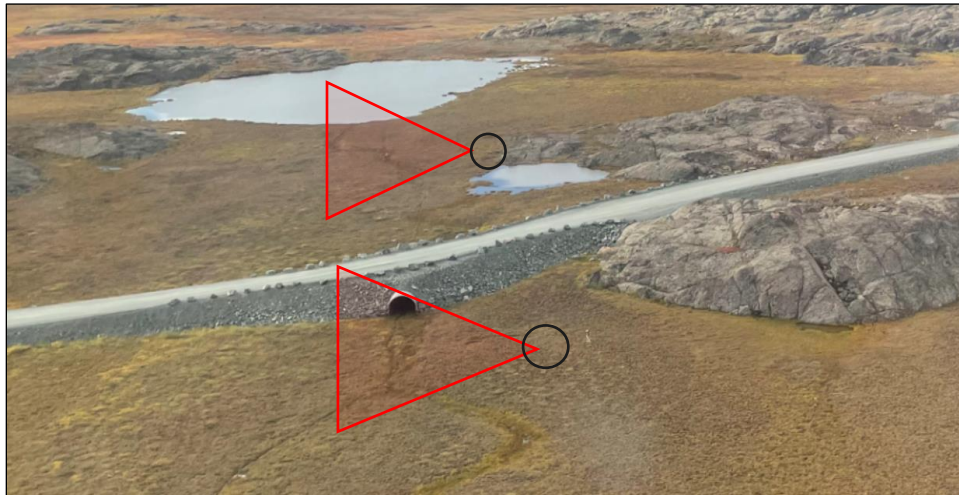


Photo 3.1-14 Culvert wildlife cameras and their approximate field of views, facing south on either side of Windy Road. August 2023.

### 3.1.2 BOSTON PROGRAM STUDY DESIGN

In September 2018, 26 remote cameras were deployed in the Boston area. In June 2019, an additional three cameras were deployed (see Figure 8 in the 2023 Report). Design of the camera placement followed the same process as the program already established in the Doris and Madrid area. The Treatment (within 2 km of planned infrastructure), ZOI (2-10 km from planned infrastructure), and Control (> 10 km from infrastructure) zones each have five cameras, with an additional 14 cameras along the proposed All Weather Road (AWR) between Madrid and Boston (Figure 8 in the 2023 Report).

Camera placement was balanced with similar considerations as the Doris and Madrid area program. Locations for Treatment, ZOI, and Control cameras were pre-selected using Google Earth and available satellite imagery to verify that each of the five Treatment cameras had a paired camera within similar broad and small scale habitats in ZOI and Control zone. Locations were chosen to balance distance to ecological features such as waterbodies. Sites were scoped in the field before placement to assess the accessibility of the location for wildlife and the camera field of view. For cameras placed along the proposed road route, camera locations were optimized according to existing caribou trails so that cameras are placed near future caribou crossing ramps. Camera positions were oriented towards existing caribou trails, and where possible, also the proposed road route. No camera views are within sight of each other, with the closest cameras 1.05 km apart (cameras 79 and 84; Figure 8 in the 2023 Report). The furthest distance between two cameras is 69 km (between camera 75 and 83); this marks the southern extent of the Boston camera Study Area and the northern extent of the AWR route (Figure 8 in the 2023 Report). Other than the cameras placed along the AWR route, no cameras in the area had site specific monitoring objectives.

## 3.2 CAMERA SET UP AND OPERATIONS

The Reconyx™ PC800 HyperFire uses a passive infrared sensor to capture motion-triggered images and has a maximum reported motion detection radius of 30.5 m in daylight and 21.3 m at night

(Reconyx 2013, 2017a, 2017b). There was no bait used in the study to lure animals to the camera locations.

Cameras were deployed on wooden tripods where the height of the camera ranged from 1.2 to 1.4 m off the ground. The camera sensor was directed perpendicular to the ground, such that the sensor faced the horizon on the tundra (Photos 3.2-1 and 3.2-2).

Cameras were programmed to take two types of photos: timed and motion-triggered photographs. Timed photos are mainly used to determine the number of active deployment days for cameras (camera effort). As such, cameras were programmed to take a minimum of one timed photo at noon to determine whether cameras were actively recording photos or were obscured (e.g., covered by snow or knocked over; see Camera Effort section below).

Detailed camera settings are presented in Table 3.2-1. Cameras were programmed to take motion-triggered photos automatically 24 h/day whenever there was movement in front of the camera, as detected by the passive infrared sensor. Based on the camera trigger specifications (field of view) and field-testing of the cameras, the motion trigger range of the cameras was approximately 25 to 30 m, depending on the size of the animal. During each motion triggered event, cameras were programmed to take a set of 10 photos at one second intervals (Table 3.2-1). If there was still motion in front of the camera following the initial set of triggered photographs, the cameras were programmed to immediately start a second set of 10 photos. Each image recorded the photo type (i.e., timed [T] or motion triggered [M]), the camera number, date, time, temperature, and, for motion-triggered photos, the number from the series of photos taken (i.e., 1/10 to 10/10).



Photo 3.2-1 Example of camera set up camera height approximately 1.2 m).



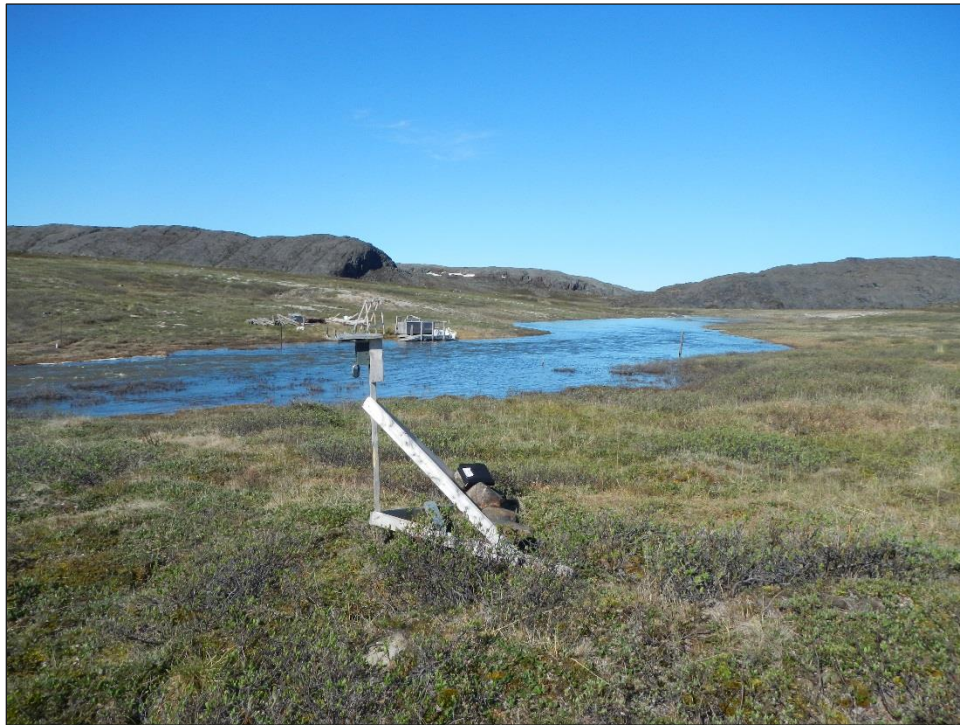


Photo 3.2-2 Example of camera set up camera height approximately 1.4 m).

TABLE 3.2-1 DETAILED CAMERA SETTINGS FOR MOTION AND TIMED PHOTOS,  
SEPTEMBER 2022 TO SEPTEMBER 2023

Photo Type	Setting	Winter Settings (~September - ~June) *	Summer Settings (~June - ~September) *
Motion-triggered Photos	Trigger Sensitivity (Low, Low/Med, Med, Med/High, High)	High	High
	Trigger Response Time**	1/5 Second	1/5 Second
	No. Photos Taken (per Trigger)	10	10
	Capture Interval (time between successive photos) ***	1 second	1 second
	Delay (time between successive triggers)	None	None
	Photo Schedule	On All Day	On All Day
	Nighttime shutter speed**	1/30 Second	1/30 Second
	Nighttime ISO Sensitivity (Low, Medium, High)	Medium	Medium



Photo Type	Setting	Winter Settings (~September - ~June) *	Summer Settings (~June - ~September) *
Timed Photos	No. Photos Taken	1	1
	Photo Frequency	30 min	30 min
	Photo Schedule	On All Day***	Every Day, 11:30 to 12:30 only
General (motion and timed)	Brightness (1 - 9)	Default (Low-Medium; 3)	Default (Low-Medium; 3)
	Contrast (1-9)	Default (Medium-High; 7)	Default (Medium-High; 7)
	Sharpness (1 - 9)	Default (Medium; 5)	Default (Medium; 5)
	Saturation (1-9)	Default (Medium; 5)	Default (Medium; 5)
	White Balance	Default (Auto)	Default (Auto)
	Flash	On	On

Notes:

\* Approximate date range between camera checks. Camera checks are performed in June and September, though checks were not completed on the same day at a given camera in each year.

\*\* Reported values from Reconyx User Manual (Reconyx 2013) and Instruction Manual (Reconyx 2017a). Trigger response speed is the time between when motion occurs within the sensor range and when the camera is activated and records an image.

\*\*\* Camera capable of taking photos at a speed of 2 frames per second, if rapid fire settings are used.

### 3.3 CAMERA DATA ANALYSIS

Camera data in 2023 were reviewed for the deployment period from September 2022 to September 2023 to record the presence of caribou, muskox, grizzly bear, wolverine, nest predators, and other wildlife. Camera effort was recorded from timed photos as the number of active deployment days for each camera.

#### 3.3.1 PHOTO REVIEW PROCESS

All photos, including timed and motion-triggered photos, were manually scanned for wildlife observations using PC photo viewing software. For every wildlife observation, the following information was recorded in an Excel spreadsheet: species, number of animals, and behaviour (e.g., resting, foraging, travelling), date, time (including start and end times for motion-triggered photo sets), photo type, photo number (including start and end photo numbers for motion-triggered photo sets), number of photos, and number of triggers.

A portion of wildlife observations of VEC species were checked by a second person for the purposes of quality control. All observations of caribou and wolverine in the raw data were reviewed, as well as a portion of grizzly bear observations (approximately 75%). A portion of observations of non-VEC species were also checked including nest predator observations (approximately 75%).

### 3.3.2 CAMERA EFFORT

Camera effort was calculated as the total number of active deployment days from September 2022 to September 2023. Cameras occluded by snow (25% or more of the screen occluded) for 24 hours or more were considered to have no effort until the screen cleared (75% visibility or better). Cameras were also considered to have no effort during periods in which they were knocked over.

Overall camera effort (i.e., the total number of days in which the camera was able to record images of wildlife) was then calculated as follows:

- The dates associated with the first and last images recorded at a camera across the deployment period were determined; and
- Periods of inactivity (e.g., when a camera was obscured by snow or knocked over) were tabulated in 24 h increments and subtracted from each camera's total period of operation.
- Following the above calculations, camera effort was then summarized by month and reported as "camera days".

From fall 2017 through spring 2018, camera effort (typically recorded via timed photos automatically taken throughout each day) was unavailable due to a camera programming error; therefore, from September 2017 through the next re-programming phase in June 2018, each camera's effort was assumed to be the same as the previous year's effort for a given camera and month. A sensitivity analysis conducted in 2019 filled the no-effort period with the following year's data (i.e., September 2018 to June 2019) and found no difference in caribou modelling data.

The effort information from June 2016 to September 2018 (ERM 2017, 2018, 2019, 2020) was combined with the effort information for the camera deployment periods from September 2022 to September 2023 for the total number of camera effort days monitoring caribou, muskox, grizzly bear, and wolverine.

### 3.3.3 SUMMARIZATION OF WILDLIFE EVENTS

Camera data were reviewed to determine total number of wildlife events recorded at a camera as the basis for the quantitative (i.e., the statistical analysis) and qualitative analyses of species detections included in the 2023 Report. An event was defined as the detection of an individual or group of individuals on a timed (T) or motion-triggered (M) photo. Events were considered separate from one another if there was a period of inactivity at the camera between two successive photo observations of wildlife, regardless of photo type. A standard period of 30 minutes of inactivity was used to assess separate events for both photo types, as this was the longest period between successive timed photos during the winter period when cameras were programmed to take timed photos every 30 minutes. This 30-minute period was extended for use during the summer periods, when only one timed photo a day was recorded.

There was one exception to the general rule applied to determining separate wildlife events. A caribou event could be considered to be one event if the same individual, or group of individuals, were recorded at a camera during the same day. Caribou can often be identified to the individual based on behaviour (e.g., bedded down in front of the camera for several hours) or visible characteristics (e.g., size, coat colour, antler shape). This distinction was made to avoid

double-counting the same individual(s) across events. For all other species it was not possible to determine unique individuals on images with certainty due to the lack of distinguishing features, and all events separated by 30 minutes or more were considered to be unique detections for the purposes of analysis.

Wildlife events (and the number of individuals recorded on events) were corrected for a monthly darkness factor supplied by the KIA (Table 3.3-1) (Table A-5; KIA 2017). This correction is used to make events and individuals recorded during the months with shorter day length more comparable to events recorded in the summer with long day length, as the reported detection radius of the Reconyx™ PC800 HyperFire camera is smaller in the dark relative to the daylight. This correction factor was used when qualitatively comparing between events and individuals recorded between cameras in the three monitoring zones. The correction factor is not used in the statistical analyses for caribou, grizzly bear, and wolverine, as month of the year was included as covariate term and camera effort per month was included an offset term in the modelling. Considering this, including the darkness factor was not necessary as effect of month was included and controlled for in the statistical modelling.

**TABLE 3.3-1 MONTHLY DARKNESS CORRECTION FACTOR FOR CAMERA EVENT DATA**

Month	Average Day Length (hh:mm:ss)	Average Day Length (h)	Proportion Daylight	Darkness Factor Correction
January	3:23:50	3	0.13	1.26
February	7:52:52	8	0.33	1.2
March	11:51:19	12	0.5	1.15
April	15:57:32	16	0.67	1.1
May	20:52:32	21	0.88	1.04
June	24:00:00	24	1	1
July	22:29:10	22	0.92	1.03
August	17:11:01	17	0.71	1.09
September	13:05:46	13	0.54	1.14
October	9:09:50	9	0.38	1.19
November	4:54:51	5	0.21	1.24
December	0:30:14	0	0	1.3

### 3.3.4 SPECIES-SPECIFIC ANALYSIS

#### General Camera Monitoring

Caribou, grizzly bear, and wolverine event data recorded on motion-triggered photos in the Doris and Madrid areas for the period from June 2016 to September 2023 were compiled for the purposes of conducting a statistical analyses (see Section 6.1-6.3).



Qualitative summaries of camera data for muskox and mammalian nest predators were generated. Muskox data will be statistically analysed for possible ZOI effects in future years, if there are sufficient detections across the Study Area zones over time.

Boston camera data were processed and summarized but will not be analysed until data have been collected during a construction/operations phase, in addition to the current baseline data.

### **Site Specific Camera Monitoring**

There were seven cameras with site specific monitoring objectives, and each of these cameras were set up to monitor for activity of a specific species or group of species (Table 3.1-1). For the purposes of the report, the cameras with site specific monitoring objectives are those that were placed to satisfy facilities monitoring objectives (see above), and data from these cameras are summarized in a separate report section to evaluate interactions between wildlife and Project facilities. Camera event data from timed and motion-triggered photos from these seven cameras are evaluated qualitatively; behaviour of individuals recorded during events was also discussed where relevant to the discussion of the interaction.

## **4. ON-SITE MONITORING AND MITIGATION**

Wildlife interactions, incidents, and mortalities are recorded as part of the Wildlife Sightings/Reporting process. Reporting procedures at site use Sightings Cards for routine sightings of live animals, nesting, denning activity, and mortalities. A Wildlife Notification System is also used which includes non-emergency traffic awareness notifications plus higher levels of alerts for potentially dangerous wildlife. The site Environmental Department keeps a separate register of potential conflicts that may require deterrence of animals which require a response from the Wildlife Response Team (WRT). These records are labelled as an interaction or incident. An interaction occurs when wildlife interacts with people or Project infrastructure; deterrents may be used, but direct harm, injury, damage, or wildlife mortality does not take place. An incident is an interaction where there is active deterrence and direct harm, injury, damage, or wildlife mortality occurs. Incidents that result in the mortality of VECs or large fauna, or mortalities resulting from potential interaction with Project activity are reported directly to GN DOE and KIA as necessary and are also reported in this Report annually. A mortality of Arctic ground squirrel is not considered to be an incident and is not reported to the GN DOE and KIA following a change to the incident reporting procedures in 2017; ground squirrel mortalities are now considered interactions. Incidents and mortalities involving migratory birds are reported to Environment and Climate Change Canada (ECCC) as necessary and are also reported in this Report annually.

## **5. INCIDENTAL WILDLIFE OBSERVATIONS BY ENVIRONMENT PERSONNEL**

### **5.1 WILDLIFE SIGHTINGS LOG**

Observations from the wildlife sightings log were summarized by VEC species (caribou, muskox, grizzly bear, wolverine, upland birds, raptors, waterbirds and marine mammals), nest predators, and other mammalian species. Nest predators include fox species, grey wolf, weasels, gulls,

jaegers, and the common raven. Prior to 2015, grey wolf was included in the other species category; it is now classified as a nest predator following a request to do so by the KIA (KIA 2015). Species observed that are classified as a conservation concern are summarized in each relevant VEC section. Some records did not indicate the number of individuals observed, stated a group/flock were observed, or gave an approximate number. When an approximate number or range was given, the lowest number was used in calculations. If a number was not recorded, it was assumed that at least one individual was observed.

The wildlife sighting log data have limitations which preclude their use in estimating population size or densities. These include:

- Number of workers on site (the more workers the more potential reports);
- Observers knowledge (not all observers have the same experience or training in the identification of wildlife);
- Observers location of work (indoor versus outdoor);
- Mode of travel (snow machine versus rock truck);
- Eagerness to record species observed (which may vary with point in shift or by individual);
- Likelihood to report animal, e.g., large mammals (grizzly bear or caribou) are more likely to be reported than a waterbird or upland breeding bird;
- Multiple reports of same individual by different staff members;
- Lower likelihood of reporting common species (e.g., ground squirrels);
- Increased likelihood of reporting species on first emergence (e.g., end of hibernation or during migration); and
- Seasonal daylight differences (i.e., there is only a few hour period each day in winter that wildlife can be seen, whereas wildlife can be seen 24 hours a day in summer).

These limitations demonstrate why wildlife sightings log data are not useful to infer population sizes or densities. However, data from the wildlife sightings log provide a variety of natural history data that are useful for answering certain questions, including: 1) identifying anomalous species not encountered during other wildlife surveys, and 2) providing information on the timing of a species using an area (migrations, hibernation, calving).

Observations of the VEC species (caribou, muskox, grizzly bear, and wolverine), have been corrected by the average number of employees and contractors at site following a request from the KIA to do so for caribou (KIA 2015). The daily number of personnel at site was calculated and averaged for each month; the number of wildlife individuals recorded per month and number of records per month for each of the four species was divided by this number. Although sightings are standardized for number of personnel on site, for the other reasons outlined in the list above, these data are still not an appropriate information source for wildlife densities in the area.

## 5.2 INCIDENTAL WILDLIFE OBSERVATIONS BY ENVIRONMENT AND ON SITE PERSONNEL

Incidental wildlife are detected spatially or temporally outside of VEC-specific monitoring surveys or are not the intended target group of VEC-specific monitoring surveys. Incidental data are most

useful for documenting species that inhabit an area, and can identify species that might not be encountered during formal wildlife surveys. These observations can also provide information on the timing of migrations (caribou, various bird species), emergence from hibernation (ground squirrels, grizzly bears), and calving (muskox, caribou).

Incidental wildlife observations were collected opportunistically by environment personnel including wildlife biologists at the Project through all phases, including during Baseline/Pre-development surveys for the Project in 1996 through 2006, Construction (2007 to 2012, and 2015 to 2016), Care and Maintenance (2013 to 2014 and 2022 to 2023), and Operations (2017 to 2021). These observations may help provide a more robust understanding of species richness on site.

## 6. VEC AND OTHER SPECIES MONITORING AND MITIGATION

### 6.1 CARIBOU

Analysis for caribou is conducted using two approaches: analysis of satellite collar data and analysis of data collected through the wildlife camera monitoring program.

#### 6.1.1 ANALYSIS OF SATELLITE COLLAR DATA

Collar data for the Beverly and Ahiak sub-populations were obtained for the period of 2001 to 2023 from the Government of Northwest Territories (GNWT) Department of Environment and Natural Resources (ENR).

##### 6.1.1.1 BEVERLY/AHIAK CARIBOU KERNEL DENSITY ANALYSIS

Data from the calving period were analyzed. The calving period for the Beverly and Ahiak caribou herds was estimated to be between June 5 and 20 (Gunn, Fournier, and Nishi 2000). Based on these findings, data outside of this date range were excluded from the analysis.

Duplicate data (same animal, date, and time) were removed, as were any obvious spatial outliers (single locations set well apart from the remaining locations for that animal). Data for each female caribou were retained for the period from June 5 to June 20 inclusive; then further reduced to the first location on each day for each animal. The Beverly and Ahiak data received from GNWT ENR were not specific to which herd the collared caribou belonged to, i.e. Beverly or Ahiak, this is a determination made by the calving ground each animal uses and which can vary annually. The sets of single-locations-per-day for each animal for the calving season were plotted against a reference longitude of 100.77° West and a north-south axis in line with the mouth of the Simpson River, which is consistent with the division between these sub-populations as reported by others (Nagy, Campbell, and Kelly 2012; Campbell et al. 2014). Animals with the majority of their locations to the West of the reference point were assigned to the Beverly herd, those with the majority of locations to the East were assigned to the Ahiak herd.

During some years with late springs, females may arrive on the calving grounds late, after June 5. All movement tracks of individual caribou were examined for each year. A set of locations for an animal trailing northward at the start of the calving period was considered part of its spring migratory movement; these series of locations were removed until the point at which the animal slowed and remained for the duration of the calving period near the body of the herd. The



remaining data set, stripped of migratory movement data, with each animal assigned to either the Beverly or Ahiak herd was used for seasonal range analyses.

Utilization distribution (UD) surfaces were then created for each of the Ahiak and Beverly groups using the R package 'adehabitat'. The output is defined as a joint probability distribution (bivariate (X, Y)), "the probability that each of X, Y falls in any particular range specified for that variable" (R Core Team 2015). Vector contours of the raster surfaces were created within the same script using specified confidence intervals (95%, 50%). This analysis was done for a compilation of collar data from 2001 to 2022 as well as the 2023 data on its own. The current year was separated from the historical data for the purposes of monitoring for a potential shift in calving ground distribution relative to the Project, as outlined in ERM (2016). A shift may be evident if the current calving grounds are outside of areas used in previous years, and a range shift towards the Project Study Area that overlaps with Project activities may trigger additional mitigation measures in the following year (ERM 2016b).

#### 6.1.1.2 DOLPHIN AND UNION CARIBOU KERNEL DENSITY ANALYSIS

An analysis of the calving range of the Beverly and Ahiak sub-populations was performed using caribou collar data supplied by the Government of Northwest Territories (GNWT) Department of Environment and Natural Resources (ENR) for both the current year (2023) as well as a compilation of historical years (2001 to 2023). See Section 3.4 in the 2023 Report for available analysis results.

Data from a period from December 8 to April 16 are analyzed as representative data for the winter range for the herd. The date range was selected based on the period of time when caribou from the herd are present on the mainland outside of the spring and fall migratory period. The beginning of the spring migration (April 17) was based on the earliest date that a collared Dolphin and Union caribou was observed on the sea ice within the Coronation Gulf, Dease Strait, and the Queen Maud Gulf. The end of fall migration (December 7) was the last date when a collared caribou was still present on the sea ice. The spring and fall migration dates were defined using collar data from 1999 to 2004. These date ranges were also applied to the collar data from 2015 onward. Two individuals remained north of 71° latitude for the winter of 2016/2017 and were excluded from calculations of winter UD. Considering the above, no adjustments to the date ranges were deemed necessary.

Utilization Distributions surfaces are created using the winter data in ArcGIS. Kernel UD are produced for (i) the current winter of study (December 8 to April 16) and (ii) combining available data from all years, including the current winter of study. The winter kernel is created using the same methodology used to map caribou habitat in the 2016 Draft Nunavut Land Use Plan (Nunavut Planning Commission 2016). Both the individual year and compilation of existing data are mapped using various features in ArcGIS 10.5.1. The data are compiled to provide a perspective on the overlap between the winter range and the Project Study Area in the most recent winter as well as the degree of overlap relative to the larger extent of the winter range by combining all available data. This analysis was guided by requests made by the KIA in 2017 (KIA 2017). Overlap in the winter grounds of the Dolphin and Union caribou herd with the Project Study Area/Project activities does not trigger any additional mitigation for caribou, as there are mitigation measures for caribou employed year round (ERM 2016b).

### 6.1.2 STATISTICAL ANALYSIS OF CAMERA DATA

Caribou occupancy data from motion-triggered photos from June 2016 to September 2023 were analyzed in R.4.3.1. First, a focused hypothesis test was used to assess whether or not cameras in the Treatment locations ( $< 2$  km from existing infrastructure) had a different probability of caribou occupancy than the cameras in the Control locations ( $> 10$  km from existing infrastructure). Caribou occupancy at a camera was defined as one or more caribou events at a camera in a month. A secondary analysis was conducted to evaluate the breadth of the potential ZOI (between 2 and 10 km from existing infrastructure); i.e., to evaluate at what distance an effect on caribou occupancy may be occurring.

Analyses were conducted using data from all cameras except cameras 2 and 35. Cameras 2 and 35 monitor caribou crossing ramps installed on the Doris-Windy AWR. Given the potential for caribou usage to differ at the crossing ramps relative to other areas near the Project and beyond, these cameras were removed from the analyses so that they would not influence the hypothesis test or secondary analysis for a ZOI. The two TIA cameras were included in the statistical analyses given that these two cameras are similar to other Treatment cameras located in close proximity to the Project site.

Camera effort was reviewed prior to the analyses to determine whether adjustments to the data were necessary. Variation in the number of camera days per month has the potential to influence modelling outcomes. A review of the camera data indicated that most cameras had a week or more of monitoring effort throughout most of the monitoring period except for the period from November through February, when most cameras had a week or less effort. December and January were removed from analyses due to low effort across cameras, following recommendations by the KIA (ERM 2018). Given the variation across cameras, all other months only included cameras with an effort cut point of  $\geq 7$  days per month; sensitivity analyses conducted in 2017 indicated that using lower effort cut points of  $\geq 1$  days per month and effort  $\geq 4$  days per month did not affect results.

Generalized additive mixed models were used to test whether there were differences in caribou occupancy recorded by cameras set up in Treatment locations and Control locations. A binomial distribution was used to model the probability of occupancy in a month at each camera. Smoothed covariate terms were included for month and northing, and effort was included as an offset term to adjust for varying number of days of effort per camera in each month. Camera number and year were included as categorical random effects to account for repeated measurements across cameras and interannual variation. The null hypothesis ( $H_0$ ) was that there was no difference between the probability of at least one event occurring at the Treatment and Control cameras. The alternate hypothesis ( $H_a$ ) was that the probability of an event differed between Treatment and Control cameras.

Samples sizes for the regression analyses were the total number of cameras by month, referred to as Camera\*Months. Effort data were unavailable for September 2017 to May 2018 due to a camera programming error, thus the effort during these months was assumed to be the same as that month in the previous year. The Camera\*Months represent the total number of cameras with a certain effort level by month across the 52-month monitoring period from June 2016 to September 2023 (omitting December and January in all years). For example, if all 21 cameras deployed in the

Treatment Zone had seven or more days of effort in every month between June 2016 to September 2023, the number of Camera\*Months in the Treatment zone would be  $21 \times 52 = 1,092$

Camera\*Months at the effort level of  $\geq 7$  camera days per month. The number of Camera\*Months were further split for caribou by cameras that had caribou occupancy or did not (i.e., recorded at least one event or did not record any events). For example, for a single camera that had over a week of camera effort for every month of the monitoring period and did not record a caribou event, this camera would have a total of 52 unoccupied Camera\*Months at the effort level of  $\geq 7$  days per month. If the same camera were to have recorded caribou events in two months, the camera would have a total of two Camera\*Months with caribou occupancy and 50 unoccupied Camera\*Months.

The secondary analysis for a ZOI also used a generalized additive mixed modelling approach, using similar approaches as the hypothesis test between Treatment and Control. An additional smoothed covariate term was included for distance to infrastructure. The distance to infrastructure was measured using the 2019 Project footprint, because footprint additions have been negligible since that time.

The Treatment vs. Control model (i.e., hypothesis test) and the secondary model testing for a potential ZOI were run using the *gamm()* function from the *mgcv* library. The *gamm()* function allows covariates to be modelled using smooth spline functions that accommodate non-linear trends which are expected for covariates such as month.

## 6.2 MUSKOX

Muskox monitoring was conducted through the wildlife camera program. Muskox camera records were summarized across the entire June 2016 – September 2023 period, though muskox were not a formally monitored VEC until 2018 (when Project Certificate No. 009 was adopted for the Phase 2 Project). Muskox events were too rare over the monitoring period and among the camera study area zones to perform a statistical analysis testing whether there is an effect of the Project.

## 6.3 GRIZZLY BEAR

Grizzly bear monitoring is conducted through the wildlife camera program. The program was focused on whether there is an effect of the Project by analysing whether the number of grizzly bear events differ between cameras in the Treatment and Control zones. Data from cameras in the ZOI zone are further analyzed if a difference is detected between the Control and Treatment zones to determine the distance at which an effect may be occurring.

Grizzly bear event data recorded on motion-triggered photos were analyzed in a similar fashion to caribou occurrence data. Since more grizzly bears were observed, it was possible to explore models for the number of bear events in a month, rather than the occupancy analysis used for caribou. Due to the large number of zero counts in the grizzly bear event data, a Poisson distribution did not provide a good fit to the data. Thus, grizzly bear regression models were fit using a negative binomial distribution on the error term. This is a flexible alternative to the standard Poisson distribution. The analyses were conducted using data from all cameras except for cameras 18, 21, and 22. Cameras 18 and 21 monitor the area of the Roberts Bay Waste Management Facility and camera 22 monitors an area along the Roberts Lake Outflow. Both of these areas may attract grizzly bears, e.g., from scents from the Waste Management Facility or as



a fishing area along Roberts Creek. Given the potential for grizzly bear usage to be different at these two areas relative to other areas near the Project and beyond, these cameras were removed so that they would not influence the hypothesis tests or secondary analysis. The two TIA cameras were included in the statistical analyses given that these two cameras are similar to other Treatment cameras located in close proximity to the Project site.

Hibernation months (November to February) were removed from the grizzly bear analyses. Therefore, the number of months included was 43 total between June 2016 and September 2023. The calculation of sample sizes for the regression analyses, as the number of Camera\*Months, was conducted the same way as described for caribou. These were further split by cameras that did not record any grizzly bear events and those that recorded at least one, and the total number of events recorded was also calculated.

## 6.4 WOLVERINE

Wolverine monitoring is conducted through the wildlife camera program. The program was focused on whether there is an effect of the Project on wolverine occurrences. Differences between Treatment and Control zones were tested. Data from the ZOI zone were also assessed to determine the effect of distance to infrastructure, if a significant difference between occupancy in the Treatment and Control zones was detected. Regression models, as outlined for the caribou analysis (see Section 6.1.2), were fit to the wolverine occupancy data recorded on motion-triggered photos.

## 6.5 NEST PREDATORS

Nest predator monitoring is conducted through the wildlife camera program. Nest predator attraction to the Project could result in indirect mortality of breeding birds, so nest predators are monitored during the reproductive period for birds in the Arctic, mid-May to mid-August. The monitoring program aims to qualitatively compare nest predator occurrence in the Treatment zone with the ZOI and Control zone.

Nest predators monitored through the camera program do not include small bodied mammals, such as weasels, because they are often not recorded in the camera data. Avian nest predators (i.e., gulls and common raven) are also generally under-reported in camera data, but are included in summaries when they are recorded.

## 6.6 UPLAND BREEDING BIRDS

Pre-clearing surveys were not required in 2023 as no new area was cleared during the bird breeding season. Pre-clearing surveys are done if clearing is scheduled to occur between mid-May and mid--August, which is the reproductive period for birds in the Arctic (ECCC 2016).

### 6.6.1 PRISM PLOT SURVEYS

PRISM plot surveys did not take place in 2023, the surveys will resume in 2024.

## 6.7 WATERBIRDS

### 6.7.1 GROUND SURVEYS

Ground-based surveys were not conducted in 2023, the surveys will resume in 2024.

### 6.7.2 WATER QUALITY MONITORING

Water quality at the TIA was monitored in 2023 in accordance with Commitment 31 and Condition 26 (NIRB 2018). Should water quality exceed guidelines for waterbirds, Agnico Eagle will conduct a toxicological risk assessment to determine if birds are safe using or nesting on the TIA. If that risk assessment determines that there is a risk to waterbird health, then waterbirds will be deterred from the TIA.

Water quality in the TIA at location TL-1 was measured weekly in 2023 by on site staff as part of the existing water license requirements. Water quality data for parameters with guidelines relevant to wildlife (i.e., arsenic, cadmium, copper, lead, mercury, nickel, selenium, and zinc) were provided to ERM and are presented in Appendix 3.10-1. Maximum concentrations were compared to the CCME *Water quality guidelines for the Protection of Agriculture – Livestock* as those are the guidelines that are available and most relevant for wildlife. If the maximum concentration exceeded the guideline, the parameter was considered for an ecological risk assessment for waterbirds at the TIA.

Water quality did not exceed guidelines for wildlife in 2023, so no risk assessment was therefore warranted.

## 6.8 RAPTORS

Surveys were not necessary for raptor nests in 2023 because there was no active construction of Madrid North during the raptor breeding season.

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## APPENDIX B      HOPE BAY ROADSIDE SNOWBANK MONITORING DATA 2023

APPENDIX B: HOPE BAY ROADSIDE SNOWBANK MONITORING DATA 2023

Date	Survey Details	Site	East Measure (cm)	West Measure (cm)	Photos	Snowbank Condition	Comments
01/04/2023	Start Time: 11:15 End Time: 12:10 Observers: GO, WN Days since last snow: 12 Temp (°C): -35 Wind Speed (m/s): 3 W Weather: partially cloudy	SB1	11.8	0	SB1 East and SB1 West	Recently plowed	
		SB2	86	0	SB2 East and SB2 West	Recently plowed	Fox trails, west side
		SB3	86	4.6	SB3 East and SB3 West	Recently plowed	Fox trails, west side
		SB4	17.8	2	SB4 East and SB4 West	Recently plowed	
		SB5	30	6.6	SB5 East and SB5 West	Recently plowed	
		SB6	14.2	4.4	SB6 East and SB6 West	Recently plowed	
		SB7	13	5	SB7 East and SB7 West	Recently plowed	
01/30/2023	Start Time: 13:30 End Time: 15:00 Observers: TL/LPG Days since last snow: 1 Temp (°C): -32 Wind Speed (knots): 9 NW Weather: sunny	SB1	16.6	1.6	20230130_152158; 20230130_152224; 20230130_152340; 20230130_152404	Recently plowed	
		SB2	0	1.8	20230130_151051; 20230130_151119; 20230130_151259; 20230130_151328	Recently plowed	
		SB3	20.6	17.6	20230130_145558; 20230130_145630; 20230130_145946; 20230130_150016	Recently plowed	
		SB4	12.4	1.6	20230130_144110; 20230130_144135; 20230130_144307; 20230130_144335	Recently plowed	
		SB5	3.2	5.2	20230130_142949; 20230130_143047; 20230130_143141; 20230130_143206	Recently plowed	
		SB6	6.8	5.2	20230130_141639; 20230130_141704; 20230130_142003; 20230130_142026	Recently plowed	
		SB7	95.6	15.8	20230130_135830; 20230130_135856; 20230130_140243; 20230130_140309	Recently plowed	
02/16/2023	Start Time: 13:55 End Time: 14:48 Observers: GD, WN Days since last snow: 4 Temp (°C): -50 Wind Speed (m/s): 7 Weather: mostly clear, cold	SB1	17	0	20230216_144717_001; SB1 East; SB1 West	Clear	No wildlife presence observed
		SB2	28	0	20230216_143622; SB2 East; SB2 West	Clear	No wildlife presence observed
		SB3	32	11	20230216_142928_001; SB3 East; SB3 West	Clear	No wildlife presence observed
		SB4	14	3	20230216_142045; SB4 East; SB4 West	Clear	No wildlife presence observed
		SB5	21	5	20230216_141337; SB5 East; SB5 West	Clear	No wildlife presence observed
		SB6	57	6	20230216_140552; SB6 East; SB6 West	Clear	No wildlife presence observed
		SB7	39	15	20230216_135450; SB7 East; SB7 West	Clear	No wildlife presence observed
02/28/2023	Start Time: 14:40 End Time: 16:30 Observers: LPG, WN Days since last snow: 5 Temp (°C): -45(windchill) Wind Speed (m/s): - Weather: mostly sunny	SB1	17.2	0	SB01- West and SB01-East	Graded Feb 27/2023	None observed
		SB2	51.2	0	SB02 East and SB02 West	Graded Feb 27/2023	None observed
		SB3	139.8	8.6	SB03 East and SB03 West	Graded Feb 27/2023	None observed
		SB4	10.4	0	SB04 East and SB04 West	Graded Feb 27/2023	None observed
		SB5	22	3.8	SB05 East and SB05 West	Graded Feb 27/2023	None observed
		SB6	36.2	4.6	SB06 East and SB06 West	Graded Feb 27/2023	None observed
		SB7	35	13.4	SB07 East and SB07 West	Graded Feb 27/2023	None observed


Date	Survey Details	Site	East Measure (cm)	West Measure (cm)	Photos	Snowbank Condition	Comments
03/16/2023	Start Time: 13:00 End Time: 15:00 Observers: TL, GDV Days since last snow: - Temp (°C): - Wind Speed (m/s): - Weather: -	SB1	19	0	SB1-1; SB1-2; SB1-3; SB1-4	Clear	
		SB2	1	2	SB2-1; SB2-2; SB2-3; SB2-4; SB2-5	Clear	Hare tracks
		SB3	15	14	SB3-1; SB3-2; SB3-3; SB3-4; SB3-5	Clear	
		SB4	32	0	SB4-1; SB4-2; SB4-3; SB4-4; SB4-5	Clear	
		SB5	0	0	SB5-1; SB5-2; SB5-3; SB5-4; SB5-5	Clear	Fox tracks
		SB6	24	5	SB6-1; SB6-2; SB6-3; SB6-4; SB6-5	Clear	Fox and hare tracks
		SB7	44	47	SB7-1; SB7-2; SB7-3; SB7-4	Clear	
03/28/2023	Start Time: 15:00 End Time: - Observers: WN, GDV Days since last snow: 0 Temp (°C): -28 Wind Speed (m/s): 4 W Weather: overcast	SB1	25	0	SB1 East (1); SB1 East (2); SB1 West (1); SB1 West (2)	Clear	No tracks
		SB2	2	5	SB2 East (1); SB2 East (2); SB2 West (1); SB2 West (2)	Clear	No tracks
		SB3	0	2	SB3 East (1); SB3 East (2); SB3 West (1); SB3 West (2)	Clear	No tracks
		SB4	18	0	SB4 East (1); SB4 East (2); SB4 West (1); SB4 West (2)	Clear	No tracks
		SB5	10	0	SB5 East (1); SB5 East (2); SB5 West (1); SB5 West (2)	Clear	No tracks
		SB6	64	6	SB6 East and SB6 West	Clear	No tracks
		SB7	42	18	SB7 East; SB7 Fox Tracks East Side; SB7 West	Clear	Fox tracks noted east side
04/11/2023	Start Time: 16:20 End Time: 17:25 Observers: WN/GO Days since last snow: 5 Temp (°C): -17 Wind Speed (m/s): 6 Weather: mostly sunny	SB1	22	0	SB01 East (1); SB01 East (2); SB01 West (1); SB01 West (2)	Clear and graded	No tracks observed
		SB2	0	4	SB02 East (1); SB02 East (2); SB02 West (1); SB02 West (2)	Clear and graded	No tracks observed
		SB3	98	4	SB03 East (1); SB03 East (2); SB03 West (1); SB03 West (2)	Clear and graded	No tracks observed
		SB4	68	0	SB04 East (1); SB04 East (2); SB04 West (1); SB04 West (2)	Clear and graded	No tracks observed
		SB5	40.6	4	SB05 East (1); SB05 East (2); SB05 West (1); SB05 West (2)	Clear and graded	No tracks observed
		SB6	86.8	4	SB06 East (1); SB06 East (2); SB06 West (1); SB06 West (2)	Clear and graded	No tracks observed
		SB7	38	16	SB07 East (1); SB07 East (2); SB07 West (1); SB07 West (2)	Clear and graded	No tracks observed
4/27/2023	Start Time: 10:30 End Time: 11:10 Observers: TL/GDV Days since last snow: 5 Temp (°C): -7 Wind Speed (km/h): 25 SW Weather: sunny	SB1	12	0	SB1-1; SB1-2; SB1-3; SB1-4; SB1-5	Melting	N/A
		SB2	0	0	SB2-1; SB2-2; SB2-3; SB2-4; SB2-5	Melting	N/A
		SB3	94	0	SB3-1; SB3-2; SB3-3; SB3-4; SB3-5	Melting	N/A
		SB4	58	0	SB4-1; SB4-2; SB4-3; SB4-4; SB4-5	Melting	N/A
		SB5	0	0	SB5-1; SB5-2; SB5-3; SB5-4; SB5-5	Melting	N/A
		SB6	118	0	SB6-1; SB6-2; SB6-3; SB6-4; SB6-5	Melting	N/A
		SB7	34	8	SB7-1; SB7-2; SB7-3; SB7-4; SB7-5	Melting	N/A

Date	Survey Details	Site	East Measure (cm)	West Measure (cm)	Photos	Snowbank Condition	Comments
05/11/2023	Start Time: 14:40 End Time: 15:50 Observers: JN/KP/WN Days since last snow: 1 Temp (°C): -1.9 Wind Speed (knots): 2.9 NW Weather: overcast	SB1	0	0	SB01 East and SB01 West	No plow activity	None observed
		SB2	51	0	SB02 East and SB02 West	No plow activity	None observed
		SB3	0	0	SB03 East and SB03 West	No plow activity	None observed
		SB4	0	0	SB04 East and SB04 West	No plow activity	None observed
		SB5	0	0	SB05 East and SB05 West	No plow activity	None observed
		SB6	58	0	SB06 East and SB06 West	No plow activity	None observed
		SB7	0	0	SB07 East and SB07 West	No plow activity	None observed
10/15/2023	Start Time: 14:30 End Time: - Observers: KP, GDV Days since last snow: Temp (°C): - Wind Speed (m/s): - Weather: -	SB1	0	0	-	Roads bare	No snow
		SB2	0	0	-	Roads bare	No snow
		SB3	0	0	-	Roads bare	No snow
		SB4	0	0	-	Roads bare	No snow
		SB5	0	0	-	Roads bare	No snow
		SB6	0	0	-	Roads bare	No snow
		SB7	0	0	-	Roads bare	No snow
11/11/2023	Start Time: 10:45 End Time: 11:30 Observers: KP Days since last snow: 0 Temp (°C): -15 Wind Speed (km/h): 19 Weather: cloudy	SB1	0	0	SB1	Blowing snow, clear road	No signs of wildlife
		SB2	0	0	SB 2 Animal tracks; SB2	Blowing snow, clear road	Signs of Arctic hare tracks
		SB3	0	0	SB3	Blowing snow, clear road	No animal tracks
		SB4	0	0	SB4	Blowing snow, clear road	No animal tracks
		SB5	0	0	SB5	Blowing snow, clear road	No animal tracks
		SB6	0	0	SB6	Blowing snow, clear road	No animal tracks
		SB7	0	0	SB7	Blowing snow, clear road	No animal tracks
11/25/2023	Start Time: 10:15 End Time: 10:50 Observers: KP Days since last snow: 2 Temp (°C): -20 Wind Speed (m/s): -NW Weather: partly cloudy	SB1	0	0	SB1	Roads clear	No snowbanks present
		SB2	0	0	SB2	Roads clear	No snowbanks present
		SB3	0	0	SB3	Roads clear	No snowbanks present
		SB4	0	0	SB4	Roads clear	No snowbanks present
		SB5	0	0	SB5	Roads clear	No snowbanks present
		SB6	0	0	SB6	Roads clear	No snowbanks present
		SB7	0	0	SB7	Roads clear	No snowbanks present



Date	Survey Details	Site	East Measure (cm)	West Measure (cm)	Photos	Snowbank Condition	Comments
12/14/2023	Start Time: 13:00 End Time: 14:00 Observers: TL, LPG Days since last snow: unknown Temp (°C): -36 Wind Speed (m/s): 4.6 Weather: overcast	SB1	-	-	20231214_122522; 20231214_122543; 20231214_122609; 20231214_122632	-	No data recorded
		SB2	-	-	20231214_121830; 20231214_121856; 20231214_121938; 20231214_122006; 20231214_122120	-	No data recorded
		SB3	-	-	20231214_120338; 20231214_120907; 20231214_121012; 20231214_121038	-	No data recorded
		SB4	-	-	20231214_115518; 20231214_120222; 20231214_120245; 20231214_120314	-	No data recorded
		SB5	-	-	20231214_114652; 20231214_115341; 20231214_115405; 20231214_115451	-	No data recorded
		SB6	-	-	20231214_113546; 20231214_114515; 20231214_114541; 20231214_114626	-	No data recorded
		SB7	-	-	20231214_113300; 20231214_113327; 20231214_113428; 20231214_1134448	-	No data recorded
12/23/2023	Start Time: 11:45 End Time: 12:30 Observers: KP Days since last snow: 2 Temp (°C): -28 Wind Speed (km/h): 8 SE Weather: partly cloudy	SB1	0	0	IMG_0926; IMG_0927; IMG_0928; IMG_0929	Recently plowed	No snowbanks
		SB2	0	0	IMG_0931; IMG_0932; IMG_0933; IMG_0934	Recently plowed	No snowbanks
		SB3	0	0	IMG_0936; IMG_0937; IMG_0938; IMG_0939	Recently plowed	No snowbanks
		SB4	0	0	IMG_0940; IMG_0941; IMG_0942; IMG_0943	Recently plowed	No snowbanks
		SB5	0	0	IMG_0944; IMG_0945; IMG_0946; IMG_0947	Recently plowed	No snowbanks
		SB6	0	0	IMG_0948; IMG_0949; IMG_0950; IMG_0951	Recently plowed	No snowbanks
		SB7	0	0	IMG_0952; IMG_0953; IMG_0954; IMG_0955	Recently plowed	No snowbanks

## APPENDIX C      HOPE BAY QUARRY BLAST NOISE MONITORING SOP

 <div style="text-align: center;"> <b>HOPE BAY</b>  <b>SAFE OPERATING PROCEDURES</b> </div>			
<b>Division:</b>	Environment		
<b>SOP #:</b>	ENV-SOP-ES-031		
<b>Subject:</b>	Noise Monitoring Procedure		
<b>Owner:</b>	Hope Bay Environment	<b>Effective Date:</b>	December 1, 2023
<b>Revision:</b>		<b>Replaces:</b>	

## 1 OBJECTIVE

- 1.01 To provide guidance to deploy the Larson Davis SoundAdvisor Model 831C in the field to collect noise monitoring data. The requirement to collect this data is outlined in the Hope Bay Project (Sept. 2022) Wildlife Mitigation and Monitoring Plan (Jan. 2023)

## 2 SCOPE

- 2.01 This scope applies to field staff when noise monitoring is required for blasting events.

## 3 INTRODUCTION


- 3.01 Proper operation of the SoundAdvisor 831C noise monitor is vital to the proper collection of noise data.

## 4 RESPONSIBILITY

Environmental Technician	<p>Ensure noise monitoring equipment is fully charged and calibrated.</p> <p>Ensure all safety conditions are considered and met before commencing field work.</p>
Environmental Coordinator	<p>Provide Standard Operating Procedure to field staff for review and assess level of competency of field staff to complete task.</p> <p>Provide UTM coordinates and monitoring distance from blast site.</p>

## 5 DEFINITIONS

- 5.01 Larson Davis CAL200 – sound meter calibration device
- Larson Davis SoundAdvisor 831C – Noise monitor
- Larson Davis Model NMS044 Portable Noise Monitoring System

 <div style="text-align: center;"> <b>HOPE BAY</b>  <b>SAFE OPERATING PROCEDURES</b> </div>			
<b>Division:</b>	<b>Environment</b>		
<b>SOP #:</b>	ENV-SOP-ES-031		
<b>Subject:</b>	Noise Monitoring Procedure		
<b>Owner:</b>	Hope Bay Environment	<b>Effective Date:</b>	December 1, 2023
<b>Revision:</b>		<b>Replaces:</b>	

## 6 REFERENCES AND RELATED DOCUMENTS

- 6.01 - TMAC Resources Noise Abatement and Monitoring Plan, December 2017
- Hope Bay Project Quarry Management Plan and Monitoring Plan, 2022
- Wildlife Mitigation and Monitoring Plan, 2023
- SoundAdvisor 831C Sound Level Meter Reference Manual
- SoundAdvisor Noise Monitoring Solutions Reference Document

## 7 PREPARATION

### 7.01 TOOLS:

Larson Davis SoundAdvisor Model 831c

SoundAdvisor Portable Noise Monitoring System Model NMS044

Portable weather station

Handheld GPS

Digital camera

Field datasheet


Writing utensil

Extra AA batteries

## 8 PROCEDURE

### 8.01 Calibration

- 1 Remove foam oval windscreen and unscrew bird spike to reveal the microphone.
- 2 Carefully slide calibration pack hole located on the bottom of the unit, over the microphone tip ensuring that when the unit is placed on a flat surface the entire tip of the microphone is covered.
- 3 With the unit powered on, select 'TOOLS'/CALIBRATION
  - Select 94Db by using the cursor to highlight the dropdown menu.
- 3 On the calibration pack, press the black button – this starts the tone for the microphone to use as an audial reference tone.

<div></div> <div>HOPE BAY SAFE OPERATING PROCEDURES</div>			
Division:	Environment		
SOP #:	ENV-SOP-ES-031		
Subject:	Noise Monitoring Procedure		
Owner:	Hope Bay Environment	Effective Date:	December 1, 2023
Revision:		Replaces:	

On the 831C, use the cursor to highlight 'CALIBRATION'.

The unit will now enter calibration mode and run a diagnostic. Once calibration is complete, the 831C will prompt you to save – select yes.

- 4 Calibration procedure complete.

#### 8.02 Monitoring Station Set-Up


1. At the prescribed monitoring location (~2km from blast location), set up the microphone using the yellow broom pole and the molded bracket on the side of the pelican case.
2. On the microphone cable, slide the two cable ties up to the microphone grip. Now slide the microphone with cable ties over the yellow pole.

(Figure 1.)



Figure 1. Microphone affixed to vertical pole.



 <div style="text-align: center;"> <b>HOPE BAY</b>  <b>SAFE OPERATING PROCEDURES</b> </div>			
<b>Division:</b>	<b>Environment</b>		
<b>SOP #:</b>	ENV-SOP-ES-031		
<b>Subject:</b>	Noise Monitoring Procedure		
<b>Owner:</b>	Hope Bay Environment	<b>Effective Date:</b>	December 1, 2023
<b>Revision:</b>		<b>Replaces:</b>	

3. Using the two pieces of Velcro material on the microphone cable, secure microphone cable to the yellow pole to prevent wind from rattling the cable on the yellow pole during monitoring.
4. Once the microphone and pole are secure, take photos from all four cardinal directions depicting both the audio recording gear and the background.

#### 8.03 Noise Monitoring using the SoundAdvisor Model 831C

At the bottom of the 831C screen there are three menu items

LIVE                      CLOSE                      LOG

1. Select 'LIVE' – audible noise will register indicating the microphone is picking up ambient sounds. IF yes, proceed. IF not, check all connections in the Pelican case, and along the microphone.
2. If the mic is working, use the arrow keys to select 'LOG.' In this screen, the unit is now ready to start recording.
3. Select the Record button prior to blasting. When the blast event is complete, press the stop button to cease operation. Data is saved to the internal memory of the unit.


#### 8.04 Field Data

Record all pertinent information using the appropriate field datasheet.

Data recorded includes:

- Project Name, field personnel, date and time started/finished,
- UTM Coordinates of sampling station,
- Ground Cover type and terrain,
- sampling station weather on datasheet using the handheld wind meter,
- Instrument model,
- Sampling site observations and,
- Notable observations.

NOTE – complete a field data sheet even if blasting activities have been suspended. Note pertinent details to keep solid records of all blasting attempts.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;"> <b>HOPE BAY</b>  <b>SAFE OPERATING PROCEDURES</b> </div> </div>			
<b>Division:</b>	<b>Environment</b>		
<b>SOP #:</b>	ENV-SOP-ES-031		
<b>Subject:</b>	Noise Monitoring Procedure		
<b>Owner:</b>	Hope Bay Environment	<b>Effective Date:</b>	December 1, 2023
<b>Revision:</b>		<b>Replaces:</b>	

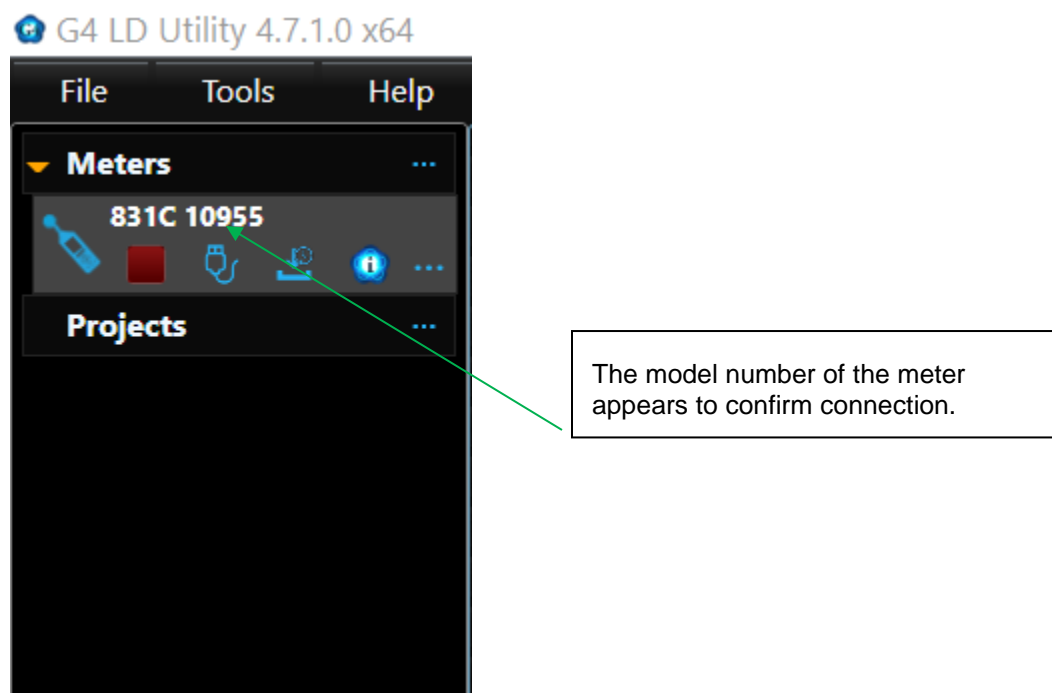
#### 8.05 Retrieving Data from SoundMonitor 831C


Interfacing the noise meter requires installation of the G4 LD Utility software and a standard USB cable connecting to either a PC or laptop computer.

With software loaded, open G4 LD Utility application.

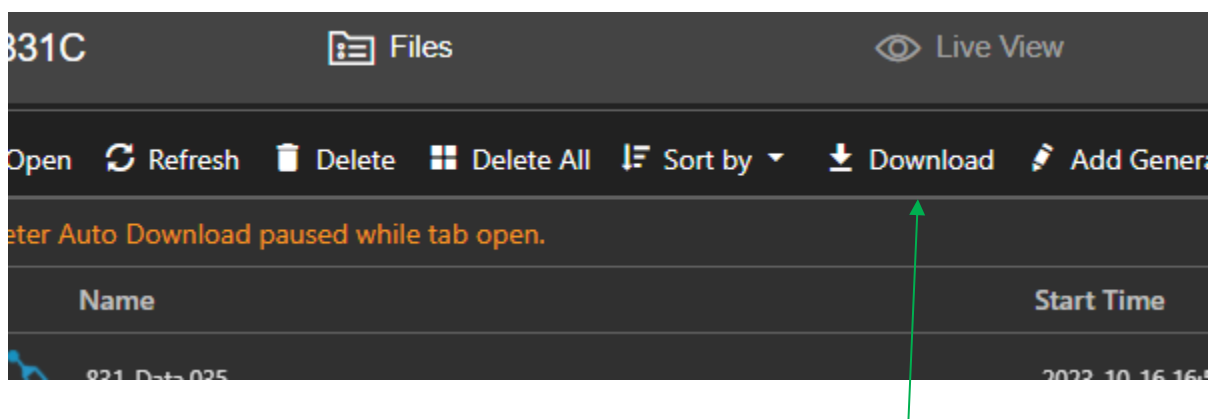
1. Connect the noise meter to the computer using a standard USB cable.

The connected meter model number will appear in the top left corner of the screen.



 <div style="text-align: center;"> <b>HOPE BAY</b>  <b>SAFE OPERATING PROCEDURES</b> </div>			
<b>Division:</b>	Environment		
<b>SOP #:</b>	ENV-SOP-ES-031		
<b>Subject:</b>	Noise Monitoring Procedure		
<b>Owner:</b>	Hope Bay Environment	<b>Effective Date:</b>	December 1, 2023
<b>Revision:</b>		<b>Replaces:</b>	

2. Select the data files from the sampling event from the list on the right side of the screen. Once the file(s) are highlighted, select the 'Download' option to begin data transfer to the connected computer.
3. Navigate to the 'Downloads' folder on the PC to retrieve data.



## 9 APPROVED RECORD

NAME	POSITION	DATE	REV #	NOTES
Will Nalley	Senior Environmental Technician	December 1, 2023	0	Drafted and reviewed

## APPENDIX D      WILDLIFE CAMERA LOCATIONS AND CAMERA EFFORT BY MONTH, DORIS AND MADRID AREAS, JUNE 2016 TO SEPTEMBER 2023

APPENDIX D: WILDLIFE CAMERA LOCATIONS AND CAMERA EFFORT BY MONTH, DORIS AND MADRID AREAS, JUNE 2016 TO SEPTEMBER 2023

Camera No.	Position			Distance to Infrastructure (m)			Camera Bearing	Camera Type	ZOI and Control Location Relative to Project	Species Specific Monitoring Objective	Summary Camera Effort June 2016 - December 2018	Summary Camera Effort January 2019 - May 2022	2022								2023								Summary Camera Effort September 2021 - September 2022		
	Zone	Easting	Northing	2017	2018	2019-Current					Total	Total	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Total	Average	Standard Deviation
1	13 W	432949	7558756	0	0	0	SE	Treatment	-	-	551	727	30	31	31	30	27	27	3	6	8	31	30	31	0	0	0	0	285	15.8333	14.54911
2	13 W	432387	7553947	28	28	28	N	Treatment	-	Road Crossing Ramp	574	839	30	31	31	28	17	23	3	8	3	12	0	0	0	0	2	1	189	10.5	12.53348
3	13 W	444031	7566975	11505	11505	11505	NW	Control	East	-	393	512	0	0	0	2	0	0	0	0	0	0	0	6	29	31	30	0	98	5.44444	11.39774
4	13 W	444861	7564091	10991	10991	10991	W	Control	East	-	468	476	30	31	31	10	12	0	0	0	0	13	29	24	27	28	4	0	239	13.2778	13.30106
5	13 W	450151	7565854	16481	16481	16481	E	Control	East	-	221	339	30	31	16	9	1	0	0	0	0	0	0	6	24	27	3	0	147	8.16667	11.7536
6	13 W	448290	7567418	15679	15679	15679	E	Control	East	-	458	523	30	31	10	4	10	0	0	0	0	3	30	22	27	21	13	0	201	11.1667	12.28222
7	13 W	446995	7560826	11697	11697	11697	N	Control	East	-	498	527	30	31	31	30	14	0	0	0	0	0	16	30	14	7	20	1	224	12.4444	13.1338
8	13 W	446453	7567249	13905	13905	13905	W	Control	East	-	292	281	30	31	31	30	19	0	0	0	0	0	23	30	27	26	29	0	276	15.3333	14.4018
9	13 W	421674	7551536	10998	10998	10998	S	Control	West	-	278	85	13	0	0	6	4	0	0	0	0	0	0	3	25	21	2	0	74	4.11111	7.653441
10	13 W	429000	7563795	2581	2581	2581	SW	ZOI	West	-	685	705	30	31	31	30	31	21	0	2	11	31	13	3	29	25	30	0	318	17.6667	13.582
11	13 W	434312	7561671	1313	1313	1313	SE	Treatment	-	-	572	914	30	31	31	30	31	19	0	1	0	7	19	28	30	26	26	0	309	17.1667	13.69092
12	13 W	428170	7550169	4507	4507	4507	S	ZOI	West	-	285	325	30	31	31	21	29	30	1	4	22	31	30	31	22	18	24	0	355	19.7222	12.62493
13	13 W	431162	7549789	1655	1655	1655	S	Treatment	-	-	484	913	30	31	31	30	30	26	4	0	0	24	29	31	28	28	31	0	353	19.6111	13.92897
14	13 W	441096	7559506	5660	5660	5660	W	ZOI	East	-	430	320	30	31	31	29	27	6	0	0	0	15	30	31	30	27	30	1	318	17.6667	14.19611
15	13 W	434048	7559949	439	439	439	S	Treatment	-	-	696	566	0	0	31	22	0	0	0	0	19	27	30	31	16	9	19	0	204	11.3333	12.79246
16	13 W	445286	7563652	11147	11147	11147	NW	Control	East	-	456	401	30	31	31	30	0	0	0	0	0	0	0	6	26	26	30	1	211	11.7222	14.42549
17	13 W	432414	7563015	132	67	67	NW	Treatment	-	-	606	805	30	31	31	23	0	0	0	0	0	0	0	1	30	31	30	0	207	11.5	14.81752
18	13 W	432884	7563146	0	0	0	E	Treatment	-	Waste Management Facility	522	791	30	31	31	30	27	22	10	20	1	0	0	2	23	11	20	0	258	14.3333	12.81543
19	13 W	433432	7562946	295	295	295	W	Treatment	-	-	455	655	30	31	31	30	25	20	0	0	10	29	30	30	29	30	15	0	340	18.8889	13.3544
21	13 W	432902	7563215	0	0	0	S	Treatment	-	Waste Management Facility	131	683	30	31	31	30	30	21	0	0	0	0	0	3	4	0	0	0	180	10	13.90726
22	13 W	435190	7562859	2040	2040	2040	SE	Treatment	-	ERM Fish Fence	356	877	8	0	0	9	22	15	0	0	0	0	0	3	28	20	12	0	117	6.5	9.173171
23	13 W	440934	7562091	6601	6601	6601	E	ZOI	-	-	232	436	30	5	0	7	26	15	0	10	1	26	30	31	30	25	31	0	267	14.8333	13.36919
24	13 W	432915	7546879	3540	3540	2827	SE	ZOI/Ladder	South	-	346	333	30	31	31	30	31	29	7	7	2	31	30	31	26	28	27	1	372	20.6667	13.17306
25	13 W	439189	7561613	4911	4911	4911	SW	ZOI	East	-	527	458	30	31	31	14	31	29	0	0	16	31	19	0	28	31	9	0	300	16.6667	13.77124
26	13 W	439511	7559524	4174	4174	4174	E	ZOI	East	-	514	185	23	27	18	30	28	30	9	0	0	0	0	4	30	27	0	0	226	12.5556	13.40422
28	13 W	437525	7555177	1860	1758	1758	SE	Treatment	-	-	544	720	30	31	31	30	31	30	4	15	0	30	30	31	28	27	30	0	378	21	13.41641
29	13 W	447664	7555608	11763	11701	11700	E	Control	East	-	518	797	30	31	31	30	31	16	0	6	12	31	30	22	30	27	10	0	337	18.7222	13.02398
30	13 W	436434	7551376	3216	3216	2794	NE	ZOI	East	-	526	329	30	31	31	30	31	28	2	4	0	0	0	2	12	11	18	0	230	12.7778	13.59306
31	13 W	447294	7558194	11554	11554	11532	SE	Control	East	-	690	383	0	0	0	7	31	16	0	0	0	30	24	28	16	10	20	0	182	10.1111	11.98474
32	13 W	431386	7554959	982	982	982	E	Treatment	-	-	526	590	1	0	2	23	30	15	0	2	0	30	28	28	17	13	9	0	198	11	12.10736
33	13 W	446370	7566101	13351	13351	13349	S	Control	East	-	291	582	30	31	19	9	31	14	0	0	0	0	9	20	14	14	21	19	231	12.8333	11.2994
34	13 W	435945	7545070	6037	6037	5333	NE	ZOI/Ladder	South	-	568	706	8	0	0	1	21	13	0	0	0	24	29	3	26	24	25	1	175	9.72222	11.57485
35	13 W	432743	7556706	57	57	57	E	Treatment	-	Road Crossing Ramp	532	636	30	31	31	25	23	18	5	5	4	3	0	0	0	0	1	1	177	9.83333	12.45344
36	13 W	447689	7563809	13382	13382	13382	N	Control	East	-	342	125	0	5	18	30	23	28	1	0	0	9	30	31	13	0	0	0	188	10.4444	12.62687
37	13 W	447868	7573293	17736	17736	17736	NE	Control	East	-	266	398	30	31	31	11	0	0	0	0	0	0	0	6	30	31	31	0	201	11.1667	14.46395
39	13 W	439855	7553886	4524	4421	4421	NE	ZOI	East	-	539	205	30	31	31	30	28	14	3	4	0	31	30	31	21	13	23	0	320	17.7778	13.28226
40	13 W	449306	7559369	13712	13712	13712	NW	Control	East	-	469	612	30	31	31	23	14	0	0	0	0	0	13	31	30	27	30	1	261	14.5	14.18885
41	13 W	436856	7564792	4006	4006	4006	SE	ZOI	East	-	234	632	30	31	28	9	31	12	0	5	0	31	30	31	29	29	11	0	307	17.0556	13.8159
42	13 W	432858	7561589	0	0	0	S	Treatment	-	-	663	870	30	31	31	30	31	30	10	11	16	31	29	31	26	24	27	0	388	21.5556	11.98147
43	13 W	447488	7561980	12505	12505	12505	W	Control	East	-	538	569	30	31	31	30	29	30	23	7	20	27	30	31	28	19	16	0	382	21.2222	11.69492
44	13 W	441011	7563691	7648	7648	7648	S	ZOI	East	-	615	867	30	31	31	30	30	22	0	0	8	31	30	31	30	29	31	1	365	20.2778	13.91912
45	13 W	443663	7571970	13546	13546	13546	N	Control	East	-	289	85	2	0	0	0	0	0													



APPENDIX D: WILDLIFE CAMERA LOCATIONS AND CAMERA EFFORT BY MONTH, DORIS AND MADRID AREAS, JUNE 2016 TO SEPTEMBER 2023

Camera No.	Position			Distance to Infrastructure (m)			Camera Bearing	Camera Type	ZOI and Control Location Relative to Project	Species Specific Monitoring Objective	Summary Camera Effort June 2016 - December 2018	Summary Camera Effort January 2019 - May 2022	2022							2023							Summary Camera Effort September 2021 - September 2022					
	Zone	Easting	Northing	2017	2018	2019-Current					Total	Total	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Total	Average	Standard Deviation	
46	13 W	442904	7560551	7707	7707	7707	N	ZOI	East	-	249	574	30	31	31	30	16	4	0	0	0	0	25	29	14	8	20	1	239	13.2778	13.16772	
47	13 W	442470	7550873	8383	8275	8275	E	ZOI	East	-	338	622	30	31	31	30	27	26	0	0	0	30	30	26	0	0	0	0	261	14.5	14.98725	
48	13 W	443980	7554761	8182	8106	8106	NW	ZOI	East	-	211	520	30	31	31	30	16	0	0	0	0	1	30	27	21	17	0	0	234	13	13.92416	
49	13 W	445024	7565168	11713	11713	11713	S	Control	East	-	462	102	0	0	0	7	30	28	4	7	11	31	15	16	19	15	27	0	210	11.6667	11.44295	
50	13 W	434645	7553626	1998	1998	1998	NE	Treatment	-	-	408	402	30	31	31	30	31	22	0	0	0	0	0	1	3	0	3	0	182	10.1111	14.02892	
51	13 W	435488	7555990	16	16	0	E	Treatment	-	TIA	304	601	30	31	31	30	13	17	0	8	1	27	30	31	29	25	27	0	330	18.3333	13.23987	
52	13 W	434501	7559084	77	77	77	NW	Treatment	-	TIA	452	852	0	0	0	0	0	0	0	0	0	0	0	0	20	7	20	0	47	2.61111	6.536224	
53	13 W	431215	7559161	1096	1096	1096	W	Treatment	-	-	657	1026	30	31	31	30	29	24	13	16	7	31	30	31	28	21	29	0	381	21.1667	11.97178	
54	13 W	430564	7558687	1757	1757	1757	SE	Treatment	-	-	561	716	18	0	0	6	31	19	0	7	0	30	30	31	23	15	29	0	239	13.2778	13.09156	
55	13 W	428287	7554559	4039	4039	4039	N	ZOI	West	-	385	307	30	31	31	30	18	30	23	30	28	29	30	31	7	0	0	0	348	19.3333	13.68125	
56	13 W	419347	7547495	13650	13650	13650	N	Control	West	-	513	542	30	31	31	28	11	0	0	0	0	0	16	30	30	27	30	0	264	14.6667	14.43036	
57	13 W	427342	7552318	5324	5324	5324	SW	ZOI	West	-	317	586	30	31	31	30	30	30	1	0	15	31	30	30	17	9	21	0	336	18.6667	13.39008	
58	13 W	421708	7545207	12160	12160	12160	N	Control	West	-	212	633	30	31	31	25	0	0	0	0	0	0	3	25	19	28	0	192	10.6667	13.67264		
59	13 W	431411	7564176	265	265	265	E	Treatment	-	-	415	735	30	31	31	30	31	25	3	7	27	31	30	31	30	31	22	0	390	21.6667	12.86125	
60	13 W	433982	7564662	1441	1441	1441	S	Treatment	-	-	590	544	0	0	0	9	30	17	1	0	0	30	30	28	28	31	30	0	234	13	14.26225	
Total														1363	1339	1320	1237	1200	861	130	192	242	890	1056	1120	1226	1046	1026	29			
Average														23.9	23.5	23.2	21.7	21.1	15.1	2.32	3.43	4.32	15.9	18.9	20	21.9	18.7	18.3	0.52			
Standard Deviation														11.4	13.2	12.7	10.8	11.3	11.5	4.99	5.87	7.56	14.2	13.1	12.9	9.26	10.5	11.3	2.54			

Notes:  
Cells with dashes (-) indicate camera was not active for that month.

## APPENDIX E      CAMERA SUMMARY OF WILDLIFE IMAGES AND EVENTS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO SEPTEMBER 2023

APPENDIX E: CAMERA SUMMARY OF WILDLIFE IMAGES AND EVENTS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Number of Images and Events Recorded of Wildlife Species													
	Caribou				Grizzly Bear		Wolverine		Muskox		Other Wildlife			
	Motion		Timed		Motion		Motion		Motion		Motion		Timed	
	Images	Events	Images	Events	Images	Events	Images	Events	Images	Events	Images	Events	Images	Events
1	534	61	1	1							487	38	11	2
2	120	11									81	8	15	6
3	780	47			198	6	20	1			100	7		
4	167	10			290	9					120	6		
5	710	15			344	7	10	1			30	1		
6	420	8	1	1	339	7					11	2		
7	463	13			30	1	10	1			10	1	1	1
8	360	10			120	4	70	1			168	8	1	1
9	160	4			250	5					10	1		
10	487	24			247	8	10	1			130	11		
11	243	5	1	1	250	7					200	10		
12	170	14			160	9					130	10		
13	240	8	2	1	370	8	30	2						
14	241	11			110	3					112	6		
15	189	10			90	5					26	6		
16	200	16	1	1	140	6			20	1	80	5		
17	83	8			170	7					158	14	12	10
18	260	25									80	8		
19	154	16			50	3					50	2	1	1
21	904	57			60	4					590	40	5	2
22	96	7			670	29	40	2			117	11	0	1
23	638	13	8	2	555	12	20	2	72	2	160	12	13	2
24	940	68	1	1	30	1	10	1			90	7	16	16
25	50	3			562	10	10	1	1584	1	20	2		
26	788	63			93	4			69	1	193	10		
28	510	15			700	12			310	3	237	21		
29	600	13			110	4					31	4	3	3
30	250	12			430	6	140	2			100	4	1	2
31	40	1			10	1					30	3	4	3
32	620	38			300	10					341	12		
33	940	54			3540	18	80	6			30	3		

APPENDIX E: CAMERA SUMMARY OF WILDLIFE IMAGES AND EVENTS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Number of Images and Events Recorded of Wildlife Species													
	Caribou				Grizzly Bear		Wolverine		Muskox		Other Wildlife			
	Motion		Timed		Motion		Motion		Motion		Motion		Timed	
	Images	Events	Images	Events	Images	Events	Images	Events	Images	Events	Images	Events	Images	Events
34	90	6			60	2					370	13	1	1
35	60	6	0	0							409	35	8	7
36	50	4			90	3	50	5			20	2		
37	287	12			618	6			100	1	20	2		
39	20	1									12	2	13	1
40	170	5									80	2	4	2
41	26	4			280	6	12	2			79	9		
42	390	35	1	1							30	1	13	10
43	450	5			591	9	22	2			176	13	2	2
44	140	5			110	4			170	1	160	7		
45					240	5								
46	260	10			250	6					60	2		
47	230	11					11	2			16	2		
48	440	30	5	2	60	3					30	3	7	4
49	10	1			281	3								
50	30	4			160	2					60	3		
51	637	49			40	3					200	19	12	10
52	110	7	2	0	157	7					197	19	7	7
53	150	7			70	3			110	2	170	8		
54	228	11			359	13					244	14	1	1
55	142	7			30	1					50	4		
56	160	3			530	5	12	2			20	1	1	1
57	320	16			30	2	40	3			70	6		
58	10	1	0	1	798	27	10	0			113	10	3	4
59	700	13			400	10					50	3		
60														
<b>TOTAL</b>	<b>17467</b>	<b>913</b>	<b>23</b>	<b>12</b>	<b>15372</b>	<b>326</b>	<b>607</b>	<b>37</b>	<b>2435</b>	<b>12</b>	<b>6558</b>	<b>453</b>	<b>155</b>	<b>100</b>

## APPENDIX F      WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO SEPTEMBER 2023



APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
Part 1. Camera Data for Caribou, Grizzly Bear, Wolverine, Muskox, and Nest Predators recorded on motion-triggered photos																	
1	Treatment	4/24/2022	1	16:02	16:05	M	1060	1079	20	2	Red Fox	2	NA	2	Walking	Tundra	
1	Treatment	7/4/2022	1	20:32	20:32	M	363	364	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/6/2022	2	7:47	7:47	M	386	393	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/6/2022	3	9:30	9:30	M	396	399	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/6/2022	4	17:25	17:25	M	409	411	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/8/2022	1	21:17	21:17	M	435	437	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/9/2022	1	3:45	3:45	M	445	454	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/10/2022	1	5:19	5:19	M	458	478	30	3	Caribou	3	NA	3	Walking	Tundra	
1	Treatment	7/10/2022	2	17:59	17:07	M	491	496	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/11/2022	2	21:09	21:09	M	534	538	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/11/2022	3	22:43	22:43	M	544	545	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/12/2022	1	0:47	0:47	M	554	562	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/12/2022	2	19:10	19:10	M	567	568	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/12/2022	3	21:03	21:03	M	577	577	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/13/2022	1	1:49	1:49	M	587	597	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/13/2022	2	7:34	7:34	M	607	616	20	2	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/14/2022	1	1:03	1:03	M	620	621	10	1	Caribou	1	NA	1	Walking	Tundra	
1	Treatment	7/17/2022	1	11:53	11:53	M	659	661	10	1	Caribou	1	NA	1	Walking	Tundra	
2	Treatment	7/3/2022	1	0:09	0:09	M	4897	4906	10	1	Caribou	3	NA	3	Grazing	Tundra	Truck triggered photo while driving
2	Treatment	7/4/2022	1	20:12	20:12	M	5723	5732	10	1	Caribou	1	NA	1	Walking	Road	Truck triggered photo while driving
2	Treatment	7/20/2022	1	3:58	3:59	M	9898	9907	10	1	Caribou	1	NA	1	Grazing	Tundra	
2	Treatment	7/21/2022	1	20:36	20:36	M	9954	9957	10	1	Caribou	1	NA	1	Walking	Tundra	
2	Treatment	8/2/2022	1	9:33	9:33	M	1908	1914	10	1	Caribou	1	NA	1	Walking	Tundra	
2	Treatment	8/3/2022	1	21:55	21:55	M	2584	2593	10	1	Caribou	1	NA	1	Walking	Tundra	
3	Control	5/26/2022	1	4:41	4:42	M	83	110	28	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
4	Control	10/4/2021	1	17:12	17:17	M	79	139	60	6	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
4	Control	7/3/2022	1	3:58	3:58	M	240	249	10	1	Caribou	2	1	3	Grazing	Tundra	Bear knocked the camera down
4	Control	7/8/2022	1	5:07	5:07	M	275	275	10	1	Caribou	1	NA	1	Walking	Tundra	
4	Control	7/23/2022	1	16:31	16:31	M	333	339	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
4	Control	7/24/2022	1	10:20	10:20	M	349	355	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
4	Control	9/3/2022	1	8:36	8:38	M	516	559	60	6	Grizzly Bear	2	NA	2	Walking	Tundra	
5	Control	6/9/2022	1	18:45	18:45	M	165	174	10	1	Caribou	1	NA	1	Walking	Tundra	
5	Control	6/23/2022	1	15:02	15:02	M	247	253	10	1	Caribou	1	NA	1	Walking	Tundra	
5	Control	6/30/2022	1	23:28	23:29	M	328	431	50	5	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
5	Control	8/4/2022	1	20:09	20:10	M	593	612	20	2	Caribou	NA	1	1	Walking	Tundra	
6	Control	9/8/2021	1	9:57	10:00	M	2048	2117	70	7	Caribou	1	0	1	Investigating camera	Tundra	
6	Control	9/12/2021	1	18:46	18:53	M	2133	2232	100	10	Caribou	1	0	1	Investigating camera	Tundra	
6	Control	9/12/2021	1	19:43	19:48	M	2233	2332	100	10	Caribou	1	0	1	Investigating camera	Tundra	
6	Control	7/10/2022	1	20:00	20:00	M	559	563	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
6	Control	7/18/2022	1	9:20	9:20	M	609	612	10	1	Caribou	1	NA	1	Walking	Tundra	
7	Control	4/28/2022	1	15:35	15:36	M	677	686	10	1	Fox	1	NA	1	Walking	Tundra	
7	Control	5/31/2022	1	9:21	9:21	M	65	89	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
7	Control	6/22/2022	1	13:39	13:39	M	164	173	10	1	Caribou	1	NA	1	Walking	Tundra	
7	Control	8/19/2022	1	9:58	9:58	M	395	398	10	1	Caribou	1	NA	1	Walking	Tundra	
7	Control	8/19/2022	2	12:35	12:35	M	408	415	10	1	Caribou	1	NA	1	Grazing	Tundra	
7	Control	9/1/2022	1	6:02	6:02	M	464	483	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
8	Control	4/30/2022	1	1:53	1:53	M	730	739	10	1	Arctic Fox	1	NA	1	Standing	Tundra	
8	Control	5/25/2022	1	12:34	12:34	M	40	61	30	3	Caribou	1	NA	1	Grazing	Tundra	
8	Control	5/31/2022	1	15:59	15:59	M	98	115	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
8	Control	6/7/2022	1	21:59	21:59	M	139	151	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
8	Control	6/7/2022	2	22:05	22:08	M	159	191	40	4	Caribou	1	NA	1	Investigating camera	Tundra	
9	Control	6/13/2022	1	10:46	10:48	M	121	138	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
10	ZOI	9/2/2021	1	19:10	19:10	M	487	496	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
10	ZOI	5/1/2022	1	0:39	0:40	M	581	600	20	2	Fox	1	NA	1	Investigating camera	Tundra	
10	ZOI	6/17/2022	1	7:00	7:00	M	123	142	20	2	Caribou	2	NA	2	Grazing	Tundra	

APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
10	ZOI	6/17/2022	2	18:29	18:29	M	146	167	22	3	Caribou	1	NA	1	Grazing	Tundra	
10	ZOI	6/25/2022	1	23:02	23:06	M	200	323	88	9	Caribou	1	1	2	Investigating camera	Tundra	
10	ZOI	7/5/2022	1	5:38	5:38	M	357	360	4	1	Caribou	1	NA	1	Walking	Tundra	
10	ZOI	7/8/2022	1	3:21	3:21	M	376	377	2	1	Caribou	1	NA	1	Walking	Tundra	
10	ZOI	7/18/2022	1	14:41	14:41	M	419	423	5	1	Caribou	1	NA	1	Walking	Tundra	
10	ZOI	8/14/2022	1	6:05	6:06	M	507	526	20	2	Caribou	1	NA	1	Standing	Tundra	
10	ZOI	8/14/2022	1	6:06	6:06	M	527	536	10	1	Caribou	2	NA	2	Standing	Tundra	
10	ZOI	8/27/2022	1	16:34	16:37	M	609	644	36	4	Caribou	NA	1	1	Grazing	Tundra	
11	Treatment	6/16/2022	1	20:26	20:26	M	114	116	3	1	Caribou	1	NA	1	Walking	Tundra	
11	Treatment	7/26/2022	2	10:35	10:40	M	381	410	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
12	ZOI	6/29/2022	1	12:52	12:55	M	185	202	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
12	ZOI	7/3/2022	1	1:34	1:35	M	222	229	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
12	ZOI	7/3/2022	1	5:15	5:15	M	232	234	10	1	Caribou	1	NA	1	Walking	Tundra	
12	ZOI	7/5/2022	1	1:38	1:38	M	248	253	10	1	Caribou	1	NA	1	Walking	Tundra	
12	ZOI	7/11/2022	1	5:35	5:35	M	276	280	10	1	Caribou	1	NA	1	Walking	Tundra	
12	ZOI	7/15/2022	1	0:02	0:02	M	308	311	10	1	Caribou	1	NA	1	Walking	Tundra	
12	ZOI	9/9/2022	1	23:56	23:56	M	529	538	10	1	Caribou	1	NA	1	Grazing	Tundra	
12	ZOI	9/10/2022	1	4:18	4:18	M	539	548	10	1	Caribou	1	NA	1	Walking	Tundra	
13	Treatment	9/8/2021	1	10:09	10:10	M	53	92	40	4	Grizzly Bear	1	0	1	Investigating camera	Tundra	
13	Treatment	3/24/2022	1	8:27	8:27	M	586	577	10	1	Wolverine	1	NA	1	Other	Tundra	
13	Treatment	3/28/2022	1	16:33	16:33	M	593	602	10	1	Red Fox	1	NA	1	Walking	Tundra	
13	Treatment	6/13/2022	1	12:50	15:54	M	97	136	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
13	Treatment	6/21/2022	1	15:25	15:25	M	179	182	10	1	Caribou	1	NA	1	Walking	Tundra	
13	Treatment	6/21/2022	2	16:45	16:45	M	189	198	10	1	Caribou	1	NA	1	Walking	Tundra	
13	Treatment	6/28/2022	3	7:55	7:55	M	217	219	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
13	Treatment	9/14/2022	1	13:37	13:38	M	465	503	40	4	Grizzly Bear	1	1	2	Grazing	Tundra	
14	ZOI	6/16/2022	1	11:30	11:45	M	209	225	20	2	Caribou	4	NA	4	Walking	Tundra	
14	ZOI	6/26/2022	1	13:47	13:47	M	462	471	10	1	Caribou	1	NA	1	Walking	Tundra	
14	ZOI	7/16/2022	1	22:14	22:14	M	662	663	10	1	Caribou	1	NA	1	Walking	Tundra	
14	ZOI	7/27/2022	1	3:10	3:10	M	702	707	10	1	Caribou	1	NA	1	Walking	Tundra	
14	ZOI	8/28/2022	1	21:38	21:38	M	811	818	10	1	Caribou	1	NA	1	Walking	Tundra	
14	ZOI	8/28/2022	2	21:39	21:43	M	821	952	120	12	Caribou	1	NA	1	Investigating camera	Tundra	
14	ZOI	9/8/2022	1	5:24	17:24	M	1011	1025	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
16	Control	6/14/2022	1	18:03	18:03	M	116	127	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
16	Control	7/21/2022	1	1:11	1:11	M	264	267	10	1	Caribou	1	NA	1	Walking	Tundra	
16	Control	8/3/2022	1	6:22	6:22	M	313	322	10	1	Caribou	1	NA	1	Walking	Tundra	
16	Control	9/9/2022	1	20:06	20:06	M	437	446	10	1	Caribou	1	NA	1	Grazing	Tundra	
17	Treatment	6/25/2022	1	11:01	11:01	M	640	649	10	1	Caribou	3	3	6	Grazing	Tundra	
17	Treatment	6/25/2022	2	11:02	11:02	M	650	651	2	1	Caribou	1	NA	1	Walking	Tundra	
18	Treatment	7/5/2022	1	13:11	13:11	M	8792	8792	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/7/2022	1	5:17	5:17	M	9635	9644	10	1	Caribou	2	NA	2	Walking	Road	
18	Treatment	7/8/2022	1	17:31	17:31	M	612	621	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/16/2022	1	19:37	19:37	M	2876	2882	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/16/2022	2	20:01	20:01	M	2886	2895	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/19/2022	1	22:25	22:25	M	4045	4053	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/20/2022	2	8:20	8:21	M	4055	4064	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/20/2022	3	19:03	19:03	M	4278	4287	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/21/2022	1	1:41	1:41	M	4298	4301	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/21/2022	2	5:36	5:36	M	4308	4317	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/21/2022	3	11:27	11:28	M	4438	4446	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/21/2022	4	13:45	13:45	M	4581	4588	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/21/2022	5	20:10	20:11	M	4931	4937	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/21/2022	6	20:21	20:21	M	4941	4944	10	1	Caribou	1	NA	1	Walking	Road	
18	Treatment	7/21/2022	7	22:46	22:46	M	4951	4960	10	1	Caribou	1	NA	1	Walking	Road	
19	Treatment	7/9/2022	1	1:04	1:04	M	189	198	10	1	Caribou	1	NA	1	Walking	Tundra	
19	Treatment	7/9/2022	2	2:50	2:50	M	199	201	10	1	Caribou	1	NA	1	Walking	Tundra	

APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
19	Treatment	7/19/2022	1	23:37	23:37	M	242	251	10	1	Caribou	1	NA	1	Walking	Tundra	
19	Treatment	7/25/2022	1	5:11	5:11	M	267	276	10	1	Caribou	1	NA	1	Grazing	Tundra	
19	Treatment	7/31/2022	1	11:29	11:29	M	315	316	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
19	Treatment	8/2/2022	1	3:51	3:51	M	341	347	10	1	Caribou	1	NA	1	Walking	Tundra	
19	Treatment	8/2/2022	2	10:27	10:27	M	351	355	10	1	Caribou	1	NA	1	Walking	Tundra	
19	Treatment	8/22/2022	1	20:12	20:12	M	434	464	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
21	Treatment	6/19/2022	1	21:53	21:53	M	4434	4443	10	1	Red Fox	1	NA	1	Walking	Road	
21	Treatment	7/4/2022	1	12:15	12:15	M	6068	6072	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/5/2022	1	8:22	8:22	M	6319	6321	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/5/2022	2	13:16	13:16	M	6382	6389	10	1	Caribou	2	NA	2	Walking	Road	
21	Treatment	7/5/2022	3	14:09	14:09	M	6452	6472	30	3	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/5/2022	4	17:59	17:59	M	6562	6564	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/5/2022	5	19:28	19:28	M	6572	6581	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/6/2022	1	20:53	20:53	M	6735	6738	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/7/2022	1	1:08	1:08	M	6745	6748	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/7/2022	2	4:11	4:11	M	6755	6771	20	2	Caribou	2	NA	2	Walking	Road	
21	Treatment	7/7/2022	3	8:31	8:31	M	6795	6804	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/7/2022	4	23:48	23:49	M	7168	7177	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/8/2022	1	4:59	5:00	M	7178	7187	10	1	Caribou	2	NA	2	Walking	Road	
21	Treatment	7/8/2022	2	19:39	19:39	M	7551	7560	10	1	Caribou	2	NA	2	Walking	Road	
21	Treatment	7/8/2022	3	21:03	21:03	M	7561	7572	20	2	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/8/2022	4	21:14	21:15	M	7581	7590	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/8/2022	5	21:36	21:36	M	7591	7592	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/8/2022	6	22:26	22:26	M	7601	7607	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/9/2022	1	1:06	1:06	M	7611	7620	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/9/2022	2	1:55	1:55	M	7621	7630	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/9/2022	3	2:57	2:58	M	7641	7680	40	4	Caribou	3	NA	3	Walking	Road	
21	Treatment	7/9/2022	4	4:03	4:03	M	7681	7684	4	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/9/2022	5	4:28	4:28	M	7691	7710	20	2	Caribou	2	NA	2	Walking	Road	
21	Treatment	7/9/2022	6	5:19	5:19	M	7711	7712	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/9/2022	7	17:33	17:33	M	7894	7895	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/9/2022	8	19:22	19:22	M	7914	7920	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/9/2022	9	21:24	21:24	M	7924	7933	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/10/2022	1	8:10	8:10	M	7974	7981	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/10/2022	2	16:12	16:12	M	8107	8116	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/10/2022	3	20:25	20:25	M	8147	8156	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/11/2022	4	0:48	0:48	M	8157	8166	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/11/2022	5	1:38	1:38	M	8177	8190	20	2	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/11/2022	6	23:36	23:36	M	8480	8483	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/12/2022	1	0:00	0:00	M	8490	8492	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/12/2022	2	1:29	1:29	M	8500	8509	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/12/2022	3	2:56	2:56	M	8510	8512	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/14/2022	1	1:54	1:54	M	8836	8845	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/14/2022	2	20:35	20:35	M	8869	8874	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/14/2022	3	21:47	21:47	M	8879	8880	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/14/2022	4	22:11	22:11	M	8889	8898	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/16/2022	1	14:45	14:46	M	9115	9124	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/16/2022	2	19:04	19:04	M	9175	9194	20	2	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/16/2022	3	19:41	19:41	M	9205	9213	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/16/2022	4	20:05	20:05	M	9215	9224	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/16/2022	5	20:49	20:49	M	9225	9229	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/17/2022	1	12:47	12:47	M	9278	9290	20	2	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/19/2022	1	15:26	15:26	M	9534	9553	20	2	Caribou	1	NA	1	Standing	Esker	
21	Treatment	7/20/2022	1	8:24	8:24	M	9605	9623	20	2	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/20/2022	2	13:12	13:12	M	9677	9682	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/20/2022	3	14:18	14:18	M	9697	9706	10	1	Caribou	2	NA	2	Walking	Road	

APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
21	Treatment	7/21/2022	1	11:03	11:04	M	9867	9878	20	2	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/21/2022	2	17:04	17:04	M	9980	9983	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/21/2022	1	21:05	21:05	M	1	10	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/21/2022	2	21:29	21:29	M	11	26	20	2	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/21/2022	3	22:50	22:50	M	31	37	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/21/2022	4	22:50	22:50	M	41	50	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/22/2022	9	21:20	21:20	M	324	329	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/23/2022	1	3:53	3:53	M	344	353	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/26/2022	1	14:38	14:38	M	736	739	10	1	Caribou	1	NA	1	Walking	Road	
21	Treatment	7/26/2022	2	20:15	20:15	M	776	785	10	1	Caribou	2	NA	2	Walking	Road	
21	Treatment	8/3/2022	1	22:32	22:32	M	1970	1972	10	1	Grizzly Bear	1	NA	1	Walking	Road	
21	Treatment	8/5/2022	1	18:53	18:53	M	2266	2275	10	1	Caribou	1	NA	1	Walking	Road	
22	Treatment	9/14/2021	1	15:27	15:27	M	713	722	10	1	Wolverine	1	0	1	Running	Tundra	
22	Treatment	9/14/2021	1	15:28	15:29	M	723	742	20	2	Wolverine	1	0	1	Investigating camera	Tundra	Likely the same wolverine as above
22	Treatment	5/10/2022	1	7:21	7:21	M	799	801	10	1	Fox	1	NA	1	Investigating camera	Tundra	
22	Treatment	7/26/2022	1	6:41	6:41	M	580	584	10	1	Grizzly Bear	1	NA	1	Walking	Tundra	
22	Treatment	7/26/2022	2	7:29	7:29	M	590	599	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
22	Treatment	8/14/2022	1	7:47	7:50	M	717	747	40	4	Grizzly Bear	1	NA	1	Walking	Tundra	throughout series, bear moves camera triggering photo bursts.
22	Treatment	8/21/2022	2	1:59	1:59	M	778	784	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
22	Treatment	8/24/2022	3	11:18	11:19	M	797	806	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
22	Treatment	8/25/2022	4	17:56	17:58	M	813	852	60	6	Grizzly Bear	1	NA	1	Investigating camera	Tundra	Possible this bear has frequented the area
22	Treatment	8/28/2022	5	16:14	16:14	M	862	871	10	1	Grizzly Bear	1	1	2	Investigating camera	Tundra	
22	Treatment	8/28/2022	6	17:58	17:58	M	872	881	10	1	Grizzly Bear	NA	1	1	Walking	Tundra	
22	Treatment	8/29/2022	7	15:59	16:01	M	895	914	20	2	Grizzly Bear	NA	1	1	Walking	Tundra	
22	Treatment	8/29/2022	8	16:02	16:02	M	915	924	10	1	Grizzly Bear	1	1	2	Walking	Tundra	
22	Treatment	9/3/2022	9	22:12	22:12	M	940	949	10	1	Grizzly Bear	1	NA	1	Walking	Tundra	
23	ZOI	9/10/2021	1	12:32	12:32	M	1441	1442	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	Knocks camera over
23	ZOI	10/7/2021	1	10:34	10:35	M	45	72	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
23	ZOI	11/11/2022	1	13:48	13:48	M	203	205	10	1	Red Fox	1	NA	1	Walking	Tundra	
23	ZOI	3/19/2022	1	12:36	12:36	M	627	633	10	1	Red Fox	1	NA	1	Walking	Tundra	
23	ZOI	3/23/2022	1	12:49	12:49	M	649	651	10	1	Fox	1	NA	1	Walking	Tundra	
23	ZOI	5/2/2022	1	2:55	2:55	M	786	795	10	1	Fox	1	NA	1	Running	Tundra	
23	ZOI	5/16/2022	1	0:14	0:14	M	868	869	10	1	Fox	1	NA	1	Walking	Tundra	
23	ZOI	6/7/2022	1	4:23	4:23	M	92	111	20	2	Caribou	1	NA	1	Walking	Tundra	investigating camera as well.
23	ZOI	6/23/2022	1	11:40	11:40	M	210	219	10	1	Caribou	1	NA	1	Feeding	Tundra	
23	ZOI	6/27/2022	5	21:28	21:28	M	235	244	10	1	Caribou	4	NA	4	Feeding	Tundra	
23	ZOI	7/5/2022	6	18:43	18:44	M	279	302	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
23	ZOI	9/4/2022	1	13:22	13:23	M	1022	1071	50	5	Grizzly Bear	1	NA	1	Investigating camera	Tundra	Appears a bear righted the camera from a fallen state
23	ZOI	9/10/2022	1	17:20	17:20	M	1090	1109	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	Possible to be same bear as seen previously
24	ZOI/Ladder	9/11/2021	1	12:24	12:24	M	556	575	20	2	Caribou	1	0	1	Walking	Tundra	Small horns, not sure if young, or female
24	ZOI/Ladder	9/11/2021	1	13:02	13:02	M	577	586	10	1	Caribou	1	0	1	Walking	Tundra	Caribou butt and back leg visible in image 577
24	ZOI/Ladder	9/23/2021	1	13:08	13:09	M	633	662	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
24	ZOI/Ladder	5/15/2022	1	0:45	0:45	M	704	704	1	1	Fox	1	NA	1	Standing	Tundra	
24	ZOI/Ladder	5/15/2022	1	6:09	6:09	M	714	714	1	1	Fox	1	NA	1	Standing	Tundra	
24	ZOI/Ladder	6/4/2022	1	1:54	1:54	M	118	125	10	1	Fox	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	6/7/2022	2	15:48	15:48	M	158	167	10	1	Caribou	NA	1	1	Walking	Tundra	Wolvering sitting, then rolling, and walking off.
24	ZOI/Ladder	6/7/2022	3	15:57	15:57	M	178	187	10	1	Wolverine	1	NA	1	Other	Tundra	
24	ZOI/Ladder	6/10/2022	1	11:06		M	194	203	10	1	Fox	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	6/30/2022	1	6:49	6:49	M	274	283	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	6/30/2022	2	23:24	23:24	M	287	296	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/5/2022	1	5:37	5:38	M	309	318	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/10/2022	1	3:52	3:52	M	344	353	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/10/2022	1	20:49	17:49	M	367	376	10	1	Caribou	NA	1	1	Walking	Tundra	
24	ZOI/Ladder	7/10/2022	2	20:56	20:56	M	377	386	10	1	Caribou	NA	1	1	Walking	Tundra	
24	ZOI/Ladder	7/11/2022	1	21:48	21:48	M	390	399	10	1	Caribou	1	NA	1	Running	Tundra	
24	ZOI/Ladder	7/16/2022	1	3:34	3:34	M	422	431	10	1	Caribou	1	NA	1	Running	Tundra	

APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
24	ZOI/Ladder	7/16/2022	2	10:43	10:43	M	432	441	10	1	Caribou	NA	1	1	Running	Tundra	
24	ZOI/Ladder	7/16/2022	3	21:45	21:45	M	445	454	10	1	Caribou	NA	1	1	Walking	Tundra	
24	ZOI/Ladder	7/16/2022	4	23:34	23:34	M	455	474	20	2	Caribou	NA	1	1	Walking	Tundra	maturity unknown
24	ZOI/Ladder	7/18/2022	1	16:52	12:45	M	481	490	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/19/2022	1	7:36	7:36	M	491	510	20	2	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/20/2022	1	1:56	1:56	M	514	523	10	1	Caribou	1	1	2	Walking	Tundra	
24	ZOI/Ladder	7/20/2022	2	8:14	8:14	M	524	533	10	1	Caribou	1	NA	1	Running	Tundra	
24	ZOI/Ladder	7/20/2022	3	21:45	21:45	M	538	546	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/24/2022	1	6:21	6:22	M	556	565	10	1	Caribou	1	NA	1	Running	Tundra	
24	ZOI/Ladder	7/25/2022	1	16:13	16:12	M	572	581	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/25/2022	2	17:20	17:20	M	582	591	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/26/2022	1	2:08	2:08	M	592	601	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	7/30/2022	1	12:56	12:48	M	637	656	20	2	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	8/2/2022	1	21:06	21:06	M	666	675	10	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	8/2/2022	2	21:26	21:26	M	676	685	10	1	Caribou	1	NA	1	Walking	Tundra	appears to be same adult observed August 2, 2022
24	ZOI/Ladder	8/10/2022	1	3:37	3:37	M	737	756	20	1	Caribou	1	NA	1	Walking	Tundra	
24	ZOI/Ladder	8/22/2022	1	19:49	19:49	M	796	825	30	3	Caribou	2	NA	2	Walking	Tundra	
25	ZOI	5/24/2022	1	11:30	15:16	M	70	312	240	24	Grizzly Bear	1	1	2	Investigating camera	Tundra	
25	ZOI	5/27/2022	1	13:23	13:23	M	322	331	10	1	Fox	1	NA	1	Walking	Tundra	
25	ZOI	6/7/2022	1	8:47	8:47	M	362	391	30	3	Caribou	1	NA	1	Investigating camera	Tundra	
25	ZOI	6/8/2022	1	22:26	22:26	M	398	407	10	1	Caribou	1	NA	1	Walking	Tundra	
25	ZOI	7/4/2022	1	6:22	6:22	M	583	592	10	1	Caribou	12	NA	12	Feeding	Tundra	Caribou interested in camera while other feed. Appears to have licked the camera before leaving.
25	ZOI	8/14/2022	1	14:46	14:47	M	779	788	2	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
25	ZOI	9/3/2022	1	7:10	7:11	M	856	905	50	5	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
28	Treatment	9/5/2021	1	8:53	20:55	M	846	895	50	5	Caribou	1	0	1	Investigating camera	Tundra	
28	Treatment	9/9/2021	1	7:51	7:52	M	915	944	30	3	Fox	1	0	1	Running	Tundra	
28	Treatment	5/26/2022	1	7:42	7:42	M	60	69	10	1	Fox	1	NA	1	Investigating camera	Tundra	
28	Treatment	6/14/2022	1	8:13	8:14	M	127	146	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
28	Treatment	6/24/2022	1	22:02	22:02	M	190	219	30	3	Caribou	1	NA	1	Investigating camera	Tundra	
28	Treatment	7/15/2022	1	17:41	17:43	M	303	362	60	6	Caribou	1	NA	1	Feeding	Tundra	
28	Treatment	7/20/2022	1	0:06	0:07	M	375	394	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
28	Treatment	7/24/2022	1	22:33	22:33	M	410	419	10	1	Caribou	NA	1	1	Running	Tundra	
28	Treatment	7/27/2022	1	0:02	0:04	M	426	455	20	2	Caribou	NA	1	1	Feeding	Tundra	
28	Treatment	7/28/2022	1	16:19	16:20	M	562	471	10	1	Caribou	NA	1	1	Walking	Tundra	
28	Treatment	8/21/2022	1	17:27	17:35	M	544	783	240	24	Muskox	8	3	11	Grazing	Tundra	This heard is likely same group that was observed along Windly road Km 4, and observed from helicopter mid summer.
29	Control	5/8/2022	1	1:21	1:21	M	694	701	10	1	Fox	1	NA	1	Walking	Tundra	
29	Control	6/22/2022	1	5:09	5:10	M	151	180	30	3	Caribou	1	NA	1	Feeding	Tundra	
29	Control	8/19/2022	1	22:25	22:25	M	348	357	10	1	Red Fox	1	NA	1	Walking	Tundra	
29	Control	9/6/2022	1	21:03	21:05	M	442	491	50	5	Caribou	2	NA	2	Investigating camera	Tundra	
29	Control	9/17/2022	1	18:41	18:41	M	525	544	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
30	ZOI	9/28/2021	1	3:22	3:23	M	1152	1161	10	1	Fox	1	0	1	Walking	Tundra	Arctic or red
30	ZOI	10/1/2021	1	7:27	7:27	M	97	106	10	1	Fox	1	NA	1	Running	Tundra	
30	ZOI	6/10/2022	1	11:59	11:59	M	106	115	10	1	Fox	1	NA	1	Walking	Tundra	
30	ZOI	7/11/2022	1	20:15	20:15	M	311	320	10	1	Fox	1	NA	1	Walking	Tundra	
30	ZOI	7/14/2022	1	23:36	23:36	M	330	339	10	1	Caribou	1	NA	1	Investigating camera	Tundra	Appears to see the camera and bolts.
30	ZOI	7/16/2022	1	11:11	11:13	M	343	402	60	6	Grizzly Bear	1	1	2	Investigating camera	Tundra	Presumed mother and cub -
30	ZOI	8/4/2022	1	7:57	20:22	M	460	469	10	1	Caribou	1	NA	1	Walking	Tundra	
30	ZOI	8/6/2022	1	21:19	21:19	M	479	488	10	1	Red Fox	1	NA	1	Walking	Tundra	
30	ZOI	8/11/2022	1	14:27	14:27	M	504	513	10	1	Caribou	1	NA	1	Walking	Tundra	
30	ZOI	8/16/2022	1	12:55	12:56	M	530	549	20	2	Common Raven	2	NA	2	Sitting	Tundra	
30	ZOI	8/13/2022	1	13:19	13:19	M	560	569	10	1	Common Raven	1	NA	1	Sitting	Tripod	
30	ZOI	8/13/2022	2	13:20	13:21	M	570	589	20	2	Common Raven	2	NA	2	Feeding	Tundra	
30	ZOI	9/3/2022	1	1:11	1:11	M	650	669	30	10	Caribou	11	NA	11	Walking	Tundra	
30	ZOI	9/15/2022	1	13:04		M	709	NA	70	7	Caribou	4	NA	4	Investigating camera	Tundra	Two caribou appears to have recently shed antler velvet



APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
31	Control	4/23/2022	1	17:24	17:24	M	642	651	10	1	Fox	1	NA	1	Walking	Tundra	
31	Control	5/1/2022	1	22:59	23:00	M	676	685	10	1	Fox	1	NA	1	Running	Tundra	
32	Treatment	9/9/2022	1	20:45	20:47	M	10	59	50	5	Caribou	1	NA	1	Investigating camera	Tundra	
33	Control	9/13/2021	1	12:00	12:01	M	3297	3339	50	5	Grizzly Bear	1	0	1	Investigating camera	Tundra	
33	Control	10/14/2021	1	17:46	17:53	M	69	198	130	13	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
33	Control	12/6/2021	1	11:52	11:53	M	366	395	40	4	Caribou	5	1	6	Feeding	Tundra	
33	Control	3/5/2022	1	9:16	9:21	M	672	750	80	8	Wolverine	1	NA	1	Investigating camera	Tundra	
33	Control	3/22/2022	1	18:01	18:01	M	816	820	10	1	Red Fox	1	NA	1	Walking	Tundra	
33	Control	4/1/2022	1	0:13	0:14	M	883	898	20	2	Fox	1	NA	1	Feeding	Tundra	
33	Control	4/7/2022	1	1:28	1:28	M	921	923	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
33	Control	4/19/2022	1	22:30	22:30	M	1000	1008	10	1	Fox	1	NA	1	Walking	Tundra	
33	Control	4/19/2022	2	22:30	22:30	M	1018	1029	20	2	Fox	1	NA	1	Running	Tundra	
33	Control	4/24/2022	1	19:27	19:27	M	1045	1054	10	1	Red Fox	1	NA	1	Walking	Tundra	
33	Control	4/29/2022	1	14:27	14:27	M	1090	1097	10	1	Fox	1	NA	1	Walking	Tundra	
33	Control	5/1/2022	1	11:18	11:18	M	1103	1110	10	1	Fox	1	NA	1	Walking	Tundra	
33	Control	5/1/2022	1	11:01	23:01	M	1116	1122	10	1	Red Fox	1	NA	1	Walking	Tundra	
33	Control	5/4/2022	1	1:50	1:50	M	1172	1188	20	2	Arctic Fox	1	NA	1	Walking	Tundra	
33	Control	5/4/2022	1	10:11	10:11	M	1192	1197	10	1	Wolverine	1	NA	1	Walking	Tundra	
33	Control	5/17/2022	1	9:53	9:54	M	1242	1272	30	3	Caribou	NA	1	1	Walking	Tundra	
33	Control	5/26/2022	1	9:05	9:06	M	40	59	20	2	Fox	1	NA	1	Walking	Tundra	
33	Control	5/27/2022	1	6:30	6:31	M	63	72	10	1	Fox	1	NA	1	Walking	Tundra	
33	Control	6/6/2022	1	15:26	15:27	M	106	115	10	1	Caribou	1	NA	1	Feeding	Tundra	
33	Control	6/8/2022	1	1:55	2:04	M	119	388	270	27	Caribou	1	NA	1	Investigating camera	Tundra	Feeding and investigation camera
34	ZOI/Ladder	9/7/2021	1	21:57	21:57	M	472	481	10	1	Fox	1	0	1	Walking	Tundra	
34	ZOI/Ladder	3/22/2022	1	14:40	14:41	M	616	625	10	1	Red Fox	1	NA	1	Running	Tundra	
34	ZOI/Ladder	3/26/2022	1	19:57	19:57	M	638	638	10	1	Fox	1	NA	1	Walking	Tundra	
34	ZOI/Ladder	3/21/2022	1	16:25	16:26	M	663	672	10	1	Red Fox	1	NA	1	Hunting	Tundra	
34	ZOI/Ladder	4/7/2022	2	22:25	22:25	M	714	720	10	1	Fox	1	NA	1	Walking	Tundra	
34	ZOI/Ladder	4/12/2022	1	13:31	13:31	M	739	740	10	1	Red Fox	1	NA	1	Walking	Tundra	
34	ZOI/Ladder	4/28/2022	1	9:21	9:22	M	794	803	10	1	Fox	1	NA	1	Walking	Tundra	
34	ZOI/Ladder	6/7/2022	1	23:11	23:54	M	108	157	50	5	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
35	Treatment	7/20/2022	1	13:05	13:05	M	243	252	10	1	Caribou	1	NA	1	Walking	Tundra	Shows caribou using ramp allowing wildlife passage
35	Treatment	7/24/2022	1	0:49	0:49	M	532	541	10	1	Caribou	1	NA	1	Walking	Tundra	
35	Treatment	8/24/2022	1	13:52	13:52	M	9969	9987	10	1	Caribou	1	NA	1	Standing	Tundra	
35	Treatment	8/25/2022	1	11:07	11:08	M	150	159	10	1	Caribou	2	NA	2	Walking	Tundra	One of two animals use wildlife ramp to access Windy Road
36	Control	7/21/2022	1	19:19	19:19	M	24	33	10	1	Caribou	1	NA	1	Walking	Tundra	
36	Control	7/25/2022	1	0:21	0:22	M	43	52	10	1	Caribou	1	NA	1	Walking	Tundra	Two grizzly bears noted in images captured while camera was knocked down.
37	Control	10/12/2021	1	21:15	21:19	M	122	201	80	8	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
37	Control	5/18/2022	1	13:55	13:56	M	896	1231	350	35	Grizzly Bear	1	NA	1	Walking	Tundra	
37	Control	6/18/2022	1	3:41	3:46	M	162	261	100	10	Muskox	3	NA	3	Grazing	Tundra	Investigating camera as well.
37	Control	6/29/2022	1	21:18	21:18	M	348	367	20	2	Caribou	2	NA	2	Investigating camera	Tundra	
37	Control	7/19/2022	1	2:50	2:50	M	455	464	10	1	Caribou	1	NA	1	Walking	Tundra	
37	Control	8/11/2022	1	8:35	8:37	M	1004	1043	50	5	Grizzly Bear	1	NA	1	Investigating camera	Tripod	
37	Control	8/12/2022	1	4:30	4:30	M	1047	1056	10	1	Caribou	1	NA	1	Walking	Tundra	
37	Control	8/12/2022	2	12:20	12:21	M	1059	1108	40	4	Caribou	2	NA	2	Feeding	Tripod	
37	Control	8/17/2022	1	17:26	17:26	M	1125	1134	10	1	Caribou	1	NA	1	Feeding	Tundra	
37	Control	8/23/2022	1	21:58	22:02	M	1153	1172	20	2	Caribou	1	NA	1	Investigating camera	Tripod	
37	Control	8/26/2022	1	10:29	10:29	M	1229	1238	10	1	Caribou	NA	NA	NA	Investigating camera	Tundra	
37	Control	8/28/2022	1	8:22	8:24	M	1245	1284	40	4	Caribou	1	NA	1	Grazing	Tundra	
37	Control	9/5/2022	1	13:55	13:55	M	1322	1331	10	1	Caribou	1	NA	1	Walking	Tundra	appears to be same adult caribou noted early.
39	ZOI	5/10/2022	1	11:22	11:22	M	730	739	10	1	Red Fox	1	NA	1	Running	Tundra	
39	ZOI	10/20/2021	1	3:32	3:32	M	104	113	10	1	Red Fox	1	NA	1	Walking	Tundra	
40	Control	4/7/2022	1	16:20	16:20	M	624	633	10	1	Fox	1	NA	1	Walking	Tundra	
40	Control	4/26/2022	1	8:10	8:10	M	688	697	10	1	Red Fox	1	NA	1	Walking	Tundra	
40	Control	5/28/2022	1	13:55	13:57	M	100	182	90	9	Caribou	2	NA	2	Investigating camera	Tundra	

APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
41	ZOI	5/23/2022	1	8:36	8:36	M	47	48	2	1	Wolverine	1	NA	1	Walking	Tundra	
41	ZOI	7/14/2022	1	22:00	22:00	M	276	277	2	1	Caribou	1	NA	1	Walking	Tundra	
41	ZOI	7/27/2022	1	11:03	11:03	M	322	325	4	1	Caribou	1	NA	1	Investigating camera	Tundra	
41	ZOI	7/30/2022	1	19:01	19:01	M	344	353	10	1	Caribou	1	NA	1	Walking	Tundra	
41	ZOI	8/28/2022	1	9:27	9:28	M	438	459	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
42	Treatment	9/2/2021	1	9:10	9:10	M	496	515	20	2	Caribou	1	0	1	Investigating camera	Tundra	
42	Treatment	7/4/2022	1	5:35	5:35	M	176	178	10	1	Caribou	1	NA	1	Walking	Tundra	
42	Treatment	7/4/2022	2	14:37	14:37	M	189	191	10	1	Caribou	1	NA	1	Walking	Tundra	
42	Treatment	7/5/2022	1	1:53	1:54	M	199	208	10	1	Caribou	1	NA	1	Walking	Tundra	
42	Treatment	7/6/2022	1	21:45	21:45	M	215	222	10	1	Caribou	1	NA	1	Walking	Tundra	
42	Treatment	7/14/2022	1	3:39	3:39	M	246	249	10	1	Caribou	1	NA	1	Walking	Tundra	
42	Treatment	7/21/2022	1	6:39	6:39	M	277	279	10	1	Caribou	1	NA	1	Walking	Tundra	
42	Treatment	7/27/2022	1	0:10	0:10	M	305	309	10	1	Caribou	1	NA	1	Running	Tundra	
42	Treatment	8/6/2022	1	10:22	10:22	M	345	352	10	1	Caribou	1	NA	1	Walking	Tundra	
42	Treatment	8/9/2022	1	10:14	10:14	M	364	373	10	1	Caribou	1	NA	1	Walking	Tundra	
42	Treatment	8/9/2022	2	10:54	10:54	M	384	384	10	1	Caribou	1	NA	1	Walking	Tundra	
43	Control	10/13/2021	1	19:09	19:09	M	76	85	10	1	Fox	1	NA	1	Walking	Tundra	
43	Control	10/15/2021	1	13:51	13:51	M	92	101	10	1	Red Fox	1	NA	1	Walking	Tundra	
43	Control	10/15/2021	2	14:09	14:09	M	102	111	10	1	Fox	1	NA	1	Running	Tundra	
43	Control	5/1/2022	1	4:43	4:53	M	703	832	130	13	Caribou	3	1	3	Investigating camera	Tundra	An adult and a calf up in the face of the camera, while two other adults were feeding farther away
43	Control	5/9/2022	1	20:18	20:19		930	1126	197	20	Grizzly Bear	1	NA	1	Investigating camera	Tundra	Grizzly Bear seems to be playing
43	Control	9/16/2022	1	8:06	8:09	M	549	628	80	8	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
43	Control	7/3/2022	1	20:27	20:27	M	207	210	10	1	Caribou	2	NA	2	Walking	Tundra	
43	Control	7/9/2022	1	1:45	1:45	M	242	243	10	1	Fox	1	NA	1	Walking	Tundra	
43	Control	7/19/2022	1	5:27	5:28	M	282	311	30	3	Caribou	1	NA	1	Walking	Tundra	
44	ZOI	7/7/2022	1	1:28	1:28	M	682	691	10	1	Caribou	1	NA	1	Grazing	Tundra	
44	ZOI	7/9/2022	1	21:55	21:55	M	721	722	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
45	Control	6/2/2022	1	16:45	16:49	M	87	125	40	4	Grizzly Bear	1	1	2	Investigating camera	Tundra	
46	ZOI	8/29/2022	1	11:42	11:43	M	462	530	60	6	Caribou	1	NA	1	Investigating camera	Tundra	
46	ZOI	9/3/2022	1	9:55	9:55	M	546	578	40	4	Caribou	2	NA	2	Walking	Tundra	
46	ZOI	9/13/2022	1	10:28	10:29	M	616	637	40	4	Caribou	1	NA	1	Investigating camera	Tundra	
47	ZOI	9/9/2021	1	4:14	4:14	M	459	478	20	2	Caribou	2	0	2	Investigating camera	Tundra	
47	ZOI	3/30/2022	1	16:47	16:47	M	580	589	10	1	Fox	1	NA	1	Walking	Tundra	
47	ZOI	4/3/2022	1	13:58	13:58	M	602	611	10	1	Red Fox	1	NA	1	Walking	Tundra	
47	ZOI	5/2/2022	1	20:15	20:20	M	709	738	30	3	Red Fox	1	NA	1	Investigating camera	Tundra	
47	ZOI	7/7/2022	1	1:40	1:40	M	196	205	10	1	Caribou	2	NA	2	Walking	Tundra	
47	ZOI	7/12/2022	1	23:48	23:48	M	224	233	10	1	Caribou	1	NA	1	Walking	Tundra	
47	ZOI	7/31/2022	1	17:22	17:23	M	291	328	40	4	Caribou	2	NA	2	Grazing	Tundra	
47	ZOI	8/9/2022	1	22:58	22:58	M	358	367	10	1	Wolverine	1	NA	1	Walking	Tundra	
47	ZOI	8/25/2022	1	10:25	10:25	M	413	422	10	1	Caribou	1	NA	1	Walking	Tundra	
47	ZOI	9/1/2022	1	12:56	12:59	M	447	467	30	3	Caribou	1	NA	1	Bedded	Tundra	
47	ZOI	9/1/2022	2	13:05	13:05	M	477	486	10	1	Caribou	1	NA	1	Walking	Tundra	
47	ZOI	9/1/2022	3	14:13	14:13	M	489	496	10	1	Caribou	1	NA	1	Grazing	Tundra	
47	ZOI	9/2/2022	1	17:05	17:05	M	500	519	20	2	Caribou	1	NA	1	Walking	Tundra	
48	ZOI	6/14/2022	1	17:03	17:08	M	140	159	20	2	Caribou	3	NA	3	Investigating camera	Tundra	
48	ZOI	6/17/2022	1	19:47	19:47	M	169	180	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
48	ZOI	7/5/2022	1	14:52	14:52	M	283	285	10	1	Caribou	1	NA	1	Walking	Tundra	
48	ZOI	7/7/2022	1	4:59	4:59	M	316	323	10	1	Caribou	1	NA	1	Walking	Tundra	
48	ZOI	8/21/2022	1	21:03	21:04	M	464	494	40	4	Caribou	4	NA	4	Walking	Tundra	
48	ZOI	8/30/2022	1	14:53	14:53	M	535	550	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
48	ZOI	9/2/2022	1	18:42	18:43	M	560	579	20	2	Caribou	1	NA	1	Walking	Tundra	
48	ZOI	9/4/2022	1	13:29	13:29	M	586	595	10	1	Caribou	1	NA	1	Walking	Tundra	
48	ZOI	9/4/2022	2	13:51	13:51	M	606	619	20	2	Caribou	1	NA	1	Walking	Tundra	
48	ZOI	9/4/2022	11	14:16	14:17	M	626	648	30	3	Caribou	1	NA	1	Walking	Tundra	
49	Control	5/26/2022	1	3:50	3:58	M	63	242	180	18	Grizzly Bear	1	NA	1	Investigating camera	Tundra	



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Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
50	Treatment	5/22/2022	1	14:37	14:37	M	1320	1329	10	1	Red Fox	1	NA	1	Walking	Tundra	
50	Treatment	5/25/2022	1	22:09	22:10	M	159	179	21	3	Fox	1	NA	1	Investigating camera	Tundra	
50	Treatment	6/22/2022	2	16:43	16:43	M	1522	1530	9	1	Caribou	1	NA	1	Walking	Tundra	
50	Treatment	7/1/2022	3	2:43	2:43	M	1976	1980	5	1	Caribou	1	NA	1	Walking	Tundra	
50	Treatment	8/21/2022	4	19:12	19:12	M	4597	4603	7	1	Caribou	1	NA	1	Investigating camera	Tundra	
50	Treatment	8/21/2022	5	19:16	19:17	M	4607	4629	9	2	Caribou	1	NA	1	Walking	Tundra	
51	Treatment	7/5/2022	1	7:22	7:22	M	210	222	12	2	Caribou	1	NA	1	Investigating camera	Other	
51	Treatment	7/5/2022	2	18:32	18:32	M	226	229	4	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/6/2022	1	12:20	12:20	M	238	242	5	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/9/2022	NA	10:16	10:16	M	255	164	10	1	Grizzly Bear	1	1	2	Walking	Other	
51	Treatment	7/10/2022	1	1:04	1:04	M	268	277	10	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/10/2022	2	3:18	3:18	M	278	286	9	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/11/2022	1	3:58	3:58	M	291	293	3	1	Caribou	1	NA	1	Running	Other	
51	Treatment	7/11/2022	2	10:07	10:07	M	301	301	1	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/11/2022	3	23:49	23:49	M	314	317	5	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/12/2022	1	2:40	2:40	M	324	326	3	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/13/2022	1	3:46	3:46	M	337	346	10	1	Caribou	2	NA	2	Walking	Other	
51	Treatment	7/14/2022	1	1:44	1:44	M	350	354	5	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/14/2022	2	2:41	2:43	M	360	383	24	3	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/22/2022	1	23:44	23:44	M	467	472	6	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/23/2022	1	3:55	3:55	M	477	483	7	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/24/2022	1	0:39	0:39	M	530	533	4	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/24/2022	2	1:01	1:01	M	540	543	4	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/24/2022	3	1:50	1:50	M	550	554	5	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	7/24/2022	4	15:45	15:45	M	583	585	3	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	8/5/2022	1	17:21	17:21	M	969	971	3	1	Caribou	1	NA	1	Walking	Other	
51	Treatment	9/3/2022	1	20:18	20:19	M	3826	2829	4	1	Caribou	1	NA	1	Walking	Other	
53	Treatment	4/15/2022	1	22:05	22:05	M	1201	1210	10	1	Fox	1	NA	1	Walking	Tundra	
53	Treatment	6/17/2022	1	6:08	6:08	M	153	162	10	1	Caribou	6	NA	6	Bedded	Tundra	
53	Treatment	6/24/2022	1	10:45	10:46	M	204	213	10	1	Caribou	3	NA	3	Grazing	Tundra	
53	Treatment	8/19/2022	1	16:08	16:11	M	445	466	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
54	Treatment	6/17/2022	1	3:33	3:40	M	413	462	50	5	Caribou	6	NA	6	Grazing	Tundra	
55	ZOI	10/7/2021	1	15:01	15:02	M	95	114	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
55	ZOI	6/16/2022	1	15:42	15:43	M	103	142	40	4	Caribou	2	NA	2	Grazing	Tundra	
55	ZOI	6/18/2022	1	14:17	14:18	M	171	193	30	3	Caribou	1	NA	1	Investigating camera	Tundra	
55	ZOI	6/29/2022	1	22:09	22:10	M	252	291	40	4	Caribou	3	NA	3	Grazing	Tundra	
55	ZOI	7/3/2022	1	17:41	17:41	M	304	305	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
55	ZOI	7/4/2022	1	1:09	1:09	M	314	333	20	2	Caribou	2	NA	2	Grazing	Tundra	
55	ZOI	7/9/2022	1	0:39	0:39	M	349	358	10	1	Caribou	1	NA	1	Walking	Tundra	
55	ZOI	7/10/2022	1	10:54	10:54	M	362	363	10	1	Caribou	1	NA	1	Walking	Tundra	
55	ZOI	7/24/2022	1	20:54	20:55	M	427	436	10	1	Grizzly Bear	1	1	2	Investigating camera	Tundra	
55	ZOI	8/11/2022	1	0:56	0:56	M	498	512	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
55	ZOI	8/11/2022	2	3:56	15:58	M	518	577	60	6	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
55	ZOI	8/25/2022	1	7:18	7:18	M	621	622	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
56	Control	9/10/2021	1	11:30	12:00	M	768	769	2	2	Caribou	3	0	3	Grazing	Tundra	
56	Control	6/5/2022	1	6:38	6:38	M	407	416	10	1	Caribou	2	NA	2	Grazing	Tundra	
56	Control	8/18/2022	4	6:33	6:33	M	1179	1184	10	1	Caribou	1	NA	1	Walking	Tundra	
56	Control	8/20/2022	5	5:54	5:54	M	1195	1199	10	1	Caribou	1	NA	1	Walking	Tundra	
56	Control	8/31/2022	6	19:10	19:10	M	1241	1242	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
56	Control	9/8/2022	7	7:12	7:13	M	1272	1321	50	5	Caribou	3	NA	3	Grazing	Tundra	
56	Control	9/15/2022	8	21:18	21:19	M	1346	1386	50	5	Caribou	1	NA	1	Investigating camera	Tundra	
57	ZOI	4/21/2022	1	8:43	8:43	M	700	709	10	1	Wolverine	1	NA	1	Running	Tundra	
57	ZOI	7/2/2022	1	23:37	23:37	M	201	207	10	1	Caribou	1	NA	1	Walking	Tundra	
58	Control	10/24/2021	1	12:53	12:53	M	106	115	10	1	Wolverine	1	NA	1	Walking	Tundra	
58	Control	3/9/2022	1	9:53	9:57	M	521	540	20	2	Wolverine	1	NA	1	Walking	Tundra	
58	Control	3/12/2022	1	14:38	14:38	M	553	562	10	1	Fox	1	NA	1	Walking	Tundra	

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Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
58	Control	4/2/2022	1	16:47	16:59	M	626	665	40	4	Red Fox	1	NA	1	Investigating camera	Tundra	
58	Control	4/7/2022	1	21:08	21:08	M	681	690	10	1	Fox	1	NA	1	Walking	Tundra	
58	Control	4/11/2022	1	2:02	2:05	M	710	728	30	3	Fox	1	NA	1	Investigating camera	Tundra	
58	Control	7/4/2022	1	4:35	4:35	M	185	194	10	1	Caribou	3	0	3	Walking	Tundra	
58	Control	7/7/2022	1	2:00	2:00	M	204	205	10	1	Wolverine	1	0	1	Running	Tundra	
58	Control	7/17/2022	1	11:13	11:13	M	264	267	10	1	Grizzly Bear	NA	1	1	Walking	Tundra	
58	Control	8/21/2022	1	12:14	12:14	M	381	385	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
58	Control	9/3/2022	1	14:54	14:54	M	431	480	50	5	Caribou	1	NA	1	Walking	Tundra	
58	Control	9/6/2022	1	12:22	12:23	M	491	521	40	4	Caribou	2	NA	2	Investigating camera	Tundra	
58	Control	9/20/2022	1	12:26	12:26	M	571	577	10	1	Caribou	1	NA	1	Walking	Tundra	
59	Treatment	9/4/2021	1	1:09	1:36	M	860	889	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
59	Treatment	9/18/2021	1	2:14	2:15	M	952	981	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
59	Treatment	3/31/2022	1	17:02	17:02	M	606	615	10	1	Red Fox	1	NA	1	Other	Tundra	
59	Treatment	9/4/2022	2	7:17	7:21	M	730	770	50	5	Grizzly Bear	1	NA	1	Hunting	Tundra	
59	Treatment	6/9/2022	1	23:07	23:07	M	152	157	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
59	Treatment	6/13/2022	1	0:17	0:24	M	171	240	60	6	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
59	Treatment	9/4/2022	1	7:07	7:07	M	700	719	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
1	Treatment	11/1/2021	1	18:18	18:18	T											
6	Control	6/17/2022	NA	12:00	12:00	T	167	167	1	1	Caribou	1	NA	1	Walking	Tundra	
16	Control	8/2/2022	1	11:30	11:30	T	310	310	1	0	Caribou	1	NA	1	Grazing	Tundra	
23	ZOI	6/26/2022	3	11:30		T	209	NA	1	NA	Caribou	1	NA	1	Feeding	Tundra	
23	ZOI	6/26/2022	1	12:30		T	221	NA	NA	NA	Caribou	1	NA	1	Feeding	Tundra	
30	ZOI	6/21/2022	NA	11:30		T	148	NA	NA	NA	Muskox	8	NA	8	Walking	Tundra	
30	ZOI	6/21/2022	NA	12:00		T	149	NA	NA	NA	Muskox	8	NA	8	Walking	Tundra	
30	ZOI	8/4/2022	NA	11:30		T	470	NA	NA	NA	Grizzly Bear	1	1	2	Walking	Tundra	Presumed to have been observed 2022-07-16
30	ZOI	8/4/2022	NA	12:00		T	471	NA	NA	NA	Grizzly Bear	1	1	2	Walking	Tundra	Presumed to have been observed 2022-07-16
35	Treatment	8/25/2022	NA	11:30		T	160	NA	NA	NA	Caribou	1	NA	1	Walking	Road	
53	Treatment	6/17/2022	NA	11:30	11:30	T	163	NA	1	NA	Caribou	4	NA	4	Grazing	Tundra	
53	Treatment	6/17/2022	NA	12:00	12:00	T	164	NA	1	NA	Caribou	9	NA	9	Grazing	Tundra	
8		4/19/2023	1	1/0/1900	1/0/1900	M	79	80	2	1	Fox	1	NA	1	Running	Tundra	
9		10/4/2022	1	1/0/1900	1/0/1900	M	621	622	2	1	Common Raven	1	NA	1	Investigating camera	Tripod	
10		9/25/2022	1	1/0/1900	1/0/1900	M	45	71	27	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
10		3/10/2023	1	1/0/1900	1/0/1900	M	8055	8064	10	1	Caribou	1	NA	1	Grazing	Tundra	Changed young to adult - DB
12		10/5/2022	1	1/0/1900	1/0/1900	M	662	671	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
13		10/15/2022	1	1/0/1900	1/0/1900	M	1024	1043	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
13		5/25/2023	1	1/0/1900	1/0/1900	T	1728	1728	1	1	Caribou	1	NA	1	Grazing	Tundra	
13		5/25/2023	2	1/0/1900	1/0/1900	M	1729	1758	30	3	Caribou	6	NA	6	Grazing	Tundra	1 previously counted
13		5/25/2023	3	1/0/1900	1/0/1900	T	1759	1759	1	1	Caribou	1	NA	1	Grazing	Tundra	
15		3/12/2023	1	1/0/1900	1/0/1900	M	8454	8463	10	1	Fox	1	NA	1	Investigating camera	Tundra	
15		4/23/2023	1	1/0/1900	1/0/1900	M	487	496	10	1	Fox	1	NA	1	Walking	Tundra	
15		5/22/2023	1	1/0/1900	1/0/1900	M	1896	1906	10	2	Grizzly Bear	1	NA	1	Walking	Tundra	
23		9/25/2022	1	1/0/1900	1/0/1900	M	98	107	10	10	Wolverine	1	0	1	Running	Tundra	great photos
23		10/24/2022	1	1/0/1900	1/0/1900	M	1506	1547	46	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
23		10/26/2022	1	1/0/1900	1/0/1900	M	1624	1625	2	1	Fox	1	NA	1	Running	Tundra	Confirmed fox - DB
23		11/4/2022	1	1/0/1900	1/0/1900	M	2110	2128	19	2	Arctic Hare	1	NA	1	Other	Tundra	Hopping
23		11/4/2022	1	1/0/1900	1/0/1900	M	2131	2140	10	1	Arctic Hare	2	NA	2	Other	Tundra	hopping
23		3/7/2023	1	1/0/1900	1/0/1900	M	8034	8041	8	1	Fox	1	NA	1	Investigating camera	Tundra	
23		3/16/2023	1	1/0/1900	1/0/1900	M	8494	8494	1	1	Fox	1	NA	1	Running	Tundra	
23		4/9/2023	1	1/0/1900	1/0/1900	T	9623	9624	2	0	Caribou	6	NA	6	Walking	Tundra	
2		9/30/2022	1	1/0/1900	1/0/1900	T	1542	1551	10	1		NA	NA	NA	Flying	Road	This is a helicopter - DB
4		5/3/2023	1	1/0/1900	1/0/1900	M	653	721	7	70	Caribou	NA	2	2	Grazing	Tundra	
5		10/1/2022	1	1/0/1900	1/0/1900	M	478	481	4	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	Knocked out camera
6		9/27/2022	1	1/0/1900	1/0/1900	M	289	293	5	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
6		9/27/2022	2	1/0/1900	1/0/1900	M	29	300	2	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
6		5/16/2023	1	1/0/1900	1/0/1900	M	1495	1516	22	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	knocks camera over
7		4/23/2023	1	1/0/1900	1/0/1900	M	218	220	3	1	Fox	1	NA	1	Running	Tundra	

APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
7		5/11/2023	1	1/0/1900	1/0/1900	M	1108	1227	120	12	Caribou	NA	2	2	Investigating camera	Tundra	
7		5/15/2023	1	1/0/1900	1/0/1900	M	1404	1486	83	9	Caribou	1	NA	1	Other	Tundra	Scratching and walks away
7		5/21/2023	1	1/0/1900	1/0/1900	M	1786	1855	70	7	Caribou	1	1	2	Investigating camera	Tundra	Adult investigates camera stand. Young does not seem interested.
7		5/21/2023	2	1/0/1900	1/0/1900	M	1857	1866	10	1	Caribou	1	NA	1	Walking	Tundra	Following previous groups direction
7		5/26/2023	1	1/0/1900	1/0/1900	M	2095	2104	10	1	Wolverine	1	NA	1	Walking	Tundra	
8		4/15/2023	1	1/0/1900	1/0/1900	M	9859	9865	7	1	Arctic Hare	1	NA	1	Investigating camera	Tundra	Can only see ears.
23		4/9/2023	1	1/0/1900	1/0/1900	M	9628	9649	22	3	Caribou	1	NA	1	Investigating camera	Tundra	
23		4/9/2023	1	1/0/1900	1/0/1900	T	9659	9664	5	0	Caribou	4	NA	4	Other	Tundra	RESTING
23		4/10/2023	1	1/0/1900	1/0/1900	M	9734	9743	10	1	Wolverine	1	NA	1	Running	Tundra	
23		4/12/2023	1	1/0/1900	1/0/1900	M	9841	9842	2	1	Fox	1	NA	1	Walking	Tundra	
23		4/20/2023	1	1/0/1900	1/0/1900	M	201	204	4	1	Fox	1	NA	1	Walking	Tundra	
23		4/21/2023	1	1/0/1900	1/0/1900	M	266	271	6	1	Fox	1	NA	1	Investigating camera	Tundra	
23		4/26/2023	1	1/0/1900	1/0/1900	M	558	575	18	2	Fox	1	NA	1	Investigating camera	Tundra	
23		5/7/2023	1	1/0/1900	1/0/1900	M	1066	1077	5	2	Fox	2	NA	2	Walking	Tundra	
23		5/13/2023	1	1/0/1900	1/0/1900	M	1419	1424	6	1	Fox	1	NA	1	Walking	Tundra	
23		5/15/2023	1	1/0/1900	1/0/1900	M	1510	1549	22	5	Muskox	2	NA	2	Investigating camera	Tundra	
23		5/23/2023	1	1/0/1900	1/0/1900	M	1963	1982	14	2	Fox	1	NA	1	Running	Tundra	
23		5/24/2023	1	1/0/1900	1/0/1900	T	1986	1995	11	0	Tundra Swan	4	NA	4	Feeding	Tundra	
23		5/24/2023	1	1/0/1900	1/0/1900	T	2013	2014	2	0	Tundra Swan	2	NA	2	Swimming	Lake	
23		5/27/2023	1	1/0/1900	1/0/1900	M	2129	2131	3	1	Fox	1	NA	1	Running	Tundra	
24		5/20/2023	1	1/0/1900	1/0/1900	T	1512	1513	2	0	Canada Goose	2	NA	2	Standing	Tundra	Sandhill crane to canada goose - DB
24		5/21/2023	1	1/0/1900	1/0/1900	T	1523	1523	1	0	Bird	2	NA	2		Tundra	Unknown birds, probably ptarmigan - DB
24		5/21/2023	1	1/0/1900	1/0/1900	T	1559	1559	1	0	Canada Goose	2	NA	2	Standing	Tundra	Sandhill crane to canada goose - DB
24		5/23/2023	1	1/0/1900	1/0/1900	T	1652	1652	1	0	Canada Goose	2	NA	2	Standing	Tundra	Sandhill crane to canada goose - DB
24		5/24/2023	1	1/0/1900	1/0/1900	T	1660	1666	6	0	Canada Goose	2	NA	2	Standing	Tundra	Sandhill crane to canada goose - DB
24		5/24/2023	1	1/0/1900	1/0/1900	T	1668	1669	2	0	Canada Goose	3	NA	3	Standing	Tundra	Sandhill crane to canada goose - DB
24		5/24/2023	1	1/0/1900	1/0/1900	T	1746	1746	1	0	Canada Goose	1	NA	1	Standing	Tundra	
24		5/26/2023	1	1/0/1900	1/0/1900	T	1755	1756	2	0	Canada Goose	1	NA	1	Walking	Tundra	
25		3/9/2023	1	1/0/1900	1/0/1900	M	7994	8001	8	1	Fox	1	NA	1	Investigating camera	Tundra	
25		3/19/2023	1	1/0/1900	1/0/1900	M	8477	8485	8	1	Fox	1	NA	1	Walking	Tundra	
25		4/5/2023	1	1/0/1900	1/0/1900	M	9319	9343	17	3	Red Fox	1	NA	1	Investigating camera	Tundra	This is a red fox in perfect light and condition. Not sure why it needed review? - DB
25		4/12/2023	1	1/0/1900	1/0/1900	M	9649	9650	2	1	Fox	1	NA	1	Running	Tundra	
25		5/13/2023	1	1/0/1900	1/0/1900	M	1177	2888	1584	171	Muskox	8	4	12	Grazing	Tundra	These are musk ox - DB
26		5/21/2022	1	1/0/1900	1/0/1900	M	151	153	3	1	Fox	1	NA	1	Running	Tundra	
26		5/30/2022	1	1/0/1900	1/0/1900	M	1273	1275	3	1	Red Fox	1	NA	1	Walking	Tundra	
26		6/4/2022	1	1/0/1900	1/0/1900	M	1318	1406	91	30	Caribou	1	NA	1	Walking	Tundra	Caribou - DB
26		6/8/2022	1	1/0/1900	1/0/1900	M	1420	1428	9	4	Canada Goose	2	NA	2	Swimming	Lake	Geese - DB
26		6/10/2022	1	1/0/1900	1/0/1900	M	1453	1455	3	1	Canada Goose	2	NA	2	Standing	Tundra	
26		6/16/2022	1	1/0/1900	1/0/1900	M	1477	1564	91	33	Caribou	3	NA	3	Investigating camera	Tundra	
26		6/25/2022	1	1/0/1900	1/0/1900	M	25	210	77	28	Moose	2	NA	2	Investigating camera	Tundra	Good moose photos - DB
26		6/25/2022	1	1/0/1900	1/0/1900	M	217	245	25	10	Caribou	3	NA	3	Walking	Tundra	Good - DB
26		6/29/2022	1	1/0/1900	1/0/1900	M	244	246	3	1	Canada Goose	2	NA	2	Swimming	Lake	Good - DB
26		7/4/2022	1	1/0/1900	1/0/1900	M	256	258	3	1	Caribou	1	NA	1	Running	Tundra	Good - DB
26		7/4/2022	1	1/0/1900	1/0/1900	M	259	267	8	3	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/5/2022	1	1/0/1900	1/0/1900	M	1	4	4	2	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/5/2022	1	1/0/1900	1/0/1900	M	1	1	1	1	Caribou	1	NA	1	Running	Tundra	
26		7/6/2022	1	1/0/1900	1/0/1900	M	1	1	1	1	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/6/2022	1	1/0/1900	1/0/1900	M	4	4	1	1	Caribou	1	NA	1	Running	Tundra	Good - DB
26		7/6/2022	1	1/0/1900	1/0/1900	M	7	8	2	1	Caribou	1	NA	1	Running	Tundra	Good - DB
26		7/6/2022	1	1/0/1900	1/0/1900	M	10	15	6	2	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/7/2022	1	1/0/1900	1/0/1900	M	16	17	2	2	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/7/2022	1	1/0/1900	1/0/1900	M	19	21	3	1	Caribou	1	NA	1	Walking	Tundra	
26		7/8/2022	1	1/0/1900	1/0/1900	M	1	9	9	3	Caribou	1	NA	1	Walking	Tundra	
26		7/9/2022	1	1/0/1900	1/0/1900	M	1	11	10	3	Caribou	3	NA	3	Walking	Tundra	Good - DB
26		7/10/2022	1	1/0/1900	1/0/1900	M	4	8	5	2	Caribou	1	NA	1	Walking	Tundra	Good - DB

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26		7/10/2022	1	1/0/1900	1/0/1900	M	10	15	6	2	Caribou	1	NA	1	Grazing	Tundra	Good - DB
26		7/16/2022	1	1/0/1900	1/0/1900	M	7	12	6	3	Caribou	1	NA	1	Walking	Tundra	
26		7/16/2022	1	1/0/1900	1/0/1900	M	16	20	5	2	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/20/2022	1	1/0/1900	1/0/1900	M	22	31	10	4	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/20/2022	1	1/0/1900	1/0/1900	M	34	38	5	2	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/21/2021	1	1/0/1900	1/0/1900	M	41	42	2	1	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/21/2022	1	1/0/1900	1/0/1900	M	46	53	8	3	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/21/2022	1	1/0/1900	1/0/1900	M	55	55	1	1	Caribou	1	NA	1	Running	Tundra	Good - DB
26		7/21/2022	1	1/0/1900	1/0/1900	M	58	60	3	1	Caribou	1	NA	1	Walking	Tundra	Good - DB
26		7/21/2022	1	1/0/1900	1/0/1900	M	61	67	7	3	Caribou	1	NA	1	Grazing	Tundra	Good - DB
26		7/25/2022	1	1/0/1900	1/0/1900	M	22	45	21	8	Canada Goose	4	NA	4	Grazing	Tundra	
26		7/25/2022	1	1/0/1900	1/0/1900	M	46	54	9	3	Canada Goose	3	NA	3	Walking	Tundra	
26		7/26/2022	1	1/0/1900	1/0/1900	M	55	56	2	1	Caribou	1	NA	1	Running	Tundra	
26		7/26/2022	1	1/0/1900	1/0/1900	M	58	63	6	2	Caribou	1	NA	1	Walking	Tundra	
26		19199	1	1/0/1900	1/0/1900	M	64	68	5	1	Caribou	1	NA	1	Walking	Tundra	
26		7/29/2022	1	1/0/1900	1/0/1900	M	70	73	4	2	Unknown	NA	NA	NA	Investigating camera	Tundra	Unknown - DB
26		7/30/2022	1	1/0/1900	1/0/1900	M	76	87	12	4	Caribou	1	NA	1	Walking	Tundra	
26		7/30/2022	1	1/0/1900	1/0/1900	M	92	92	1	1	Unknown	NA	NA	NA	Investigating camera	Tundra	Unknown - DB
26		8/2/2022	1	1/0/1900	1/0/1900	M	100	102	3	1	Caribou	1	NA	1	Walking	Tundra	
26		8/2/2022	1	1/0/1900	1/0/1900	M	103	104	2	1	Caribou	1	NA	1	Running	Tundra	
26		8/3/2022	1	1/0/1900	1/0/1900	M	106	116	11	4	Caribou	1	NA	1	Grazing	Tundra	
26		8/4/2022	1	1/0/1900	1/0/1900	M	121	123	3	1	Caribou	1	NA	1	Running	Tundra	
26		8/5/2022	1	1/0/1900	1/0/1900	M	124	135	12	4	Caribou	1	NA	1	Walking	Tundra	
26		8/5/2022	1	1/0/1900	1/0/1900	M	136	146	11	4	Caribou	1	NA	1	Grazing	Tundra	
26		8/5/2022	1	1/0/1900	1/0/1900	M	148	151	4	3	Caribou	1	NA	1	Walking	Tundra	
26		8/24/2022	1	1/0/1900	1/0/1900	M	16	44	26	10	Caribou	1	NA	1	Walking	Tundra	
26		8/24/2022	1	1/0/1900	1/0/1900	M	44	44	1	1	Bird	1	NA	1	Flying	Other	Changed from a peregrine falcon to a bird. It is a small songbird
26		9/11/2022	1	1/0/1900	1/0/1900	M	13	93	65	32	Caribou	3	NA	3	Investigating camera	Tundra	
26		9/27/2022	1	1/0/1900	1/0/1900	M	304	306	3	1	Grizzly Bear	1	NA	1	Walking	Tundra	
28		3/20/2023	1	1/0/1900	1/0/1900	M	8502	8509	7	1	Arctic Hare	1	NA	1	Running	Tundra	Good - DB
29		5/7/2023	1	1/0/1900	1/0/1900	M	1292	1301	10	1	Fox	1	NA	1	Walking	Tundra	
30		11/6/2022	1	1/0/1900	1/0/1900	M	2116	2135	20	2	Arctic Hare	1	NA	1	Sitting	Tundra	
31		5/13/2023	NA	1/0/1900		T	1086	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	
31		5/13/2023	NA	1/0/1900		T	1087	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Unsure there may be another bird further left in the photo, last photo of this ptarmigan. This is just shadow - DB
31		5/16/2023	NA	1/0/1900		T	1237	NA	1	NA	Ptarmigan	2	NA	2	Standing	Tundra	
31		5/26/2023	1	1/0/1900	1/0/1900	M	1726	1735	10	1	Canada Goose	2	NA	2	Grazing	Tundra	Moving left in the photos
32		9/29/2022	1	1/0/1900	1/0/1900	M	207	216	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
32		4/16/2023	1	1/0/1900	1/0/1900	M	3080	3090	10	1	Grizzly Bear	1	NA	1	Walking	Tundra	Unsure if what animal is present, and if it is an adult or young. Calling it an adult - DB
32		4/18/2023	1	1/0/1900	1/0/1900	M	3224	3233	10	1	Fox	1	NA	1	Walking	Tundra	
33		3/4/2023	1	1/0/1900	1/0/1900	M	7923	7932	10	1	Red Fox	1	NA	1	Walking	Tundra	
33		3/8/2023	1	1/0/1900	1/0/1900	M	8126	8135	10	1	Red Fox	1	NA	1	Running	Tundra	
33		3/16/2023	1	1/0/1900	1/0/1900	M	8511	8520	10	1	Wolverine	1	NA	1	Investigating camera	Tundra	
33		3/20/2023	1	1/0/1900	1/0/1900	M	8712	8731	20	2	Unknown	1	NA	1	Investigating camera	Tundra	Not 100% sure if it is a fox. Changed to unknown - DB
33		3/20/2023	2	1/0/1900	1/0/1900	M	8762	8771	10	1	Fox	1	NA	1	Investigating camera	Tundra	Not 100% sur eif it is a fox. Changed to unknown - DB
33		3/26/2023	1	1/0/1900	1/0/1900	M	9022	9031	10	1	Arctic Hare	1	NA	1	Running	Tundra	
33		4/14/2023	1	1/0/1900	1/0/1900	M	9974	9983	10	1	Red Fox	1	NA	1	Walking	Tundra	
33		5/14/2023	1	1/0/1900	1/0/1900	M	1442	1531	90	9	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
34		3/8/2023	1	1/0/1900	1/0/1900	M	7684	7693	10	1	Red Fox	1	NA	1	Walking	Tundra	Photo a bit blurry due to snow cover
34		3/21/2023	1	1/0/1900	1/0/1900	M	8319	8338	20	1	Red Fox	1	NA	1	Running	Tundra	
36		11/28/2022	1	1/0/1900		M	3156	3175	20	2	Caribou	2	NA	2	Investigating camera	Tundra	Appears they could be heading behind the camera, possibly to the right.
36		4/26/2023	1	1/0/1900	1/0/1900	M	309	318	10	1	Wolverine	1	NA	1	Walking	Tundra	
36		4/29/2023	1	1/0/1900	1/0/1900	M	497	506	10	1	Wolverine	1	NA	1	Running	Tundra	
36		5/14/2023	1	1/0/1900	1/0/1900	M	1211	1220	10	1	Red Fox	1	NA	1	Running	Tundra	
39		3/30/2023	1	1/0/1900	1/0/1900	M	9003	9012	10	1	Arctic Hare	1	NA	1	Investigating camera	Tundra	

APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
39		4/14/2023	NA	1/0/1900		T	9749	NA	1	NA	Red Fox	1	NA	1	Walking	Tundra	Animal is far away from camera, not 100% sure if it is a fox. It is a fox - DB
39		5/26/2023	NA	1/0/1900		T	1872	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1873	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1874	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1875	NA	1	NA	Ptarmigan	2	NA	2	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1876	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1877	NA	1	NA	Ptarmigan	2	NA	2	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1878	NA	1	NA	Ptarmigan	2	NA	2	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1879	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1880	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1881	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1882	NA	1	NA	Ptarmigan	2	NA	2	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1883	NA	1	NA	Ptarmigan	2	NA	2	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
39		5/26/2023	NA	1/0/1900		T	1884	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	Hard to tell if it is a ptarmigan. It is a ptarmigan - DB
40		4/26/2023	1	1/0/1900	1/0/1900	M	394	403	10	1	Red Fox	1	NA	1	Running	Tundra	
40		5/7/2023	NA	1/0/1900		T	943	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	
41		9/25/2022	1	1/0/1900	1/0/1900	M	229	238	10	1	Grizzly Bear	1	NA	1	Walking	Tundra	
41		9/25/2022	2	1/0/1900	1/0/1900	M	240	339	100	10	Grizzly Bear	1	1	2	Investigating camera	Tundra	
41		9/5/2022	3	1/0/1900	1/0/1900	M	344	383	40	4	Grizzly Bear	NA	1	1	Investigating camera	Tundra	
41		11/1/2022	1	1/0/1900	1/0/1900	M	2153	2162	10	1	Red Fox	1	NA	1	Running	Tundra	
41		3/23/2023	1	1/0/1900	1/0/1900	M	8977	8986	10	1	Wolverine	1	NA	1	Investigating camera	Tundra	
42		4/20/2023	1	1/0/1900	1/0/1900	M	148	157	10	1	Red Fox	1	NA	1	Running	Tundra	
43		2/28/2023	1	1/0/1900	1/0/1900	M	7563	7572	10	1	Red Fox	1	NA	1	Walking	Tundra	
43		3/19/2023	1	1/0/1900	1/0/1900	M	8493	8502	10	1	Unknown	1	NA	1	Walking	Tundra	Unable to tell the species. Red fox to unknown - DB
43		4/13/2023	1	1/0/1900	1/0/1900	M	9698	9717	20	2	Ptarmigan	5	NA	5	Grazing	Tundra	
43		4/20/2023	1	1/0/1900	1/0/1900	M	38	57	20	2	Ptarmigan	3	NA	3	Walking	Tundra	
43		4/29/2023	1	1/0/1900	1/0/1900	M	488	497	10	1	Ptarmigan	1	NA	1	Walking	Tundra	
43		5/7/2023	1	1/0/1900	1/0/1900	M	913	972	60	6	Caribou	1	NA	1	Grazing	Tundra	Not sure if theis is an adult or young. Adult - DB
43		5/19/2023	1	1/0/1900	1/0/1900	M	1522	1531	10	1	Wolverine	1	NA	1	Walking	Tundra	
43		5/19/2023	2	1/0/1900	1/0/1900	M	1535	1544	10	1	Wolverine	1	NA	1	Running	Tundra	
44		9/27/2022	NA	1/0/1900		T	156	NA	1	NA	Red Fox	1	NA	1	Standing	Tundra	
44		9/30/2022	1	1/0/1900	1/0/1900	M	318	357	40	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
44		4/29/2023	1	1/0/1900	1/0/1900	M	321	390	70	7	Caribou	2	NA	2	Investigating camera	Tundra	
44		5/21/2023	1	1/0/1900	1/0/1900	M	2395	2414	20	2	Muskox	8	NA	8	Grazing	Tundra	
44		5/21/2023	NA	1/0/1900		T	2415	NA	1	NA	Muskox	8	NA	8	Grazing	Tundra	
44		5/21/2023	2	1/0/1900	1/0/1900	M	2416	2475	60	6	Muskox	8	NA	8	Grazing	Tundra	
44		5/21/2023	NA	1/0/1900		T	2476	NA	1	NA	Muskox	2	NA	2	Grazing	Tundra	
44		5/21/2023	3	1/0/1900	1/0/1900	M	2477	2566	90	9	Muskox	8	NA	8	Grazing	Tundra	
46		9/28/2022	1	1/0/1900	1/0/1900	M	258	267	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
46		5/5/2023	1	1/0/1900	1/0/1900	M	788	797	10	1	Red Fox	1	NA	1	Running	Tundra	
47		3/2/2023	1	1/0/1900	1/0/1900	M	7671	7680	10	1	Red Fox	1	NA	1	Walking	Tundra	
47		3/11/2023	1	1/0/1900	1/0/1900	M	8105	8124	20	2	Red Fox	1	NA	1	Walking	Tundra	
48		5/17/2023	NA	1/0/1900		T	1299	NA	1	NA	Canada Goose	2	NA	2	Grazing	Tundra	
48		5/17/2023	NA	1/0/1900		T	1300	NA	1	NA	Canada Goose	2	NA	2	Grazing	Tundra	
48		5/18/2023	NA	1/0/1900		T	1357	NA	1	NA	Caribou	1	NA	1	Grazing	Tundra	
48		5/18/2023	NA	1/0/1900		T	1358	NA	1	NA	Caribou	1	NA	1	Grazing	Tundra	
48		5/18/2023	NA	1/0/1900		T	1359	NA	1	NA	Caribou	1	NA	1	Grazing	Tundra	
48		5/18/2023	NA	1/0/1900		T	1360	NA	1	NA	Caribou	1	NA	1	Grazing	Tundra	
48		5/18/2023	NA	1/0/1900		T	1361	NA	1	NA	Caribou	2	NA	2	Grazing	Tundra	
49		10/1/2022	1	1/0/1900	1/0/1900	M	460	549	90	9	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
49		4/18/2023	1	1/0/1900	1/0/1900	M	148	157	10	1	Caribou	1	NA	1	Walking	Tundra	
51		5/28/2023	NA	1/0/1900		T	3603	NA	1	NA	er White-fronted	1	NA	1	Standing	Other	
51		5/28/2023	NA	1/0/1900		T	3604	NA	1	NA	er White-fronted	1	NA	1	Standing	Other	
51		5/28/2023	NA	1/0/1900		T	3605	NA	1	NA	er White-fronted	1	NA	1	Standing	Other	
51		5/30/2023	NA	1/0/1900		T	3703	NA	1	NA	er White-fronted	1	NA	1	Standing	Other	



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Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
53		3/14/2023	1	1/0/1900	1/0/1900	M	8202	8211	10	1	Red Fox	1	NA	1	Walking	Tundra	
53		3/14/2023	2	1/0/1900	1/0/1900	M	8213	8222	10	1	Red Fox	1	NA	1	Running	Tundra	
53		5/18/2023	NA	1/0/1900		T	1336	NA	1	NA	Bird	1	NA	1	Sitting	Tundra	Looks like some sort of songbird sitting on tall grass. Songbird - DB
53		5/24/2023	NA	1/0/1900		T	1617	NA	1	NA	Ptarmigan	1	NA	1	Sitting	Tundra	
53		5/23/2023	NA	1/0/1900		T	1575	NA	1	NA	Unknown	1	NA	1	Sitting	Tundra	Looks like a songbird on tall grass. Songbird - DB
53		5/24/2023	NA	1/0/1900		T	1624	NA	1	NA	Ptarmigan	1	NA	1	Sitting	Tundra	
54		5/23/2023	1	1/0/1900	1/0/1900	M	2629	2638	10	1	Bird	1	NA	1	Flying	Tundra	Not sure what bird is present. Songbird - DB
54		5/23/2023	2	1/0/1900	1/0/1900	M	2640	2649	10	1	Bird	1	NA	1	Flying	Tundra	Not sure what bird is present. Songbird - DB
54		5/23/2023	3	1/0/1900	1/0/1900	M	2684	2693	10	1	Bird	1	NA	1	Standing	Tripod	Not sure what bird is present. Songbird - DB
54		5/24/2023	1	1/0/1900	1/0/1900	M	2767	2776	10	1	Bird	1	NA	1	Standing	Tripod	Not sure what bird is present. Songbird - DB
54		5/23/2023	1	1/0/1900	1/0/1900	M	2840	2849	10	1	Bird	1	NA	1	Flying	Tripod	Not sure what bird is present. Songbird - DB
55		9/30/2022	1	1/0/1900	1/0/1900	M	282	321	40	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
55		11/22/2022	1	1/0/1900	1/0/1900	M	2874	2923	50	5	Caribou	1	NA	1	Grazing	Tundra	
55		11/25/2022	1	1/0/1900	1/0/1900	M	3064	3073	10	1	Unknown	1	NA	1	Investigating camera	Tundra	Only can see an ear, not sure what animal is present. Unknown - DB
57		5/19/2023	NA	1/0/1900		T	3509	NA	1	NA	Canada Goose	5	NA	5	Flying	Tundra	
59		10/30/2022	NA	1/0/1900		T	1009	NA	1	NA	Unknown	1	NA	1	Standing	Tundra	Cannot tell what bird is present. Looks like it may be a raptor - DB
59		10/30/2022	NA	1/0/1900		T	1010	NA	1	NA	Unknown	1	NA	1	Standing	Tundra	Cannot tell what bird is present. Looks like it may be a raptor - DB
59		4/28/2023	NA	1/0/1900		T	25	NA	1	NA	Ptarmigan	1	NA	1	Standing	Tundra	
60		3/4/2023	1	1/0/1900	1/0/1900	M	7883	7892	10	1	Red Fox	1	NA	1	Walking	Tundra	
16		7/23/2023	1	1/0/1900	1/0/1900	M	4	20	20	2	Caribou	NA	1	1	Feeding	Tundra	
16		7/26/2023	1	1/0/1900	1/0/1900	M	1	13	20	2	Caribou	NA	1	1	Feeding	Tundra	
16		8/7/2023	1	1/0/1900	1/0/1900	M	13	17	30	3	Unknown	NA	NA	NA	Investigating camera	Tripod	Unknown animal - suspected grizzly. Probably a wolverine, can not confirm - DB
16		8/8/2023	1	1/0/1900	1/0/1900	M	2	14	20	2	Muskox	1	NA	1	Investigating camera	Tripod	
16		8/12/2023	1	1/0/1900	1/0/1900	M	10	12	10	1	Grizzly Bear	NA	NA	NA	Investigating camera	Tundra	Unsure of age
16		8/16/2023	2	1/0/1900	1/0/1900	M	45	52	10	1	Unknown	NA	NA	NA	Investigating camera	Tripod	Unknown animal
16		8/27/2023	1	1/0/1900	1/0/1900	M	13	22	10	1	Caribou	1	NA	1	Walking	Tundra	
17		6/15/2023	1	1/0/1900	1/0/1900	M	336	345	10	1	Unknown	NA	NA	NA	Investigating camera	Tripod	Unsure of species
17		6/26/2023	2	1/0/1900	1/0/1900	M	486	498	20	2	Caribou	3	NA	3	Walking	Tundra	
17		7/13/2023	1	1/0/1900	1/0/1900	M	64	74	11	2	Caribou	1	NA	1	Walking	Tundra	
17		7/13/2023	2	1/0/1900	1/0/1900	M	84	93	10	1	Caribou	2	NA	2	Walking	Tundra	
17		7/15/2023	3	1/0/1900		M	140	NA	10	1		NA	NA	NA			
17		7/13/2023	1	1/0/1900	1/0/1900	M	64	74	11	2	Cackling Goose	1	NA	1	Walking	Tundra	
17		7/5/2023	1	1/0/1900	1/0/1900	M	14	14	1	1	Unknown	NA	NA	NA			Suspected caribou
17		7/7/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Road	
18		7/5/2023	1	1/0/1900	1/0/1900	M	14	1	10	1	Caribou	NA	NA	NA	Walking	Tripod	Species unknown
18		7/7/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Road	
19		6/29/2023	1	1/0/1900	1/0/1900	M	6	15	10	1	Caribou	2	NA	2	Walking	Tundra	
19		7/9/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
51		7/22/2023	1	1/0/1900	1/0/1900	M	17	216	200	20	Caribou	1	NA	1	Grazing	Other	
3		6/4/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Ptarmigan	1	NA	1	Walking	Tundra	
3		6/22/2023	1	1/0/1900	1/0/1900	M	32	81	50	5	Caribou	2	1	3	Grazing	Tundra	
3		7/1/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
3		7/2/2023	1	1/0/1900	1/0/1900	M	17	46	30	3	Caribou	2	NA	2	Walking	Tundra	
3		7/3/2023	1	1/0/1900	1/0/1900	M	50	59	10	1	Caribou	1	NA	1	Walking	Tundra	
3		7/7/2023	1	1/0/1900	1/0/1900	M	79	88	10	1	Caribou	1	NA	1	Grazing	Tundra	
3		7/7/2023	1	1/0/1900	1/0/1900	M	1	30	30	3	Caribou	3	NA	3	Walking	Tundra	
3		7/10/2023	1	1/0/1900	1/0/1900	M	37	56	10	1	Caribou	2	NA	2	Walking	Tundra	
3		7/11/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
3		7/12/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
3		7/16/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
3		7/17/2023	1	1/0/1900	1/0/1900	M	11	30	20	2	Caribou	2	NA	2	Walking	Tundra	
3		7/22/2023	1	1/0/1900	1/0/1900	M	7	16	10	1	Caribou	NA	1	1	Walking	Tundra	
3		7/26/2023	1	1/0/1900	1/0/1900	M	29	38	10	1	Caribou	1	NA	1	Grazing	Tundra	
3		7/27/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Grazing	Tundra	
3		8/1/2023	1	1/0/1900	1/0/1900	M	4	63	60	6	Grizzly Bear	1	NA	1	Investigating camera	Tundra	

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4		6/12/2023	1	1/0/1900	1/0/1900	M	22	81	60	6	Caribou	NA	1	1	Investigating camera	Tundra	
4		6/18/2023	1	1/0/1900	1/0/1900	M	13	22	10	1	Unknown	1	NA	1	Investigating camera	Tundra	Cannot tell what is present
4		7/10/2023	1	1/0/1900	1/0/1900	M	1	30	30	3	Caribou	1	NA	1	Walking	Tundra	
4		8/5/2023	1	1/0/1900	1/0/1900	M	7	16	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
5		6/2/2023	1	1/0/1900	1/0/1900	M	4	53	50	5	Caribou	2	NA	2	Grazing	Tundra	
5		6/22/2023	1	1/0/1900	1/0/1900	M	4	113	100	10	Caribou	2	NA	2	Sitting	Tundra	
5		6/25/2023	1	1/0/1900	1/0/1900	M	4	303	300	30	Caribou	7	NA	7	Grazing	Tundra	Not sure on the age of the caribou
5		7/2/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
5		7/6/2023	1	1/0/1900	1/0/1900	M	7	16	10	1	Caribou	1	NA	1	Walking	Tundra	
5		7/7/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
5		7/21/2023	1	1/0/1900	1/0/1900	M	4	33	30	3	Unknown	1	NA	1	Investigating camera	Tundra	Cannot determine what animal is present
5		8/4/2023	1	1/0/1900	1/0/1900	M	1	80	80	8	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
6		8/7/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
7		7/10/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
7		7/24/2023	1	1/0/1900	1/0/1900	M	1	20	20	2	Caribou	1	NA	1	Walking	Tundra	
7		7/30/2023	1	1/0/1900	1/0/1900	M	1	20	20	2	Caribou	1	NA	1	Walking	Tundra	
7		8/13/2023	1	1/0/1900	1/0/1900	M	1	40	40	4	Caribou	2	NA	1	Investigating camera	Tundra	
8		5/28/2023	1	1/0/1900	1/0/1900	M	30	100	70	7	Wolverine	1	NA	1	Walking	Tundra	
8		5/29/2023	1	1/0/1900	1/0/1900	M	1	50	50	5	Caribou	1	NA	1	Investigating camera	Tundra	
8		6/17/2023	1	1/0/1900	1/0/1900	M	4	113	100	10	Caribou	1	NA	1	Grazing	Tundra	
8		6/26/2023	1	1/0/1900	1/0/1900	M	1	70	70	7	Caribou	3	2	5	Grazing	Tundra	
8		6/26/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Red Fox	1	NA	1	Walking	Tundra	
8		6/30/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Red Fox	1	NA	1	Running	Tundra	
8		7/15/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Red Fox	1	NA	1	Running	Tundra	
8		7/17/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Fox	1	NA	1	Walking	Tundra	
8		7/26/2023	1	1/0/1900	1/0/1900	M	21	40	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
8		8/13/2023	1	1/0/1900	1/0/1900	M	10	19	10	1	Bird	1	NA	1	Flying	Tundra	Not sure what bird is present
8		8/20/2023	1	1/0/1900	1/0/1900	M	40	49	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
8		8/27/2023	1	1/0/1900	1/0/1900	M	13	82	70	7	Waterfowl	30	20	40	Grazing	Tundra	Not sure what waterfowel, rough estimation on amout of birds
8		8/28/2023	1	1/0/1900	1/0/1900	M	86	95	10	1	Fox	1	NA	1	Running	Tundra	
9		6/9/2023	1	1/0/1900	1/0/1900	M	12	71	60	6	Caribou	NA	2	2	Investigating camera	Tundra	
9		6/12/2023	1	1/0/1900	1/0/1900	M	7	116	100	10	Grizzly Bear	1	1	2	Investigating camera	Tundra	
9		7/18/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
9		7/19/2023	1	1/0/1900	1/0/1900	M	14	23	10	1	Caribou	1	NA	1	Walking	Tundra	
9		8/5/2023	1	1/0/1900	1/0/1900	M	4	83	80	8	Grizzly Bear	1	1	2	Investigating camera	Tundra	
10		6/9/2023	1	1/0/1900	1/0/1900	M	13	32	20	2	Caribou	3	NA	3	Grazing	Tundra	
10		6/13/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Red Fox	1	NA	1	Hunting	Tundra	
10		6/16/2023	1	1/0/1900	1/0/1900	M	7	86	80	8	Caribou	3	NA	3	Walking	Tundra	
10		6/20/2023	1	1/0/1900	1/0/1900	M	99	108	10	1	Caribou	1	NA	1	Walking	Tundra	Not 100% sure what is present
10		6/21/2023	1	1/0/1900	1/0/1900	M	112	151	40	4	Caribou	8	NA	8	Walking	Tundra	
10		6/28/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
10		7/5/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	2	NA	2	Walking	Tundra	
10		7/7/2023	1	1/0/1900	1/0/1900	M	17	26	10	1	Caribou	1	NA	1	Walking	Tundra	
10		8/3/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
10		8/11/2023	1	1/0/1900	1/0/1900	M	27	66	40	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
10		8/12/2023	1	1/0/1900	1/0/1900	M	73	102	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
10		8/25/2023	1	1/0/1900	1/0/1900	M	139	198	60	6	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
11		6/23/2023	NA	1/0/1900		T	42	NA	1	NA	Caribou	1	NA	1	Walking	Tundra	
11		6/23/2023	1	1/0/1900	1/0/1900	M	44	123	80	8	Caribou	NA	2	2	Investigating camera	Tundra	
11		6/24/2023	1	1/0/1900	1/0/1900	M	124	203	80	8	Caribou	1	NA	1	Investigating camera	Tundra	
11		6/24/2023	2	1/0/1900	1/0/1900	M	207	276	70	7	Caribou	1	NA	1	Investigating camera	Tundra	
11		8/9/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Bird	1	NA	1	Flying	Tundra	Not sure on the bird
11		8/22/2023	1	1/0/1900	1/0/1900	M	63	72	10	1	Bird	1	NA	1	Flying	Tundra	Not sure on the bird
12		6/20/2023	1	1/0/1900	1/0/1900	M	13	22	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
12		6/26/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	NA	1	1	Walking	Tundra	
12		7/7/2023	1	1/0/1900	1/0/1900	M	13	32	20	2	Caribou	2	NA	2	Walking	Tundra	



APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
12		7/9/2023	1	1/0/1900	1/0/1900	M	39	58	20	2	Caribou	1	NA	1	Walking	Tundra	
12		7/10/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Running	Tundra	
12		7/20/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
12		8/4/2023	1	1/0/1900	1/0/1900	M	1	40	40	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
12		8/16/2023	1	1/0/1900	1/0/1900	M	16	35	20	2	Caribou	1	1	2	Grazing	Tundra	
12		8/17/2023	1	1/0/1900	1/0/1900	M	39	48	10	1	Canada Goose	21	NA	21	Walking	Tundra	
14		6/12/2023	1	1/0/1900	1/0/1900	M	70	79	10	1	Waterfowl	1	NA	1	Flying	Tundra	Unsure what bird present
14		7/1/2023	1	1/0/1900	1/0/1900	M	24	33	10	1	Caribou	1	NA	1	Walking	Tundra	
14		7/26/2023	1	1/0/1900	1/0/1900	M	3	12	10	1	Caribou	1	NA	1	Walking	Tundra	
14		7/31/2023	1	1/0/1900	1/0/1900	M	11	30	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
14		8/5/2023	1	1/0/1900		M	1	6	6	10	Caribou	1	NA	1	Walking	Tundra	
14		8/14/2023	1	1/0/1900		M	10	14	5	10	Caribou	1	NA	1	Walking	Tundra	
15		6/15/2023	1	1/0/1900	1/0/1900	M	1	1	1	1	Unknown	NA	NA	NA	Investigating camera	Tripod	
15		6/16/2023	2	1/0/1900	1/0/1900	M	13	16	10	1	Caribou	1	NA	1	Walking	Tundra	
15		6/23/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Cackling Goose	1	NA	1	Investigating camera	Tundra	
15		6/25/2023	1	1/0/1900	1/0/1900	M	2	79	78	8	Caribou	1	1	2	Feeding	Tundra	
15		6/25/2023	1	1/0/1900	1/0/1900	M	1	64	56	7	Caribou	NA	NA	NA	Feeding	Tundra	unable to classify life stage
15		6/29/2023	1	1/0/1900	1/0/1900	M	1	4	3	1	Caribou	1	NA	1	Investigating camera	Tripod	
15		7/4/2023	1	1/0/1900	1/0/1900	M	1	5	5	1	Caribou	1	NA	1	Walking	Tundra	
15		7/17/2023	1	1/0/1900	1/0/1900	M	1	5	5	1	Caribou	1	NA	1	Walking	Tundra	
15		7/26/2023	1	1/0/1900	1/0/1900	M	1	2	2	1	Caribou	1	NA	1	Investigating camera	Tripod	
15		7/29/2023	1	1/0/1900	1/0/1900	M	1	1	1	1	Unknown	NA	NA	NA	Investigating camera	Tripod	
15		8/6/2023	1	1/0/1900	1/0/1900	M	7	7	1	1	Unknown	NA	NA	NA	Sitting	Tundra	unknown bird - suspected raven
15		8/6/2023	2	1/0/1900	1/0/1900	M	1	1	1	1	Unknown	NA	NA	NA	Investigating camera	Tripod	unknown bird species
15		8/7/2023	3	1/0/1900	1/0/1900	M	79	80	2	1	Unknown	NA	NA	NA	Sitting	Tundra	two unidentified birds - suspected ravens
16		5/29/2023	1	1/0/1900	1/0/1900	M	41	42	10	1	Unknown	NA	NA	NA	Investigating camera	Tripod	unable to determine species. Suspected raven.
19		7/9/2023	2	1/0/1900	1/0/1900	M	29	38	10	1	Caribou	NA	1	1	Feeding	Tripod	
19		7/17/2023	1	1/0/1900	1/0/1900	M	3	12	10	1	Caribou	NA	1	1	Walking	Tundra	
19		7/20/2023	1	1/0/1900	1/0/1900	M	10	12	10	1	Caribou	1	NA	1	Walking	Tundra	
19		7/22/2023	1	1/0/1900	1/0/1900	M	74	77	4	1	Caribou	1	NA	1	Walking	Tundra	
22		6/26/2023	1	1/0/1900	1/0/1900	T	NA	NA	NA	NA	Unknown	NA	NA	NA	Flying	Tundra	unknown avian species.
22		6/30/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Grizzly Bear	1	1	2	Walking	Tundra	
22		7/7/2023	1	1/0/1900	1/0/1900	M	1	23	20	2	Caribou	1	NA	1	Walking	Tundra	
22		7/7/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
22		7/11/2023	1	1/0/1900	1/0/1900	M	11	16	6	1	Caribou	NA	1	1	Feeding	Tundra	
22		7/13/2023	1	1/0/1900	1/0/1900	M	1	20	20	2	Caribou	1	NA	1	Feeding	Tundra	suspected same animal previously noted.
22		7/17/2023	1	1/0/1900	1/0/1900	M	11	14	10	1	Caribou	1	NA	1	Walking	Tundra	suspected same animal previously noted
22		7/8/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Feeding	Tundra	unknown life stage, or if previously counted.
22		8/2/2023	1	1/0/1900	1/0/1900	M	1	2	10	1	Grizzly Bear	1	NA	1	Walking	Tundra	
22		8/8/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Grizzly Bear	1	NA	1	Walking	Tundra	lifestage unknown, unsure if previously noted
22		8/8/2023	1	1/0/1900	1/0/1900	M	1	30	30	3	Grizzly Bear	1	2	3	Investigating camera	Tundra	
22		8/12/2023	1	1/0/1900	1/0/1900	M	2	3	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tripod	
22		8/13/2023	1	1/0/1900	1/0/1900	M	28	28	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tripod	unsure if adult or young, unsure if previously noted
22		8/15/2023	1	1/0/1900	1/0/1900	M	40	49	20	2	Grizzly Bear	1	NA	1	Walking	Tripod	unsure if previously noted
22		8/15/2023	2	1/0/1900	1/0/1900	M	50	54	10	1	Grizzly Bear	NA	NA	NA	Investigating camera	Tripod	unsure of life stage or previously noted
22		8/15/2023	3	1/0/1900	1/0/1900	M	63	66	10	1	Grizzly Bear	1	NA	1	Walking	Tundra	unsure if previously noted
23		6/5/2023	1	1/0/1900	1/0/1900	M	4	41	40	4	Caribou	2	NA	2	Grazing	Tundra	suspected peary caribou
23		6/13/2023	2	1/0/1900	1/0/1900	M	88	95	10	1	Fox	1	NA	1	Walking	Tundra	
23		6/22/2023	1	1/0/1900	1/0/1900	M	35	145	91	12	Caribou	2	NA	2	Feeding	Tundra	
23		6/23/2023	2	1/0/1900	1/0/1900	M	158	207	51	5	Caribou	3	NA	3	Feeding	Tundra	unsure two of the three animals have been previously noted.
23		7/7/2023	1	1/0/1900	1/0/1900	M	1	4	4	1	Caribou	NA	1	1	Walking	Tundra	
23		7/14/2023	1	1/0/1900	1/0/1900	M	16	16	1	1	Bird	NA	NA	NA			species unknown
23		7/14/2023	2	1/0/1900	1/0/1900	M	27	66	39	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
23		8/5/2023	1	1/0/1900	1/0/1900	M	17	66	50	5	Muskox	1	NA	1	Investigating camera	Tundra	
23		8/12/2023	1	1/0/1900	1/0/1900	M	7	46	40	4	Caribou	1	NA	1	Walking	Tundra	
23		8/15/2023	1	1/0/1900	1/0/1900	M	63	92	30	3	Caribou	1	NA	1	Investigating camera	Tundra	

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Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
23		8/18/2023	1	1/0/1900	1/0/1900	M	102	111	10	1	Red Fox	1	NA	1	Walking	Tundra	
23		8/21/2023	1	1/0/1900	1/0/1900	M	124	193	70	7	Grizzly Bear	1	1	2	Investigating camera	Tundra	
23		8/22/2023	1	1/0/1900	1/0/1900	M	226	345	120	12	Grizzly Bear	1	3	4	Investigating camera	Tundra	Not sure how many young and adults are captured in the photos
23		8/27/2023	1	1/0/1900	1/0/1900	M	362	531	170	17	Caribou	1	NA	1	Investigating camera	Tundra	
24		6/20/2023	1	1/0/1900	1/0/1900	M	16	25	10	1	Caribou	3	NA	3	Walking	Tundra	
24		6/22/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	2	NA	2	Walking	Tundra	
24		7/1/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/2/2023	1	1/0/1900	1/0/1900	M	17	26	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/2/2023	2	1/0/1900	1/0/1900	M	27	36	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/3/2023	1	1/0/1900	1/0/1900	M	37	46	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/4/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/9/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/10/2023	1	1/0/1900	1/0/1900	M	17	26	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/12/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/13/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/13/2023	2	1/0/1900	1/0/1900	M	21	30	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/15/2023	1	1/0/1900	1/0/1900	M	47	56	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/16/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/16/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/16/2023	3	1/0/1900	1/0/1900	M	21	40	20	2	Caribou	1	NA	1	Walking	Tundra	
24		7/16/2023	4	1/0/1900	1/0/1900	M	41	50	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/17/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/17/2023	2	1/0/1900	1/0/1900	M	21	30	10	1	Caribou	2	NA	2	Walking	Tundra	
24		7/19/2023	1	1/0/1900	1/0/1900	M	21	30	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/23/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/25/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
24		7/26/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
24		8/4/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
24		8/15/2023	1	1/0/1900	1/0/1900	M	17	26	10	1	Caribou	1	NA	1	Grazing	Tundra	
25		7/31/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Unknown	1	NA	1	Investigating camera	Tundra	Cannot conclude what is present Camera knocked over
25		8/9/2023	1	1/0/1900	1/0/1900	M	58	107	50	5	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
26		5/30/2023	1	1/0/1900	1/0/1900	M	145	213	69	23	Muskox	1	NA	1	Investigating camera	Tundra	
26		5/30/2023	2	1/0/1900	1/0/1900	M	214	216	3	1	Red Fox	1	NA	1	Walking	Tundra	
26		6/15/2023	1	1/0/1900	1/0/1900	M	241	249	9	3	Caribou	1	NA	1	Walking	Tundra	
26		6/19/2023	1	1/0/1900	1/0/1900	M	253	270	18	6	Caribou	1	NA	1	Walking	Tundra	
26		6/20/2023	1	1/0/1900	1/0/1900	M	271	282	12	4	Caribou	3	NA	3	Grazing	Tundra	
26		6/24/2023	1	1/0/1900	1/0/1900	M	295	315	20	7	Caribou	2	NA	2	Walking	Tundra	
26		6/24/2023	2	1/0/1900	1/0/1900	M	316	330	15	5	Caribou	2	NA	2	Walking	Tundra	
26		6/26/2023	1	1/0/1900	1/0/1900	M	337	345	9	3	Caribou	1	NA	1	Walking	Tundra	
26		6/26/2023	2	1/0/1900	1/0/1900	M	349	351	3	1	Caribou	1	NA	1	Walking	Tundra	
26		6/30/2023	1	1/0/1900	1/0/1900	M	355	357	3	1	Caribou	1	NA	1	Walking	Tundra	
26		7/2/2023	1	1/0/1900	1/0/1900	M	358	372	15	5	Caribou	1	NA	1	Walking	Tundra	
26		7/2/2023	2	1/0/1900	1/0/1900	M	373	381	9	3	Caribou	1	NA	1	Walking	Tundra	
26		7/2/2023	3	1/0/1900	1/0/1900	M	382	384	3	1	Caribou	1	NA	1	Walking	Tundra	
26		7/2/2023	4	1/0/1900	1/0/1900	M	385	390	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/2/2023	5	1/0/1900	1/0/1900	M	391	396	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/3/2023	1	1/0/1900	1/0/1900	M	397	399	3	1	Caribou	1	NA	1	Walking	Tundra	
26		7/4/2023	1	1/0/1900	1/0/1900	M	412	417	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/5/2023	1	1/0/1900	1/0/1900	M	418	423	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/5/2023	2	1/0/1900	1/0/1900	M	424	429	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/6/2023	1	1/0/1900	1/0/1900	M	433	447	15	5	Caribou	1	NA	1	Walking	Tundra	
26		7/6/2023	2	1/0/1900	1/0/1900	M	448	456	9	3	Caribou	1	NA	1	Walking	Tundra	
26		7/7/2023	1	1/0/1900	1/0/1900	M	457	480	24	8	Caribou	1	NA	1	Walking	Tundra	
26		7/7/2023	2	1/0/1900	1/0/1900	M	481	486	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/7/2023	3	1/0/1900	1/0/1900	M	487	492	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/7/2023	4	1/0/1900	1/0/1900	M	493	498	6	2	Caribou	1	NA	1	Walking	Tundra	

APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
26		7/10/2023	1	1/0/1900	1/0/1900	M	505	510	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/11/2023	1	1/0/1900	1/0/1900	M	511	555	45	15	Moose	1	NA	1	Investigating camera	Tundra	
26		7/11/2023	2	1/0/1900	1/0/1900	M	556	561	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/12/2023	1	1/0/1900	1/0/1900	M	562	573	12	4	Caribou	1	NA	1	Walking	Tundra	
26		7/14/2023	1	1/0/1900	1/0/1900	M	574	582	9	3	Caribou	1	NA	1	Walking	Tundra	
26		7/14/2023	2	1/0/1900	1/0/1900	M	586	591	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/14/2023	3	1/0/1900	1/0/1900	M	595	600	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/19/2023	1	1/0/1900	1/0/1900	M	601	615	15	5	Caribou	1	NA	1	Walking	Tundra	
26		7/19/2023	2	1/0/1900	1/0/1900	M	616	621	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/19/2023	3	1/0/1900	1/0/1900	M	622	627	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/20/2023	1	1/0/1900	1/0/1900	M	631	642	12	4	Caribou	1	NA	1	Walking	Tundra	
26		7/21/2023	1	1/0/1900	1/0/1900	M	646	648	3	1	Fox	1	NA	1	Walking	Tundra	
26		7/22/2023	1	1/0/1900	1/0/1900	M	649	696	48	16	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
26		7/25/2023	1	1/0/1900	1/0/1900	M	697	702	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/26/2023	1	1/0/1900	1/0/1900	M	704	708	6	2	Caribou	1	NA	1	Walking	Tundra	
26		7/27/2023	1	1/0/1900	1/0/1900	M	721	732	12	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
28		6/5/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Muskox	15	NA	15	Grazing	Tundra	
28		6/11/2023	1	1/0/1900	1/0/1900	M	16	55	40	4	Caribou	1	NA	1	Investigating camera	Tundra	
28		6/12/2023	1	1/0/1900	1/0/1900	M	59	168	110	11	Grizzly Bear	1	3	4	Investigating camera	Tundra	
28		6/16/2023	1	1/0/1900	1/0/1900	M	8	37	30	3	Caribou	1	NA	1	Investigating camera	Tundra	
28		7/7/2023	1	1/0/1900	1/0/1900	M	19	28	10	1	Caribou	1	NA	1	Walking	Tundra	
28		7/21/2023	1	1/0/1900	1/0/1900	M	9	68	60	6	Muskox	11	2	13	Investigating camera	Tundra	
28		7/27/2023	1	1/0/1900	1/0/1900	M	2	11	10	1	Caribou	1	NA	1	Running	Tundra	
28		8/4/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Fox	1	NA	1	Running	Tundra	
28		8/14/2023	1	1/0/1900	1/0/1900	M	20	29	10	1	Caribou	1	NA	1	Running	Tundra	
28		8/28/2023	1	1/0/1900	1/0/1900	M	16	105	90	9	Grizzly Bear	1	2	3	Investigating camera	Tundra	Bear moved camera
28		8/31/2023	1	1/0/1900	1/0/1900	M	115	144	30	3	Caribou	1	NA	1	Grazing	Tundra	
29		6/2/2023	1	1/0/1900	1/0/1900	M	42	51	10	1	Caribou	1	NA	1	Grazing	Tundra	
29		6/22/2023	1	1/0/1900	1/0/1900	M	39	68	30	3	Caribou	1	NA	1	Investigating camera	Tundra	
29		6/25/2023	1	1/0/1900	1/0/1900	M	110	119	10	1	Caribou	2	NA	2	Grazing	Tundra	
29		7/2/2023	1	1/0/1900	1/0/1900	M	22	31	10	1	Caribou	1	NA	1	Walking	Tundra	
29		7/29/2023	1	1/0/1900	1/0/1900	M	1	40	40	4	Grizzly Bear	1	2	3	Investigating camera	Tundra	
29		8/1/2023	1	1/0/1900	1/0/1900	M	4	43	40	4	Grizzly Bear	1	1	2	Investigating camera	Tundra	
29		8/7/2023	1	1/0/1900	1/0/1900	M	13	42	30	3	Caribou	1	NA	1	Grazing	Tundra	
30		5/27/2023	1	1/0/1900	1/0/1900	M	34	43	10	1	Red Fox	1	NA	1	Walking	Tundra	
30		5/28/2023	1	1/0/1900	1/0/1900	M	44	53	10	1	Canada Goose	4	NA	4	Grazing	Tundra	
30		6/27/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
30		7/7/2023	1	1/0/1900	1/0/1900	M	1	80	80	8	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
30		7/16/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Running	Tundra	
30		7/17/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Fox	1	NA	1	Running	Tundra	
30		8/6/2023	1	1/0/1900	1/0/1900	M	1	110	110	11	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
30		8/21/2023	1	1/0/1900	1/0/1900	M	1	40	40	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
30		8/25/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Grazing	Tundra	
32		6/2/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Bird	1	NA	1	Flying	Tundra	Not sure what bird is present, could also be an insect
32		6/8/2023	1	1/0/1900	1/0/1900	M	10	19	10	1	Caribou	2	NA	2	Grazing	Tundra	
32		6/9/2023	1	1/0/1900	1/0/1900	M	20	29	10	1	Caribou	1	NA	1	Walking	Tundra	
32		6/14/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	2	NA	2	Grazing	Tundra	
32		6/18/2023	1	1/0/1900	1/0/1900	M	76	85	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
32		6/29/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
32		6/29/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
32		6/30/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Running	Tundra	
32		7/4/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
32		7/4/2023	2	1/0/1900	1/0/1900	M	14	23	10	1	Caribou	1	NA	1	Grazing	Tundra	
32		7/8/2023	1	1/0/1900	1/0/1900	M	1	30	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
32		7/10/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
32		7/15/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	

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32		7/15/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
32		7/21/2023	1	1/0/1900	1/0/1900	M	1	20	20	2	Caribou	5	NA	5	Grazing	Tundra	
32		7/21/2023	2	1/0/1900	1/0/1900	M	64	73	10	1	Caribou	1	NA	1	Walking	Tundra	
32		7/23/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
32		7/27/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
32		8/4/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Grazing	Tundra	
32		8/6/2023	1	1/0/1900	1/0/1900	M	1	20	20	2	Caribou	2	NA	2	Grazing	Tundra	
32		8/15/2023	1	1/0/1900	1/0/1900	M	11	80	70	7	Caribou	1	NA	1	Investigating camera	Tundra	
32		8/15/2023	1	1/0/1900	1/0/1900	M	81	90	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
33		6/19/2023	1	1/0/1900	1/0/1900	M	20	29	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
33		6/24/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	2	NA	2	Grazing	Tundra	
33		6/24/2023	2	1/0/1900	1/0/1900	M	21	40	20	2	Caribou	1	1	2	Grazing	Tundra	
33		6/30/2023	1	1/0/1900	1/0/1900	M	1	20	20	2	Caribou	1	NA	1	Walking	Tundra	
33		7/4/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Running	Tundra	
33		7/5/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/5/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/6/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/7/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/7/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/7/2023	3	1/0/1900	1/0/1900	M	21	30	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/7/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/7/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/8/2023	1	1/0/1900	1/0/1900	M	21	30	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/13/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/14/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/16/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/16/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/16/2023	3	1/0/1900	1/0/1900	M	21	30	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/17/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/17/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
33		7/20/2023	1	1/0/1900	1/0/1900	M	1	20	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
33		7/22/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
33		8/5/2023	1	1/0/1900	1/0/1900	M	11	70	60	6	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
33		8/9/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Wolverine	1	NA	1	Walking	Tundra	
33		8/16/2023	1	1/0/1900	1/0/1900	M	9	29	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
33		8/18/2023	1	1/0/1900	1/0/1900	M	1	50	50	5	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
33		8/21/2023	1	1/0/1900	1/0/1900	M	1	30	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
34		6/6/2023	1	1/0/1900	1/0/1900	M	4	33	30	3	Caribou	1	NA	1	Investigating camera	Tundra	
34		7/3/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
34		7/10/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
34		7/15/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
34		7/29/2023	1	1/0/1900	1/0/1900	M	1	30	30	3	Unknown	1	NA	1	Investigating camera	Tundra	Unable to tell what animal is present
34		8/13/2023	NA	1/0/1900		T	6	NA	1	NA	er White-fronted	6	NA	6	Walking	Tundra	
34		8/27/2023	1	1/0/1900	1/0/1900	M	46	65	20	2	Caribou	2	NA	2	Walking	Tundra	
36		6/6/2023	1	1/0/1900	1/0/1900	M	24	33	10	1	Caribou	1	NA	1	Walking	Tundra	
36		6/14/2023	1	1/0/1900	1/0/1900	M	34	73	40	4	Grizzly Bear	2	NA	2	Investigating camera	Tundra	
37		8/25/2023	1	1/0/1900	1/0/1900	M	2294	2383	90	9	Caribou	1	NA	1	Investigating camera	Tundra	
39		6/11/2023	1	1/0/1900	1/0/1900	M	7	26	20	2	Caribou	2	NA	2	Grazing	Tundra	
39		7/29/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Fox	1	NA	1	Running	Tundra	Not 100% sure if it is a fox. It is a fox - DB
40		8/1/2023	1	1/0/1900	1/0/1900	M	14	23	10	1	Caribou	1	NA	1	Running	Tundra	
40		8/29/2023	1	1/0/1900	1/0/1900	M	61	70	10	1	Caribou	1	NA	1	Walking	Tundra	
40		8/31/2023	1	1/0/1900	1/0/1900	M	80	119	40	4	Caribou	1	NA	1	Investigating camera	Tundra	
41		7/5/2023	1	1/0/1900	1/0/1900	M	22	31	10	1	Caribou	1	NA	1	Walking	Tundra	
41		7/27/2023	1	1/0/1900	1/0/1900	M	45	54	10	1	Unknown	1	NA	1	Investigating camera	Tundra	Either a grizzly bear of a caribou
41		8/15/2023	1	1/0/1900	1/0/1900	M	22	41	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
42		6/29/2023	NA	1/0/1900		T	3	NA	1	NA	Caribou	2	NA	2	Walking	Tundra	

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42		7/2/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Running	Tundra	
42		7/3/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Running	Tundra	
42		7/14/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
42		7/14/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
42		7/19/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
42		7/24/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
42		7/24/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
42		7/25/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
42		7/25/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
43		8/4/2023	1	1/0/1900	1/0/1900	M	4	113	110	11	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
43		8/6/2023	1	1/0/1900	1/0/1900	M	1	40	40	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
43		8/22/2023	1	1/0/1900	1/0/1900	M	31	40	10	1	Bird	1	NA	1	Standing	Tripod	Not sure what bird is present
44		6/21/2023	1	1/0/1900	1/0/1900	M	85	124	40	4	Caribou	4	NA	4	Grazing	Tundra	
44		6/27/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
46		7/31/2023	1	1/0/1900	1/0/1900	M	1	40	40	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
46		8/13/2023	1	1/0/1900	1/0/1900	M	1	50	50	5	Caribou	1	NA	1	Investigating camera	Tundra	
46		8/17/2023	1	1/0/1900	1/0/1900	M	10	19	10	1	Caribou	1	NA	1	Walking	Tundra	
46		8/20/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
46		8/21/2023	1	1/0/1900	1/0/1900	M	24	43	20	2	Caribou	2	NA	2	Walking	Tundra	
46		8/26/2023	1	1/0/1900	1/0/1900	M	10	19	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
48		6/11/2023	NA	1/0/1900		T	7	NA	NA	NA	Caribou	4	NA	4	Grazing	Tundra	
48		6/22/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	2	NA	2	Grazing	Tundra	
48		7/1/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/3/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/6/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/7/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/7/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/10/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/12/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Grazing	Tundra	
48		7/13/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/13/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/15/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
48		7/23/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
50		8/30/2023	1	1/0/1900	1/0/1900	M	11	160	150	15	Grizzly Bear	1	2	3	Investigating camera	Tundra	
51		6/10/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Walking	Other	
51		6/22/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Grizzly Bear	1	1	2	Walking	Other	
51		6/27/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		6/29/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		6/20/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		6/30/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Other	
51		6/30/2023	3	1/0/1900	1/0/1900	M	21	30	10	1	Caribou	1	NA	1	Walking	Other	
51		7/7/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Fox	1	NA	1	Running	Other	
51		7/12/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		7/12/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Other	
51		7/17/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		7/21/2023	1	1/0/1900	1/0/1900	M	7	16	10	1	Caribou	1	NA	1	Walking	Other	
51		7/22/2023	2	1/0/1900	1/0/1900	M	220	229	10	1	Caribou	1	NA	1	Walking	Other	
51		7/23/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		7/24/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Red Fox	1	NA	1	Walking	Other	
51		7/24/2023	2	1/0/1900	1/0/1900	M	14	23	10	1	Caribou	1	NA	1	Walking	Other	
51		7/28/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		7/29/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		8/7/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Other	
51		8/7/2023	2	1/0/1900	1/0/1900	M	11	30	20	2	Caribou	1	NA	1	Walking	Other	
51		8/11/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	2	NA	2	Walking	Other	
51		8/19/2023	1	1/0/1900	1/0/1900	M	67	96	30	3	Caribou	2	NA	2	Walking	Other	



APPENDIX F: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, DORIS AND MADRID AREAS, SEPTEMBER 2021 TO AUGUST 2023

Camera No.	Camera Type	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
53		7/15/2023	1	1/0/1900	1/0/1900	M	1	20	20	2	Caribou	1	NA	1	Grazing	Tundra	
53		8/20/2023	1	1/0/1900	1/0/1900	M	47	56	10	1	Bird	1	NA	1	Flying	Tundra	Not sure what bird is present
54		6/2/2023	1	1/0/1900	1/0/1900	M	14	23	10	1	Bird	1	NA	1	Flying	Tundra	Not sure what bird is present
54		6/9/2023	1	1/0/1900	1/0/1900	M	40	69	30	3	Caribou	4	NA	4	Grazing	Tundra	
54		7/13/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Walking	Tundra	
54		7/15/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
54		7/21/2023	1	1/0/1900	1/0/1900	M	1	40	40	4	Common Raven	1	NA	1	Flying	Tundra	
54		8/1/2023	1	1/0/1900	1/0/1900	M	1	10	10	1	Caribou	1	NA	1	Grazing	Tundra	
56		8/8/2023	1	1/0/1900	1/0/1900	M	1	30	30	3	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
57		6/22/2023	1	1/0/1900	1/0/1900	M	1	30	30	3	Caribou	1	NA	1	Investigating camera	Tundra	
58		7/8/2023	1	1/0/1900	1/0/1900	M	32	41	10	1	Caribou	1	NA	1	Walking	Tundra	
58		8/1/2023	1	1/0/1900	1/0/1900	M	4	23	20	2	Caribou	1	NA	1	Grazing	Tundra	
58		8/18/2023	1	1/0/1900	1/0/1900	M	22	41	20	2	Caribou	1	NA	1	Investigating camera	Tundra	
58		8/21/2023	1	1/0/1900	1/0/1900	M	61	70	10	1	Caribou	1	NA	1	Walking	Tundra	
59		6/7/2023	1	1/0/1900	1/0/1900	M	82	121	40	4	Grizzly Bear	1	NA	1	Investigating camera	Tundra	
59		6/11/2023	1	1/0/1900	1/0/1900	M	113	122	10	1	Bird	1	NA	1	Flying	Tundra	Unable to tell what bird is present
59		6/11/2023	2	1/0/1900	1/0/1900	M	139	148	10	1	Bird	1	NA	1	Flying	Tundra	Don't know what bird is present
59		6/14/2023	1	1/0/1900	1/0/1900	M	21	34	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tripod	Unsure of life stage
59		6/16/2023	1	1/0/1900	1/0/1900	M	14	107	100	10	Grizzly Bear	1	NA	1	Investigating camera	Tripod	
59		6/16/2023	2	1/0/1900	1/0/1900	T	124	NA	NA	NA	Grizzly Bear	1	1	2	Walking	Tundra	
59		6/16/2023	3	1/0/1900	1/0/1900	M	125	143	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tripod	
59		6/22/2023	1	1/0/1900	1/0/1900	M	44	51	10	1	Grizzly Bear	1	NA	1	Investigating camera	Tripod	unsure of lifestage
59		6/28/2023	1	1/0/1900		T	20	NA	1	1	Wolverine	1	NA	1	Feeding	Tundra	
59		6/28/2023	2	1/0/1900		M	21	30	10	1	Wolverine	1	NA	1	Feeding	Tundra	
59		7/2/2023	1	1/0/1900	1/0/1900	M	1	1	10	1	Unknown	NA	NA	NA	Flying	Tundra	appears to be an owl, but maybe just a goose.
59		7/10/2023	1	1/0/1900			13	NA	NA	NA	Caribou	1	NA	1	Walking	Tundra	unsure of life stage
59		7/22/2023	1	1/0/1900	1/0/1900	T	8	NA	NA	NA	Caribou	NA	NA	NA	Feeding	Tundra	unable to determine life stage
59		7/24/2023	1	1/0/1900	1/0/1900	T	23	NA	NA	NA	Unknown	NA	NA	NA	Swimming	Lake	unable to discern species or number
59		8/1/2023	1	1/0/1900	1/0/1900	M	52	60	10	1	Unknown	NA	NA	NA	Feeding	Tundra	unsure of species
59		8/5/2023	1	1/0/1900	1/0/1900	T	70	NA	NA	NA	Bird	NA	NA	NA	Sitting	Tundra	one unknown species
60		6/8/2023	1	1/0/1900	1/0/1900	M	20	48	30	3	Caribou	1	NA	1	Feeding	Tundra	
60		6/2/2023	1	1/0/1900	1/0/1900	M	47	54	10	1	Caribou	1	NA	1	Investigating camera	Tundra	
60		7/10/2023	1	1/0/1900	1/0/1900	M	37	46	10	1	Caribou	1	NA	1	Walking	Tundra	unsure of life stage
60		7/11/2023	1	1/0/1900	1/0/1900	M	11	20	10	1	Unknown	NA	NA	NA	Investigating camera	Tripod	unknown species
60		7/14/2023	1	1/0/1900	1/0/1900	M	4	13	10	1	Caribou	1	NA	1	Feeding	Tundra	
60		7/16/2023	1	1/0/1900	1/0/1900	M	1	1	10	1	Caribou	1	NA	1	Investigating camera	Tripod	
60		7/17/2023	2	1/0/1900	1/0/1900	M	11	17	10	1	Caribou	1	NA	1	Running	Tundra	
60		7/24/2023	1	1/0/1900	1/0/1900	M	23	32	10	1	Red Fox	1	NA	1	Walking	Tundra	
60		7/27/2023	1	1/0/1900	1/0/1900	M	3	15	20	2	Caribou	1	NA	1	Feeding	Tundra	
60		7/27/2023	2	1/0/1900	1/0/1900	M	23	32	10	1	Caribou	1	NA	1	Walking	Tundra	
60		8/4/2023	1	1/0/1900	1/0/1900	M	10	10	10	1	Caribou	1	NA	1	Walking	Tundra	enters frame at last photo of first trigger.
60		8/4/2023	2	1/0/1900	1/0/1900	M	11	20	10	1	Caribou	1	NA	1	Walking	Tundra	
60		8/12/2023	1	1/0/1900	1/0/1900	M	10	23	20	2	Caribou	1	NA	1	Investigating camera	Tripod	
60		8/15/2023	2	1/0/1900	1/0/1900	M	43	101	60	6	Grizzly Bear	1	1	3	Investigating camera	Tripod	
60		8/16/2023	3	1/0/1900	1/0/1900	M	105	154	50	5	Grizzly Bear	2	NA	2	Investigating camera	Tripod	
60		8/25/2023	4	1/0/1900	1/0/1900	M	179	198	20	2	Grizzly Bear	1	NA	1	Investigating camera	Tripod	
60		8/27/2023	5	1/0/1900	1/0/1900	M	208	218	20	2	Caribou	1	NA	1	Walking	Tundra	

## APPENDIX G      WILDLIFE INTERACTIONS, INCIDENTS, AND MORTALITIES RECORDED AT THE PROJECT IN 2023



APPENDIX G: WILDLIFE INTERACTIONS, INCIDENTS, AND MORTALITIES RECORDED AT THE PROJECT IN 2023

Incident Date (DD/MM/YY)	Incident Type	Species	Event Description	Immediate Response Actions	Corrective/ Preventative Actions Generated	External Regulatory Bodies Notified
05/20/2023	Wildlife Mortality	Wolverine	Only head remained. Based on location away from infrastructure, cause of death is natural cause. Report provided to authorities.	Carcass left for natural decomposition.	N/A	N/A
05/28/2023	Wildlife Interaction	Grizzly Bear	A single adult was diverted using a drone into the tundra away from the road.	Diverted from area with drone.	N/A	N/A
05/29/2023	Wildlife Interaction	Grizzly Bear	An individual entered the waste sorting area in Robert’s Bay throughout the night and tore apart the waste receptacles.	Waste was cleaned up and waste management protocols were investigated.	N/A	N/A
06/05/2023	Wildlife Interaction	Grizzly Bear	Adult female and cub was diverted by drone from the airport towards Doris Mountain.	Diverted from area with drone.	NA	NA
06/16/2023	Wildlife Interaction	Grizzly Bear	One adult female and one cub were diverted for six minutes from the site footprint using a helicopter.	Diverted from area with helicopter.	N/A	N/A
06/26/2023	Wildlife Interaction	Grizzly Bear	One adult female and three cubs were diverted using a drone from the camp footprint towards Madrid area.	Diverted from area with drone.	N/A	N/A
07/08/2023	Wildlife Interaction	Grizzly Bear	One adult female and one cub diverted by helicopter two times towards the Doris Bridge on the TLR.	Diverted from area with helicopter.	N/A	N/A
07/09/2023	Wildlife Interaction	Unspecified Ptarmigan species	A single adult flushed from nest by site personnel. Nest had four eggs inside.	Personnel left area immediately.	N/A	N/A
07/19/2023	Wildlife Interaction	Caribou	Caribou on airstrip prior to plane arrival.	Diverted from area with pickup.	NA	NA
11/18/2023	Wildlife Mortality	Unspecified Shearwater Species	Individual found on site unable to move, the cause of death is believed to be of natural causes as the individual was located immobile and later found deceased and scavenged by ravens.	Carcass removed from site and left for natural decomposition.	N/A	N/A
11/25/2023	Wildlife Mortality	Red Fox	One of the foxes was dead and being carried by the other. Dropped the carcass on the camp road where it was seen. Fox returned a few minutes later and picked up the carcass and ran off into the tundra.	Carcass left for natural decomposition.	N/A	N/A

## APPENDIX H      HOPE BAY INCIDENTAL WILDLIFE OBSERVATIONS 2023

APPENDIX H: HOPE BAY INCIDENTAL WILDLIFE OBSERVATIONS 2023

No.	Date (DD-MM-YYYY)	Sited From (ground, air)	Species Name (e.g. caribou)	Species Description	Total # Inds.	# A	# M	# F	# Y	# U	Activity	Location Description (e.g. east shore of Patch Lake)	Habitat Type	Comments (behavior: e.g., observed nest, chicks, den etc.)
1	1/1/2023	Ground	Caribou		9					9	Bedding, feeding	In TIA, across from Powder Mag	Tundra/Water	
2	1/2/2023	Ground	Muskox		25					25	Resting	Between km 7 and 8, Windy Lake, west side on slope	Tundra/Water	
3	1/8/2023	Ground	Ptarmigan		7					7	Walking	Environment lab drive way	Site	
4	1/10/2023	Ground	Ptarmigan		1					1	Walking	near old core shack at road	Site	
5	1/15/2023	Ground	Arctic Hare		1	1					Resting	TIA near Aqua Dam	Tundra	
6	1/15/2023	Ground	Arctic Fox		1						Scrounging	Near BBQ at kitchen	Site	
7	1/20/2023	Ground	Arctic Hare		1	1					Walking	Km 7 Windy Road	Tundra	
8	2/11/2023	Ground	Red Fox		1						Hunting/ scrounging	New WTP location, at office shack	Tundra	
9	2/12/2023	Ground	Ptarmigan		5					5	Flying	Km 6, Windy Road	Tundra	
10	2/13/2023	Ground	Red Fox		1					1	Walking	Km 6 Winy Road	Tundra	
11	2/13/2023	Ground	Caribou		7					7	Feeding, resting	Doris Lake, east side, near Doris Creek	Water/Tundra	
12	2/15/2023	Ground	Ptarmigan		5					5	Walking, resting, flying	Environmental Lab	Site	
13	2/16/2023	Ground	Ptarmigan		3					2	Walking	Environmental Lab	Site	
14	2/22/2023	Ground	Red Fox		1					1	Walking	Walking on roof of main camp	Site	
15	2/23/2023	Ground	Moose		3			1	2		Walking	Km 4 Windy Road	Tundra	
16	2/26/2023	Ground	Ptarmigan		21					21	Walking	Behind Nuna Shop at Windy	Tundra	
17	2/27/2023	Ground	Ptarmigan		1					1	Flying	Roadway behind camp	Site	
18	3/3/2023	Ground	Ptarmigan		12					12	Walking	Roadway by Geotech	Site	Crossing the road towards Doris Mountain
19	3/4/2023	Ground	Ptarmigan		10					10	Walking	Roadway beside Enviro Lab	Site	Crossing the road
20	3/4/2023	Ground	Red Fox	Vulpes, Vulpes	1					1	Hunting	KM 3 Windy road	Tundra	Hunting 500 meters off the east side
21	3/23/2023	Ground	Red Fox		1	1					Hunting digging	Km 6 Windy Road	Tundra	
22	3/23/2023	Ground	Ptarmigan		1						Walking	old core shack crossing camp road	Site	
23	3/24/2023	Ground	Red Fox		1	1					Walking	south of Madrid CWP	Tundra	
24	3/25/2023	Ground	Red Fox		1						Walking	Patch Lake	Lake	
25	3/26/2023	Ground	Ptarmigan		7					7	Walking	coreshack, crossing Windy Road	Site	
26	3/26/2023	Ground	Red Fox		2		1	1			Fornicating	Nuna Shop	Site	
27	3/26/2023	Ground	Red Fox		1					1	Walking	on Diversion berm heading west	Site	
28	3/27/2023	Ground	Wolverine		1					1	Bounding	Heading east from Windy Road KM 5	Tundra	
29	3/27/2023	Ground	Moose		1			1			Walking	Shore of Spider lake	Tundra	This was observed during the Fat truck recovery at Boston
30	3/31/2023	Ground	Ptarmigan		8					8	Walking, resting, preening	Environmental Lab	Site	

No.	Date (DD-MM-YYYY)	Sited From (ground, air)	Species Name (e.g. caribou)	Species Description	Total # Inds.	# A	# M	# F	# Y	# U	Activity	Location Description (e.g. east shore of Patch Lake)	Habitat Type	Comments (behavior: e.g., observed nest, chicks, den etc.)
31	4/1/2023	Ground	Red fox		1					1	Walking	Rob's Bay	Tundra	
32	4/1/2023	Ground	Red Fox		1					1	Walking	km 6.5 Windy road	Tundra	Walking along of the road
33	4/2/2023	Ground	Red Fox		1					1	Walking	Mine Dry entrance	Site	
34	4/2/2023	Ground	Ptarmigan		5					5	Flying/perched	New WTP location	Site	
35	4/7/2023	Ground	Eagle		2					2	Soaring	on East side of Doris Mountain	Site	No discernable colouring due to altitude of flight
36	4/11/2023	Ground	Red Fox		1					1	Walking	roof of main camp	Site	
37	4/11/2023	Ground	Ptarmigan		9					9	Walking	Patch Lake	Lake	
38	4/12/2023	Ground	Eagle		1				1		Flying	From east, heading past helipad	Site	believed to be juvenile golden eagle
39	4/12/2023	Ground	Cross Fox		1					1	Walking	East side Windy Road, near KM4	Tundra	
40	4/14/2023	Ground	Caribou		7					7	Walking	Proximate to Aqua Dam headed towards the EWTP	Lake	Crossing the TIA
41	4/27/2023	Ground	Arctic Hare	Lepus Articus	1					1	Resting	Environmental Lab	Site	Resting
42	4/27/2023	Ground	Arctic Hare	Lepus Articus	1					1	Resting	Environmental Office	Site	Resting
43	5/4/2023	Ground	Gull		1					1	Flying	Quarry 2	Site	
44	5/4/2023	Ground	Ground squirrel		1					1	Walking	Patch Lake	Lake	
45	5/5/2023	Ground	Snowy owl		1					1	Flying	KM2 Windy lake	Tundra	
46	5/6/2023	Ground	Geese		6					6	Flying	West of main camp	Tundra	No discernable colouring due to altitude of flight
47	5/6/2023	Ground	Goose		1					1	Flying	West of main camp	Tundra	No discernable colouring due to altitude of flight
48	5/6/2023	Ground	American robin		1					1	Flying	Doris Creek bridge	Tundra	
49	5/7/2023	Ground	Grizzly bear		1	1				1	Walking	Patch lake, close to Rig 3	Lake	
50	5/8/2023	Ground	Ground squirrel		1					1	Running/walking	North Dam	Tundra	
51	5/9/2023	Ground	Sandhill Crane		6					6	Walking	West side of airstrip	Tundra	
52	5/10/2023	Ground	Snow bunting		12					12	Flying	Km 4, Windy Road	Tundra	
53	5/10/2023	Ground	Arctic fox		1					1	Deceased	found beside rear door to Kitchen on top of snow bank	Site	
54	5/20/2023	Ground	Grizzly bear		2	1			1		Walking	200 meters south of the south dam walking slowly west	tundra	
55	5/22/2023	Ground	Grizzly bear		2	1		1	1		Walking	At KM 2 on Windy Road crossing heading west walking calmly @11:45	tundra	
56	5/23/2023	Ground	Grizzly bear		1						Walking	Windy pumphouse walking west	Lake	seen at 9:30
57	5/23/2023	Ground	Geese		2					2	Swimming	Behind batch plant	tundra	Reported, unidentified geese sized birds
58	5/23/2023	Ground	Sandhill Crane		1					1+	Feeding	Km 4 Windy Road	Tundra	Flock reported but no confirmed number.
59	5/25/2023	Air	Muskox		6	6				6	Feeding	While exploring ELU area	Tundra	Feeding and started running when the helicopter approached.
60	6/1/2023	Ground / air	Grizzly bear		1					1	Foraging	Around Madrid south beside drill	Tundra	Feeding and started running when the helicopter approached - but no deterrences

No.	Date (DD-MM-YYYY)	Sited From (ground, air)	Species Name (e.g. caribou)	Species Description	Total # Inds.	# A	# M	# F	# Y	# U	Activity	Location Description (e.g. east shore of Patch Lake)	Habitat Type	Comments (behavior: e.g., observed nest, chicks, den etc.)
61	6/3/2023	Ground	Caribou		3					3	Grazing	200m off west side of Windy road at KM 7	Tundra	3 Caribou reported grazing off the road no impact to traffic
62	6/3/2023	Ground	Caribou		3	2			1		Grazing	few hundred m off the Windy road at km 8.	Tundra	3 Caribou reported grazing off the road no impact to traffic,
63	6/4/2023	Ground	Musk OX		18						Grazing	Dust fall station TIA 3	Tundra	Grazing one albino?
64	6/4/2023	Ground	Grizzly bear		1					1	Hunting	KM4.5 on Windy in the rock cut	Tundra	Looking for bird eggs in the cliffs.
65	6/4/2023	Ground	Arctic Hare	Lepus Articus	2					2	Frolicking	Running over the road on TLR	Tundra/Site	Chasing each other...
66	6/5/2023	Ground	Caribou		2			2			Grazing	Few hundred meters west of km 8 on Windy road	Tundra	
67	6/7/2023	Ground	Wolf		1	1					Walking	Blindhill 1.5 KM on Windy Road, walking towards Doris Lake	Tundra	
68	6/7/2023	Ground	Caribou		1	1					Walking	Km 8 Windy Road	Tundra	
69	6/7/2023	Ground	Caribou		1	1					Walking	Km 2 East side Windy Road (50 yards from road)	Tundra	
70	6/11/2023	Air	Grizzly bear		2	`		1	1		Walking	West side of Windy lake	Tundra	Walking. Exploration team changed their plans to avoid interacting with them.
71	6/13/2023	Ground	Caribou		3		2	1			Resting	Km3 on east side of Windy Road	Tundra	Resting. More than 100m off the road
72	6/13/2023	Ground	Caribou		1			1			Running/walking	Km 5 on west side of windy road. Headed north	Tundra	More than 100m off the road
73	6/13/2023	Ground	Caribou		3		2	1			Walking	Between km 5 and 6 on windy road.	Site	
74	6/16/2023	Ground	Red Fox		1	1					Walking	Next to the core shack	Site	
75	6/16/2023	Ground	Caribou		1	1					Grazing	km3 on windy road. 100m off the road	Tundra	
76	6/17/2023	Ground	Peregrine falcon		1					1	Flying/squawking	Doris mountain area	Site	
77	6/17/2023	Ground	Arctic hare		1					1	Hopping/resting	behind camp, by ENV shack	Site	
78	6/18/2023	Air	Swans		2					2	Resting	Directly east of Airstrip on lake shoreline	Tundra	
79	6/19/2023	Ground	Eagle		1					1	Soaring	Madrid area	Tundra	
80	6/19/2023	Ground	American robin		1					1	Singing	near powerhouse	Site	
81	6/20/23	Ground	Caribou		1					1	Walking	Windy Rd Km 3	Tundra	
82	6/21/2023	Ground	Grizzly bear		2	1			1		Walking	East of Vent Raise	Site	
83	6/21/2023	Air	Caribou		16					16	Walking	East of Windy Road	Tundra	
84	6/21/23	Ground	Red Fox		1	1					Running/ walking	Running over the road on TLR heading west	Site	
85	6/21/23	Ground	Caribou		16					16	Foraging/ walking	South of Madrid CWP	Tundra	Some walking west, others just grazing
86	6/22/2023	Ground	Caribou		2					2	Walking	~200m west of Windy Road Km3	Tundra	
87	6/22/2023	Ground	Arctic hare		1					1	Hopping/sitting	Rob's Bay laydown	Site	
88	6/22/2023	Ground	Grizzly bear		1					1	Walking	Km3 Windy road, west side	Tundra	
89	6/22/2023	Ground	Caribou		7					7	Walking	west of Doris Mountain	Tundra	
90	6/22/2023	Ground	Canada goose		1					1	Foraging	Km 5 Windy Road, West side	Tundra	
91	6/22/23	Ground	Grizzly bear		1	1					Walking	East side Windy Road, between km 6 and 7	Tundra	
92	6/22/23	Ground	Caribou		7					7	Walking	West side Windy Road, between km 5 and 6	Tundra	

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93	6/23/2023	Ground	Caribou		3					3	Foraging/ walking	KM 3 Windy road	Tundra	
94	6/23/2023	Ground	Caribou		6					6	Foraging/ walking	Km 7 Windy Road	Tundra	
95	6/23/2023	Ground	Caribou		1					1	Walking	Site road, near LRP	Site	
96	6/23/23	Ground	Caribou		2					2	Grazing	Rob's Bay, north of command center	Site	
97	6/23/23	Ground	Caribou		5					5	Grazing/walking	West side of camp road across from Geotech laydown	Site	
98	6/24/23	Ground	Grizzly bear		1	1					Walking	200 yards West side Windy Road, near km 7	Tundra	
99	6/26/23	Ground	Caribou		6	6					Walking	By explosives storage on TLR heading south	Site	One caribou stopped to graze away from the rest of the herd
100	6/26/23	Ground	Caribou		3	2	1	1	1		Walking/foraging	south of Doris camp, north of Doris Lake	Site	Heading towards TLR
101	6/26/23	Ground	Grizzly bear		1					1	Walking/foraging	North east of camp at Geology prospector location	Tundra	Called in on #41 - helicopter dispatched and field crew removed. Second crew in vicinity was alerted to the bear presence over the radio as a warning to keep a look out
102	6/26/23	Ground	Swan		1					1	Swimming	Patch Lake	Lake	
103	6/26/23	Ground	Caribou		1				1		Walking	Windy Road, Km 1 on road heading north	Roadway	
104	6/27/23	Ground	Caribou		1	1					Walking/foraging	By the Doris portal	site	
105	6/27/23	Ground	Caribou		1	1					Walking/foraging	West of Windy Road near Blind hill km 1.5 south	Tunda	
106	6/27/23	Ground	Sandhill Crane		1	1					Walking	East side of Windy Road near km 5	Tundra	
107	6/27/23	Ground	Grizzly bear		1	1					Walking	Near Windy Pumphouse heading North	Site	Gone before wildlife response team arrived
108	6/27/23	Ground	Caribou		2					2	Walking/running	on camp road by mobile shop moving toward helipad	Site	
109	6/27/23	Ground	Caribou		1					1	Walking	TLR Road	Site	
110	6/27/23	Ground	Grizzly bear		1	1					Walking	On Windy road heading west near km 7	Site	
111	6/28/23	Ground	Grizzly bear		1					1	Walking/running	Windy Road Km6/7 heading west	Tundra	
112	6/28/23	Ground	Caribou		1					1	Grazing/walking	South Apron	Site	
113	6/28/23	Ground	Caribou		2	2					Walking	Blindhill 1.5 KM on Windy Road, walking towards Doris Lake	Tundra	
114	6/29/23	Ground	Caribou		4					4	Walking, grazing	Mobile shop area, Main camp road and associated tundra	Site	
115	6/29/23	Ground	Sandhill Crane		2					2	Standing, grazing	Windy Rd Km 4, east side	Tundra	
116	6/29/23	Ground	Caribou		1	1					Walking	Doris Bridge on TLR	Site	
117	6/29/23	Ground	Caribou		3	3					Walking	Near water treatment plant heading south towards helipad	Site	
118	6/30/23	Ground	Caribou		1					1	Walking	TIA Interim Dike	Site	
119	7/1/23	Ground	Caribou		1	1					Walking	Madrid area	Site	Walking south along road
120	7/1/23	Ground	Caribou		1	1					Walking	Windy road near km 3, heading west	Tundra	
121	7/1/23	Ground	Caribou		1	1					Walking	Main camp road near landfarm, heading west	Site	

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122	7/1/23	Ground	Caribou		1		1				Grazing/walking	South end of the airstrip	Tundra	
123	7/1/23	Ground	Caribou		1	1					Resting	South of the Multi tank farm in Robs Bay	Site	
124	7/1/23	Ground	Arctic hare		1					1	Hopping	behind upper UG laydown	Site	
125	7/1/23	Ground	Peregrine falcon		1					1	Flying/perched	west of main camp road across from ENV lab	Site	
126	7/1/23	Ground	Caribou		1		1				Resting	Camp between A-B wind	Site	Resting in the shade
127	7/2/23	Ground	Caribou		1					1	Walking	North end of air strip	Site	
128	7/2/23	Ground	Caribou		1		1				Running	Bling corner TIA	Site	
129	7/3/23	Ground	Caribou		1	1					Walking	Walking south on TLR	Site	
130	7/3/23	Ground	Grizzly bear		2	1		1	1		Resting	Laying down by Doris Bridge	Site	
131	7/3/23	Ground	Caribou		1					1	Standing	Vent Raise	Site	
132	7/3/23	Ground	Caribou		2					1	Walking	Mine laydown	Site	
133	7/3/23	Ground	Arctic hare		1					1	Bounding	West of Rob's Bay multi tank farm	Site	
134	7/4/23	Ground	Grizzly bear		2			1	1		Foraging	Doris Bridge on TLR	Tundra	Called few times during the days. No deterrence required.
135	7/5/23	Ground	Caribou		1	1					Resting	Doris fuel farm	Site	
136	7/5/23	Ground	Caribou		1	1					Walking	Doris fuel farm	Site	
137	7/5/23	Ground	Caribou		1	1					Walking	North dam	Site	Heading west
138	7/5/23	Ground	Grizzly bear		3	1			2		Walking	Rob's Bay, near discharge jetty	Site	Walking around
139	7/6/23	Ground	Caribou		1	1	1				Grazing/walking	Near Geotech laydown, on east side of road	Site	
140	7/6/23	Ground	Caribou		1						Eating	13U 432900 7558713	Tundra	Feeding about 50ft from road
141	7/6/23	Ground	Caribou		1						Eating	432869 755313	Tundra	Caribou about 400ft from the road
142	7/6/23	Ground	Caribou		1						Eating	432733 7555795	Tundra	300ft from the road
143	7/6/23	Ground	SandHill crane		4						Walking	432702 7555675	Tundra	Mated pair with 2 young
144	7/6/23	Ground	Siksik		1						Standing	432967 7551962	Site	windy Road
145	7/7/23	Ground	Caribou		1	1					Grazing	North of diversion berm	Tundra	
146	7/8/23	Ground	Sandhill Crane		2	2	1	1			Grazing	Windy road KM 4	Wetland	
147	7/8/23	Ground	Sandhill Crane		2	2	1	1			Walking	Windy Lake	tundra	
148	7/8/23	Ground	Caribou		1					1	Grazing	South of site	Tundra	
149	7/8/23	Ground	Caribou		1	1	1				Grazing	Drill south of Madrid	Tundra	
150	7/9/23	Ground	Caribou		1				1		Walking	Close to warehouse area on Doris Camp	Site	
151	7/9/23	Ground	Caribou		1						Eating	Tundra	Tundra	
152	7/9/23	Ground	Caribou		1	1	1				Walking	Main road of camp	Roadway	Caribou walking North down main road
153	7/9/23	Ground	Caribou		1	1	1				Eating	Tundra	Tundra	
154	7/9/23	Air	Golden Eagle		1					1	Flying	Tundra	Tundra	
155	7/10/23	Ground	Caribou		2					2	Grazing/walking	Around Doris camp	Site	



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156	7/10/23	Ground	Caribou		2		1	1	2		Grazing	10 km south of Madrid	Tundra	During archeology work
157	7/10/23	Ground	Muskox		1					1	Walking	10 km south of Madrid	Tundra	During archeology work
158	7/10/23	Ground	SandHill crane		4	2	1	1	2		Walking	Km 4 Windy Road	Tundra	
159	7/10/23	Ground	Caribou		3						Hanging out	Seacan of tires	Site	Caribous hanging out on a seacan of tires beside the old coreshack
160	7/10/23	Ground	Caribou		2						Walking	Madrid pit	Tundra	2 caribous walking on Madrid pit
161	7/10/23	Ground	Caribou		1						Running	Tundra	Tundra	
162	7/10/23	Ground	Caribou		2					2	Eating	Tundra	Tundra	
163	7/10/23	Ground	Caribou		2					2	Walking	West of core shack	Site	
164	7/11/23	Ground	Caribou		1	1					Resting	On Madrid CWP	Site	
165	7/11/23	Ground	Caribou		1					1	Walking	In camp near Rec room door	Site	
166	7/11/23	Ground	Caribou		1	1					Walking	In camp near ENVR Lab	Site	Went behind seacans
167	7/12/23	Ground	Muskox		1					1	Walking	Windy Road	Tundra	
168	7/12/23	Ground	Caribou		2				2	2	Running	Tundra	Tundra	
169	7/12/23	Ground	Caribou		2		2		2		Walking	On the road behind the camp	Site	
170	7/12/23	Ground	Caribou		3						Eating/walking	unknown	Tundra/unvegetated	3 caribou meaning around tundra s+wy mine.t also in the mine area,
171	7/12/23	Ground	Arctic Hare		1						Hiding	Robs Bay	Site	
172	7/13/23	Ground	Caribou		2				2		Walking/resting	North end of air strip	Site/Tundra	Left over the North rock cut prior to plane landing. Did not require to be diverted but were monitored from trucks
173	7/13/23	Ground	Caribou	Looks like a deer	1		1				Running	Geotech shop area	Roadway	
174	7/14/23	Ground	Caribou		1				1		Grazing/hanging out	North Dam	Site/Tundra	
175	7/14/23	Ground	Grizzly Bear		2	1		1	1		Roaming	KM 7.25 windy road	Tundra	
176	7/14/23	Ground	Muskox		13						Eating	North East of windy lake	Shoreline	
177	7/14/23	Ground	Caribou		1						Running	East side of windy road 1.5km	Tundra	
178	7/14/23	Ground	Arctic Hare	Grey/ Bram with white feet	1						Walking	East side of mine near access road to parking lot	Site	
179	7/14/23	Ground	Caribou		1						Walking	Coreshack/Helipad	Site	Caribou walked from helicopter to coreshack entrance @ 6:40pm
180	7/14/23	Ground	Muskox		10+						Eating	433825 7551072	Tundra	Herd located around 434057 7550979
181	7/14/23	Ground	Caribou		1						Standing	Tire area next to old coreshack	site	
182	7/14/23	Ground	Caribou		1						Laying down	Madrid tower Road	Site	
183	7/14/23	Ground	Siksik		1						Eating	433107 7549824	Tundra/Shrubs	
184	7/14/23	ground	Caribou		1						Walking	432789 7558382	Tundra	
185	7/14/23	Ground	Grizzly Bear		2						Walking	432797 7552217	Tundra	

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186	7/14/23	Ground	Caribou		1						Walking	432929 7559005	Site	Camp cold coreshack yard
187	7/15/23	Ground	Caribou		2					2	Grazing	Off the helipad in the tundra	Tundra	
188	7/15/23	Ground	Ravens		4					4	Resting	At the powerhouse	Site	
189	7/15/23	Ground	Caribou		1				1	1	Walking	On the road at the vent raise. Heading east	Site	
190	7/15/23	Ground	Arctic Hare		1						Running	Between Doris camp and Quarry	Site	
191	7/15/23	Ground	Caribou		2						Walking	Tundra	Tundra	
192	7/15/23	Ground	Caribou	Dark grey fur	1						Walking	by mech slope on mine dry road	Site	Walking in road from mech shop to coreshack intersection
193	7/15/23	Ground	Caribou		1						Walking	432662 7557128	Roadway	
194	7/15/23	Ground	Siksik		1						Walking	433306 7550583	Roadway	
195	7/15/23	Ground	Caribou		1						Eating	432602 7555351	Tundra	
196	7/15/23	Ground	Muskox		10+						Eating/walking	434387 7551614	Tundra	
197	7/15/23	Ground	Caribou		2						Eating	433034 7558855	Tundra	
198	7/15/23	Ground	Ermine		1	1				1	Walking	Core Pad Quarry 2	Site	
199	7/15/23	Ground	Caribou		1		1				Eating	Mine access road by heli pad	Tundra/Site	Travelle between North shore of Doris lake and the heli pad
200	7/15/23	Ground	Caribou		1	1	1				Sleeping	Old shop in windy camp	Site	Large bull
201	7/15/23	Ground	Caribou		1					1	Drinking	Along Windy road near km 3 bridge	Open water	
202	7/15/23	Ground	Caribou		1	1	1				Eating	km 1,5 on Windy road	Tundra	
203	7/16/23	Ground	Muskox		5					5	Walking	East of km 5	Tundra	Spotted by archaeology crew in the field
204	7/16/23	Ground	Caribou		1					1	Walking	East of km 5	Tundra	Spotted by archaeology crew in the field
205	7/16/23	Ground	Hare		1					1	Running	Disappeared under G wing	Site	
206	7/17/23	Ground	Caribou		2	2					Walking	On road next to WTP, heading North	Site	
207	7/17/23	Ground	Ravens		7	7					Eating/walking	Mechanic shop	Site	Seen multiple times in the day
208	7/17/23	Air	Muskox		6					6	Standing	1 km East of Windy road at km 5	Tundra	
209	7/17/23	Ground	Caribou		1	1	1				Walking	Mechanic shop	Site	Seemed to be limping
210	7/17/23	Ground	Caribou		2		1	1			Walking/eating	Mine access road. Walking on heli pad and north of Doris Lake	Tundra/Site	
211	7/17/23	Ground	Caribou		1					1	Walking	On tundra near the core shack receiving area	Tundra	
212	7/17/23	Ground	Caribou		1					1	Walking	Between the geotech laydown and camp	Tundra	
213	7/17/23	Ground	Caribou		1					1	Eating	Across the road from the geotech laydown	Tundra	
214	7/18/23	Ground	Caribou		2					2	Walking	On camp road heading north toward batch plant	Site	
215	7/18/23	Ground	Caribou		4					4	Walking	Heading North along the camp road at the geotech shop	Site	
216	7/18/23	Ground	Caribou		1					1	Walking		Site	Old coreshack yard. Seen to be limping.
217	7/18/23	Ground	Ducks		30					30	Swimming	Near drill rig #1 on the SW side of Patch Lake	Open water	

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218	7/18/23	Ground	Caribou		1	1	1				Walking	Between UG parking and the mill	Site	
219	7/19/23	Ground	Caribou		2	2	1			1	Walking	Site road West of camp, walking North	Site	
220	7/19/23	Ground	Caribou		1	1	1				Walking/resting	Geotech laydown/URP	Site	
221	7/19/23	Ground	Caribou		1	1	1				Resting	Parking space in between the camp entrance and the public phone booths	Site	
222	7/19/23	Ground	Ptarmigan		2	1			1		Walking/resting	Doris Creek, approx. 20 m south of the Hydro station	Site	
223	7/20/23	Ground	Caribou		1	1				1	Walking/resting	North of the stockpile, between the camp pad and Doris	Tundra	
224	7/20/23	Ground	Caribou		1					1	Eating	Between km5 and 6 on Windy road, about 1000 ft West.	Tundra	
225	7/20/23	Air	Grizzly Bear		2	1		1	1		Walking	HB25 on the river - Quantec site	Tundra	On the shoreline of the river.
226	7/20/23	Ground	Caribou		2					2	Walking/eating	Windy Lake outflow	Tundra	One was on the West side of the river and the other on the east side. Approx 500m out form the river in both cases
227	7/21/23	Ground	Muskox		1					1	Walking	15km South of Doris Camp	Tundra	Lone muskox walking across tundra
228	7/21/23	Ground	Wolf		1	1					Walking	Walking close to Rig 4, spotted by drillers at night	Tundra	
229	7/22/23	Ground	Caribou		1	1				1	Walking	Km 5 on windy road, 10 m off the road surface on the West wide	Tundra	
230	7/22/23	Ground	Seal		1					1	Resting	At the beach on a small island by Discovery	Shoreline	
231	7/24/23	Ground	Caribou		1	1	1				Walking	Ogama lake outflow hydro location	Tundra	
232	7/24/23	Ground	Golden eagle		1	1				1	Flying	Ogama lake outflow hydro location	Tundra	
233	7/25/23	Ground	Red Fox		1	1				1	Walking	Walking outside the front of camp in between the cabins	Site	
234	7/25/23	Ground	Red Fox		1	1				1	Walking	Walking around the mine dry area	Site	
235	7/26/23	Ground	Red Fox		1	1				1	Walking	Walking from the WH to the coreshack	Site	
236	7/26/23	Ground	Caribou		1					1	Walking	mobile shop area	Site	
237	7/26/23	Air	Swan		2					2	Swimming	On lake just south of Windy Lake	Open water	
238	7/26/23	Ground	caribou		1	1						Doris Camp	Site	
239	7/27/23	Ground	Caribou		3	2	1	1	1		Walking	Heading west on TLR into underground laydown	Site	
240	7/27/23	Ground	Caribou		1	1				1	Walking	On TLR heading south near Interim Dike	Site	
241	7/27/23	Ground	Eagle		1	1				1	Feeding/soaring	Robert's Lake Outflow	Tundra	
242	7/27/23	Ground	caribou		1	1						Robert's Bay	Site	
243	7/28/23	Ground	Caribou		1	1				1	Walking	Front of camp between camp and the cabins	Site	
244	7/28/23	Ground	SandHill crane		3					3	Feeding, standing	Windy Rd KM6	Tundra	
245	7/28/23	Ground	Ground squirrel		1					1	Running	Geotech laydown by smoke shack	Site	
246	7/28/23	Ground	Arctic Hare		1				1		Bounding	start of TLR up to lower UG laydown	Site	

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247	7/28/23	Ground	Caribou		1	1					Standing	South Apron	Site	
248	7/28/23	Ground	Caribou		1	1					Standing	Warehouse laydown	Site	
249	7/28/23	Ground	Caribou		4	4					Grazing/walking	East side TLR	Tundra	
250	7/28/23	Ground	Caribou		1	1					Walking	In camp southeast of powerhouse	Site	
251	7/28/23	Ground	Caribou		1	1					Grazing	west of Doris Mountain, just along road	Site	
252	7/28/23	Ground	Caribou		1					1	Walking	Walking along ridge west of TLR and Vent Raise	Site	
253	7/28/23	Ground	Caribou		1					1	Eating	West of the helipad at Doris	Site	
254	7/28/23	Ground	caribou		3	3						Windy Road	Tundra	
255	7/29/23	Ground	Caribou		2	2	2				Eating	200m South-West of the vent raise along Doris mountain	Tundra	
256	7/29/23	Ground	Caribou		1	1	1				Walking	Km2 Windy road	Tundra	
257	7/29/23	Ground	Caribou		1	1		1			Standing	Close to communication tower at Madrid	Tundra	
258	7/29/23	Ground	Ptarmigan		9	1			8		Walking	West side of TLR on way to Powder Mag	Tundra	
259	7/29/23	Ground	Canada goose		1					1	Feeding	TIA, west side	Tundra/Site	
260	7/29/23	Ground	Song bird		2					2	Deceased	Madrid sump 2	Site	Unable to identify species of bird
261	7/29/23	Ground	Caribou	Brown with antlers	1	1	1				Standing	Resting in the shade beneath the crusher in Quarry 2	Site	
262	7/29/23	Ground	caribou		3	3						Windy Road	Tundra	
263	7/30/23	Ground	Caribou		1	1				1	Walking	At windy Camp	Tundra/Site	
264	7/30/23	Ground	Caribou		1				1	1	Walking	At Madrid waste rock storage	Tundra/Site	
265	7/30/23	Ground	Caribou		3					3	Walking	At the Rob's Bay tank farm	Site	
266	7/30/23	Ground	Bald eagle		1					1	Feeding/soaring	Robert's Lake Outflow	Tundra	
267	7/30/23	Ground	caribou		1				1			Madrid rock dump	Site	Lone calf laying down in dump area where helicopters may be dumping loads (informed Agnico environmental team), after continuing invasive plant surveys, later observed the calf reunited with its mother on Windy Road
268	7/30/23	Ground	caribou		2			1	1			road towards Windy Lake Camp	Site	Mother and calf (assumed same calf as above) reunited on Windy road and seen running towards Windy Lake Camp
269	7/31/23	Ground	Wolf		1	1				1	Walking	At quarry D, looking to avoid the bugs	Site	
270	7/31/23	Air	Swan		7	2	1	1	5		Swimming	Pond west of Rig 10, north of camp and Doris Mountain	Tundra	
271	7/31/23	Ground	Caribou		1	1				1	Walking	Main road to airport east of Geotech shop	Site	
272	7/31/23	Ground	caribou		3	3						Windy Road	Tundra	
273	7/31/23	Ground	fox		2	2						Windy Lake Camp	site	
274	7/31/23	Ground	wolf		1	1						Windy Road	Site	
275	8/1/23	Ground	Fox		1					1	Walking	Doris Camp, admin area	Site	Unable to identify Arctic or red

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276	8/1/23	Ground	Caribou		2				2		Resting	In shade between the sea-cans and the shacks in front of camp	Site	
277	8/1/23	Ground	Fox		1	1					Chasing artic hare	On road near Landfarm	Site	
278	8/1/23	Ground	Artic Hare		1	1					Being chased by red fox	On road near Landfarm	Site	
279	8/1/23	Ground	Wolf		1					1	Walking	Inside Quarry D	Site	
280	8/1/23	Ground	caribou		3	3						Doris Camp	site	
281	8/1/23	Ground	fox		1	1						Doris Camp	tundra	
282	8/2/23	Ground	Caribou		1	1					Walking	On road near at Rob's Bay near boat launch	Site	
283	8/2/23	Ground	Caribou		1	1					Walking	On road near Geotech laydown heading south	Site	
284	8/2/23	Ground	Caribou		1					1	Eating	beside road between camp and Geotech laydown	Site	
285	8/3/23	Ground	Caribou		1	1					Standing	By buildings at south apron	Site	
286	8/5/23	Ground	Grizzly		1					1	Chasing caribou	Tundra close to the south dam at the TIA	Tundra	
287	8/5/23	Ground	Sand Hill crane		4	2	1	2	2		Walking	at km 4 on Windy road	Tundra	
288	8/5/23	Ground	Sand Hill crane		2	1			1		Learning to fly	Km 5 on windy road	Tundra	
289	8/5/23	Ground	Lapland Longspur		15					15	Flying/landing	South Dam	Site	
290	8/5/23	Ground	Canada Goose		5					5	Swimming	Patch Lake, visible from Naartok Pit	Site	
291	8/5/23	Ground	Grizzly Bear		1					1	Walking, foraging, hunting	South Dam and TIA	Site	
292	8/5/23	Ground	Caribou		3					3	Resting, walking/evading capture	South Dam and TIA	Site	
293	8/5/23	Ground	Arctic hare		1					1	Running	on road behind Mill	Site	
294	8/5/23	Ground	Caribou		3					3	Eating/walking	Tailings Area aby South Damn	Site	
295	8/5/23	Ground	Siksik		1					1	Standing	200m west of core shack	Tundra	
296	8/6/23	Ground	Caribou		1					1	Feeding	West side of camp road beside Doris Mountain	Site	
297	8/6/23	Ground	Fox		1					1	Walking	Rob's Bay -cross fox	Site	
298	8/6/23	Ground	Gulls		2					2	Resting, flying	Rob's Bay	Site	
299	8/6/23	Ground	Caribou		1					1	Walking	Discover Target Areas ~5km west of camp	Tundra	very friendly and curious
300	8/6/23	Ground	Arctic Fox		1					1	Walking	Rob's bay (beside boat launch)	Tundra	
301	8/7/23	Ground	Fox		1	1					Walking, hunting	East side of TLR near Interim Dike	Site	
302	8/7/23	Ground	Hare		1	1					Running	On road near Doris Fuel farm	Site	
303	8/7/23	Ground	Fox		1					1	Walking	Top of hill near boat launch	Tundra	
304	8/8/23	Ground	Fish		1					1	Dead in the water	West shore of Patch lake	Water	A geotech driller reported seeing a dead fish in the water.
305	8/8/23	Ground	Caribou		1	1					Walking	90m west of new geo office	Tundra	
306	8/10/23	Ground	Caribou		1	1					Walking	On windy road near km 8	Site	

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307	8/10/23	Ground	Caribou		2	1		1	1		Walking	On Madrid CWP	Site	
308	8/10/23	Ground	Caribou		1	1					Walking	Near Naartok Pit heading north	Site	
309	8/11/23	Ground	Ptarmigan		2					2	Walking	Beside road @ Rob's Bay	Tundra	
310	8/12/23	Ground	Geese		5					5	Flying	Flying east near the North Dam	Sky	
311	8/20/23	Ground	Muskox		1	1	1				Foraging	Close to South Dam	Tundra	
312	8/20/23	Ground	Muskox		1					1	Foraging	Imniagut lake	Tundra	
313	8/21/23	Ground	Arctic Hare	Lepus Articus	1					1	Sitting	Road beside heli pad	Site	Sitting on road
314	8/23/23	Ground	Caribou		2	2	2				Foraging	South of the TIA south dam	Tundra	
315	8/23/23	Ground	Geese		10					10	Resting	Small lake with no name East of TIA	Water	
316	8/25/23	Ground	Fox	Brown	1					1	Walking, running	TLR West of Vent Raise	Tundra	North of road at top of hill
317	8/25/23	Ground	Grizzly		2			1		1	Walking	Airstrip	Tundra	
318	8/25/23	Ground	Peregrine Falcon		1	1					Chasing a crow	Air north of Doris Camp	Sky	
319	8/26/23	Ground	Peregrine Falcon		1					1	Standing on rock looking around	Outcrop north of Doris camp	Tundra	
320	8/27/23	Ground	Caribou		3	3	2			1	Foraging	North East of EWTP	Tundra	
321	8/27/23	Ground	Caribou		2	2				2	Resting/grazing	500 m off the East side of Windy Road at km 7	Tundra	
322	8/29/23	Sea	Northern Fulmar	adult	2	2					Rafting in water		Sea	
323	8/29/23	Sea	Northern Fulmar		2						Flying		Sea	
324	8/29/23	Sea	Polmarine Jaeger		1						Flying		Sea	
325	8/29/23	Sea	Northern Fulmar		1						Flying		Sea	
326	8/29/23	Sea	Harbour Seal		1						Travelling		Sea	
327	8/29/23	Sea	Bearded Seal		2						Travelling		Sea	
328	8/30/23	ground	Black Guillemot		3						Rafting in water		Sea	
329	8/30/23	ground	Northern Fulmar	Adult	1	1					Flying		Sea	
330	8/30/23	Sea	Northern fulmar		5						Resting on ocean surface		Sea	
331	8/30/23	Sea	Herring Gull		4						Flying		Sea	
332	8/30/23	Sea	Northern fulmar		1						Flying		Sea	
333	8/31/23	Ground	SandHill crane		3	2			1		Walking	Windy Camp/edge of Windy Lake	Site/Tundra	
334	8/31/23	Ground	Rough legged hawk		1	1					Hunting	Km 6 on Windy road (flying)	Site/Tundra	
335	8/31/23	Ground	Fox		1				1		Walking	Core box laydown at km 7 on windy road	Site	
336	8/31/23	Ground	Caribou		2	2	2				Feeding	South of the south dam at the TIA	tundra	
337	8/31/23	Air	Grizzly		1	1					Foraging	CM60, East of Roberts Bay	Tundra	
338	8/31/23	Air	Grizzly		1	1					Foraging	CM55, close to Hope Bay	Tundra	
339	8/31/23	ground	Common Loon	Adult	15	15					Flying		Sea	

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340	8/31/23	ground	Long Tail Duck	Adult	1	1					Rafting in water		Sea	
341	8/31/23	Sea	Hooded seal	adult	1	1					Travelling		Sea	
342	8/31/23	Sea	Hooded seal	Adult	1	1					Travelling		Sea	
343	9/1/23	Ground	Caribou		7	7	7				Walking	KM 4.5 East, Windy road, 500m from the road	Tundra	
344	9/2/23	Ground	Arctic hare		1	1				1	Resting/walking	Outside new coreshack on West side	Site	
345	9/3/23	Ground	Caribou		2	1		1	1		Walking	Tundra on the TLR	Tundra	
346	9/4/23	Air	Caribou		2	2					Resting	Km 8 windy road	Tundra	
347	9/4/23	ground	Common Loon		unknown						Flying	Hope Bay	Sea	
348	9/5/23	Air	Caribou		4	4					Resting	25km South East of Camp	Tundra	
349	9/5/2023	Water	Seal		1					1	Swimming	Rob's Bay	Water	unsure if harp or bearded seal
350	9/5/23	air	Caribou		4	4					Resting	25km South East of Camp	Tundra	
351	9/5/23	air	Caribou		4	4					Resting	25km South East of Camp	Tundra	
352	9/6/23	Air	Moose		1	1		1			Sleeping/resting	13W 434612 7532896	Wetland	Moose was sleeping/laying down in the bushes
353	9/6/23	Air	Caribou		2	2					Resting	Eastern shore of Patch lake	Tundra	
354	9/6/23	Ground	Geese		10					10	Flying	At Rob's Bay	Sky	Flying east
355	9/6/23	Ground	Geese		5					5	Sitting	Rob's Bay west of discharge jetty	Water	
356	9/6/2023	Ground	Caribou		2					2	Walking/eating	Between the TLR and the TIA	Tundra	
357	9/6/23	Air	Caribou		2	2					Resting	Eastern shore of Patch lake	Tundra	
358	9/7/2023	Ground	Arctic fox		1					1	Walking	Boston camp	Site	
359	9/7/23	Air	Grizzly		3	1			2		Foraging	1km north of windy lake	Tundra	
360	9/7/23	Air	Grizzly		3	1			2		Foraging	1km north of windy lake	Tundra	
361	9/8/2023	Ground	Peregrine falcon		3					3	Flying	Madrid area	Tundra	
362	9/8/23	Air	Caribou		2	2					Walking	2km south of Heli pad	Tundra	
363	9/8/23	Air	Caribou		2	2					Walking	2km south of Heli pad	Tundra	
364	9/8/2023	Ground	SandHill crane		12					12	Flying	Patch lake area, heading south	Tundra	
365	9/8/2023	Ground	Eagle		3					3	Soaring	Doris Creek area	Tundra	
366	9/8/23	Sea	Whale		1						Diving		Sea	Diving without tail outside the water. Only back out of the water.
367	9/9/2023	Ground	Bear		2	1		1	1		Walking/feeding	East side of Doris Creek, heading north along the hill	Tundra	
368	9/9/23	Air	Grizzly		4	1					Walking	1km north of windy lake	Tundra	
369	9/9/2023	Ground	Raptor		1					1	Standing	West side of the double bridge on Windy road	Tundra	Raptor - black with white on top of it's wings, near where the wings meet the body
370	9/9/2023	Ground	Caribou		2					2	Walking/eating	East of the Madrid waste rock pile	Tundra	
371	9/10/2023	Air	Caribou		3	3					Resting	TIA, on tailings by south dam	Site	



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372	9/10/23	Air	Grizzly		4	1					Walking	2km south of Heli pad	Tundra	
373	9/10/2023	Air	Swans		3					3	Resting	Patch Lake	Water	
374	9/10/2023	Ground	Canada Goose		25					25	Flying	Ogama Lake	Tundra	
375	9/10/2023	Ground	Pacific Loon		3					3	Vocalizing, swimming	Immniaguit Lake	Water	
376	9/11/2023	Ground	Canada Goose		60					60	Flying	Km7 Windy Road	Tundra	
377	9/11/23	Air	Grizzly		4	1		1	3		Walking	South end of Doris lake	Tundra	
378	9/12/2023	Air	Swans		3					3	Swimming/flying	East of Glenn Lake	Tundra	
379	9/12/2023	Ground	Eagle		1				1		Flying	Robert's Lake Outflow - presumed juvenile based on dark colouration	Tundra	
380	9/12/23	Sea	Canadian Geese		10						Flying		Sea	V-formation
381	9/13/2023	Air	Grizzly Bear		4	1			3		Walking	Eastside of Patch Lake	Tundra	
382	9/13/23	ground	Pomarine Jaeger		1						Flying		Sea	
383	9/14/2023	Air	Muskox		12					12	Walking/feeding	South of Patch Lake	Tundra	
384	9/15/2023	Ground	Ducks		8					8	Swimming	Tailings lake	Site	
385	9/15/2023	Ground	Eagle		1					1	Flying	north of North Dam over bedrock	Site	
386	9/16/2023	Ground	Ducks		4					4	Swimming	Tailings lake	Site	
387	9/17/2023	Ground	Muskox		9					9	Walking/feeding	South Dam	Tundra	
388	9/17/2023	Ground	Ducks		2					2	Swimming	Tailings lake	Site	
389	9/18/2023	Ground	Mouse		1					1	Scurrying	inside smoke shack	Site	
390	9/19/2023	Ground	Snow bunting		50					50+	Flying	Rob's Bay Jetty	Site	
391	9/20/2023	Ground	Geese		50					50+	Flying	approaching north end of Windy Lake	Lake	
392	9/20/2023	Ground	Geese		50					50+	Flying	South end of Windy Lake	Lake	
393	9/20/2023	Ground	Peregrine falcon		1					1	Flying	West side of Windy Lake	Lake	
394	9/20/2023	Ground	Muskox		17					17+	Eating, walking	Head resting and eating in willow patch	Tundra	
395	9/21/2023	Ground	Ground squirrel		1					1	Bounding	Km 8 Windy Road	Tundra	
396	9/21/2023	Ground	Ground squirrel		1					1	Bounding	East side of TIA on TLR	Site	
397	9/21/2023	Ground	Muskox		21					21	Resting/feeding	West side of TIA	Site	
398	9/23/2023	Ground	Muskox		20					20	Resting/feeding	Near ETWP	Site	
399	9/23/2023	Air	Grizzly Bear		4	1		1	3		Foraging	south of the southern tip of Doris Laqke	Tundra	
400	9/24/2023	Ground	Geese		30					~30	Flying	West of EWTP over tundra	Tundra	
401	9/25/2023	Ground	Ground squirrel		1					1	Standing, walking	Blind Corner on TLR	Site	
402	9/26/2023	Ground	Ptarmigan		5					5	Standing, walking	Quarry 2 across from burn pad	Site	
403	9/26/2023	Ground	Arctic Hare		1					1	Bounding	Power house	Site	
404	9/26/2023	Ground	Red Fox		1					1	Hunting, walking	Reclaim jetty	Site	

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405	9/27/23	Air	Grizzly		4	1		1	3		Walking	1 mile North of windy lake	Tundra	
406	9/27/23	Air	Grizzly		4	1		1	3		Walking	1/2 km East of Drill 4	Tundra	
407	9/27/2023	Ground	Ptarmigan		16					16	Walking	Underground parking lot	Site	
408	9/27/2023	Ground	Grizzly Bear		3	1			2		North of Windy Lake	Walking	Tundra	
409	9/28/2023	Air	Muskox		20+					20+	Grazing/walking	South of camp	Tundra	
410	9/29/2023	Air	Muskox		20+					20+	Grazing	South of the south dam, east of Patch lake	Tundra	
411	9/29/23	Ground	Arctic Hare		1					1	Walking	On pad at core shack	Site	
412	9/30/2023	Ground	Muskox		20+					20+	Walking/grazing	South east side of Patch Lake	Tundra	
413	10/5/23	Ground	Muskox		22					22	Resting/grazing	North east of KM 7 Windy road	Tundra	
414	10/7/23	Ground	Muskox		20					20	Walking/resting	on East side of km 6 Windy road	Tundra	
415	10/7/23	Ground	Ptarmigan		15					15	Walking/resting	LRP gate	Site	
416	10/7/2023	Air	Muskox		22	22					Resting	2 Miles north of patch lake	Tundra	
417	10/8/23	Ground	Caribou		1					1	Walking	Km 5 on Windy Road	Tundra	
418	10/8/23	Ground	Caribou		1					1	Walking	Km 8 on Windy Road	Tundra	
419	10/8/23	Ground	Muskox		20					20	Walking	Km 6 Windy Road	Tundra	
420	10/9/23	Ground	Muskox		20					20	Walking	KM 3 Windy road	Tundra	
421	10/9/2023	Air	Red Fox		1	1					Hunting	.5km South of heli pad	Tundra	
422	10/12/23	Ground	Arctic Hare		1	1					Resting	Robs Bay behind crusher	Site	
423	10/13/23	Ground	Muskox		20					20	Walking	KM 1, east side of Windy road	Tundra	
424	10/14/23	Ground	Ptarmigan		25					25	Flying/resting	North side of North Dam	Tundra	
425	10/25/23	Ground	Arctic Hare		1					1	Bounding	along Diversion berm, south on main camp road.	Site	
426	10/26/23	Ground	Raven		1					1	Walking	Madrid portal area	Tundra	
427	10/27/23	Ground	Ptarmigan		30					30	Flying	Km6 Windy Road	Tundra	
428	10/27/23	Ground	Raven		1					1	Flying	flying west over tundra near Env Lab	Tundra	
429	10/29/23	Ground	Fox		1	1					Walking	Equipment laydown yard toward warehouse	Camp	
430	11/4/23	Ground	Fox		1	1					Walking	Site services parking lot across from ERT garage	Camp	
431	11/5/23	Ground	Raven		1	1					Flying	Quarry 2	Site	
432	11/5/23	Ground	Ptarmigan		8					8	Flying	Windy road km 2 blind hill	Site	
433	11/8/23	Ground	Ptarmigan		3					3	Flying	access road to 730 at Rob's Bay	Site	
434	11/11/23	Ground	Red Fox		1					1	Walking	In camp near warehouse	Site	
435	11/12/23	Ground	Red Fox		1					1	Walking	Equipment laydown area	site	
436	11/12/23	Ground	Red Fox		1					1	Walking	TLR powder Meg	Tundra	
437	11/16/23	Ground	Muskox		20					20	Resting	Robs Bay	Tundra	

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438	11/18/23	Ground	Raven		1					1	Hunting	Tundra west of the road of Windy road and toad to TLR	Tundra	Raven hunt and killed a smaller bird.
439	11/18/23	Ground	Arctic Hare		1	1					Running	Near mill, heading east	Site	
440	11/23/23	Ground	Fox		1	1					Walking	Near Km 2 on Windy Road	Tundra	
441	11/23/23	Ground	Arctic Hare		1	1					Running	Doris Multi tank farm	Site	
442	11/24/23	Ground	Red Fox		1	1					Hunting	Near batch plant, by core boxes	Site	
443	11/27/23	Ground	Red Fox		1	1					Walking	Climbing hill by A wing	site	
444	11/27/23	Ground	Muskox		20					1	Grazing	Near km 5 on Windy Road	Tundra	
445	12/10/23	Ground	Arctic Hare		1	1					Resting	Patch Lake ice entrance	Lake	
446	12/16/23	Ground	Red Fox		1	1					Hunting, walking	Behind camp, by Electrical Shack	Site	
447	12/24/23	Ground	Caribou		15					15	Walking	South of EWTP	Site	
448	12/27/23	Ground	Arctic Hare		1	1					Running	South of airstrip access road near Geotech laydown	Site	
449	12/27/23	Ground	Arctic Hare		1	1					Resting	Rob's Bay under bridge stacker	Site	
450	12/29/23	Ground	Arctic Hare		1	1					Running	South Apron	Site	
451	12/29/23	Ground	Arctic Hare		1	1					Running	End of Windy Road where Major is storing equipment	Site	
452	12/30/23	Ground	Red Fox		1	1					Walking	km 7 on Windy road - East side of road	Tundra	

Inds = Individuals, A = Adults, M = Males, F = Females, Y = Young (e.g. calves, chicks), U = Unknown

Note: Please record every observation of a species even if it is already listed, if the specific species is unknown describe its colouration, size, etc.fi

## APPENDIX I      SUMMARY OF WILDLIFE RECORDED INCIDENTALLY BY BIOLOGISTS AT THE PROJECT, 1996 TO 2023

APPENDIX I: SUMMARY OF WILDLIFE RECORDED INCIDENTALLY BY BIOLOGISTS AT THE PROJECT, 1996 TO 2023

Species Group	Species	Baseline/Pre-development (Pre-FEIS Submission)		Pre-Development (Post-FEIS submission)	Construction	Care and Maintenance	Construction	Operations	Care and Maintenance	No. Years Recorded <sup>1</sup>
		1996-2000 <sup>3</sup>	2001-2005 <sup>3</sup>	2006-2008 <sup>3</sup>	2009-2012 <sup>3</sup>	2013-2014 <sup>3</sup>	2015-2017 <sup>3</sup>	2018-2021 <sup>3</sup>	2022-2023 <sup>3</sup>	
Mammals	Arctic Fox	3	3	2	4	1		2		15
	Arctic Ground Squirrel	2	1		3	2		2		10
	Arctic Hare	1			3	2		3		9
	Bearded Seal	1			1		2			4
	Caribou	1	1	3	4	2	2	4	1	18
	Grizzly Bear	4	5	3	4	2	2	3		23
	Grey Wolf	3	5	3	4	2	1	1	1	20
	Least Weasel	1			3	1		1		6
	Muskox	1		2	4	2	2	3		14
	Red Fox	2	2	2	4	2	1	3		16
	Ringed Seal	2		1	4	2	3	1		13
	Sik Sik							2		2
	Snowshoe Hare							1		1
	Wolverine	3	2	3	4	1	1	2		16
	Unknown Fox				3	1	1	1	1	7
	Unknown Seal						1	1		2
Total Mammal Species <sup>2</sup>		12	7	8	12	11	8	13	2	
Upland Breeding Bird	American Golden-plover				1				1	2
	American Pipit	1	1		2	1	1	1	1	8
	American Robin					1		2		3
	American Tree Sparrow		1		3	1	1		1	7
	Common Redpoll		1		3				1	5
	Baird's Sandpiper	1			1					2
	Gray-cheeked Thrush		1							1
	Harris' Sparrow				1				1	2
	Hoary Redpoll				4	1				5
	Horned Lark		1		3	1	1	1		7
	Lapland Longspur	1	1		4	1	3	1	1	12
	Least Sandpiper		1		2	1	1	1		6
	Pectoral Sandpiper				2					2
	Rock Ptarmigan				3	1	1			5
	Red-necked Phalarope	1	1		1	2		1		6
	Savannah Sparrow	1	1		3	1	2	1	1	10
	Semipalmated Sandpiper		1		2	1		1	1	6
	Semipalmated Plover				2		1			3
	Snow Bunting	1			2			1		4
	White-crowned Sparrow	1	1		3	1	2	1	1	10
	Willow Ptarmigan		1		4	1				6
	Wilson's Snipe			1	2	1	1			5
	Unknown Ptarmigan	1		2	4	1	1	3		12
	Unknown Redpoll	1			2	1	2	4		10
	Unknown Sandpiper						1			1
	Unknown Shorebird	1			2	2				5
Total Upland Breeding Bird Species <sup>2</sup>		7	12	1	20	14	10	10	9	

APPENDIX I: SUMMARY OF WILDLIFE RECORDED INCIDENTALLY BY BIOLOGISTS AT THE PROJECT, 1996 TO 2023

Species Group	Species	Baseline/Pre-development (Pre-FEIS Submission)		Pre-Development (Post-FEIS submission)	Construction	Care and Maintenance	Construction	Operations	Care and Maintenance	No. Years Recorded <sup>1</sup>
		1996-2000 <sup>3</sup>	2001-2005 <sup>3</sup>	2006-2008 <sup>3</sup>	2009-2012 <sup>3</sup>	2013-2014 <sup>3</sup>	2015-2017 <sup>3</sup>	2018-2021 <sup>3</sup>	2022-2023 <sup>3</sup>	
Waterbird	American Green-winged Teal					2	1			3
	Arctic Tern	3			3			1		7
	Brant Goose				1					1
	Common Goldeneye						1			1
	Canada Goose	2	1	2	4	2	3	3	1	18
	Common Eider				1	1		1		3
	Common Loon		1		3				1	5
	Common Merganser				1	1				2
	Gadwall				1	1				2
	Greater White-fronted Goose	2	1	1	4	2	2	3	1	17
	Greater Scaup		1	1	3	2	1	1		9
	Glaucous Gull	2	1		2	2	1	1		9
	Herring Gull	3			2	1	1	1	1	9
	King Eider	1			1	2	1	1		6
	Lesser Scaup			1		1				2
	Long-tailed Duck	1	1	1	4	2	1	2	1	13
	Long-tailed Jaeger	2			1			1		4
	Mallard							2		2
	Northern Pintail	1		1	3	2	1	2		10
	Parasitic Jaeger	3			1	1				5
	Pacific Loon	2	1	1	4	2	3	2	1	16
	Red-breasted Merganser	3	1	1	3	2	2	1	1	14
	Red-throated Loon	1	1		3	2	1	1	1	10
	Sandhill Crane	1	1	1	3	2	3	4		15
	Snow Goose	2	1		4	1	1	3		12
	Thayer's Gull					1				1
	Tundra Swan	2	1	1	4	2	2	3	1	16
	White-winged Scoter					1	1			2
	Yellow-billed Loon				2	1	2			5
	Unknown Duck				1	2	1	1		5
	Unknown Eider					1				1
	Unknown Goose				2	2	1	3		8
	Unknown Gull			1	4	2	2			9
	Unknown Loon					1	1	1		3
	Unknown Scaup					1				1
Sub-total Waterbird Species <sup>2</sup>		16	12	11	23	23	18	18	9	

APPENDIX I: SUMMARY OF WILDLIFE RECORDED INCIDENTALLY BY BIOLOGISTS AT THE PROJECT, 1996 TO 2023

Species Group	Species	Baseline/Pre-development (Pre-FEIS Submission)		Pre-Development (Post-FEIS submission)	Construction	Care and Maintenance	Construction	Operations	Care and Maintenance	No. Years Recorded <sup>1</sup>
		1996-2000 <sup>3</sup>	2001-2005 <sup>3</sup>	2006-2008 <sup>3</sup>	2009-2012 <sup>3</sup>	2013-2014 <sup>3</sup>	2015-2017 <sup>3</sup>	2018-2021 <sup>3</sup>	2022-2023 <sup>3</sup>	
Raptor	Bald Eagle			1	2			1		4
	Common Raven	2	1	1	4	2	2	3		15
	Golden Eagle	3	1	2	4	2	1	3		16
	Gyr Falcon			2	1	2	1	2		8
	Northern Harrier	1			1		1			3
	Peregrine Falcon	1	1	2	4	2	1	2		13
	Rough-legged Hawk	2	1	2	4	2	2	4		17
	Short-eared Owl	1		1	3	2		1		8
	Snowy Owl	2			1			2		5
	Unknown Falcon						1			1
	Unknown Raptor				3	1		1		6
Sub-total Raptor Species <sup>2</sup>		12	4	7	9	6	6	8	0	
Total Wildlife Species <sup>2</sup>		47	35	27	64	54	42	49	18	

Notes:

<sup>1</sup> The total number of years where the species or species sign (e.g., tracks, nests, evidence of use) was observed

<sup>2</sup> Total counts do not include counts of "unknowns"

<sup>3</sup> Numbers indicate how many years species were recorded in



## APPENDIX J SUMMARY OF THE HOPE BAY PROJECT WILDLIFE SIGHTINGS LOG AND INCIDENTAL SIGHTINGS, 2011 - 2023

APPENDIX J: SUMMARY OF THE HOPE BAY PROJECT WILDLIFE SIGHTINGS LOG AND INCIDENTAL SIGHTINGS, 2011 - 2023

Species Group	Species	Conservation Status <sup>1</sup>			2011		2012		2013		2014		2015		2016		2017	
		Territorial Rank	COSEWIC	SARA Schedule 1	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records
Mammal	Arctic Fox	Apparently Secure			6	6	2	2			7	7	9	9	8	8	6	6
	Arctic Ground Squirrel	Secure			9	6	7	5	9	5	32	4	2	1			64	14
	Arctic Hare	Secure			5	5	8	8	4	4	5	5	3	3	44	26	37	26
	Bearded Seal	Unrankable													2	2		
	Caribou <sup>3</sup>	Vulnerable	Threatened (Barrenground); Endangered (Dolphin Union)	Special Concern (Dolphin Union)	80	13	38	10	20	14	57	21	171	25	441	54	93	21
	Ermine	Secure											1	1				
	Grey Wolf	Secure			11	11	12	5	19	12	17	13	8	5	33	23	56	34
	Grizzly Bear	Vulnerable	Special Concern	Special Concern	22	11	13	7	21	8	6	6	25	19	27	12	80	29
	Least Weasel	Secure			1	1							1	1				
	Moose	Unrankable																
	Muskox	Apparent Secure			160	14	86	10	50	4	75	4	44	3	380	11	676	26
	Red Fox	Secure			26	25	17	15	18	15	37	23	14	14	19	18	30	21
	Ringed Seal	Secure			7	6					5	1	1	1	1	1		
	Snowshoe hare (likely misidentification)	Unrankable											1	1	1	1	5	5
	Unknown Fox				9	6	4	4	2	2	3	3	4	4	1	1	1	1
	Unknown Seal														12	1	1	1
	Unknown Weasel				2	2	1	1	1	1								
	Unknown Mouse																	
	Wolverine	Vulnerable	Special Concern	Special Concern	13	13	8	8	4	4	2	2	10	9	5	5	5	5
Upland Breeding Bird	American Golden-plover	Vulnerable																
	American Pipit	Unrankable/ Undetermined																
	American Robin	Secure									3	1						
	American Tree Sparrow	Unrankable/ Undetermined																
	Common Redpoll	Unrankable/ Undetermined									1	1	5	1	1	1		
	Baird's Sandpiper	Secure																
	Gray-cheeked Thrush	Unrankable/ Undetermined																
	Harris' Sparrow	Unrankable/ Undetermined																
	Hoary Redpoll	Vulnerable																
	Horned Lark	Unrankable/ Undetermined																
	Lapland Longspur	Secure																
	Least Sandpiper	Vulnerable																
	Pectoral Sandpiper	Apparently Secure																
	Rock Ptarmigan	Secure													8	1	13	1
	Red-necked Phalarope	Vulnerable	Special Concern	Special Concern														
	Ruby-throated hummingbird (likely misidentification)												1	1				
	Savannah Sparrow	Unrankable/ Undetermined																
	Semipalmated Sandpiper	Vulnerable																
	Semipalmated Plover	Apparently Secure			11	6	27	5	11	5	25	6	4	1	16	7	6	2

APPENDIX J: SUMMARY OF THE HOPE BAY PROJECT WILDLIFE SIGHTINGS LOG AND INCIDENTAL SIGHTINGS, 2011 - 2023

Species Group	Species	Conservation Status <sup>1</sup>			2018		2019		2020		2021		2022		2023		Incidental Sightings (Biologists/ Surveyors 1996- 2023) <sup>2</sup>
		Territorial Rank	COSEWIC	SARA Schedule 1	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	
Mammal	Arctic Fox	Apparently Secure			4	4	2	2	1	1	4	2	2	2	4	4	13
	Arctic Ground Squirrel	Secure			8	4	1	1			29	18	19	12	10	10	8
	Arctic Hare	Secure			11	9	19	13	8	7			30	23	29	28	7
	Bearded Seal	Unrankable											1	1			4
	Caribou <sup>3</sup>	Vulnerable	Threatened (Barrenground); Endangered (Dolphin Union)	Special Concern (Dolphin Union)	118	24	52	27	103	45	166	66	233	71	362	173	14*
	Ermine	Secure									2	2			1	1	
	Grey Wolf	Secure			8	4	5	3					4	3	5	5	19
	Grizzly Bear	Vulnerable	Special Concern	Special Concern	84	36	92	41	19	14	41	38	53	36	77	37	20
	Least Weasel	Secure															5
	Moose	Unrankable											6	3	2	2	
	Muskox	Apparent Secure			81	10			40	2	66	2	267	21	395	28	12
	Red Fox	Secure			39	34	34	30	1	1	17	16	32	25	30	28	14
	Ringed Seal	Secure															12
	Snowshoe hare (likely misidentification)	Unrankable							1	1							
	Unknown Fox				4	4	3	3					5	5	13	12	
	Unknown Seal				2	1					3	1	2	2	2	2	
	Unknown Weasel				1	1	4	2									
	Unknown Mouse														1	1	
	Wolverine	Vulnerable	Special Concern	Special Concern	4	4	9	7			4	4			2	2	16
Upland Breeding Bird	American Golden-plover	Vulnerable															2
	American Pipit	Unrankable/ Undetermined															8
	American Robin	Secure									2	1	1	1	2	2	3
	American Tree Sparrow	Unrankable/ Undetermined															7
	Common Redpoll	Unrankable/ Undetermined									3	1					5
	Baird's Sandpiper	Secure															2
	Gray-cheeked Thrush	Unrankable/ Undetermined															1
	Harris' Sparrow	Unrankable/ Undetermined															2
	Hoary Redpoll	Vulnerable															5
	Horned Lark	Unrankable/ Undetermined															7
	Lapland Longspur	Secure											1	1	15	1	12
	Least Sandpiper	Vulnerable															6
	Pectoral Sandpiper	Apparently Secure															2
	Rock Ptarmigan	Secure															5
	Red-necked Phalarope	Vulnerable	Special Concern	Special Concern													6
	Ruby-throated hummingbird (likely misidentification)																
	Savannah Sparrow	Unrankable/ Undetermined															10
	Semipalmated Sandpiper	Vulnerable											1	1			6
	Semipalmated Plover	Apparently Secure			28	6	18	3									4

APPENDIX J: SUMMARY OF THE HOPE BAY PROJECT WILDLIFE SIGHTINGS LOG AND INCIDENTAL SIGHTINGS, 2011 - 2023

Species Group	Species	Conservation Status <sup>1</sup>			2011		2012		2013		2014		2015		2016		2017	
		Territorial Rank	COSEWIC	SARA Schedule 1	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records
Upland Breeding Bird (cont'd)	Snow Bunting	Vulnerable																
	Unknown Grouse (likely misidentification)												20	1				
	Unknown Ptarmigan				47	5	10	1	7	2	2	1	68	6	30	1	46	6
	Unknown Songbird												1	1			3	1
	White-crowned Sparrow	Unrankable/ Undetermined																
	Willow Ptarmigan	Secure																
	Wilson's Snipe	Secure																
Waterbird	American Green-winged Teal	Unrankable/ Undetermined																
	Arctic Tern	Apparently Secure																
	Brant Goose	Vulnerable																
	Common Goldeneye	Unrankable/ Undetermined																
	Canada Goose	Secure			50	1	30	2	8	1	6	2	4	1	42	4	47	2
	Common Eider	Vulnerable																
	Common Loon	Secure	Not at Risk															
	Common Merganser	Unrankable/ Undetermined																
	Gadwall	Not Applicable																
	Greater White-fronted Goose	Secure							21	2	36	2	12	3	24	3	12	1
	Greater Scaup	Unrankable/ Undetermined																
	Glaucous Gull	Apparently Secure																
	Herring Gull	Apparently Secure																
	King Eider	Vulnerable																
	Lesser Scaup	Unrankable/ Undetermined																
	Long-tailed Duck	Apparently Secure											1*	1	3	1		
	Long-tailed Jaeger	Secure																
	Parasitic Jaeger	Apparently Secure																
	Northern Pintail	Secure							2	1	6	2	1	1				
	Pacific Loon	Unrankable/ Undetermined																
	Red-breasted Merganser	Secure																
	Red-throated Loon	Apparently Secure																
	Sandhill Crane	Secure			11	6	27	5	11	5	25	6	4	1	16	7	6	2
	Snow Goose	Secure									21	2						
	Thayer's Gull	Apparently Secure																
	Tundra Swan	Secure			2	1	3	2	1	1	7	2	2*	2	6	4	6	4
	Unknown Duck				5	1												
	Unknown Goose				38	6	488	10	60	2	150	4						
	Unknown Gull								2	2	1	1			11	2		
	Unknown Loon										1	1	3*	2	8	4	1	1
	Unknown Shearwater																	
	Unknown Swan																	
	White-winged Scoter	Unrankable/ Undetermined																
	Yellow-billed Loon	Apparently Secure	Not at Risk															

APPENDIX J: SUMMARY OF THE HOPE BAY PROJECT WILDLIFE SIGHTINGS LOG AND INCIDENTAL SIGHTINGS, 2011 - 2023

Species Group	Species	Conservation Status <sup>1</sup>			2018		2019		2020		2021		2022		2023		Incidental Sightings (Biologists/ Surveyors 1996- 2023) <sup>2</sup>
		Territorial Rank	COSEWIC	SARA Schedule 1	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	
Upland Breeding Bird (cont'd)	Snow Bunting	Vulnerable									6	1	9	2	62	2	4
	Unknown Grouse (likely misidentification)																
	Unknown Ptarmigan				20	1	84	15	43	6	90	6	168	12	210	24	
	Unknown Songbird						1	1			2	1			2	1	
	White-crowned Sparrow	Unrankable/ Undetermined									1	1					10
	Willow Ptarmigan	Secure											243	16			6
	Wilson's Snipe	Secure															5
Waterbird	American Green-winged Teal	Unrankable/ Undetermined															3
	Arctic Tern	Apparently Secure															7
	Brant Goose	Vulnerable															1
	Common Goldeneye	Unrankable/ Undetermined															1
	Canada Goose	Secure			100	2	20*	1			62	7	42	6	92	5	18
	Common Eider	Vulnerable															3
	Common Loon	Secure	Not at Risk								3	2					5
	Common Merganser	Unrankable/ Undetermined											2	1			2
	Gadwall	Not Applicable															2
	Greater White-fronted Goose	Secure			12	1					30	5	17	3			17
	Greater Scaup	Unrankable/ Undetermined															9
	Glaucous Gull	Apparently Secure															9
	Herring Gull	Apparently Secure															9
	King Eider	Vulnerable									3	1					6
	Lesser Scaup	Unrankable/ Undetermined															2
	Long-tailed Duck	Apparently Secure									3	1					13
	Long-tailed Jaeger	Secure															4
	Parasitic Jaeger	Apparently Secure															5
	Northern Pintail	Secure									3	1					8
	Pacific Loon	Unrankable/ Undetermined									2	1	2	1	3	1	16
	Red-breasted Merganser	Secure															14
	Red-throated Loon	Apparently Secure											7	1			10
	Sandhill Crane	Secure			28	6	18	3	13	3	72	12	38	11	46	13	15
	Snow Goose	Secure			31	3	20*	1	15	2	15	3	12	1			12
	Thayer's Gull	Apparently Secure															1
	Tundra Swan	Secure			10	1					8	3	5	1			16
	Unknown Duck										1	1	2	1	44	4	
	Unknown Goose				220	2	105*	2	>1600	3	15	1	44	3	169	10	
	Unknown Gull												1	1	3	2	
	Unknown Loon										1	1	3	2			
	Unknown Shearwater														1	1	
	Unknown Swan										3	2	1	1	18	6	
	White-winged Scoter	Unrankable/ Undetermined															2
	Yellow-billed Loon	Apparently Secure	Not at Risk														5

APPENDIX J: SUMMARY OF THE HOPE BAY PROJECT WILDLIFE SIGHTINGS LOG AND INCIDENTAL SIGHTINGS, 2011 - 2023

Species Group	Species	Conservation Status <sup>1</sup>			2011		2012		2013		2014		2015		2016		2017	
		Territorial Rank	COSEWIC	SARA Schedule 1	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records
Raptor	Bald Eagle	Unrankable/ Undetermined	Not at Risk								2	2						
	Common Raven	Secure			1	1			3	2	4	3	1	1				
	Golden Eagle	Apparently Secure	Not at Risk		1	1	1	1			1	1	2	2	4	3	1	1
	Gyrfalcon	Apparently Secure	Not at Risk						2	2	1	1	1	1	1	1		
	Northern Harrier	Unrankable/ Undetermined	Not at Risk															
	Peregrine Falcon	Apparently Secure	Not at Risk	Special Concern			2	2			6	6	1	1	2	2	5	4
	Rough-legged Hawk	Unrankable/ Undetermined	Not at Risk		4	3	6	3	3	3	7	6	4	4	2	2	1	1
	Short-eared Owl	Vulnerable	Special Concern	Special Concern														
	Snowy Owl	Apparently Secure	Not at Risk														1	1
	Unknown Eagle												2	2				
	Unknown Owl										1	1						
	Unknown Raptor				2	1	13	5	2	2	2	1			2	2	4	3
Fish	Arctic Char																	
	Unknown Fish																	

APPENDIX J: SUMMARY OF THE HOPE BAY PROJECT WILDLIFE SIGHTINGS LOG AND INCIDENTAL SIGHTINGS, 2011 - 2023

Species Group	Species	Conservation Status <sup>1</sup>			2018		2019		2020		2021		2022		2023		Incidental Sightings (Biologists/ Surveyors 1996- 2023) <sup>2</sup>
		Territorial Rank	COSEWIC	SARA Schedule 1	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	No. Ind.	No. Records	
Raptor	Bald Eagle	Unrankable/ Undetermined	Not at Risk										1	1	1	1	4
	Common Raven	Secure			3	3	1	1			2	1	1	1	15	6	15
	Golden Eagle	Apparently Secure	Not at Risk		2	2			3	2	1	1	1	1	2	2	16
	Gyr Falcon	Apparently Secure	Not at Risk								1	1					8
	Northern Harrier	Unrankable/ Undetermined	Not at Risk														3
	Peregrine Falcon	Apparently Secure	Not at Risk	Special Concern							1	1	6	5	8	6	13
	Rough-legged Hawk	Unrankable/ Undetermined	Not at Risk		3	2	1	1	4	2	7	6	3	3	1	1	17
	Short-eared Owl	Vulnerable	Special Concern	Special Concern													8
	Snowy Owl	Apparently Secure	Not at Risk								1	1	1	1	1	1	5
	Unknown Eagle				1	1							4	4	10	7	
	Unknown Owl																
Fish	Unknown Raptor						1	1							1	1	
	Arctic Char												1	1			
	Unknown Fish														1	1	

Notes:

\* Contains records where number observed was not recorded; value of one was assigned.

<sup>1</sup> Territorial Rankings provided in the 2015 Wild Species Report (CESCC 2020), COSEWIC and SARA status as indicated on the Species At Risk Act Public Registry (Government of Canada 2022).

<sup>2</sup> Incidental observations by ERM crew and other Biologists were not recorded in 2019 or 2020 due to minimal compliance monitoring work on site.

<sup>3</sup> Caribou recorded incidentally and in the wildlife sightings log are not identified to herd but based on timing, both herds have been observed.



## APPENDIX K MONTHLY AVERAGE OF PERSONNEL ON SITE, HOPE BAY PROJECT, 2009 TO 2023

## APPENDIX K: MONTHLY AVERAGE OF PERSONNEL ON SITE, HOPE BAY PROJECT, 2009 TO 2023

Month	Year														
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
January	69	83	214	183	0	7	13	60	172	202	265	316	140	123	148
February	84	106	250	193	0	7	16	73	168	239	279	332	143	178	168
March	94	131	265	180	3	8	30	78	176	261	286	282	147	160	165
April	102	172	278	127	13	14	28	93	173	264	291	133	169	134	163
May	102	182	274	90	20	63	32	110	188	261	287	130	176	135	158
June	103	200	280	103	44	71	41	123	189	266	304	139	189	162	150
July	113	220	284	90	61	77	46	123	185	265	304	137	193	164	146
August	109	205	277	93	59	79	84	129	178	271	285	136	230	172	133
September	98	484	277	0	54	73	105	144	179	272	293	128	240	174	126
October	66	332	270	0	49	79	114	158	179	273	306	133	89	181	109
November	16	147	252	0	19	44	93	172	184	270	324	149	171	189	64
December	14	108	0	0	8	7	89	173	179	246	300	143	185	114	45
<b>Average</b>	<b>81</b>	<b>197</b>	<b>243</b>	<b>88</b>	<b>27</b>	<b>44</b>	<b>58</b>	<b>120</b>	<b>179</b>	<b>258</b>	<b>294</b>	<b>180</b>	<b>173</b>	<b>157</b>	<b>131</b>

## APPENDIX L      WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
71	2022/05/30	1	1/0/1900	1/0/1900		1482	1531	50	5	Caribou	2	0	2	Walking	Tundra	Classifier added multiple events together over multiple days, I separated these - DB
61	2021/06/09	1	1/0/1900	1/0/1900	M	2550	2585	34	4	Caribou	1	1	2	Walking	Tundra	
61	2021/06/07	1	1/0/1900	1/0/1900	M	2479	2526	30	3	Caribou	1	0	1	Walking	Tundra	
61	2021/06/05	1	1/0/1900	1/0/1900	M	2478	2487	10	1	Caribou	1	0	1	Walking	Tundra	
61	2021/06/04	1	1/0/1900	1/0/1900	M	2468	2469	2	1	Caribou	1	0	1	Walking	Tundra	
61	2021/05/31	1	1/0/1900	1/0/1900	M	2423	2432	10	1	Caribou	10	1	11	Walking	Tundra	
61	2021/05/31	1	1/0/1900	1/0/1900	M	2433	2442	10	1	Caribou	2	0	2	Walking	Tundra	
61	2021/05/30	1	1/0/1900	1/0/1900	M	2404	2418	15	2	Caribou	1	0	1	Walking	Tundra	
61	2021/05/28	1	1/0/1900	1/0/1900	M	2387	2393	7	1	Caribou	1	0	1	Walking	Tundra	
61	2021/05/26	1	1/0/1900	1/0/1900	M	2361	2370	20	2	Caribou	5	0	5	Walking	Tundra	
61	2021/05/25	1	1/0/1900	1/0/1900	M	2275	2304	30	3	Caribou	5	0	5	Walking	Tundra	
61	2021/05/25	1	1/0/1900	1/0/1900	M	2308	2327	20	2	Caribou	3	0	3	Grazing	Tundra	
61	2021/05/24	1	1/0/1900	1/0/1900	M	2212	2231	20	2	Caribou	4	0	4	Walking	Tundra	
61	2021/05/24	1	1/0/1900	1/0/1900	M	2235	2244	10	1	Caribou	3	0	3	Walking	Tundra	
61	2021/05/24	1	1/0/1900	1/0/1900	M	2245	2254	10	1	Caribou	2	0	2	Walking	Tundra	
61	2021/05/24	1	1/0/1900	1/0/1900	M	2255	2274	20	2	Caribou	2	0	2	Grazing	Tundra	
61	2020/02/19	1	1/0/1900	1/0/1900	M	655	661	7	1	Caribou	1	0	1	Walking	Tundra	
61	2020/01/29	1	1/0/1900	1/0/1900	M	582	591	10	1	Caribou	1	0	1	Standing	Tundra	
61	2019/12/29	1	1/0/1900	1/0/1900	M	429	431	2	1	Caribou	1	0	1	Investigating camera	Tundra	
61	2019/12/29	1	1/0/1900	1/0/1900	M	439	485	47	5	Caribou	1	0	1	Investigating camera	Tundra	
61	2019/12/08	1	1/0/1900	1/0/1900	M	334	353	20	2	Caribou	1	0	1	Walking	Tundra	
61	2019/12/08	1	1/0/1900	1/0/1900	M	354	363	10	1	Caribou	5	1	6	Walking	Tundra	
61	2019/12/03	1	1/0/1900	1/0/1900	M	268	311	50	5	Caribou	1	0	1	Walking	Tundra	
61	2019/10/14	1	1/0/1900	1/0/1900	M	101	119	20	2	Caribou	1	0	1	Investigating camera	Tundra	
61	2019/10/01	1	1/0/1900	1/0/1900	M	51	59	9	1	Caribou	1	0	1	Walking	Tundra	
61	2019/09/09	1	1/0/1900	1/0/1900	M	568	577	10	1	Caribou	1	0	1	Walking	Tundra	
62	2023/07/27	2	1/0/1900	1/0/1900	M	237	256	10	10	Caribou	1	0	1	Walking	Tundra	
62	2023/07/23	1	1/0/1900	1/0/1900	M	178	181	4	10	Caribou	1	0	1	Feeding	Tundra	
62	2023/07/17	1	1/0/1900	1/0/1900	M	140	145	6	10	Caribou	1	0	1	Feeding	Tundra	
62	2023/07/06	1	1/0/1900	1/0/1900	M	77	86	10	10	Caribou	1	0	1	Feeding	Tundra	
62	2023/06/30	1	1/0/1900	1/0/1900	M	46	47	1	10	Caribou	1	0	1	Running	Tundra	
62	2020/07/21	1	1/0/1900	1/0/1900	M	1021	1030	10	1	Caribou	1	0	1	Walking	Tundra	
63	2023/07/22	1	1/0/1900	1/0/1900	M	265	274	10	10	Caribou	0	1	1	Feeding	Tundra	
63	2023/07/18	1	1/0/1900	1/0/1900	M	190	194	5	10	Caribou	0	1	1	Walking	Tundra	
63	2023/07/12	1	1/0/1900	1/0/1900	M	122	124	3	10	Caribou	1	0	1	Walking	Tundra	Unsure of life stage
63	2023/07/06	1	1/0/1900	1/0/1900	M	87	96	10	10	Caribou	1	0	1	Walking	Tundra	
63	2023/07/06	2	1/0/1900	1/0/1900	M	97	105	9	10	Caribou	1	0	1	Walking	Tundra	
63	2022/05/26	1	1/0/1900	1/0/1900	M	1450	1491	40	4	Caribou	2	0	2	Walking	Tundra	
63	2022/05/26	1	1/0/1900	1/0/1900	M	1462	1491	30	3	Caribou	2	0	2	Walking	Tundra	
63	2021/09/19	1	1/0/1900	1/0/1900	M	505	674	170	17	Caribou	1	0	1	Grazing	Tundra	
63	2021/09/19	1	1/0/1900	1/0/1900	M	517	666	130	15	Caribou	1	0	1	Grazing	Tundra	
63	2021/06/06	1	1/0/1900	1/0/1900	M	2580	2584	5	1	Caribou	1	0	1	Walking	Tundra	
63	2021/06/06	1	1/0/1900	1/0/1900	M	2590	2599	10	1	Caribou	1	0	1	Walking	Tundra	
63	2021/06/04	1	1/0/1900	1/0/1900	M	2527	2571	45	5	Caribou	0	1	1	Investigating camera	Tundra	
63	2021/06/03	1	1/0/1900	1/0/1900	M	2504	2511	8	1	Caribou	1	0	1	Walking	Tundra	
63	2021/05/31	1	1/0/1900	1/0/1900	M	2265	2349	85	9	Caribou	1	0	1	Investigating camera	Tundra	
63	2021/05/31	1	1/0/1900	1/0/1900	M	2355	2404	48	5	Caribou	1	0	1	Investigating camera	Tundra	
63	2021/05/31	1	1/0/1900	1/0/1900	M	2405	2464	60	6	Caribou	0	1	1	Investigating camera	Tundra	
63	2021/05/31	1	1/0/1900	1/0/1900	M	2475	2494	20	2	Caribou	1	0	1	Investigating camera	Tundra	
63	2021/05/30	1	1/0/1900	1/0/1900	M	2179	2259	80	8	Caribou	2	2	4	Investigating camera	Tundra	
63	2021/05/29	1	1/0/1900	1/0/1900	M	1876	1965	90	9	Caribou	0	1	1	Investigating camera	Tundra	
63	2021/05/29	1	1/0/1900	1/0/1900	M	1972	2178	207	21	Caribou	3	4	7	Walking	Tundra	6 caribou walk by, one young caribou investigating camera
63	2021/05/25	1	1/0/1900	1/0/1900	M	1554	1662	109	11	Caribou	0	1	1	Investigating camera	Tundra	
63	2021/05/25	1	1/0/1900	1/0/1900	M	1671	1866	196	20	Caribou	0	1	1	Investigating camera	Tundra	
63	2021/05/24	1	1/0/1900	1/0/1900	M	1354	1546	193	20	Caribou	6	1	7	Investigating camera	Tundra	

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
63	2021/05/23	1	1/0/1900	1/0/1900	M	1294	1297	4	1	Caribou	1	0	1	Investigating camera	Tundra	
63	2021/05/22	1	1/0/1900	1/0/1900	M	1265	1281	17	2	Caribou	1	3	4	Walking	Tundra	
63	2021/05/21	1	1/0/1900	1/0/1900	M	1065	1264	200	20	Caribou	1	1	2	Investigating camera	Tundra	
64	2023/08/08	1	1/0/1900	1/0/1900	M	806	835	24	30	Caribou	1	0	1	Feeding	Tundra	Unsure if previously recorded
64	2023/07/30	1	1/0/1900	1/0/1900	M	729	731	4	10	Caribou	1	0	1	Running	Tundra	
64	2023/07/25	1	1/0/1900	1/0/1900	M	651	690	40	40	Caribou	0	1	1	Feeding	Tundra	Unsure if previously recorded
64	2023/07/25	5	1/0/1900	1/0/1900	M	694	703	10	10	Caribou	0	1	1	Feeding	Tundra	Unsure if previously recorded
64	2023/07/21	1	1/0/1900	1/0/1900	M	502	551	39	50	Caribou	0	1	1	Feeding	Tundra	
64	2023/07/05	1	1/0/1900	1/0/1900	M	321	324	4	10	Caribou	1	0	1	Walking	Tundra	Unsure if same animal
64	2023/06/28	1	1/0/1900	1/0/1900	M	80	83	4	10	Caribou	1	0	1	Walking	Tundra	
64	2023/05/27	1	1/0/1900	1/0/1900	M	10	39	26	3	Caribou	2	0	2	Walking	Tundra	Changed to two adults - DB
64	2022/09/30	1	1/0/1900	1/0/1900	M	83	88	6	1	Caribou	1	0	1	Walking	Tundra	
64	2021/08/26	1	1/0/1900	1/0/1900	M	507	526	20	2	Caribou	1	0	1	Grazing	Tundra	
64	2021/08/26	1	1/0/1900	1/0/1900	M	514	519	6	1	Caribou	1	0	1	Grazing	Tundra	
65	2023/06/17	1	1/0/1900	1/0/1900	M	189	268	80	8	Caribou	0	1	1	Investigating camera	Tundra	
65	2021/08/13	1	1/0/1900	1/0/1900	M	268	277	10	1	Caribou	1	0	1	Walking	Tundra	Added by DB - DB
65	2021/06/09	1	1/0/1900	1/0/1900	M	4189	4218	30	3	Caribou	1	0	1	Walking	Tundra	
65	2021/06/07	1	1/0/1900	1/0/1900	M	4067	4094	18	2	Caribou	0	2	2	Walking	Tundra	
65	2021/06/03	1	1/0/1900	1/0/1900	M	3578	3718	140	14	Caribou	12	0	12	Walking	Tundra	
65	2021/06/03	1	1/0/1900	1/0/1900	M	3719	3748	30	3	Caribou	2	1	3	Walking	Tundra	
65	2021/06/03	1	1/0/1900	1/0/1900	M	3752	3842	91	10	Caribou	2	0	2	Investigating camera	Tundra	
65	2021/06/03	1	1/0/1900	1/0/1900	M	3854	3863	10	1	Caribou	1	0	1	Walking	Tundra	
65	2021/05/31	1	1/0/1900	1/0/1900	M	3358	3387	30	3	Caribou	1	0	1	Investigating camera	Tundra	
65	2021/05/30	1	1/0/1900	1/0/1900	M	3314	3338	19	3	Caribou	0	1	1	Investigating camera	Tundra	
65	2021/05/28	1	1/0/1900	1/0/1900	M	3082	3189	108	11	Caribou	3	4	7	Walking	Tundra	
66	2023/07/19	1	1/0/1900	1/0/1900	M	213	218	7	10	Caribou	0	1	1	Walking	Tundra	Unsure if this animal had been captured in the data previously
66	2023/07/12	1	1/0/1900	1/0/1900	M	172	176	5	10	Caribou	1	0	1	Running	Tundra	
66	2020/02/20	1	1/0/1900	1/0/1900	M	578	587	10	1	Caribou	1	0	1	Walking	Tundra	
66	2019/12/05	1	1/0/1900	1/0/1900	M	258	267	10	1	Caribou	1	0	1	Investigating camera	Tundra	
66	2019/12/04	1	1/0/1900	1/0/1900	M	272	322	50	5	Caribou	20	0	20	Walking	Tundra	Large herd in background
66	2019/10/06	1	1/0/1900	1/0/1900	M	74	83	10	1	Caribou	1	0	1	Walking	Tundra	
66	2019/10/02	1	1/0/1900	1/0/1900	M	55	64	10	1	Caribou	1	0	1	Walking	Tundra	
67	2019/10/14	1	1/0/1900	1/0/1900	M	80	99	20	2	Caribou	1	0	1	Walking	Tundra	
68	2023/06/22	1	1/0/1900	1/0/1900	M	21	40	20	2	Caribou	1	1	2	Investigating camera	Tundra	Assuming the caribou inspecting the camera is an adult. No identifying features.
68	2021/10/22	1	1/0/1900	1/0/1900	M	312	321	10	1	Caribou	3	0	3	Walking	Tundra	Added by DB
68	2020/06/03	1	1/0/1900	1/0/1900	M	684	773	90	9	Caribou	6	0	6	Walking	Tundra	
69	2022/08/28	1	1/0/1900	1/0/1900	M	454	543	90	9	Caribou	1	0	1	Investigating camera	Tundra	
69	2022/06/22	1	1/0/1900	1/0/1900	M	183	192	10	1	Caribou	1	0	1	Walking	Tundra	
69	2022/06/22	3	1/0/1900	1/0/1900	M	183	186	4	1	Caribou	1	0	1	Walking	Tundra	
69	2021/09/11	2	1/0/1900	1/0/1900	M	512	521	10	1	Caribou	1	0	1	Investigating camera	Tundra	Added be DB - DB
69	2021/09/11	1	1/0/1900	1/0/1900	M	392	511	39	13	Caribou	2	0	2	Investigating camera	Tundra	Classifier originally combined two events here. DB separated them - DB
69	2021/09/11	1	1/0/1900	1/0/1900	M	392	515	39	13	Caribou	2	0	2	Investigating camera	Tundra	
69	2021/07/22	1	1/0/1900	1/0/1900	M	159	168	10	1	Caribou	1	0	1	Walking	Tundra	Added by DB - DB
69	2021/05/22	1	1/0/1900	1/0/1900	M	1926	1995	70	7	Caribou	2	2	4	Walking	Tundra	
69	2021/05/22	1	1/0/1900	1/0/1900	M	1996	2005	10	1	Caribou	1	2	3	Walking	Tundra	
69	2021/05/22	1	1/0/1900	1/0/1900	M	2009	2068	60	6	Caribou	1	0	1	Investigating camera	Tundra	
69	2020/06/19	1	1/0/1900	1/0/1900	M	888	897	10	1	Caribou	1	0	1	Walking	Tundra	
69	2020/06/14	1	1/0/1900	1/0/1900	M	860	865	6	1	Caribou	1	0	1	Walking	Tundra	
70	2022/09/13	1	1/0/1900	1/0/1900	M	332	441	90	9	Caribou	5	0	5	Grazing	Tundra	Appear to all be adult males - DB
70	2022/09/13	1	1/0/1900	1/0/1900	M	332	440	100	11	Caribou	5	0	5	Grazing	Tundra	
70	2021/07/02	1	1/0/1900	1/0/1900	M	89	98	10	1	Caribou	1	0	1	Walking	Tundra	
70	2021/07/02	1	1/0/1900	1/0/1900	M	89	96	8	1	Caribou	1	0	1	Walking	Tundra	
70	2021/06/08	1	1/0/1900	1/0/1900	M	2470	2529	60	6	Caribou	1	1	2	Investigating camera	Tundra	
70	2021/06/04	1	1/0/1900	1/0/1900	M	2395	2454	60	6	Caribou	2	0	2	Walking	Tundra	
70	2021/05/31	1	1/0/1900	1/0/1900	M	2346	2385	40	4	Caribou	1	0	1	Investigating camera	Tundra	
70	2021/05/30	1	1/0/1900	1/0/1900	M	2241	2341	100	10	Caribou	3	0	3	Walking	Tundra	

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
70	2021/05/29	1	1/0/1900	1/0/1900	M	2220	2239	20	2	Caribou	3	0	3	Walking	Tundra	
70	2021/05/27	1	1/0/1900	1/0/1900	M	2134	2213	90	9	Caribou	2	0	2	Walking	Tundra	
71	2022/05/29	1	1/0/1900	1/0/1900	M	1392	1481	90	9	Caribou	8	0	8	Walking	Tundra	Classifier added multiple events together over multiple days, I separated these - DB
71	2022/05/28	1	1/0/1900	1/0/1900	M	1379	1388	10	1	Caribou	2	0	2	Grazing	Tundra	Classifier added multiple events together over multiple days, I separated these - DB
71	2022/05/28	1	1/0/1900	1/0/1900	M	1379	1531	56	16	Caribou	5	3	8	Grazing	Tundra	
71	2022/05/24	1	1/0/1900	1/0/1900	M	1297	1356	60	6	Caribou	11	0	11	Walking	Tundra	Changed from 11 young to 11 adults, it is may so there will be no young here, not of adult size especially - DB
71	2022/05/22	1	1/0/1900	1/0/1900	M	1278	1287	10	1	Caribou	4	0	4	Grazing	Tundra	Changed from 3 young to 4 adults as they are adult females - DB
71	2021/09/01	1	1/0/1900	1/0/1900	M	403	451	50	5	Caribou	1	0	1	Grazing	Tundra	Image 0402 which should be first of this series is missing - DB
71	2021/08/23	1	1/0/1900	1/0/1900	M	365	374	10	1	Caribou	1	0	1	Walking	Tundra	Added by DB - DB
71	2021/07/01	1	1/0/1900	1/0/1900	M	93	132	40	4	Caribou	1	0	1	Investigating camera	Tundra	
71	2021/07/01	1	1/0/1900	1/0/1900	M	93	113	12	2	Caribou	1	0	1	Investigating camera	Tundra	
71	2021/06/30	1	1/0/1900	1/0/1900	M	80	89	10	1	Caribou	1	0	1	Investigating camera	Tundra	
71	2021/05/29	1	1/0/1900	1/0/1900	M	2197	2286	90	9	Caribou	9	2	11	Walking	Tundra	Caribou are walking and then appear to run from something off camera
71	2021/05/29	1	1/0/1900	1/0/1900	M	2290	2299	10	1	Caribou	4	0	4	Walking	Tundra	
71	2021/05/29	1	1/0/1900	1/0/1900	M	2305	2309	4	1	Caribou	1	0	1	Standing	Tundra	
71	2020/07/09	1	1/0/1900	1/0/1900	M	1165	1167	3	1	Caribou	1	0	1	Walking	Tundra	
71	2020/04/20	1	1/0/1900	1/0/1900	M	828	837	10	1	Caribou	1	1	2	Walking	Tundra	
71	2020/04/20	1	1/0/1900	1/0/1900	M	838	857	10	1	Caribou	5	3	8	Walking	Tundra	
71	2020/03/19	1	1/0/1900	1/0/1900	M	689	721	33	4	Caribou	1	0	1	Investigating camera	Tundra	
71	2020/03/15	1	1/0/1900	1/0/1900	M	657	666	10	1	Caribou	1	0	1	Walking	Tundra	
71	2019/09/26	1	1/0/1900	1/0/1900	M	47	56	10	1	Caribou	8	0	8	Grazing	Tundra	
71	2019/09/26	1	1/0/1900	1/0/1900	M	57	63	7	1	Caribou	1	0	1	Walking	Tundra	
71	2019/09/26	1	1/0/1900	1/0/1900	M	67	76	10	1	Caribou	4	0	4	Walking	Tundra	
71	2019/09/26	1	1/0/1900	1/0/1900	M	77	96	20	2	Caribou	5	0	5	Walking	Tundra	
72	2023/08/24	1	1/0/1900	1/0/1900	M	388	453	39	70	Caribou	2	0	2	Investigating camera	Tundra	
72	2023/07/28	1	1/0/1900	1/0/1900	M	272	286	15	20	Caribou	1	0	1	Walking	Tundra	
72	2023/07/14	1	1/0/1900	1/0/1900	M	210	214	6	10	Caribou	1	0	1	Walking	Tundra	
72	2022/08/18	1	1/0/1900	1/0/1900	M	274	283	10	1	Caribou	1	0	1	Walking	Tundra	
72	2021/08/06	1	1/0/1900	1/0/1900	M	194	203	10	1	Caribou	1	0	1	Walking	Tundra	
72	2021/08/06	1	1/0/1900	1/0/1900	M	194	198	5	1	Caribou	1	0	1	Walking	Tundra	
73	2022/08/18	1	1/0/1900	1/0/1900	M	267	326	60	6	Caribou	1	0	1	Investigating camera	Tundra	Turned 3 events into 1 - DB
73	2022/08/18	4	1/0/1900	1/0/1900	M	307	326	20	2	Caribou	1	0	1	Walking	Tundra	
73	2022/07/29	2	1/0/1900	1/0/1900	M	194	203	10	1	Caribou	1	0	1	Walking	Tundra	Edit from grazing to walking - DB
73	2022/07/28	1	1/0/1900	1/0/1900	M	184	193	10	1	Caribou	1	0	1	Investigating camera	Tundra	
73	2022/07/28	1	1/0/1900	1/0/1900	M	184	192	9	1	Caribou	1	0	1	Investigating camera	Tundra	
73	2021/09/25	1	1/0/1900	1/0/1900	M	504	523	20	2	Caribou	5	0	5	Grazing	Tundra	Caribou fighting into the tripod 0514-0519? - DB
73	2021/09/25	1	1/0/1900	1/0/1900	M	504	518	16	2	Caribou	5	0	5	Grazing	Tundra	
73	2021/07/17	1	1/0/1900	1/0/1900	M	144	153	10	1	Caribou	1	0	1	Walking	Tundra	
73	2021/06/04	1	1/0/1900	1/0/1900	M	2355	2384	30	3	Caribou	1	0	1	Investigating camera	Tundra	
73	2021/06/04	1	1/0/1900	1/0/1900	M	2388	2447	60	6	Caribou	2	0	2	Investigating camera	Tundra	
73	2021/05/31	1	1/0/1900	1/0/1900	M	2213	2342	130	13	Caribou	1	0	1	Investigating camera	Tundra	
73	2021/05/27	1	1/0/1900	1/0/1900	M	2174	2203	20	1	Caribou	3	0	3	Walking	Tundra	
73	2021/05/22	1	1/0/1900	1/0/1900	M	1909	2158	250	25	Caribou	1	0	1	Investigating camera	Tundra	
74	2023/08/20	1	1/0/1900	1/0/1900	M	729	748	20	40	Caribou	1	3	4	Feeding	Tundra	
74	2023/08/12	1	1/0/1900	1/0/1900	M	645	704	54	60	Caribou	1	1	2	Investigating camera	Tripod	Unsure if previously noted
74	2023/08/07	1	1/0/1900	1/0/1900	M	610	627	17	40	Caribou	0	0	0	Feeding	Tundra	Unable to determine life stage
74	2023/07/27	1	1/0/1900	1/0/1900	M	530	533	4	10	Caribou	0	1	1	Investigating camera	Tundra	
74	2023/07/04	1	1/0/1900	1/0/1900	M	81	82	1	10	Caribou	1	0	1	Running	Tundra	
74	2023/06/29	1	1/0/1900	1/0/1900	M	53	62	10	10	Caribou	3	1	4	Investigating camera	Tripod	Unsure of age structure of animals captured in frame.
74	2022/10/07	1	1/0/1900	1/0/1900	M	222	231	10	1	Caribou	3	0	3	Walking	Tundra	
74	2022/10/04	1	1/0/1900	1/0/1900	M	63	72	10	1	Caribou	1	0	1	Walking	Tundra	
74	2022/09/15	1	1/0/1900	1/0/1900	M	411	420	10	1	Caribou	1	0	1	Walking	Tundra	
74	2022/09/15	8	1/0/1900	1/0/1900	M	416	420	5	1	Caribou	1	0	1	Walking	Tundra	



APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
74	2022/09/03	1	1/0/1900	1/0/1900	M	355	374	20	2	Caribou	1	0	1	Walking	Tundra	
74	2022/08/25	1	1/0/1900	1/0/1900	M	305	314	10	1	Caribou	1	0	1	Walking	Tundra	
74	2022/08/22	1	1/0/1900	1/0/1900	M	279	298	20	2	Caribou	2	0	2	Walking	Tundra	
74	2022/08/17	1	1/0/1900	1/0/1900	M	251	260	10	1	Caribou	1	0	1	Walking	Tundra	
74	2022/07/22	1	1/0/1900	1/0/1900	M	166	175	10	1	Caribou	1	0	1	Walking	Tundra	
74	2019/10/09	1	1/0/1900	1/0/1900	M	93	102	10	1	Caribou	1	0	1	Walking	Tundra	
74	2019/10/06	1	1/0/1900	1/0/1900	M	74	83	10	1	Caribou	2	0	2	Grazing	Tundra	
75	2023/07/10	1	1/0/1900	1/0/1900	M	159	164	7	10	Caribou	1	0	1	Walking	Tundra	
75	2022/06/18	1	1/0/1900	1/0/1900	M	71	120	50	5	Caribou	4	0	4	Grazing	Tundra	Look like all females but can not be positive - DB
75	2022/06/18	1	1/0/1900	1/0/1900	M	71	115	45	5	Caribou	4	0	4	Grazing	Tundra	
75	2022/06/12	1	1/0/1900	1/0/1900	M	1224	1253	30	3	Caribou	1	0	1	Walking	Tundra	Added by DB - DB
75	2021/06/20	1	1/0/1900	1/0/1900	M	43	52	10	1	Caribou	3	0	3	Walking	Tundra	
76	2023/07/27	1	1/0/1900	1/0/1900	M	194	197	4	10	Caribou	1	0	1	Running	Tundra	
76	2023/07/13	1	1/0/1900	1/0/1900	M	102	104	3	10	Caribou	1	0	1	Running	Tundra	
76	2023/07/07	1	1/0/1900	1/0/1900	M	77	779	3	10	Caribou	1	0	1	Running	Tundra	
76	2023/07/06	1	1/0/1900	1/0/1900	M	61	66	6	10	Caribou	1	0	1	Running	Tundra	
76	2023/07/03	1	1/0/1900	1/0/1900	M	45	46	1	10	Caribou	1	0	1	Running	Tundra	
76	2023/06/11	1	1/0/1900	1/0/1900	M	2464	2469	6	1	Caribou	1	0	1	Walking	Tundra	
76	2021/10/15	1	1/0/1900	1/0/1900	M	543	552	10	1	Caribou	1	0	1	Walking	Tundra	Transferred to this event - DB
76	2021/10/15	1	1/0/1900	1/0/1900	M	543	546	3	1	Caribou	1	0	1	Walking	Tundra	
76	2021/08/05	1	1/0/1900	1/0/1900	M	247	296	50	5	Caribou	1	0	1	Grazing	Tundra	
76	2021/08/05	1	1/0/1900	1/0/1900	M	300	307	10	1	Caribou	1	0	1	Grazing	Tundra	
76	2021/08/05	1	1/0/1900	1/0/1900	M	247	291	17	5	Caribou	1	0	1	Grazing	Tundra	
76	2021/08/05	1	1/0/1900	1/0/1900	M	300	307	8	1	Caribou	1	0	1	Grazing	Tundra	
76	2021/07/30	1	1/0/1900	1/0/1900	M	222	231	10	1	Caribou	2	0	2	Walking	Tundra	
76	2020/08/06	1	1/0/1900	1/0/1900	M	1039	1058	20	2	Caribou	1	0	1	Feeding	Tundra	
77	2023/07/11	1	1/0/1900	1/0/1900	M	219	224	6	10	Caribou	1	0	1	Walking	Tundra	
77	2023/07/09	1	1/0/1900	1/0/1900	M	203	204	2	10	Caribou	1	0	1	Walking	Tundra	
77	2023/07/02	1	1/0/1900	1/0/1900	M	139	148	10	10	Caribou	1	0	1	Walking	Tundra	
77	2023/07/02	1	1/0/1900	1/0/1900	M	152	154	2	10	Caribou	1	0	1	Walking	Tundra	
77	2020/06/20	1	1/0/1900	1/0/1900	M	1208	1237	30	3	Caribou	1	0	1	Investigating camera	Tundra	
77	2020/06/08	1	1/0/1900	1/0/1900	M	1165	1174	10	1	Caribou	1	0	1	Walking	Tundra	
78	2023/07/15	1	1/0/1900	1/0/1900	M	101	102	3	10	Caribou	0	0	0	Running	Tundra	
78	2022/08/05	2	1/0/1900	1/0/1900	M	316	317	2	1	Caribou	1	0	1	Walking	Tundra	
79	2023/07/03	1	1/0/1900		M	62	63	2	10	Caribou	0	1	1	Running	Tundra	
79	2022/09/25	1	1/0/1900	1/0/1900	M	329	348	20	2	Caribou	1	0	1	Grazing	Tundra	
79	2022/09/25	1	1/0/1900	1/0/1900	M	329	346	15	2	Caribou	1	0	1	Grazing	Tundra	
79	2022/06/14	1	1/0/1900	1/0/1900	M	1479	1528	50	5	Caribou	4	0	4	Walking	Tundra	Went from 3 adults and 1 young to 4 adults - DB
79	2021/06/28	1	1/0/1900	1/0/1900	M	226	235	10	1	Caribou	2	0	2	Walking	Tundra	
79	2021/06/18	1	1/0/1900	1/0/1900	M	113	192	80	8	Caribou	1	0	1	Investigating camera	Tundra	
79	2021/06/15	1	1/0/1900	1/0/1900	M	37	106	70	7	Caribou	2	0	2	Walking	Tundra	
79	2021/06/15	1	1/0/1900	1/0/1900	M	37	98	21	8	Caribou	2	0	2	Walking	Tundra	
79	2020/07/19	1	1/0/1900	1/0/1900	M	1165	1174	10	1	Caribou	0	1	1	Walking	Tundra	
80	2023/07/26	1	1/0/1900	1/0/1900	M	284	284	1	10	Caribou	1	0	1	Walking	Tundra	Unsure if same animal noted above
80	2023/07/22	1	1/0/1900	1/0/1900	M	179	180	2	10	Caribou	0	1	1	Walking	Tundra	
80	2023/07/10	1	1/0/1900	1/0/1900	M	113	122	10	10	Caribou	0	1	1	Feeding	Tundra	
80	2023/07/04	1	1/0/1900	1/0/1900	M	75	76	2	10	Caribou	1	0	1	Walking	Tundra	
80	2023/07/03	1	1/0/1900	1/0/1900	M	52	53	2	10	Caribou	1	0	1	Walking	Tundra	
80	2021/07/04	1	1/0/1900	1/0/1900	M	152	161	10	1	Caribou	3	0	3	Grazing	Tundra	
80	2021/07/04	2	1/0/1900	1/0/1900	M	164	173	10	1	Caribou	2	0	2	Grazing	Tundra	
81	2022/09/26	1	1/0/1900	1/0/1900	M	845	894	50	5	Caribou	2	0	2	Grazing	Tundra	Looks like adult male and adult female - DB
81	2020/05/25	1	1/0/1900	1/0/1900	M	4693	4702	10	1	Caribou	2	0	2	Walking	Tundra	Look to be Peary Caribou but might need a second look to make sure
82	2023/07/12	1	1/0/1900	1/0/1900	M	159	166	8	10	Caribou	1	0	1	Walking	Tundra	
82	2023/07/12	1	1/0/1900	1/0/1900	M	179	182	4	10	Caribou	0	1	1	Walking	Tundra	
82	2023/07/12	1	1/0/1900	1/0/1900	M	189	191	3	10	Caribou	1	0	1	Walking	Tundra	
82	2023/07/11	1	1/0/1900	1/0/1900	M	136	141	6	10	Caribou	1	0	1	Running	Tundra	

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
82	2023/07/10	1	1/0/1900	1/0/1900	M	126	128	3	10	Caribou	1	0	1	Running	Tundra	
82	2023/07/07	1	1/0/1900	1/0/1900	M	104	113	10	10	Caribou	1	0	1	Running	Tundra	Verify if same animal a identified in previous record
82	2023/07/06	1	1/0/1900	1/0/1900	M	81	88	8	10	Caribou	1	0	1	Running	Tundra	
82	2023/07/06	1	1/0/1900	1/0/1900	M	94	100	7	10	Caribou	1	0	1	Running	Tundra	Verify if same animal as identified in previous record
82	2023/06/26	1	1/0/1900	1/0/1900	M	34	34	1	20	Caribou	0	0	0	Investigating camera	Tripod	Unable to determine species, although caribou is likely
82	2023/06/25	1	1/0/1900	1/0/1900	M	21	27	8	10	Caribou	0	1	1	Walking	Tundra	
82	2022/07/22	1	1/0/1900	1/0/1900	M	217	226	10	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/17	2	1/0/1900	1/0/1900	M	189	198	10	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/13	1	1/0/1900	1/0/1900	M	137	146	10	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/13	6	1/0/1900	1/0/1900	M	137	139	3	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/11	1	1/0/1900	1/0/1900	M	111	120	10	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/11	2	1/0/1900	1/0/1900	M	121	130	10	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/11	4	1/0/1900	1/0/1900	M	111	115	5	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/11	5	1/0/1900	1/0/1900	M	121	126	6	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/10	1	1/0/1900	1/0/1900	M	98	107	10	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/10	3	1/0/1900	1/0/1900	M	98	101	4	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/09	1	1/0/1900	1/0/1900	M	85	94	10	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/09	2	1/0/1900	1/0/1900	M	85	92	8	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/08	1	1/0/1900	1/0/1900	M	75	77	10	1	Caribou	1	0	1	Walking	Tundra	
82	2022/07/08	1	1/0/1900	1/0/1900	M	75	77	3	1	Caribou	1	0	1	Walking	Tundra	
82	2021/07/17	1	1/0/1900	1/0/1900	M	243	252	10	1	Caribou	1	0	1	Feeding	Tundra	
82	2021/07/17	1	1/0/1900	1/0/1900	M	243	250	8	1	Caribou	1	0	1	Feeding	Tundra	
83	2023/08/04	1	1/0/1900	1/0/1900	M	198	227	30	30	Caribou	1	0	1	Feeding	Tundra	
83	2023/06/23	1	1/0/1900	1/0/1900	M	3698	3777	80	8	Caribou	1	1	2	Feeding	Tundra	
83	2023/06/20	1	1/0/1900	1/0/1900	M	3572	3578	7	1	Caribou	1	0	1	Walking	Tundra	
83	2023/06/02	1	1/0/1900	1/0/1900	M	2675	2684	10	1	Caribou	1	0	1	Investigating camera	Tundra	
83	2022/06/02	1	1/0/1900	1/0/1900	M	1343	1362	20	2	Caribou	2	0	2	Grazing	Tundra	Adjusted from 1 to 2 - DB
83	2021/07/25	1	1/0/1900	1/0/1900	M	337	356	20	2	Caribou	1	0	1	Grazing	Tundra	
83	2021/07/10	1	1/0/1900	1/0/1900	M	189	198	10	1	Caribou	1	0	1	Feeding	Tundra	
83	2021/07/08	1	1/0/1900	1/0/1900	M	176	185	10	1	Caribou	1	0	1	Feeding	Tundra	
83	2021/07/02	1	1/0/1900	1/0/1900	M	135	144	10	1	Caribou	1	0	1	Standing	Tundra	
83	2021/07/02	1	1/0/1900	1/0/1900	M	135	138	4	1	Caribou	1	0	1	Standing	Tundra	
84	2023/06/25	1	1/0/1900	1/0/1900	M	31	70	40	40	Caribou	0	1	1	Feeding	Tundra	Also investigating camera as shutter closes and opens
84	2021/07/31	1	1/0/1900	1/0/1900	M	263	272	10	1	Caribou	1	0	1	Walking	Tundra	
84	2021/07/31	4	1/0/1900	1/0/1900	M	263	265	3	1	Caribou	1	0	1	Walking	Tundra	
84	2021/07/06	1	1/0/1900	1/0/1900	M	141	150	10	1	Caribou	1	0	1	Walking	Tundra	
84	2021/07/06	1	1/0/1900	1/0/1900	M	141	150	10	1	Caribou	1	0	1	Walking	Tundra	
85	2023/07/30	1	1/0/1900	1/0/1900	M	107	115	9	9	Caribou	1	0	1	Walking	Tundra	
85	2023/07/16	1	1/0/1900	1/0/1900	M	92	98	7	9	Caribou	1	0	1	Walking	Tundra	
85	2023/07/09	1	1/0/1900	1/0/1900	M	62	79	19	21	Caribou	1	0	1	Walking	Tundra	
85	2023/07/09	1	1/0/1900	1/0/1900	M	83	85	3	3	Caribou	1	0	1	Running	Tundra	
85	2023/06/17	1	1/0/1900		M	250	291	42	14	Caribou	3	0	3	Investigating camera	Tundra	Not sure of age
85	2023/06/13	1	1/0/1900	1/0/1900	M	232	246	15	3	Caribou	1	0	1	Investigating camera	Tundra	
85	2022/08/27	5	1/0/1900	1/0/1900	M	106	147	39	13	Caribou	1	0	1	Investigating camera	Tundra	
85	2022/08/12	4	1/0/1900	1/0/1900	M	94	102	9	3	Caribou	1	0	1	Grazing	Tundra	
85	2022/08/09	3	1/0/1900	1/0/1900	M	82	89	8	3	Caribou	1	0	1	Walking	Tundra	
85	2022/08/07	1	1/0/1900	1/0/1900	M	49	63	15	5	Caribou	1	0	1	Grazing	Tundra	
86	2023/06/13	1	1/0/1900	1/0/1900	M	2585	2594	10	1	Caribou	2	0	2	Feeding	Tundra	
86	2021/07/05	1	1/0/1900	1/0/1900	M	174	233	60	6	Caribou	2	0	2	Grazing	Tundra	1 to 2 - DB
87	2022/08/22	1	1/0/1900	1/0/1900	M	207	226	20	2	Caribou	1	0	1	Investigating camera	Tundra	
88	2023/08/14	1	1/0/1900	1/0/1900	M	209	210	2	10	Caribou	1	0	1	Walking	Tundra	
88	2023/08/03	1	1/0/1900	1/0/1900	M	156	175	20	20	Caribou	1	0	1	Feeding	Tundra	
88	2023/03/28	1	1/0/1900	1/0/1900	M	8761	8831	71	11	Caribou	3	2	5	Feeding	Tundra	
88	2022/07/28	1	1/0/1900	1/0/1900	M	162	171	10	1	Caribou	1	0	1	Grazing	Tundra	
88	2021/07/31	1	1/0/1900	1/0/1900	M	192	201	10	1	Caribou	1	0	1	Walking	Tundra	Added by DB - DB
88	2020/08/28	1	1/0/1900	1/0/1900	M	1115	1204	90	9	Caribou	3	0	3	Walking	Tundra	

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
88	2020/08/17	1	1/0/1900	1/0/1900	M	1065	1084	20	2	Caribou	1	0	1	Walking	Tundra	
88	2020/08/15	1	1/0/1900	1/0/1900	M	1049	1058	10	1	Caribou	2	0	2	Walking	Tundra	
88	2020/08/06	1	1/0/1900	1/0/1900	M	1009	1018	10	1	Caribou	1	0	1	Walking	Tundra	
88	2019/10/05	1	1/0/1900	1/0/1900	M	41	50	10	1	Caribou	1	0	1	Walking	Tundra	Only antlers visible
61	2022/10/08	1	1/0/1900	1/0/1900	T	582	582	1	1	Caribou	1	0	1	Standing	Tundra	
61	2019/12/28	1	1/0/1900	1/0/1900	T	424	424	1	0	Caribou	1	0	1	Standing	Tundra	
61	2019/12/28	1	1/0/1900	1/0/1900	T	425	425	1	0	Caribou	1	0	1	Standing	Tundra	
64	2022/09/30	1	1/0/1900	1/0/1900	T	50	80	31	3	Caribou	7	0	7	Walking	Tundra	
71	2020/03/14	1	1/0/1900	1/0/1900	T	656	656	1	0	Caribou	6	0	6	Walking	Tundra	
73	2022/08/18		1/0/1900		T	266		1		Caribou	1	0	1	Walking	Tundra	
81	2023/06/13	1	1/0/1900	1/0/1900	T	2	9	8	8	Caribou	1	0	1	Feeding	Tundra	
87	2023/06/11	1	1/0/1900	1/0/1900	T	2541	2542	2	2	Caribou	2	0	2	Bedded	Tundra	
64	2021/07/03	1	1/0/1900	1/0/1900		102	106	5	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
82	2020/07/16	1	1/0/1900	1/0/1900		1036	1055	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	Second trigger is from bear moving tripod
88	2021/07/27	1	1/0/1900	1/0/1900		152	153	2	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
61	2023/07/15	1	1/0/1900	1/0/1900	M	241	280	40	40	Grizzly Bear	1	0	1	Investigating camera	Tripod	
61	2021/08/01	1	1/0/1900	1/0/1900	M	312	341	3	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	Added by DB - DB
61	2021/07/22	1	1/0/1900	1/0/1900	M	259	278	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
61	2021/07/22	1	1/0/1900	1/0/1900	M	259	266	7	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
62	2023/07/24	1	1/0/1900	1/0/1900	M	188	210	20	30	Grizzly Bear	1	0	1	Investigating camera	Tripod	
62	2021/06/26	1	1/0/1900	1/0/1900	M	64	83	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
63	2023/07/17	1	1/0/1900	1/0/1900	M	180	181	2	10	Grizzly Bear	0	0	0	Investigating camera	Tripod	Unknown life stage
63	2021/09/29	1	1/0/1900	1/0/1900	M	702	711	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
63	2021/09/29	1	1/0/1900	1/0/1900	M	702	705	4	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
64	2023/08/09	1	1/0/1900	1/0/1900	M	839	848	10	10	Grizzly Bear	1	0	1	Investigating camera	Tripod	
64	2021/07/21	1	1/0/1900	1/0/1900	M	276	315	40	4	Grizzly Bear	1	0	1	Investigating camera	Tundra	
64	2021/07/21	1	1/0/1900	1/0/1900	M	278	305	28	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
64	2021/07/13	1	1/0/1900	1/0/1900	M	232	251	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
64	2021/07/13	1	1/0/1900	1/0/1900	M	232	244	13	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
64	2021/07/03	1	1/0/1900	1/0/1900	M	102	111	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
66	2023/08/01	1	1/0/1900	1/0/1900	M	274	285	5	20	Grizzly Bear	0	0	0	Investigating camera	Tripod	Unable to determine life stage, or if previously counted. Camera knocked over for duration.
66	2023/06/28	1	1/0/1900	1/0/1900	M	73	120	23	50	Grizzly Bear	1	0	1	Investigating camera	Tripod	
66	2022/06/22	1	1/0/1900	1/0/1900	M	1077	1086	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
66	2020/07/08	1	1/0/1900	1/0/1900	M	1155	1184	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	Knocked camera over
66	2020/06/30	1	1/0/1900	1/0/1900	M	1108	1127	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
66	2020/06/11	1	1/0/1900	1/0/1900	M	964	983	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
66	2020/05/11	1	1/0/1900	1/0/1900	M	839	858	20	2	Grizzly Bear	1	0	1	Walking	Tundra	
67	2021/06/22	1	1/0/1900	1/0/1900	M	132	143	10	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
70	2023/07/25	1	1/0/1900	1/0/1900	M	365	393	7	20	Grizzly Bear	1	0	1	Investigating camera	Tripod	Unsure if same bear previously noted
70	2023/07/15	1	1/0/1900	1/0/1900	M	174	231	28	60	Grizzly Bear	1	0	1	Investigating camera	Tripod	
70	2023/07/14	1	1/0/1900	1/0/1900	M	101	167	24	70	Grizzly Bear	1	0	1	Investigating camera	Tripod	
71	2023/05/22	1	1/0/1900	1/0/1900	M	27	86	60	6	Grizzly Bear	1	0	1	Investigating camera	Tundra	
71	2023/05/22	2	1/0/1900	1/0/1900	M	97	124	27	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
71	2022/05/26	1	1/0/1900	1/0/1900	M	1363	1372	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
71	2021/07/16	1	1/0/1900	1/0/1900	M	218	237	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
71	2021/07/02	1	1/0/1900	1/0/1900	M	136	165	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
71	2021/07/02	1	1/0/1900	1/0/1900	M	136	157	6	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
71	2020/06/05	1	1/0/1900	1/0/1900	M	1023	1032	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
72	2021/06/29	1	1/0/1900	1/0/1900	M	67	76	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	Added by DB - DB
74	2023/07/29	1	1/0/1900	1/0/1900	M	543	552	3	20	Grizzly Bear	0	0	0	Investigating camera	Tripod	
74	2022/07/12	1	1/0/1900	1/0/1900	M	103	122	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	Unsure, wolverine or grizzly bear - DB
75	2023/07/09	1	1/0/1900	1/0/1900	M	136	144	7	10	Grizzly Bear	0	0	0	Investigating camera	Tripod	
76	2021/06/17	1	1/0/1900	1/0/1900	M	53	72	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
76	2021/06/17	1	1/0/1900	1/0/1900	M	53	69	8	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
77	2023/08/13	1	1/0/1900	1/0/1900	M	546	546	1	30	Grizzly Bear	1	0	1	Investigating camera	Tripod	Camera angle repositioned by bear

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
77	2020/07/27	1	1/0/1900	1/0/1900	M	1429	1458	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	Grizzly is moving the camera around
77	2020/06/05	1	1/0/1900	1/0/1900	M	1146	1155	10	1	Grizzly Bear	1	0	1	Investigating camera	Tripod	
78	2021/06/13	1	1/0/1900	1/0/1900	M	21	30	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	Added by DB - DB
79	2022/05/07	1	1/0/1900	1/0/1900	M	1255	1344	90	9	Grizzly Bear	1	0	1	Investigating camera	Tundra	
80	2023/07/24	1	1/0/1900	1/0/1900	M	198	277	80	80	Grizzly Bear	1	1	2	Investigating camera	Tripod	Shadow of bear on tripod evident through series. May be two bears - mother and cub?
80	2021/07/24	1	1/0/1900	1/0/1900	M	254	263	10	1	Grizzly Bear	0	1	1	Investigating camera	Tundra	This was originally called a FOX but it is very clearly a GRIZZLY BEAR - DB
80	2021/07/14	1	1/0/1900	1/0/1900	M	214	223	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
80	2021/07/14	1	1/0/1900	1/0/1900	M	214	217	5	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
81	2023/08/05	1	1/0/1900	1/0/1900	M	192	232	19	70	Grizzly Bear	0	0	0	Investigating camera	Tripod	Life stage not determined. Not sure if previously noted on July 12.
81	2023/07/12	1	1/0/1900	1/0/1900	M	80	100	10	30	Grizzly Bear	0	0	0	Investigating camera	Tripod	Life stage not determined
81	2021/07/29	1	1/0/1900	1/0/1900	M	356	365	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
81	2021/07/29	1	1/0/1900	1/0/1900	M	356	358	3	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
81	2021/07/28	1	1/0/1900	1/0/1900	M	326	355	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	Added by DB - DB
81	2021/07/28	1	1/0/1900	1/0/1900	M	333	348	9	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	
81	2021/06/28	1	1/0/1900	1/0/1900	M	86	105	20	2	Grizzly Bear	1	0	1	Investigating camera	Tundra	Added by DB - DB
82	2023/06/03	1	1/0/1900	1/0/1900	M	2266	2285	20	2	Grizzly Bear	1	2	3	Walking	Tundra	
82	2021/09/21	1	1/0/1900	1/0/1900	M	531	540	10	1	Grizzly Bear	1	0	1	Walking	Tundra	
82	2021/07/20	1	1/0/1900	1/0/1900	M	272	301	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
82	2021/07/20	1	1/0/1900	1/0/1900	M	272	285	20	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
82	2021/07/18	1	1/0/1900	1/0/1900	M	256	265	10	1	Grizzly Bear	1	0	1	Walking	Tundra	
82	2021/07/18	1	1/0/1900	1/0/1900	M	256	259	4	1	Grizzly Bear	1	0	1	Walking	Tundra	
82	2021/07/16	1	1/0/1900	1/0/1900	M	228	237	10	1	Grizzly Bear	1	0	1	Walking	Tundra	
82	2021/07/16	1	1/0/1900	1/0/1900	M	228	233	6	1	Grizzly Bear	1	0	1	Walking	Tundra	
82	2019/09/03	1	1/0/1900	1/0/1900	M	490	509	20	2	Grizzly Bear	1	2	3	Walking	Tundra	Mama bear and two new cubs
83	2022/08/11	3	1/0/1900	1/0/1900	M	1877	1886	10	1	Grizzly Bear	1	0	1	Hunting	Tundra	
83	2021/07/22	1	1/0/1900	1/0/1900	M	285	314	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	Was multiple events included as one, I separated these - DB
83	2021/07/22	2	1/0/1900	1/0/1900	M	315	324	10	1	Grizzly Bear	1	0	1	Investigating camera		Was multiple events included as one, I separated these - DB
83	2021/07/21	1	1/0/1900	1/0/1900	M	232	281	50	5	Grizzly Bear	1	0	1	Investigating camera	Tundra	Was multiple events included as one, I separated these - DB
84	2021/07/24	1	1/0/1900	1/0/1900	M	215	238	30	3	Grizzly Bear	1	0	1	Hunting	Tundra	
84	2021/07/24	3	1/0/1900	1/0/1900	M	215	238	24	3	Grizzly Bear	1	0	1	Hunting	Tundra	
85	2023/08/11	1	1/0/1900	1/0/1900	M	122	136	14	15	Grizzly Bear	0	1	1	Investigating camera	Tripod	Only young bear visible. Actual trigger number is greater however no bear is noted in any of the additional frames.
86	2021/07/19	1	1/0/1900	1/0/1900	M	316	355	40	4	Grizzly Bear	1	0	1	Investigating camera	Tundra	Changed from young to an adult, obviously an adult bear - DB
87	2021/07/26	1	1/0/1900	1/0/1900	M	147	176	30	3	Grizzly Bear	1	0	1	Investigating camera	Tundra	
88	2023/05/28	1	1/0/1900	1/0/1900	M	1900	1907	8	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	Unsure of animal species.
88	2021/07/27	1	1/0/1900	1/0/1900	M	152	161	10	1	Grizzly Bear	1	0	1	Investigating camera	Tundra	
62	2021/08/31	1	1/0/1900	1/0/1900	M	339	378	40	4	Muskox	1	0	1	Grazing	Tundra	
71	2020/07/26	1	1/0/1900	1/0/1900	M	1229	1257	29	3	Muskox	2	0	2	Investigating camera	Tundra	
71	2020/05/27	2	1/0/1900	1/0/1900	M	979	998	20	2	Muskox	1	0	1	Investigating camera	Tundra	
73	2021/09/21	1	1/0/1900	1/0/1900	M	445	494	50	5	Muskox	6	1	7	Grazing	Tundra	Changed from 7 adults to 6 adults 1 young - DB
74	2023/07/23	1	1/0/1900	1/0/1900	M	448	510	64	70	Muskox	1	0	1	Investigating camera	Tripod	Unsure if noted previously
74	2023/07/05	30	1/0/1900	1/0/1900	M	94	393	290	300	Muskox	10	2	12	Sitting	Tundra	
74	2019/10/21	1	1/0/1900	1/0/1900	M	332	431	100	10	Muskox	3	0	3	Investigating camera	Tundra	
81	2021/08/11	1	1/0/1900	1/0/1900	M	408	447	40	4	Muskox	23	0	23	Grazing	Tundra	20 to 23 - DB
81	2021/07/12	1	1/0/1900	1/0/1900	M	251	256	6	1	Muskox	1	0	1	Grazing	Tundra	
85	2022/08/08	2	1/0/1900	1/0/1900	M	67	79	13	5	Muskox	1	0	1	Investigating camera	Tundra	
82	2020/04/06	1	1/0/1900	1/0/1900		636	654	10	1	Red Fox	1	0	1	Walking	Tundra	
61	2020/04/26	1	1/0/1900	1/0/1900	M	868	872	4	1	Fox	1	0	1	Walking	Tundra	
62	2022/07/27	1	1/0/1900	1/0/1900	M	181	189	10	1	Common Raven	3	0	3	Flying	Tundra	Ravens - DB
64	2023/05/18	1	1/0/1900	1/0/1900	M	4	12	9	1	Fox	1	0	1	Walking	Tundra	
65	2022/08/03	1	1/0/1900	1/0/1900	M	242	251	10	1	Common Raven	1	0	1	Flying	Tundra	
69	2023/06/07	1	1/0/1900	1/0/1900	M	45	68	24	2	Common Raven	1	0	1	Investigating camera	Tundra	
69	2021/07/12	1	1/0/1900	1/0/1900	M	116	125	10	1	Grey Wolf	1	0	1	Walking	Tundra	
69	2021/07/12	1	1/0/1900	1/0/1900	M	116	118	3	1	Grey Wolf	1	0	1	Walking	Tundra	
70	2023/08/24	14021	1/0/1900	1/0/1900	M	511	513	3	10	Fox	1	0	1	Running	Tundra	Unsure if same fox previously noted



APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
70	2023/08/09	1	1/0/1900	1/0/1900	M	456	465	10	10	Fox	1	0	1	Hunting	Tundra	
70	2023/05/04	1	1/0/1900	1/0/1900	M	547	551	5	1	Red Fox	1	0	1	Investigating camera	Tundra	
70	2022/06/09	1	1/0/1900	1/0/1900	M	1485	1494	10	1	Fox	1	0	1	Walking	Tundra	Added by DB - DB
70	2022/05/18	1	1/0/1900	1/0/1900	M	1249	1258	10	1	Arctic Fox	1	0	1	Walking	Tundra	Added by DB - DB
70	2021/05/08	1	1/0/1900	1/0/1900	M	1987	1996	10	1	Arctic Fox	1	0	1	Walking	Tundra	
70	2020/05/07	1	1/0/1900	1/0/1900	M	736	745	10	1	Arctic Fox	1	0	1	Walking	Tundra	Wolverine or Fox?
71	2022/06/16	1	1/0/1900	1/0/1900	M	1673	1692	20	2	Grey Wolf	2	0	2	Walking	Tundra	Classifier added multiple events together over the day, I separated these - DB
71	2022/06/16	2	1/0/1900	1/0/1900	M	1706	1715	10	1	Grey Wolf	1	0	1	Walking	Tundra	Classifier added multiple events together over the day, I separated these - DB
71	2022/06/16	1	1/0/1900	1/0/1900	M	1673	1708	5	3	Grey Wolf	2	0	2	Walking	Tundra	
71	2021/07/16	1	1/0/1900	1/0/1900	M	241	250	10	1	Common Raven	1	0	1	Flying	Tundra	Added by DB - DB
71	2020/07/28	1	1/0/1900	1/0/1900	M	1262	1263	2	1	Grey Wolf	1	0	1	Running	Tundra	
72	2023/07/31	1	1/0/1900	1/0/1900	M	301	304	4	10	Fox	1	0	1	Investigating camera	Tundra	
72	2023/06/28	1	1/0/1900	1/0/1900	M	95	154	15	80	Common Raven	1	0	1	Other	Tripod	Confirm species. Presumed common raven.
73	2023/06/06	1	1/0/1900	1/0/1900	M	33	161	42	13	Common Raven	1	0	1	Investigating camera	Tundra	
73	2021/06/25	1	1/0/1900	1/0/1900	M	58	67	10	1	Grey Wolf	1	0	1	Walking	Tundra	
73	2021/06/25	1	1/0/1900	1/0/1900	M	58	60	3	1	Grey Wolf	1	0	1	Walking	Tundra	
73	2021/05/22	1	1/0/1900	1/0/1900	M	1899	1908	10	1	Arctic Fox	1	0	1	Running	Tundra	
75	2022/04/30	1	1/0/1900	1/0/1900	M	1045	1057	11	2	Fox	1	0	1	Walking	Tundra	
78	2023/07/24	1	1/0/1900		M	148	157	10	10	Common Raven	1	0	1	Sitting	Tundra	
78	2022/08/02	1	1/0/1900	1/0/1900	M	300	309	10	1	Common Raven	1	0	1	Flying	Tundra	
79	2021/10/15	1	1/0/1900	1/0/1900	M	603	612	10	1	Red Fox	1	0	1	Walking	Tundra	
79	2021/10/15	1	1/0/1900	1/0/1900	M	603	605	3	1	Fox	1	0	1	Walking	Tundra	
80	2021/07/24	1	1/0/1900	1/0/1900	M	254	263	7	1	Fox	1	0	1	Investigating camera	Tundra	
81	2022/08/12	1	1/0/1900	1/0/1900	M	310	379	70	7	Common Raven	2	0	2	Investigating camera	Tripod	Updated the number of adults to two - DB
81	2022/08/12	2	1/0/1900	1/0/1900	M	319	351	9	4	Common Raven	1	0	1	Investigating camera	Tripod	
82	2023/03/27	1	1/0/1900	1/0/1900	M	8869	8878	10	1	Red Fox	1	0	1	Walking	Tundra	
82	2023/03/20	1	1/0/1900	1/0/1900	M	8508	8509	2	1	Red Fox	1	0	1	Walking	Tundra	
82	2023/03/19	1	1/0/1900	1/0/1900	M	8447	8466	20	2	Red Fox	2	0	2	Walking	Tundra	
82	2022/05/02	1	1/0/1900	1/0/1900	M	2347	2356	10	1	Red Fox	1	0	1	Walking	Tundra	Added by DB - DB
83	2023/06/30	1	1/0/1900	1/0/1900	M	53	56	4	10	Fox	1	0	1	Walking	Tundra	
84	2023/07/01	1	1/0/1900	1/0/1900	M	106	108	3	10	Grey Wolf	1	0	1	Walking	Tundra	
84	2021/07/15	1	1/0/1900	1/0/1900	M	178	187	10	1	Fox	1	0	1	Hunting	Tundra	
84	2021/07/15	2	1/0/1900	1/0/1900	M	178	187	10	1	Fox	1	0	1	Hunting	Tundra	
85	2023/07/18	1	1/0/1900	1/0/1900	M	101	103	3	3	Fox	1	0	1	Walking	Tundra	
85	2023/04/26	1	1/0/1900	1/0/1900	M	52	52	1	1	Red Fox	1	0	1	Walking	Tundra	
85	2023/04/20	1	1/0/1900	1/0/1900	M	46	47	2	1	Red Fox	1	0	1	Investigating camera	Tundra	
86	2023/07/09	1	1/0/1900	1/0/1900	M	70	79	10	10	Fox	0	1	1	Hunting	Tundra	An unknown bird lands on camera a few frames in, and fox turns his attention from walking to crouching - appears to slink toward the camera and the bird likely flies away at end of triggers
61	2023/07/05	11			T	172	180	9	10	Common Raven	1	0	1	Flying	Tundra	
69	2021/08/26	1	1/0/1900	1/0/1900	M	294	333	40	4	Wolverine	1	0	1	Investigating camera	Tripod	Wolverine on tripod, originally called unknown, updated by DB - DB
70	2023/05/13	1	1/0/1900	1/0/1900	M	1	10	10	1	Wolverine	1	0	1	Walking	Tundra	
76	2022/09/07	1	1/0/1900	1/0/1900	M	268	467	100	10	Wolverine	1	0	1	Investigating camera	Tripod	
82	2022/07/17	1	1/0/1900	1/0/1900	M	159	188	30	3	Wolverine	1	0	1	Investigating camera	Tripod	Agreed, wolverine - DB
82	2022/07/17	7	1/0/1900	1/0/1900	M	159	187	19	2	Wolverine	1	0	1	Investigating camera	Tripod	
85	2023/03/17	1	1/0/1900	1/0/1900	M	37	45	4	2	Wolverine	1	0	1	Investigating camera	Tundra	
86	2023/03/25	1	1/0/1900	1/0/1900	M	8659	8660	2	1	Wolverine	1	0	1	Walking	Tundra	
82	2021/06/28	1	1/0/1900		T	145			1	Wolverine	1	0	1	Walking	Tundra	This may highlight an issue in detectibility with this camera - DB
73	2020/04/29	1	1/0/1900	1/0/1900		672	681	10	1	Unknown	1	0	1	Investigating camera	Tundra	
75	2023/09/01	1	1/0/1900			358		1	1	Snow Goose	5	0	5	Feeding	Tundra	
75	2023/09/01	1	1/0/1900			359		1	1	Unknown	4	0	4	Other	Tundra	Both snow geese and an unknown species noted. Compare Photos 358 and 359
80	2023/08/29	1	1/0/1900	1/0/1900		416	425	10	10	Greater White-fronted Goose	15	0	15	Feeding	Tundra	Confirmation of species required
61	2023/07/23	1	1/0/1900	1/0/1900	M	327	334	8	10	Bird	1	0	1	Investigating camera	Tripod	Unknown adult or juvenile
61	2023/07/10	1	1/0/1900	1/0/1900	M	221	223	3	10	Unknown	0	0	0	Investigating camera	Tripod	Unknown adult or juvenile
61	2023/07/09	13	1/0/1900	1/0/1900	M	207	209	6	10	Unknown	1	0	1	Investigating camera	Tripod	
61	2022/09/20	1	1/0/1900	1/0/1900	M	1713	1724	20	2	Bird	1	0	1	Investigating camera	Tundra	Looks like it may be a raven - DB

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
61	2022/09/20	2	1/0/1900	1/0/1900	M	1771	1825	60	6	Bird	1	0	1	Investigating camera	Tundra	Looks like it may be a raven - DB
61	2022/09/20	3	1/0/1900	1/0/1900	M	1826	1842	20	2	Bird	1	0	1	Investigating camera	Tundra	Looks like it may be a raven - DB
61	2022/08/25	1	1/0/1900	1/0/1900	M	1385	1626	240	24	Bird	1	0	1	Investigating camera	Tundra	Looks like it may be a raven - DB
61	2022/08/23	1	1/0/1900	1/0/1900	M	1293	1366	80	8	Bird	3	0	3	Investigating camera	Tundra	Looks like it may be a raven - DB
61	2022/08/20	1	1/0/1900	1/0/1900	M	1124	1277	51	11	Bird	1	0	1	Investigating camera	Tundra	Looks like it may be a raven - DB
61	2022/08/17	1	1/0/1900	1/0/1900	M	750	1073	330	33	Bird	1	0	1	Investigating camera	Tundra	Looks like it may be a raven - DB
61	2022/08/12	1	1/0/1900	1/0/1900	M	380	711	240	24	Bird	1	0	1	Investigating camera	Tundra	Looks like it may be a raven - DB
61	2022/08/09	1	1/0/1900	1/0/1900	M	357	366	10	1	Bird	1	0	1	Flying	Tundra	Sparrow size - DB
61	2022/08/09	1	1/0/1900	1/0/1900	M	357	357	1	1	Bird	1	0	1	Flying	Tundra	
61	2021/07/05	1	1/0/1900	1/0/1900	M	138	167	30	3	Canada Goose	45	0	45	Grazing	Tundra	Added by DB - DB
61	2021/07/04	1	1/0/1900	1/0/1900	M	125	134	10	1	Unknown	1	0	1	Standing	Tripod	Wing looks to be a raptor, unsure what raptor - DB
61	2021/07/04	1	1/0/1900	1/0/1900	M	125	123	1	1	Unknown	0	0	0	Standing	Unknown	
61	2021/06/09	1	1/0/1900	1/0/1900	M	2530	2536	7	1	Bird	1	0	1	Flying	Unknown	
61	2021/05/27	1	1/0/1900	1/0/1900	M	2374	2376	3	1	Raptor	1	0	1	Flying	Tundra	
61	2021/05/16	1	1/0/1900	1/0/1900	M	2128	2157	30	3	Sandhill Crane	5	0	5	Walking	Lake	
61	2020/07/18	1	1/0/1900	1/0/1900	M	1172	1181	10	1	Bird	3	0	3	Walking	Tundra	
62	2020/06/10	1	1/0/1900	1/0/1900	M	838	847	10	1	Bird	1	0	1	Flying	Tundra	Unsure on species of hawk
62	2020/05/29	1	1/0/1900	1/0/1900	M	795	804	10	1	Bird	5	0	5	Walking	Tundra	Multiple species
63	2023/07/15	1	1/0/1900	1/0/1900	M	155	156	1	10	Unknown	0	0	0	Walking	Tripod	Unsure of ID and life stage
63	2022/08/08	1	1/0/1900	1/0/1900	M	228	297	70	7	Bird	1	0	1	Investigating camera	Tripod	Tail feather of some bird - DB
63	2022/08/08	2	1/0/1900	1/0/1900	M	229	288	10	3	Bird	1	0	1	Investigating camera	Tripod	
63	2022/06/21	1	1/0/1900	1/0/1900	M	64	73	10	1	Unknown	1	0	1	Investigating camera	Tripod	Dark blob - DB
63	2022/06/21	1	1/0/1900	1/0/1900	M	64	64	1	1	Unknown	1	0	1	Investigating camera	Tripod	
63	2021/06/09	1	1/0/1900	1/0/1900	M	2682	2687	6	1	Canada Goose	2	0	2	Flying	Tripod	
63	2021/06/08	1	1/0/1900	1/0/1900	M	2639	2648	10	1	Greater White-fronted Goose	2	0	2	Walking	Tundra	
63	2021/06/08	1	1/0/1900	1/0/1900	M	2649	2678	20	2	Canada Goose	10	0	10	Walking	Tundra	
63	2021/06/07	1	1/0/1900	1/0/1900	M	2606	2630	25	3	Greater White-fronted Goose	2	0	2	Walking	Tundra	
65	2023/06/17	1	1/0/1900	1/0/1900	M	245	248	4	1	Canada Goose	16	0	16	Flying	Tundra	Unsure of bird species. Flock was cuaght incidentally while caribou triggered the camera.
65	2022/06/20	1	1/0/1900	1/0/1900	M	58	67	10	1	Bird	1	0	1	Investigating camera	Tripod	Feathers, not able to ID - DB
65	2020/09/24	1	1/0/1900	1/0/1900	M	1281	1284	4	1	Bird	1	0	1	Flying	Tundra	Type of owl (blurry)
66	2023/07/08	1	1/0/1900	1/0/1900	M	150	159	10	10	Unknown	1	0	1	Investigating camera	Tripod	Unsure of ID
66	2020/06/16	1	1/0/1900	1/0/1900	M	999	1058	60	6	Canada Goose	5	0	5	Grazing	Tundra	
66	2020/06/06	1	1/0/1900	1/0/1900	M	936	945	10	1	Bird	5	0	5	Flying	Tundra	
68	2022/10/13	1	1/0/1900	1/0/1900	M	282	291	10	1	Bird	1	0	1	Investigating camera	Tripod	Probably some raptor - DB
69	2022/08/15	1	1/0/1900	1/0/1900	M	358	417	60	6	Bird	1	0	1	Investigating camera	Tripod	It is probably a raven - DB
69	2022/06/21	1	1/0/1900	1/0/1900	M	160	167	10	1	Bird	1	0	1	Investigating camera	Tripod	Somone who knows arctic birds could ID - DB
69	2022/06/19	1	1/0/1900	1/0/1900	M	147	156	10	1	Bird	1	0	1	Investigating camera	Tripod	Somone who knows arctic birds could ID - DB
69	2022/06/01	1	1/0/1900	1/0/1900	M	1338	1347	10	1	Snow Goose	9	0	9	Flying	Tundra	Added by DB - DB
69	2021/09/26	1	1/0/1900	1/0/1900	M	577	586	10	1	Bird	1	0	1	Standing	Unknown	Likely a raven. Originally called unknown but it is obviously a bird - DB
69	2021/09/26	1	1/0/1900	1/0/1900	M	577	577	1	1	Unknown	1	0	1	Standing	Unknown	
69	2021/08/26	1	1/0/1900	1/0/1900	M	314	325	4	2	Unknown	1	0	1	Investigating camera	Tundra	
70	2023/07/30	1	1/0/1900	1/0/1900	M	406	419	15	20	Ptarmigan	7	0	7	Feeding	Tundra	
70	2023/06/03	1	1/0/1900	1/0/1900	M	8	17	10	1	Ptarmigan	2	0	2	Walking	Tundra	
70	2023/05/25	1	1/0/1900	1/0/1900	M	28	28	1	1	Ptarmigan	1	0	1	Walking	Tundra	Unsure of animal. Ptarmigan - DB
70	2023/05/17	1	1/0/1900	1/0/1900	M	54	54	1	1	Ptarmigan	1	0	1	Walking	Tundra	
70	2023/05/08	1	1/0/1900	1/0/1900	M	4	23	13	2	Ptarmigan	1	0	1	Walking	Tundra	
70	2022/09/21	1	1/0/1900	1/0/1900	M	469	528	50	5	Bird	1	0	1	Investigating camera	Tripod	Probably a raven - DB
70	2022/09/21	2	1/0/1900	1/0/1900	M	469	524	8	6	Bird	1	0	1	Investigating camera	Tripod	
70	2022/06/09	1	1/0/1900	1/0/1900	M	1485	1486	2	1	Unknown	1	0	1	Running	Tundra	
70	2022/05/28	1	1/0/1900	1/0/1900	M	1349	1358	10	1	Canada Goose	1	0	1	Walking	Tundra	Added by DB - DB
70	2022/05/21	1	1/0/1900	1/0/1900	M	1321	1330	10	1	Canada Goose	1	0	1	Walking	Tundra	Added by DB - DB
70	2022/05/13	1	1/0/1900	1/0/1900	M	1224	1233	10	1	Ptarmigan	2	0	2	Walking	Tundra	Added by DB - DB
70	2022/05/12	1	1/0/1900	1/0/1900	M	1191	1200	10	1	Ptarmigan	1	0	1	Walking	Tundra	Added by DB - DB
70	2022/05/12	2	1/0/1900	1/0/1900	M	1201	1210	10	1	Ptarmigan	1	0	1	Other	Tundra	Added by DB - DB
70	2022/05/11	1	1/0/1900	1/0/1900	M	1158	1167	10	1	Ptarmigan	2	0	2	Walking	Tundra	Added by DB - DB

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
70	2022/05/11	2	1/0/1900	1/0/1900	M	1171	1190	20	2	Ptarmigan	2	0	2	Walking	Tundra	Added by DB - DB
70	2022/05/10	1	1/0/1900	1/0/1900	M	1138	1157	20	2	Arctic Hare	1	0	1	Walking	Tundra	Added by DB - DB
70	2022/05/09	1	1/0/1900	1/0/1900	M	1112	1121	10	1	Ptarmigan	2	0	2	Walking	Tundra	Added by DB - DB
70	2022/05/06	1	1/0/1900	1/0/1900	M	1096	1105	10	1	Ptarmigan	1	0	1	Walking	Tundra	Added by DB - DB
70	2022/05/02	1	1/0/1900	1/0/1900	M	1071	1080	10	1	Ptarmigan	2	0	2	Walking	Tundra	Added by DB - DB
70	2022/05/01	1	1/0/1900	1/0/1900	M	1058	1067	10	1	Ptarmigan	1	0	1	Walking	Tundra	Added by DB - DB
70	2022/04/27	1	1/0/1900	1/0/1900	M	1036	1045	10	1	Ptarmigan	1	0	1	Walking	Tundra	Added by DB - DB
70	2022/04/24	1	1/0/1900	1/0/1900	M	1010	1029	10	1	Ptarmigan	1	0	1	Walking	Tundra	Added by DB - DB
70	2021/05/15	1	1/0/1900	1/0/1900	M	2015	2034	20	2	Ptarmigan	2	0	2	Walking	Tundra	
70	2021/05/15	1	1/0/1900	1/0/1900	M	2035	2054	20	2	Ptarmigan	2	0	2	Walking	Tundra	
70	2020/09/12	1	1/0/1900	1/0/1900	M	1263	1272	10	1	Ptarmigan	1	0	1	Walking	Tundra	
70	2020/06/14	1	1/0/1900	1/0/1900	M	940	959	20	2	Canada Goose	6	0	6	Grazing	Tundra	
70	2020/05/13	1	1/0/1900	1/0/1900	M	804	833	30	3	Ptarmigan	2	0	2	Walking	Tundra	
70	2020/05/11	1	1/0/1900	1/0/1900	M	768	777	10	1	Ptarmigan	1	0	1	Walking	Tundra	
70	2020/05/11	1	1/0/1900	1/0/1900	M	778	787	10	1	Ptarmigan	1	0	1	Walking	Tundra	
70	2020/05/10	1	1/0/1900	1/0/1900	M	755	764	10	1	Ptarmigan	1	0	1	Walking	Tundra	
70	2020/04/09	1	1/0/1900	1/0/1900	M	632	641	10	1	Arctic Hare	1	0	1	Investigating camera	Tundra	
70	2020/04/07	1	1/0/1900	1/0/1900	M	606	615	10	1	Ptarmigan	1	0	1	Standing	Tundra	
71	2022/10/09	2	1/0/1900	1/0/1900	M	296	296	1	1	Snowy Owl	1	0	1	Other	Tundra	Not sure of species, can only see wing tip. Likely the same bird as identified in 291.
71	2022/06/19	2	1/0/1900	1/0/1900	M	108	117	10	1	Bird	1	0	1	Investigating camera	Tripod	Black,white, brown appear on what seems to be the wing, maybe speculum area - DB
71	2022/06/18	1	1/0/1900	1/0/1900	M	82	101	20	2	Bird	1	0	1	Investigating camera	Tripod	Two blurry tail feathers - DB
71	2022/06/18	1	1/0/1900	1/0/1900	M	82	82	1	1	Bird	1	0	1	Investigating camera	Tripod	
73	2023/05/04	1	1/0/1900	1/0/1900	M	282	291	10	1	Rough-legged Hawk	1	0	1	Standing	Tundra	
73	2021/08/05	1	1/0/1900	1/0/1900	M	214	283	70	7	Rough-legged Hawk	1	0	1	Standing	Tripod	Called rough-legged hawk orignially, I think that is correct img 0274 has it in flight - DB
73	2020/08/13	1	1/0/1900	1/0/1900	M	1040	1049	10	1	Canada Goose	13	0	13	Grazing	Tundra	
74	2022/08/28	1	1/0/1900	1/0/1900	M	327	329	10	1	Bird	1	0	1	Investigating camera	Tripod	Unsure - DB
75	2022/05/13	1	1/0/1900	1/0/1900	M	1111	1118	7	1	Ptarmigan	2	0	2	Walking	Tundra	
76	2023/07/27	2	1/0/1900	1/0/1900	M	224	225	1	110	Unknown	0	0	0	Investigating camera	Tripod	unable to determine species. Animal disturbs the camera stand for the duration. Only one frame contains an unknown animal species.
76	2023/06/17	1	1/0/1900	1/0/1900	M	2765	2782	18	2	Moose	1	0	1	Investigating camera	Tundra	
76	2022/06/22	1	1/0/1900	1/0/1900	M	14	25	10	1	Unknown	0	0	0	Other	Tundra	Blur crossing screen followed by bugs, likely a mammal but no way to tell for sure - DB
76	2021/06/08	1	1/0/1900	1/0/1900	M	2310	2319	10	1	Canada Goose	2	0	2	Flying	Tundra	
76	2019/09/26	1	1/0/1900	1/0/1900	M	36	45	10	1	Unknown	1	0	1	Investigating camera	Tundra	
77	2023/07/25	1	1/0/1900	1/0/1900	M	389	389	1	10	Bird	0	0	0	Flying	Tundra	Unknown species
77	2022/09/20	2	1/0/1900	1/0/1900	M	614	643	30	3	Unknown	1	0	1	Investigating camera	Tripod	I think it is another raven
77	2022/09/17	1	1/0/1900	1/0/1900	M	568	607	40	4	Bird	1	0	1	Investigating camera	Tripod	It is most likely a raven - DB
77	2022/09/17	1	1/0/1900	1/0/1900	M	568	600	6	3	Bird	1	0	1	Investigating camera	Tripod	
77	2020/09/05	1	1/0/1900	1/0/1900	M	1579	1608	30	3	Unknown	1	0	1	Investigating camera	Tundra	Cannot tell the animal type
79	2021/06/09	1	1/0/1900	1/0/1900	M	2241	2250	10	1	Bird	1	0	1	Flying	Tundra	
79	2021/06/09	1	1/0/1900	1/0/1900	M	2253	2292	40	1	Greater White-fronted Goose	2	0	2	Walking	Tundra	
79	2021/06/09	1	1/0/1900	1/0/1900	M	2293	2312	20	1	Canada Goose	4	0	4	Walking	Tundra	
79	2021/06/08	1	1/0/1900	1/0/1900	M	2180	2239	60	6	Canada Goose	3	0	3	Walking	Tundra	
80	2023/08/25	1	1/0/1900	1/0/1900	M	394	394	1	10	Unknown	0	0	0	Investigating camera	Tripod	Unsure of species
80	2021/06/09	1	1/0/1900	1/0/1900	M	2050	2059	10	1	Greater White-fronted Goose	1	0	1	Flying	Tundra	
80	2020/09/13	1	1/0/1900	1/0/1900	M	1193	1202	10	1	Snowy Owl	1	0	1	Flying	Other	
80	2020/07/19	1	1/0/1900	1/0/1900	M	1018	1027	10	1	Bird	1	0	1	Flying	Other	
80	2020/06/16	1	1/0/1900	1/0/1900	M	879	898	20	2	Bird	1	0	1	Flying	Other	
80	2020/06/14	1	1/0/1900	1/0/1900	M	861	870	10	1	Bird	1	0	1	Flying	Other	
81	2023/08/28	1	1/0/1900	1/0/1900	M	354	355	2	10	Unknown	0	0	0	Investigating camera	Tripod	Unsure of species
81	2022/09/13	1	1/0/1900	1/0/1900	M	733	792	60	6	Bird	1	0	1	Investigating camera	Tripod	Night photo, identification not possible - DB
81	2022/09/13	6	1/0/1900	1/0/1900	M	733	788	55	6	Bird	1	0	1	Investigating camera	Tripod	
81	2022/08/28	1	1/0/1900	1/0/1900	M	515	624	110	11	Bird	1	0	1	Investigating camera	Tripod	Most likely a raven - DB



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Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
81	2022/08/23	1	1/0/1900	1/0/1900	M	463	492	30	3	Peregrine Falcon	1	0	1	Investigating camera	Tripod	Raptor tail feathers, can not confirm pergrine falcon. Somone better with ID may be able to confirm - DB
81	2022/08/23	4	1/0/1900	1/0/1900	M	463	483	19	2	Peregrine Falcon	1	0	1	Investigating camera	Tripod	
81	2022/08/22	1	1/0/1900	1/0/1900	M	427	456	30	3	Bird	1	0	1	Investigating camera	Tripod	Most likely a raven - DB
81	2022/08/02	1	1/0/1900	1/0/1900	M	200	259	60	6	Bird	1	0	1	Investigating camera	Tripod	Most likely a raven - DB
81	2022/06/01	1	1/0/1900	1/0/1900	M	5427	5427	1	1	Unknown	1	0	1	Flying	Tundra	
82	2023/07/31	1	1/0/1900	1/0/1900	M	290	299	2	20	Unknown	0	0	0	Investigating camera	Tripod	Species unknown
82	2022/10/13	1	1/0/1900	1/0/1900	M	807	906	100	10	Moose	1	0	1	Investigating camera	Tundra	
83	2023/08/07	1	1/0/1900	1/0/1900	M	237	256	20	20	Greater White-fronted Goose	15	0	15	Feeding	Tundra	
83	2022/07/20	2	1/0/1900	1/0/1900	M	891	1780	890	89	Peregrine Falcon	1	0	1	Investigating camera	Tripod	Raptor confirmed, I can not confirm peregrine falcon but someone with better ID could - DB
83	2022/07/05	1	1/0/1900	1/0/1900	M	66	845	780	78	Peregrine Falcon	1	0	1	Investigating camera	Tripod	Raptor confirmed, I can not confirm peregrine falcon but someone with better ID could - DB
83	2021/06/09	1	1/0/1900	1/0/1900	M	2170	2199	30	3	Greater White-fronted Goose	2	0	2	Grazing	Tundra	
83	2021/06/08	1	1/0/1900	1/0/1900	M	2140	2169	30	1	Canada Goose	1	0	1	Grazing	Tundra	
83	2021/06/07	1	1/0/1900	1/0/1900	M	2127	2136	10	1	Greater White-fronted Goose	1	0	1	Walking	Tundra	
83	2021/06/04	1	1/0/1900	1/0/1900	M	2105	2114	10	1	Canada Goose	1	0	1	Walking	Tundra	
83	2020/06/08	1	1/0/1900	1/0/1900	M	935	944	10	1	Canada Goose	2	0	2	Grazing	Tundra	
84	2020/06/19	1	1/0/1900		M	867		1	1	Unknown	0	0	0		Tundra	Animal observed but not identifiable
85	2023/07/15	1	1/0/1900	1/0/1900	M	86	88	3	3	Unknown	0	0	0	Investigating camera	Tripod	Unable to determine species
85	2023/06/11	1	1/0/1900	1/0/1900	M	58	227	170	56	Moose	2	0	2	Investigating camera	Tundra	
85	2023/05/19	1	1/0/1900	1/0/1900	M	55	57	3	1	Unknown	1	0	1	Investigating camera	Tundra	Likely a grizzly, but not sure. Unknown - DB
85	2023/04/23	1	1/0/1900	1/0/1900	M	49	49	1	1	Unknown	1	0	1	Other	Tundra	Unkown animal. Dark fur. Wolverine?
86	2022/08/31	1	1/0/1900	1/0/1900	M	22	31	10	1	Bird	1	0	1	Investigating camera	Tripod	Might be a raven, photos do not give much detail - DB
86	2022/08/31	1	1/0/1900	1/0/1900	M	23	28	2	1	Bird	1	0	1	Investigating camera	Tripod	
88	2022/08/25	1	1/0/1900	1/0/1900	M	337	448	110	11	Bird	1	0	1	Investigating camera	Tripod	Probably a raven - DB
88	2022/08/22	1	1/0/1900	1/0/1900	M	300	309	10	1	Unknown	1	0	1	Investigating camera	Tripod	Unsure, nothing to really go off of - DB
88	2022/08/04	1	1/0/1900	1/0/1900	M	196	235	40	4	Bird	1	0	1	Investigating camera	Tripod	Probably a raven - DB
88	2021/07/30	1	1/0/1900	1/0/1900	M	169	188	20	2	Unknown	1	0	1	Investigating camera	Tundra	Added by DB - DB
61	2021/06/10	1	1/0/1900	1/0/1900	T	2613	2613	1	0	Rock Ptarmigan	1	0	1	Standing	Tundra	
61	2020/02/05	1	1/0/1900	1/0/1900	T	611	611	1	0	Ptarmigan	20	0	20	Standing	Tundra	
62	2022/08/13	2	1/0/1900		T	250		1		Canada Goose	5	0	5	Feeding	Tundra	
62	2022/08/13	2	1/0/1900		T	250		1		Canada Goose	5	0	5	Feeding	Tundra	
65	2021/06/10	1	1/0/1900	1/0/1900	T	4260	4260	1	0	Canada Goose	5	0	5	Standing	Tundra	
65	2021/06/03	1	1/0/1900	1/0/1900	T	3570	3570	1	0	Bird	2	0	2	Standing	Tundra	
65	2021/05/12	1	1/0/1900	1/0/1900	T	2307	2307	1	0	Rock Ptarmigan	1	0	1	Standing	Tundra	
68	2023/06/24	1	1/0/1900	1/0/1900	T	15	15	1	1	Canada Goose	6	0	6	Flying	Tundra	
68	2021/10/13	1	1/0/1900		T	287		1		Snow Goose	2	2	4	Feeding	Tundra	Added by DB - DB
70	2023/05/20	1	1/0/1900	1/0/1900	T	58	58	1	1	Ptarmigan	1	0	1	Standing	Tundra	
70	2023/05/19	1	1/0/1900	1/0/1900	T	11	15	4	4	Ptarmigan	1	0	1	Walking	Tundra	
70	2023/05/19	2	1/0/1900	1/0/1900	T	38	38	1	1	Tundra Swan	1	0	1	Sitting	Tundra	
71	2023/06/23	1	1/0/1900	1/0/1900	T	16	17	2	2	Bird	6	0	6	Flying	Tundra	
71	2023/06/14	1	1/0/1900	1/0/1900	T	14	14	1	1	Canada Goose	3	0	3	Walking	Tundra	
71	2022/10/09	1	1/0/1900	1/0/1900	T	291	291	1	1	Snowy Owl	1	0	1	Sitting	Tundra	Need confirmation on the species
71	2020/08/09	1	1/0/1900	1/0/1900	T	1310	1310	1	0	Bird	15	0	15	Standing	Unknown	
71	2020/06/19	1	1/0/1900	1/0/1900	T	1097	1097	1	0	Bird	1	0	1	Bedded	Unknown	
72	2023/07/26		1/0/1900		T	268				Unknown	0	0	0	Swimming	Lake	Appears to be either a swan, or caribou swimming in lake
73	2022/09/29		1/0/1900		T	450		1		Moose	2	0	2	Grazing	Tundra	Looks like two moose to be, the caribou in the event above was almost black, however, these are significantly larger - DB
73	2022/09/29		1/0/1900		T	451		1		Moose	2	0	2	Grazing	Tundra	Looks like two moose to be, the caribou in the event above was almost black, however, these are significantly larger - DB
73	2022/09/29		1/0/1900		T	452		1		Moose	2	0	2	Grazing	Tundra	Looks like two moose to be, the caribou in the event above was almost black, however, these are significantly larger - DB
73	2022/09/29		1/0/1900		T	450		1		Moose	2	0	2	Grazing	Tundra	
73	2022/09/29		1/0/1900		T	451		1		Moose	2	0	2	Grazing	Tundra	
73	2022/09/29		1/0/1900		T	452		1		Moose	2	0	2	Grazing	Tundra	

APPENDIX L: WILDLIFE EVENTS RECORDED BY WILDLIFE CAMERAS, BOSTON PROJECT, SEPTEMBER 2021 TO SEPTEMBER 2023

Camera No.	Date	Series	Start Time	End Time	Photo Type	Start Photo No.	End Photo No.	No. Photos	No. Triggers	Species <sup>1</sup>	No. Adults	No. Young	Total	Behaviour	Location of Wildlife	Comment
73	2022/08/19		1/0/1900		T	327		1		Canada Goose	3	0	3	Feeding	Tundra	
73	2022/08/19		1/0/1900		T	327		1		Canada Goose	3	0	3	Feeding	Tundra	
73	2022/08/11		1/0/1900		T	243		1		Canada Goose	24	0	24	Feeding	Tundra	
73	2022/08/11		1/0/1900		T	243		1		Canada Goose	24	0	24	Feeding	Tundra	
73	2020/06/15	1	1/0/1900	1/0/1900	T	823	823	1	0	Canada Goose	2	0	2	Grazing	Tundra	
74	2019/09/23		1/0/1900	1/0/1900	T	418	418	1		Canada Goose	15	0	15	Sitting	Tundra	Looks like Canada Geese but is far away
75	2023/05/28	1	1/0/1900	1/0/1900	T	212	218	7	7	Unknown	1	0	1	Feeding	Tundra	
76	2021/06/08	1	1/0/1900	1/0/1900	T	2307	2309	3	0	Bird	4	0	4	Feeding	Tundra	
78	2023/07/14		1/0/1900		T	85				Unknown	0	0	0	Flying	Tundra	Appears to be a goose
78	2023/07/12		1/0/1900		T	79				Unknown	0	0	0	Flying	Tundra	Appears to be geese
78	2023/07/02		1/0/1900		T	50				Unknown	0	0	0	Flying	Tundra	Appears to be geese
78	2023/07/02		1/0/1900		T	51				Unknown	0	0	0	Flying	Tundra	Appears to be geese
79	2023/06/26	1	1/0/1900		T			43		Unknown	0	0	0	Flying	Tundra	Appears to be small flock of geese - species unknown.
79	2020/09/03	1	1/0/1900	1/0/1900	T	1343	1343	1	0	Sandhill Crane	9	0	9	Walking	Tundra	
79	2020/09/03	1	1/0/1900	1/0/1900	T	1345	1345	1	0	Sandhill Crane	9	0	9	Walking	Esker	
79	2020/06/11	1	1/0/1900	1/0/1900	T	1051	1051	1	0	Unknown	3	0	3	Grazing	Tundra	Type of birds is unknown
81	2023/06/22	1	1/0/1900	1/0/1900	T	59	59	1	1	Bird	5	0	5	Flying	Tundra	
81	2023/06/07	1	1/0/1900	1/0/1900	T	52	53	2	2	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/06/03	1	1/0/1900	1/0/1900	T	6	6	1	1	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/06/02	1	1/0/1900	1/0/1900	T	3	3	1	1	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/06/01	1	1/0/1900	1/0/1900	T	6	7	2	2	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/05/29	1	1/0/1900	1/0/1900	T	4	5	1	1	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/05/29	2	1/0/1900	1/0/1900	T	8	8	1	1	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/05/29	3	1/0/1900	1/0/1900	T	11	11	1	1	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/05/28	1	1/0/1900	1/0/1900	T	32	48	17	17	Ptarmigan	1	0	1	Walking	Tundra	Look for moving white dot
81	2023/05/22	1	1/0/1900	1/0/1900	T	52	52	1	1	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/05/16	1	1/0/1900	1/0/1900	T	16	16	1	1	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/05/15	1	1/0/1900	1/0/1900	T	84	84	1	1	Ptarmigan	2	0	2	Feeding	Tundra	
81	2023/05/15	2	1/0/1900	1/0/1900	T	89	90	2	2	Ptarmigan	1	0	1	Walking	Tundra	
81	2023/05/14	1	1/0/1900	1/0/1900	T	69	71	3	3	Ptarmigan	2	0	2	Feeding	Tundra	
82	2022/09/30	1	1/0/1900	1/0/1900	T	189	189	1	1	Ptarmigan	6	0	6	Feeding	Tundra	
82	2022/09/27	1	1/0/1900	1/0/1900	T	36	36	1	1	Ptarmigan	1	0	1	Walking	Tundra	
82	2022/08/17		1/0/1900		T	304		1		Bird	1	0	1	Sitting	Tundra	Raptor or raven. Dark in colour but may have lighter tail tips, otherwise uniform in colour. Not enough detail to add more - DB.
82	2022/08/17		1/0/1900		T	304		1		Bird	1	0	1	Sitting	Tundra	
82	2022/08/16		1/0/1900		T	300		1		Bird	1	0	1	Sitting	Tundra	Looks like a raven, it is behind a snow fence and difficult to see clearly - DB
82	2022/08/16		1/0/1900		T	300		1		Bird	1	0	1	Sitting	Tundra	
82	2020/09/16	1	1/0/1900	1/0/1900	T	1252	1252	1	0	Ptarmigan	3	0	3	Standing	Tundra	Unclear what kind of ptarmigans these are
83	2023/08/11	1	1/0/1900		T	269		1		Greater White-fronted Goose	1	0	1	Standing	Tundra	
83	2023/08/11	1	1/0/1900		T	270		1		Greater White-fronted Goose	2	0	2	Feeding	Tundra	
87	2023/08/25	1	1/0/1900		T	222		1		Canada Goose	13	0	13	Feeding	Tundra	Not 100% on species determination
87	2022/10/01	1	1/0/1900	1/0/1900	T	227	227	1	1	Ptarmigan	26	0	26	Feeding	Tundra	
88	2020/06/04	1	1/0/1900	1/0/1900	T	820	820	1	0	Bird	2	0	2	Flying	Other	

## APPENDIX M      SUMMARY OF CARIBOU CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

APPENDIX M: SUMMARY OF CARIBOU CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

Camera No.	Camera Type	Species Specific Monitoring Objective	2022				2023											Total 2016-Aug 2022	Total by Camera
			Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov		
1	Treatment	-															-	57	57
2	Treatment	Road Crossing Ramp															-	N/A	0
3	Control	-										1	13				-	73	87
4	Control	-									1	1	1				-	15	18
5	Control	-										3	3				-	15	21
6	Control	-															-	8	8
7	Control	-	1								4		3	1			-	8	17
8	Control	-									1	2		1			-	10	14
9	Control	-										1	2				-	15	18
10	ZOI	-							1			5	2	1			-	21	30
11	Treatment	-										4					-	2	6
12	ZOI	-	2									1	3	1			-	11	18
13	Treatment	-									2						-	11	13
14	ZOI	-	1										2	2			-	7	12
15	Treatment	-										4	3				-	6	13
16	Control	-	1										2	1			-	19	23
17	Treatment	-										1	3				-	7	11
18	Treatment	Waste Management Facility											2				-	28	30
19	Treatment	-										1	5				-	14	20
21	Treatment	Waste Management Facility															-	64	64
22	Treatment	ERM Fish Fence											5				-	5	10
23	ZOI	-								1		3	1	3			-	14	22
24	ZOI/Ladder	-										2	21	2			-	76	101
25	ZOI	-															-	3	3
26	ZOI	-	1									8	27				-	7	43
28	Treatment	-										2	2	2			-	12	18
29	Control	-	1									3	1	1			-	13	19
30	ZOI	-	2									1	1	1			-	11	16

APPENDIX M: SUMMARY OF CARIBOU CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

Camera No.	Camera Type	Species Specific Monitoring Objective	2022				2023											Total 2016-Aug 2022	Total by Camera
			Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov		
31	Control	-															-	2	2
32	Treatment	-	1									7	9	4			-	34	55
33	Control	-										4	18				-	67	89
34	ZOI/Ladder	-										1	2	1			-	9	13
35	Treatment	Road Crossing Ramp															-	N/A	0
36	Control	-			1							1					-	3	5
37	Control	-	1											1			-	14	16
39	ZOI	-										1					-	0	1
40	Control	-												3			-	7	10
41	ZOI	-											1				-	5	6
42	Treatment	-										1	9				-	47	57
43	Control	-									1						-	22	23
44	ZOI	-								1		2					-	3	6
45	Control	-															-	0	0
46	ZOI	-	2											5			-	7	14
47	ZOI	-	3														-	11	14
48	ZOI	-	4								1	2	10				-	28	45
49	Control	-								1							-	2	3
50	Treatment	-															-	6	6
51	Treatment	TIA	1									6	10	4			-	37	58
52	Treatment	TIA															-	2	2
53	Treatment	-											1				-	8	9
54	Treatment	-										1	1	1			-	11	14
55	ZOI	-			1												-	17	18
56	Control	-	2														-	14	16
57	ZOI	-										1					-	3	4
58	Control	-	3										1	3			-	18	25
59	Treatment	-											2				-	2	4
60	Treatment	-										2	5	3			-	7	17
<b>Total</b>			<b>26</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>10</b>	<b>72</b>	<b>171</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>925</b>	<b>1251</b>

Notes:

Shaded columns (December and January) were not included in analysis due to low effort.

Shaded rows (Cameras 2 and 35) were not included in analysis because they are likely to have higher densities of caribou.

## APPENDIX N CARIBOU OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009 TO 2023

APPENDIX N: CARIBOU OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009 TO 2023

Year	Month	Number of Observations from Raw Data		Monthly Average of Personnel Onsite	Number of Observations per Personnel	
		No. Individuals	No. Records		No. Individuals	No. Records
2009	Apr	141	3	102	1.38	0.03
	May	114	7	102	1.12	0.07
	Jun	10	2	103	0.1	0.02
	Jul	21	6	113	0.19	0.05
	Sep	14	1	98	0.14	0.01
2010	Mar	1	1	131	0.01	0.01
	Apr	16	1	172	0.09	0.01
	May	148	16	182	0.81	0.09
	Jun	1	1	200	0.01	0.01
	Jul	9	4	220	0.04	0.02
	Aug	2	2	205	0.01	0.01
2011	Apr	24	4	278	0.09	0.01
	May	43	5	274	0.16	0.02
	Jun	9	2	280	0.03	0.01
	Jul	4	2	284	0.01	0.01
2012	Apr	7	1	127	0.06	0.01
	May	28	6	90	0.31	0.07
	Jul	2	2	90	0.02	0.02
	Aug	1	1	93	0.01	0.01
2013	May	6	2	20	0.3	0.1
	Jun	4	4	44	0.09	0.09
	Jul	5	4	61	0.08	0.07
	Aug	5	4	59	0.08	0.07
2014	Apr	10	1	14	0.71	0.07
	May	3	1	63	0.05	0.02
	Jun	11	5	71	0.15	0.07
	Jul	23	13	77	0.3	0.17
	Dec	10	1	7	1.43	0.14
2015	Feb	6	1	16	0.38	0.06
	May	34	3	32	1.06	0.09
	Jun	9	3	41	0.22	0.07
	Jul	2	2	46	0.04	0.04
	Aug	10	7	84	0.12	0.08
	Nov	44	5	93	0.47	0.05
	Dec	66	4	89	0.74	0.04
2016	Jan	29	5	60	0.48	0.08
	Feb	27	3	73	0.37	0.04
	Mar	152	9	78	1.95	0.12
	Apr	51	5	93	0.55	0.05
	May	79	14	110	0.72	0.13
	Jul	10	9	123	0.08	0.07
	Aug	1	1	129	0.01	0.01
	Nov	11	2	172	0.06	0.01



APPENDIX N: CARIBOU OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009 TO 2023

Year	Month	Number of Observations from Raw Data		Monthly Average of Personnel Onsite	Number of Observations per Personnel	
		No. Individuals	No. Records		No. Individuals	No. Records
2017	Dec	51	6	173	0.29	0.03
	Mar	84	4	176	0.48	0.02
	Jun	4	4	189	0.02	0.02
	Jul	12	12	185	0.06	0.06
	Aug	2	2	178	0.01	0.01
2018	Mar	80	1	261	0.307	0.004
	May	12	6	261	0.046	0.023
	Jun	7	2	266	0.026	0.008
	Jul	14	12	265	0.053	0.045
	Aug	5	3	271	0.018	0.011
2019	Mar	2	1	286	0.01	0
	Apr	12	5	291	0.04	0.02
	May	21	10	287	0.07	0.03
	Jun	3	2	304	0.01	0.01
	Jul	2	1	304	0.01	0
	Aug	6	5	285	0.02	0.02
	Dec	unknown	1	300	-	-
2020	Jan	17	2	316	0.05	0.006
	Mar	7	1	282	0.03	0.004
	Jun	17	3	139	0.12	0.02
	Jul	57	34	137	0.42	0.25
	Aug	5	5	136	0.04	0.04
2021	Feb	14	3	143	0.1	0.02
	Mar	5	1	147	0.03	0.01
	Apr	5	1	169	0.03	0.01
	May	10	2	176	0.06	0.01
	Jun	4	1	189	0.02	0.01
	Jul	83	26	193	0.43	0.13
	Aug	40	29	230	0.17	0.13
	Sep	5	3	240	0.02	0.01
	Oct	19	2	181	0.10	0.01
2022	Apr	20	5	134	0.15	0.04
	May	3	1	135	0.02	0.01
	Jun	35	9	162	0.22	0.06
	Jul	106	37	164	0.65	0.23
	Aug	14	13	172	0.08	0.08
	Sept	10	2	174	0.06	0.01
	Oct	19	2	181	0.10	0.01
	Nov	0	0	189	0.00	0.00
	Dec	26	2	114	0.23	0.02
2023	Jan	9	1	148	0.06	0.01
	Feb	7	1	168	0.04	0.01
	Apr	7	1	163	0.04	0.01
	June	111	33	150	0.74	0.22

APPENDIX N: CARIBOU OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009 TO 2023

Year	Month	Number of Observations from Raw Data		Monthly Average of Personnel Onsite	Number of Observations per Personnel	
		No. Individuals	No. Records		No. Individuals	No. Records
	Jul	142	103	146	0.97	0.71
	Aug	31	18	133	0.23	0.14
	Sept	38	13	126	0.30	0.1
	Oct	2	2	109	0.02	0.02
	Dec	15	1	45	0.33	0.02

## APPENDIX O SUMMARY OF MUSKOX CAMERA EVENTS, JUNE 2016 TO SEPTEMBER 2023

APPENDIX O: SUMMARY OF MUSKOKX CAMERA EVENTS, JUNE 2016 TO SEPTEMBER 2023

Camera No	Camera Type	Species Specific Monitoring Objective	2022				2023											Total 2016-Aug 2022	Total by Camera
			Sep	Oct	Nov	Dec <sup>1</sup>	Jan <sup>1</sup>	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		
1	Treatment	-															-	0	0
2	Treatment	Road Crossing Ramp															-	3	3
3	Control	-															-	0	0
4	Control	-															-	0	0
5	Control	-															-	0	0
6	Control	-															-	0	0
7	Control	-															-	0	0
8	Control	-															-	0	0
9	Control	-															-	0	0
10	ZOI	-															-	0	0
11	Treatment	-															-	0	0
12	ZOI	-															-	3	3
13	Treatment	-															-	0	0
14	ZOI	-															-	2	2
15	Treatment	-															-	0	0
16	Control	-												1			-	0	1
17	Treatment	-															-	2	2
18	Treatment	Waste Management Facility															-	0	0
19	Treatment	-															-	0	0
21	Treatment	Waste Management Facility															-	0	0
22	Treatment	ERM Fish Fence															-	0	0
23	ZOI	-									1			1			-	0	2
24	ZOI/Ladder	-															-	0	0
25	ZOI	-									1						-	1	2
26	ZOI	-									1						-	1	2
28	Treatment	-										1	1				-	0	2
29	Control	-															-	1	1
30	ZOI	-															-	0	0
31	Control	-															-	0	0
32	Treatment	-															-	1	1
33	Control	-															-	3	3
34	ZOI/Ladder	-															-	0	0
35	Treatment	Road Crossing Ramp															-	0	0

# APPENDIX O: SUMMARY OF MUSKOX CAMERA EVENTS, JUNE 2016 TO SEPTEMBER 2023

Camera No	Camera Type	Species Specific Monitoring Objective	2022				2023											Total 2016-Aug 2022	Total by Camera
			Sep	Oct	Nov	Dec <sup>1</sup>	Jan <sup>1</sup>	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		
36	Control	-															-	1	1
37	Control	-															-	0	0
39	ZOI	-															-	0	0
40	Control	-															-	0	0
41	ZOI	-															-	0	0
42	Treatment	-															-	0	0
43	Control	-															-	0	0
44	ZOI	-									1						-	0	1
45	Control	-															-	0	0
46	ZOI	-															-	0	0
47	ZOI	-															-	0	0
48	ZOI	-															-	1	1
49	Control	-															-	3	3
50	Treatment	-															-	0	0
51	Treatment	TIA															-	NA	0
52	Treatment	TIA															-	NA	0
53	Treatment	-															-	5	5
54	Treatment	-															-	17	17
55	ZOI	-															-	3	3
56	Control	-															-	0	0
57	ZOI	-															-	0	0
58	Control	-															-	0	0
59	Treatment	-															-	2	2
60	Treatment	-															-	0	0
Total			0	0	0	0	0	0	0	0	4	1	1	2	0	0	0	46	54

Notes:

<sup>1</sup> December and January are periods of low effort which should be removed from analysis in future years

Shaded rows (Cameras 51 and 52) are specifically in place to monitor wildlife, including muskox, at the TIA. These cameras will not be included in analysis.

## APPENDIX P SUMMARY OF GRIZZLY BEAR CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

APPENDIX P: SUMMARY OF GRIZZLY BEAR CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

Camera No	Camera Type	Species Specific Monitoring Objective	2022				2023											Total 2016-2022	Total by Camera
			Sept	Oct	Nov <sup>1</sup>	Dec <sup>1</sup>	Jan <sup>1</sup>	Feb <sup>1</sup>	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov <sup>1</sup>		
1	Treatment	-															-	0	0
2	Treatment	Road Crossing Ramp															-	1	1
3	Control	-												1			-	23	24
4	Control	-	1											1			-	25	27
5	Control	-		1										1			-	19	21
6	Control	-	1								1			1			-	11	14
7	Control	-															-	5	5
8	Control	-											1				-	13	14
9	Control	-										1		1			-	26	28
10	ZOI	-	1											3			-	19	23
11	Treatment	-															-	17	17
12	ZOI	-		1								1	1	1			-	28	32
13	Treatment	-	1	1													-	10	12
14	ZOI	-											1				-	6	7
15	Treatment	-									1						-	33	34
16	Control	-												1			-	9	10
17	Treatment	-															-	19	19
18	Treatment	Waste Management Facility															-	0	0
19	Treatment	-															-	5	5
21	Treatment	Waste Management Facility															-	0	0
22	Treatment	ERM Fish Fence										1		6			-	0	7
23	ZOI	-	2	1									1	2			-	51	57
24	ZOI/Ladder	-															-	8	8
25	ZOI	-	1											1			-	17	19
26	ZOI	-	1										2				-	8	11
28	Treatment	-										1		1			-	30	32
29	Control	-	1										1	1			-	5	8
30	ZOI	-											1	2			-	18	21
31	Control	-															-	2	2
32	Treatment	-	1							1			1				-	22	25
33	Control	-									1			4			-	35	40
34	ZOI/Ladder	-											1				-	7	8
35	Treatment	Road Crossing Ramp															-	0	0



APPENDIX P: SUMMARY OF GRIZZLY BEAR CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

Camera No	Camera Type	Species Specific Monitoring Objective	2022				2023											Total 2016-2022	Total by Camera
			Sept	Oct	Nov <sup>1</sup>	Dec <sup>1</sup>	Jan <sup>1</sup>	Feb <sup>1</sup>	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov <sup>1</sup>		
36	Control	-										1					-	27	28
37	Control	-															-	14	14
39	ZOI	-															-	3	3
40	Control	-															-	5	5
41	ZOI	-	2											1			-	15	18
42	Treatment	-															-	2	2
43	Control	-	1											2			-	16	19
44	ZOI	-	1														-	14	15
45	Control	-															-	17	17
46	ZOI	-	1										1				-	14	16
47	ZOI	-															-	1	1
48	ZOI	-											1				-	6	7
49	Control	-		1													-	5	6
50	Treatment	-												1			-	4	5
51	Treatment	TIA										1					-	3	4
52	Treatment	TIA															-	0	0
53	Treatment	-															-	22	22
54	Treatment	-											1				-	21	22
55	ZOI	-	1														-	64	65
56	Control	-												1			-	4	5
57	ZOI	-															-	10	10
58	Control	-															-	3	3
59	Treatment	-	2									4					-	73	79
60	Treatment	-												3			-	21	24
Total			18	5	0	0	0	0	0	1	3	10	13	35	0	0	0	834	919

Notes:

<sup>1</sup> November - February are hibernation months and were not included in analysis

Shaded rows (Cameras 18, 21, and 22) were not included in analysis because they monitor facilities which may attract bears

## APPENDIX Q GRIZZLY BEAR OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009 TO 2023

APPENDIX Q: GRIZZLY BEAR OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG  
CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009-2023

Year	Month	Number of Observations from Raw Data		Monthly Average of Personnel Onsite	Number of Observations per Personnel	
		No. Individuals	No. Records		No. Individuals	No. Records
2009	May	11	5	102	0.11	0.05
	Jun	4	4	103	0.04	0.04
	Jul	18	10	113	0.16	0.09
	Aug	18	17	109	0.17	0.16
	Sep	6	6	98	0.06	0.06
2010	May	6	6	182	0.03	0.03
	Jun	2	1	200	0.01	0.01
	Jul	7	7	220	0.03	0.03
	Aug	4	4	205	0.02	0.02
	Sep	7	5	484	0.01	0.01
2011	May	3	3	274	0.01	0.01
	Jul	3	1	284	0.01	0
	Aug	10	5	277	0.04	0.02
	Sep	3	1	277	0.01	0
	Oct	3	1	270	0.01	0
2012	Apr	1	1	127	0.01	0.01
	May	2	2	90	0.02	0.02
	Jun	1	1	103	0.01	0.01
	Jul	3	1	90	0.03	0.01
	Aug	6	2	93	0.06	0.02
2013	Jul	9	3	61	0.15	0.05
	Aug	8	3	59	0.14	0.05
	Sep	3	1	54	0.06	0.02
	Oct	1	1	49	0.02	0.02
2014	Jun	2	2	71	0.03	0.03
	Jul	2	2	77	0.03	0.03
	Aug	1	1	79	0.01	0.01
	Oct	1	1	79	0.01	0.01
2015	May	1	1	32	0.03	0.03
	Jun	3	3	41	0.07	0.07
	Jul	1	1	46	0.02	0.02
	Aug	17	11	84	0.2	0.13
	Sep	2	2	105	0.02	0.02
2016	Jul	14	5	123	0.11	0.04
	Aug	10	4	129	0.08	0.03
	Oct	3	3	158	0.02	0.02
2017	May	8	3	188	0.02	0.02
	Jun	26	9	189	0.05	0.05
	Jul	6	2	185	0.01	0.01
	Aug	13	5	178	0.03	0.03
	Sep	11	4	179	0.02	0.02
	Oct	13	5	179	0.03	0.03

APPENDIX Q: GRIZZLY BEAR OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG  
CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009-2023

Year	Month	Number of Observations from Raw Data		Monthly Average of Personnel Onsite	Number of Observations per Personnel	
		No. Individuals	No. Records		No. Individuals	No. Records
2018	May	9	3	261	0.01	0.01
	Jun	7	3	266	0.01	0.01
	Jul	17	8	265	0.03	0.03
	Aug	12	6	271	0.02	0.02
	Sep	25	8	272	0.03	0.03
	Oct	13	5	273	0.02	0.02
	Nov	3	3	270	0.01	0.01
2019	May	4	1	287	0	0
	Jun	14	6	304	0.02	0.02
	Aug	23	13	285	0.05	0.05
	Sept	33	11	293	0.04	0.04
	Oct	4	4	306	0.01	0.01
2020	Jun	5	2	139	0.04	0.01
	Jul	3	3	137	0.02	0.02
	Aug	4	4	136	0.03	0.03
	Sep	7	5	128	0.06	0.04
2021	May	5	5	176	0.03	0.03
	Jun	12	12	189	0.06	0.06
	Jul	14	11	193	0.07	0.06
	Aug	5	5	230	0.02	0.02
	Sep	4	4	240	0.02	0.02
	Oct	1	1	89	0.01	0.01
2022	May	10	5	135	0.07	0.04
	Jun	11	4	162	0.07	0.02
	Jul	17	10	164	0.10	0.06
	Aug	3	2	172	0.02	0.01
	Sep	18	11	174	0.10	0.06
	Oct	2	2	181	0.01	0.01
2023	May	6	4	158	0.04	0.02
	Jun	13	11	150	0.09	0.09
	Jul	13	6	146	0.09	0.09
	Aug	6	5	133	0.05	0.03
	Sep	39	11	126	0.31	0.08

## APPENDIX R SUMMARY OF WOLVERINE CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

APPENDIX R: SUMMARY OF WOLVERINE CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

Camera No	Camera Type	Species Specific Monitoring Objective	2022				2023											Total 2016-Aug 2022	Total by Camera
			Sept	Oct	Nov	Dec <sup>1</sup>	Jan <sup>1</sup>	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov		
1	Treatment	-																0	0
2	Treatment	Road Crossing Ramp																0	0
3	Control	-																5	5
4	Control	-																0	0
5	Control	-																1	1
6	Control	-																0	0
7	Control	-									1							1	2
8	Control	-									1							0	1
9	Control	-																3	3
10	ZOI	-																3	3
11	Treatment	-																0	0
12	ZOI	-																2	2
13	Treatment	-																4	4
14	ZOI	-																3	3
15	Treatment	-																0	0
16	Control	-																0	0
17	Treatment	-																0	0
18	Treatment	Waste Management Facility																NA	0
19	Treatment	-																0	0
21	Treatment	Waste Management Facility																NA	0
22	Treatment	ERM Fish Fence																NA	0
23	ZOI	-	1							1								15	17
24	ZOI/Ladder	-																1	1
25	ZOI	-																4	4
26	ZOI	-																4	4
28	Treatment	-																1	1
29	Control	-																2	2
30	ZOI	-																8	8
31	Control	-																2	2
32	Treatment	-																2	2
33	Control	-							1					1				4	6
34	ZOI/Ladder	-																0	0

APPENDIX R: SUMMARY OF WOLVERINE CAMERA EVENTS FOR ZOI ANALYSIS, JUNE 2016 TO SEPTEMBER 2023

Camera No	Camera Type	Species Specific Monitoring Objective	2022				2023											Total 2016-Aug 2022	Total by Camera
			Sept	Oct	Nov	Dec <sup>1</sup>	Jan <sup>1</sup>	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov		
35	Treatment	Road Crossing Ramp																0	0
36	Control	-								2								3	5
37	Control	-																1	1
39	ZOI	-																0	0
40	Control	-																1	1
41	ZOI	-							1									2	3
42	Treatment	-																0	0
43	Control	-									1							4	5
44	ZOI	-																2	2
45	Control	-																0	0
46	ZOI	-																1	1
47	ZOI	-																3	3
48	ZOI	-																0	0
49	Control	-																0	0
50	Treatment	-																0	0
51	Treatment	TIA																0	0
52	Treatment	TIA																0	0
53	Treatment	-																0	0
54	Treatment	-																0	0
55	ZOI	-																2	2
56	Control	-																0	0
57	ZOI	-																2	2
58	Control	-																19	19
59	Treatment	-										1						0	1
60	Treatment	-																0	0
<b>Total</b>			<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>105</b>	116

Notes:

<sup>1</sup>December and January) were not included in analysis due to low effort.

Shaded rows (Cameras 18, 21, and 22) were not included in analysis because they monitor facilities which may attract wolverines



## APPENDIX S      WOLVERINE OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009 TO 2023

## APPENDIX S: WOLVERINE OBSERVATIONS FROM THE WILDLIFE SIGHTINGS LOG CORRECTED FOR PERSONNEL, HOPE BAY PROJECT, 2009 TO 2023

Year	Month	Number of Observations from Raw Data		Monthly Average of Personnel Onsite	Number of Observations per Personnel	
		No. Individuals	No. Records		No. Individuals	No. Records
2009	Feb	1	1	84	0.012	0.012
	May	1	1	102	0.01	0.01
	Aug	1	1	109	0.009	0.009
2010	Mar	1	1	131	0.008	0.008
	Apr	1	1	172	0.006	0.006
2011	Jan	1	1	214	0.005	0.005
	Feb	2	2	250	0.008	0.008
	Apr	2	2	278	0.007	0.007
	May	3	3	274	0.011	0.011
	Jun	1	1	280	0.004	0.004
	Aug	2	2	277	0.007	0.007
	Nov	1	1	252	0.004	0.004
	Dec	1	1	Unknown	-	-
2012	Feb	2	2	193	0.01	0.01
	Mar	1	1	180	0.006	0.006
	Apr	2	2	127	0.016	0.016
	May	3	3	90	0.033	0.033
2013	May	2	2	20	0.099	0.099
	Nov	2	2	19	0.105	0.105
2014	Feb	1	1	7	0.143	0.143
	May	1	1	63	0.016	0.016
2015	Jan	1	1	13	0.075	0.075
	Feb	1	1	16	0.062	0.062
	Mar	1	1	30	0.033	0.033
	May	2	2	32	0.063	0.063
	Jul	1	1	46	0.022	0.022
	Aug	1	1	84	0.012	0.012
	Oct	2	1	114	0.018	0.009
	Dec	1	1	89	0.011	0.011

Year	Month	Number of Observations from Raw Data		Monthly Average of Personnel Onsite	Number of Observations per Personnel	
		No. Individuals	No. Records		No. Individuals	No. Records
2016	Feb	1	1	73	0.01	0.01
	Mar	2	2	78	0.03	0.03
	Nov	1	1	172	0.01	0.01
2017	Mar	1	1	176	0.006	0.006
	Apr	1	1	173	0.006	0.006
	Sep	1	1	179	0.006	0.006
	Dec	2	2	179	0.011	0.011
2018	Jan	1	1	202	0.005	0.005
	Feb	1	1	261	0.004	0.004
	Oct	1	1	266	0.004	0.004
	Dec	1	1	272	0.004	0.004
2019	Apr	1	1	291	0.00	0.00
	Jul	6	4	304	0.02	0.01
	Sep	1	1	293	0.00	0.00
	Oct	1	1	306	0.00	0.00
2020	-	0	0	-	0.00	0.00
2021	May	1	1	176	0.01	0.01
	Aug	1	1	230	0.00	0.00
	Sep	1	1	240	0.00	0.00
	Oct	1	1	89	0.01	0.01
2022	No incidental sightings of wolverine in 2022					
2023	March	1	1	165	0.006	0.01
	May	1	0	158	0.006	0.00

## APPENDIX T      WATER QUALITY DATA AT THE TIA IN 2023 FOR PARAMETERS WITH GUIDELINES RELEVANT TO WILDLIFE

## APPENDIX T: WATER QUALITY DATA AT THE TIA IN 2023 FOR PARAMETERS WITH GUIDELINES RELEVANT TO WILDLIFE

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Arsenic (As)-Total	mg/L	TL1	1/3/2023	0.0034	0.025
Arsenic (As)-Total	mg/L	TL1	1/10/2023	0.0031	0.025
Arsenic (As)-Total	mg/L	TL1	1/17/2023	0.00317	0.025
Arsenic (As)-Total	mg/L	TL1	1/23/2023	0.00278	0.025
Arsenic (As)-Total	mg/L	TL1	1/31/2023	0.00315	0.025
Arsenic (As)-Total	mg/L	TL1	2/7/2023	0.00308	0.025
Arsenic (As)-Total	mg/L	TL1	2/14/2023	0.00303	0.025
Arsenic (As)-Total	mg/L	TL1	2/21/2023	0.00369	0.025
Arsenic (As)-Total	mg/L	TL1	2/27/2023	0.00299	0.025
Arsenic (As)-Total	mg/L	TL1	3/7/2023	0.00302	0.025
Arsenic (As)-Total	mg/L	TL1	3/14/2023	0.00303	0.025
Arsenic (As)-Total	mg/L	TL1	3/21/2023	0.00305	0.025
Arsenic (As)-Total	mg/L	TL1	3/28/2023	0.00282	0.025
Arsenic (As)-Total	mg/L	TL1	4/3/2023	0.00284	0.025
Arsenic (As)-Total	mg/L	TL1	4/11/2023	0.00293	0.025
Arsenic (As)-Total	mg/L	TL1	4/18/2023	0.00307	0.025
Arsenic (As)-Total	mg/L	TL1	4/26/2023	0.0028	0.025
Arsenic (As)-Total	mg/L	TL1	5/2/2023	0.00284	0.025
Arsenic (As)-Total	mg/L	TL1	5/9/2023	0.00266	0.025
Arsenic (As)-Total	mg/L	TL1	5/16/2023	0.00288	0.025
Arsenic (As)-Total	mg/L	TL1	5/23/2023	0.00298	0.025
Arsenic (As)-Total	mg/L	TL1	5/30/2023	0.00296	0.025
Arsenic (As)-Total	mg/L	TL1	6/6/2023	0.00143	0.025
Arsenic (As)-Total	mg/L	TL1	6/13/2023	0.0005	0.025
Arsenic (As)-Total	mg/L	TL1	6/20/2023	0.00351	0.025
Arsenic (As)-Total	mg/L	TL1	6/27/2023	0.00242	0.025
Arsenic (As)-Total	mg/L	TL1	7/3/2023	0.00216	0.025
Arsenic (As)-Total	mg/L	TL1	7/11/2023	0.0015	0.025
Arsenic (As)-Total	mg/L	TL1	7/18/2023	0.0018	0.025

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Arsenic (As)-Total	mg/L	TL1	7/25/2023	0.00154	0.025
Arsenic (As)-Total	mg/L	TL1	8/1/2023	0.00182	0.025
Arsenic (As)-Total	mg/L	TL1	8/8/2023	0.0023	0.025
Arsenic (As)-Total	mg/L	TL1	8/15/2023	0.00197	0.025
Arsenic (As)-Total	mg/L	TL1	8/22/2023	0.00164	0.025
Arsenic (As)-Total	mg/L	TL1	8/29/2023	0.00178	0.025
Arsenic (As)-Total	mg/L	TL1	9/5/2023	0.00165	0.025
Arsenic (As)-Total	mg/L	TL1	9/12/2023	0.00197	0.025
Arsenic (As)-Total	mg/L	TL1	9/19/2023	0.00163	0.025
Arsenic (As)-Total	mg/L	TL1	9/26/2023	0.00165	0.025
Arsenic (As)-Total	mg/L	TL1	10/3/2023	0.0019	0.025
Arsenic (As)-Total	mg/L	TL1	10/10/2023	0.00194	0.025
Arsenic (As)-Total	mg/L	TL1	10/17/2023	0.00196	0.025
Arsenic (As)-Total	mg/L	TL1	10/24/2023	0.002	0.025
Arsenic (As)-Total	mg/L	TL1	10/31/2023	0.00208	0.025
Arsenic (As)-Total	mg/L	TL1	11/7/2023	0.00202	0.025
Arsenic (As)-Total	mg/L	TL1	11/14/2023	0.00215	0.025
Arsenic (As)-Total	mg/L	TL1	11/21/2023	0.00207	0.025
Arsenic (As)-Total	mg/L	TL1	11/28/2023	0.00216	0.025
Arsenic (As)-Total	mg/L	TL1	12/5/2023	0.00182	0.025
Arsenic (As)-Total	mg/L	TL1	12/12/2023	0.00193	0.025
Arsenic (As)-Total	mg/L	TL1	12/19/2023	0.00196	0.025
Arsenic (As)-Total	mg/L	TL1	12/26/2023	0.00194	0.025
Cadmium (Cd)-Total	mg/L	TL1	1/3/2023	0.00005	0.08
Cadmium (Cd)-Total	mg/L	TL1	1/10/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	1/17/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	1/23/2023	0.000033	0.08
Cadmium (Cd)-Total	mg/L	TL1	1/31/2023	0.0000285	0.08
Cadmium (Cd)-Total	mg/L	TL1	2/7/2023	0.0000296	0.08
Cadmium (Cd)-Total	mg/L	TL1	2/14/2023	0.0000386	0.08
Cadmium (Cd)-Total	mg/L	TL1	2/21/2023	0.0000352	0.08
Cadmium (Cd)-Total	mg/L	TL1	2/27/2023	0.0000274	0.08

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Cadmium (Cd)-Total	mg/L	TL1	3/7/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	3/14/2023	0.0000355	0.08
Cadmium (Cd)-Total	mg/L	TL1	3/21/2023	0.00005	0.08
Cadmium (Cd)-Total	mg/L	TL1	3/28/2023	0.0001	0.08
Cadmium (Cd)-Total	mg/L	TL1	4/3/2023	0.0000357	0.08
Cadmium (Cd)-Total	mg/L	TL1	4/11/2023	0.0000284	0.08
Cadmium (Cd)-Total	mg/L	TL1	4/18/2023	0.0000353	0.08
Cadmium (Cd)-Total	mg/L	TL1	4/26/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	5/2/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	5/9/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	5/16/2023	0.0000357	0.08
Cadmium (Cd)-Total	mg/L	TL1	5/23/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	5/30/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	6/6/2023	0.0000141	0.08
Cadmium (Cd)-Total	mg/L	TL1	6/13/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	6/20/2023	0.0000396	0.08
Cadmium (Cd)-Total	mg/L	TL1	6/27/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	7/3/2023	0.0000367	0.08
Cadmium (Cd)-Total	mg/L	TL1	7/11/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	7/18/2023	0.0000141	0.08
Cadmium (Cd)-Total	mg/L	TL1	7/25/2023	0.0000135	0.08
Cadmium (Cd)-Total	mg/L	TL1	8/1/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	8/8/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	8/15/2023	0.0000268	0.08
Cadmium (Cd)-Total	mg/L	TL1	8/22/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	8/29/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	9/5/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	9/12/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	9/19/2023	0.0000208	0.08
Cadmium (Cd)-Total	mg/L	TL1	9/26/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	10/3/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	10/10/2023	0.000025	0.08

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Cadmium (Cd)-Total	mg/L	TL1	10/17/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	10/24/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	10/31/2023	0.000026	0.08
Cadmium (Cd)-Total	mg/L	TL1	11/7/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	11/14/2023	0.0000257	0.08
Cadmium (Cd)-Total	mg/L	TL1	11/21/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	11/28/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	12/5/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	12/12/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	12/19/2023	0.000025	0.08
Cadmium (Cd)-Total	mg/L	TL1	12/26/2023	0.000025	0.08
Copper (Cu)-Total	mg/L	TL1	1/3/2023	0.0258	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	1/10/2023	0.0255	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	1/17/2023	0.0265	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	1/23/2023	0.025	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	1/31/2023	0.027	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	2/7/2023	0.0256	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	2/14/2023	0.028	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	2/21/2023	0.0305	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	2/27/2023	0.027	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	3/7/2023	0.026	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	3/14/2023	0.0252	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	3/21/2023	0.0255	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	3/28/2023	0.0265	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	4/3/2023	0.0246	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	4/11/2023	0.0245	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	4/18/2023	0.0254	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	4/26/2023	0.0252	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	5/2/2023	0.024	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	5/9/2023	0.0242	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	5/16/2023	0.0253	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	5/23/2023	0.0242	5.000 <sup>2</sup>



Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Copper (Cu)-Total	mg/L	TL1	5/30/2023	0.0245	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	6/6/2023	0.00822	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	6/13/2023	0.00475	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	6/20/2023	0.0242	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	6/27/2023	0.0195	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	7/3/2023	0.0139	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	7/11/2023	0.01	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	7/18/2023	0.0116	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	7/25/2023	0.0101	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	8/1/2023	0.0124	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	8/8/2023	0.0247	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	8/15/2023	0.0223	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	8/22/2023	0.0147	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	8/29/2023	0.0166	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	9/5/2023	0.0142	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	9/12/2023	0.0168	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	9/19/2023	0.012	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	9/26/2023	0.0132	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	10/3/2023	0.0126	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	10/10/2023	0.0132	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	10/17/2023	0.0125	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	10/24/2023	0.0129	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	10/31/2023	0.0127	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	11/7/2023	0.0121	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	11/14/2023	0.0137	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	11/21/2023	0.0127	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	11/28/2023	0.0123	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	12/5/2023	0.0164	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	12/12/2023	0.0128	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	12/19/2023	0.0129	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	12/26/2023	0.0129	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	1/3/2023	0.0258	5.000 <sup>2</sup>

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Copper (Cu)-Total	mg/L	TL1	12/13/2022	0.0223	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	12/27/2022	0.0234	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	11/29/2022	0.0235	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	12/6/2022	0.0245	5.000 <sup>2</sup>
Copper (Cu)-Total	mg/L	TL1	12/13/2022	0.0223	5.000 <sup>2</sup>
Lead (Pb)-Total	mg/L	TL1	1/3/2023	0.0005	0.1
Lead (Pb)-Total	mg/L	TL1	1/10/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	1/17/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	1/23/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	1/31/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	2/7/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	2/14/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	2/21/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	2/27/2023	0.0001	0.1
Lead (Pb)-Total	mg/L	TL1	3/7/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	3/14/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	3/21/2023	0.0005	0.1
Lead (Pb)-Total	mg/L	TL1	3/28/2023	0.001	0.1
Lead (Pb)-Total	mg/L	TL1	4/3/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	4/11/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	4/18/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	4/26/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	5/2/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	5/9/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	5/16/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	5/23/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	5/30/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	6/6/2023	0.0001	0.1
Lead (Pb)-Total	mg/L	TL1	6/13/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	6/20/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	6/27/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	7/3/2023	0.00025	0.1

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Lead (Pb)-Total	mg/L	TL1	7/11/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	7/18/2023	0.0001	0.1
Lead (Pb)-Total	mg/L	TL1	7/25/2023	0.0001	0.1
Lead (Pb)-Total	mg/L	TL1	8/1/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	8/8/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	8/15/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	8/22/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	8/29/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	9/5/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	9/12/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	9/19/2023	0.0001	0.1
Lead (Pb)-Total	mg/L	TL1	9/26/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	10/3/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	10/10/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	10/17/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	10/24/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	10/31/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	11/7/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	11/14/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	11/21/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	11/28/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	12/5/2023	0.0003	0.1
Lead (Pb)-Total	mg/L	TL1	12/12/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	12/19/2023	0.00025	0.1
Lead (Pb)-Total	mg/L	TL1	12/26/2023	0.00025	0.1
Mercury (Hg)-Total	mg/L	TL1	1/3/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	1/10/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	1/17/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	1/23/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	1/31/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	2/7/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	2/14/2023	0.000005	0.003

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Mercury (Hg)-Total	mg/L	TL1	2/21/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	2/27/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	3/7/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	3/14/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	3/21/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	3/28/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	4/3/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	4/11/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	4/18/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	4/26/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	5/2/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	5/9/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	5/16/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	5/23/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	5/30/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	6/6/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	6/13/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	6/20/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	6/27/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	7/3/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	7/11/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	7/18/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	7/25/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	8/1/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	8/8/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	8/15/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	8/22/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	8/29/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	9/5/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	9/12/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	9/19/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	9/26/2023	0.000005	0.003

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Mercury (Hg)-Total	mg/L	TL1	10/3/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	10/10/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	10/17/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	10/24/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	10/31/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	11/7/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	11/14/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	11/21/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	11/28/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	12/5/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	12/12/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	12/19/2023	0.000005	0.003
Mercury (Hg)-Total	mg/L	TL1	12/26/2023	0.000005	0.003
Nickel (Ni)-Total	mg/L	TL1	1/3/2023	0.00943	1
Nickel (Ni)-Total	mg/L	TL1	1/10/2023	0.00937	1
Nickel (Ni)-Total	mg/L	TL1	1/17/2023	0.01	1
Nickel (Ni)-Total	mg/L	TL1	1/23/2023	0.00966	1
Nickel (Ni)-Total	mg/L	TL1	1/31/2023	0.0105	1
Nickel (Ni)-Total	mg/L	TL1	2/7/2023	0.0104	1
Nickel (Ni)-Total	mg/L	TL1	2/14/2023	0.0108	1
Nickel (Ni)-Total	mg/L	TL1	2/21/2023	0.0121	1
Nickel (Ni)-Total	mg/L	TL1	2/27/2023	0.00994	1
Nickel (Ni)-Total	mg/L	TL1	3/7/2023	0.0107	1
Nickel (Ni)-Total	mg/L	TL1	3/14/2023	0.0102	1
Nickel (Ni)-Total	mg/L	TL1	3/21/2023	0.0106	1
Nickel (Ni)-Total	mg/L	TL1	3/28/2023	0.0106	1
Nickel (Ni)-Total	mg/L	TL1	4/3/2023	0.0107	1
Nickel (Ni)-Total	mg/L	TL1	4/11/2023	0.0102	1
Nickel (Ni)-Total	mg/L	TL1	4/18/2023	0.0105	1
Nickel (Ni)-Total	mg/L	TL1	4/26/2023	0.00992	1
Nickel (Ni)-Total	mg/L	TL1	5/2/2023	0.0104	1
Nickel (Ni)-Total	mg/L	TL1	5/9/2023	0.00729	1

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Nickel (Ni)-Total	mg/L	TL1	5/16/2023	0.0093	1
Nickel (Ni)-Total	mg/L	TL1	5/23/2023	0.66	1
Nickel (Ni)-Total	mg/L	TL1	5/30/2023	0.0025	1
Nickel (Ni)-Total	mg/L	TL1	6/6/2023	0.0032	1
Nickel (Ni)-Total	mg/L	TL1	6/13/2023	0.0025	1
Nickel (Ni)-Total	mg/L	TL1	6/20/2023	3.95	1
Nickel (Ni)-Total	mg/L	TL1	6/27/2023	0.00914	1
Nickel (Ni)-Total	mg/L	TL1	7/3/2023	0.00513	1
Nickel (Ni)-Total	mg/L	TL1	7/11/2023	0.00444	1
Nickel (Ni)-Total	mg/L	TL1	7/18/2023	0.00523	1
Nickel (Ni)-Total	mg/L	TL1	7/25/2023	0.00422	1
Nickel (Ni)-Total	mg/L	TL1	8/1/2023	0.00599	1
Nickel (Ni)-Total	mg/L	TL1	8/8/2023	0.0102	1
Nickel (Ni)-Total	mg/L	TL1	8/15/2023	0.0123	1
Nickel (Ni)-Total	mg/L	TL1	8/22/2023	0.00725	1
Nickel (Ni)-Total	mg/L	TL1	8/29/2023	0.00679	1
Nickel (Ni)-Total	mg/L	TL1	9/5/2023	0.0067	1
Nickel (Ni)-Total	mg/L	TL1	9/12/2023	0.00832	1
Nickel (Ni)-Total	mg/L	TL1	9/19/2023	0.00595	1
Nickel (Ni)-Total	mg/L	TL1	9/26/2023	0.0068	1
Nickel (Ni)-Total	mg/L	TL1	10/3/2023	0.00567	1
Nickel (Ni)-Total	mg/L	TL1	10/10/2023	0.0066	1
Nickel (Ni)-Total	mg/L	TL1	10/17/2023	0.00632	1
Nickel (Ni)-Total	mg/L	TL1	10/24/2023	0.00673	1
Nickel (Ni)-Total	mg/L	TL1	10/31/2023	0.00647	1
Nickel (Ni)-Total	mg/L	TL1	11/7/2023	0.00614	1
Nickel (Ni)-Total	mg/L	TL1	11/14/2023	0.00687	1
Nickel (Ni)-Total	mg/L	TL1	11/21/2023	0.0073	1
Nickel (Ni)-Total	mg/L	TL1	11/28/2023	0.00713	1
Nickel (Ni)-Total	mg/L	TL1	12/5/2023	0.0193	1
Nickel (Ni)-Total	mg/L	TL1	12/12/2023	0.00847	1
Nickel (Ni)-Total	mg/L	TL1	12/19/2023	0.00743	1

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Nickel (Ni)-Total	mg/L	TL1	12/26/2023	0.00728	1
Selenium (Se)-Total	mg/L	TL1	1/3/2023	0.0005	0.05
Selenium (Se)-Total	mg/L	TL1	1/10/2023	0.000428	0.05
Selenium (Se)-Total	mg/L	TL1	1/17/2023	0.000389	0.05
Selenium (Se)-Total	mg/L	TL1	1/23/2023	0.000383	0.05
Selenium (Se)-Total	mg/L	TL1	1/31/2023	0.000309	0.05
Selenium (Se)-Total	mg/L	TL1	2/7/2023	0.00106	0.05
Selenium (Se)-Total	mg/L	TL1	2/14/2023	0.000411	0.05
Selenium (Se)-Total	mg/L	TL1	2/21/2023	0.000534	0.05
Selenium (Se)-Total	mg/L	TL1	2/27/2023	0.00043	0.05
Selenium (Se)-Total	mg/L	TL1	3/7/2023	0.000436	0.05
Selenium (Se)-Total	mg/L	TL1	3/14/2023	0.000495	0.05
Selenium (Se)-Total	mg/L	TL1	3/21/2023	0.000545	0.05
Selenium (Se)-Total	mg/L	TL1	3/28/2023	0.001	0.05
Selenium (Se)-Total	mg/L	TL1	4/3/2023	0.000416	0.05
Selenium (Se)-Total	mg/L	TL1	4/11/2023	0.00104	0.05
Selenium (Se)-Total	mg/L	TL1	4/18/2023	0.000447	0.05
Selenium (Se)-Total	mg/L	TL1	4/26/2023	0.000274	0.05
Selenium (Se)-Total	mg/L	TL1	5/2/2023	0.00032	0.05
Selenium (Se)-Total	mg/L	TL1	5/9/2023	0.000508	0.05
Selenium (Se)-Total	mg/L	TL1	5/16/2023	0.000521	0.05
Selenium (Se)-Total	mg/L	TL1	5/23/2023	0.000415	0.05
Selenium (Se)-Total	mg/L	TL1	5/30/2023	0.00045	0.05
Selenium (Se)-Total	mg/L	TL1	6/6/2023	0.000134	0.05
Selenium (Se)-Total	mg/L	TL1	6/13/2023	0.00025	0.05
Selenium (Se)-Total	mg/L	TL1	6/20/2023	0.000269	0.05
Selenium (Se)-Total	mg/L	TL1	6/27/2023	0.000284	0.05
Selenium (Se)-Total	mg/L	TL1	7/3/2023	0.00025	0.05
Selenium (Se)-Total	mg/L	TL1	7/11/2023	0.00025	0.05
Selenium (Se)-Total	mg/L	TL1	7/18/2023	0.000142	0.05
Selenium (Se)-Total	mg/L	TL1	7/25/2023	0.000231	0.05
Selenium (Se)-Total	mg/L	TL1	8/1/2023	0.000303	0.05

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Selenium (Se)-Total	mg/L	TL1	8/8/2023	0.000388	0.05
Selenium (Se)-Total	mg/L	TL1	8/15/2023	0.000348	0.05
Selenium (Se)-Total	mg/L	TL1	8/22/2023	0.000308	0.05
Selenium (Se)-Total	mg/L	TL1	8/29/2023	0.000334	0.05
Selenium (Se)-Total	mg/L	TL1	9/5/2023	0.000297	0.05
Selenium (Se)-Total	mg/L	TL1	9/12/2023	0.000401	0.05
Selenium (Se)-Total	mg/L	TL1	9/19/2023	0.000329	0.05
Selenium (Se)-Total	mg/L	TL1	9/26/2023	0.000264	0.05
Selenium (Se)-Total	mg/L	TL1	10/3/2023	0.000325	0.05
Selenium (Se)-Total	mg/L	TL1	10/10/2023	0.000416	0.05
Selenium (Se)-Total	mg/L	TL1	10/17/2023	0.000284	0.05
Selenium (Se)-Total	mg/L	TL1	10/24/2023	0.000356	0.05
Selenium (Se)-Total	mg/L	TL1	10/31/2023	0.00025	0.05
Selenium (Se)-Total	mg/L	TL1	11/7/2023	0.00025	0.05
Selenium (Se)-Total	mg/L	TL1	11/14/2023	0.000375	0.05
Selenium (Se)-Total	mg/L	TL1	11/21/2023	0.000323	0.05
Selenium (Se)-Total	mg/L	TL1	11/28/2023	0.00025	0.05
Selenium (Se)-Total	mg/L	TL1	12/5/2023	0.00025	0.05
Selenium (Se)-Total	mg/L	TL1	12/12/2023	0.000321	0.05
Selenium (Se)-Total	mg/L	TL1	12/19/2023	0.000318	0.05
Selenium (Se)-Total	mg/L	TL1	12/26/2023	0.00036	0.05
Zinc (Zn)-Total	mg/L	TL1	1/3/2023	0.03	50
Zinc (Zn)-Total	mg/L	TL1	1/10/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	1/17/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	1/23/2023	0.0172	50
Zinc (Zn)-Total	mg/L	TL1	1/31/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	2/7/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	2/14/2023	0.0249	50
Zinc (Zn)-Total	mg/L	TL1	2/21/2023	0.0195	50
Zinc (Zn)-Total	mg/L	TL1	2/27/2023	0.0096	50
Zinc (Zn)-Total	mg/L	TL1	3/7/2023	0.024	50
Zinc (Zn)-Total	mg/L	TL1	3/14/2023	0.0508	50



Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Zinc (Zn)-Total	mg/L	TL1	3/21/2023	0.03	50
Zinc (Zn)-Total	mg/L	TL1	3/28/2023	0.214	50
Zinc (Zn)-Total	mg/L	TL1	4/3/2023	0.0422	50
Zinc (Zn)-Total	mg/L	TL1	4/11/2023	0.0338	50
Zinc (Zn)-Total	mg/L	TL1	4/18/2023	0.0195	50
Zinc (Zn)-Total	mg/L	TL1	4/26/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	5/2/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	5/9/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	5/16/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	5/23/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	5/30/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	6/6/2023	0.006	50
Zinc (Zn)-Total	mg/L	TL1	6/13/2023	0.0977	50
Zinc (Zn)-Total	mg/L	TL1	6/20/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	6/27/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	7/3/2023	0.0152	50
Zinc (Zn)-Total	mg/L	TL1	7/11/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	7/18/2023	0.006	50
Zinc (Zn)-Total	mg/L	TL1	7/25/2023	0.006	50
Zinc (Zn)-Total	mg/L	TL1	8/1/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	8/8/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	8/15/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	8/22/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	8/29/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	9/5/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	9/12/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	9/19/2023	0.0082	50
Zinc (Zn)-Total	mg/L	TL1	9/26/2023	0.0175	50
Zinc (Zn)-Total	mg/L	TL1	10/3/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	10/10/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	10/17/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	10/24/2023	0.015	50

Variable	Report Result Unit	Sample Point	Date	Data Point	CCME Water Quality Criteria, Livestock (mg/L) <sup>1</sup>
Zinc (Zn)-Total	mg/L	TL1	10/31/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	11/7/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	11/14/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	11/21/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	11/28/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	12/5/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	12/12/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	12/19/2023	0.015	50
Zinc (Zn)-Total	mg/L	TL1	12/26/2023	0.015	50

Notes:

<sup>1</sup> Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Agriculture, Livestock.

<sup>2</sup> Guideline is variable. 5 mg/L for poultry (CCREM 1987).

Canadian Council of Resource and Environment Ministers (CCREM). 1987 (Updated 2008). Canadian Water Quality Guidelines (CWQG).

## APPENDIX U      MARINE MAMMAL MONITORING IN ROBERTS BAY, 2023

APPENDIX U: MARINE MAMMAL MONITORING IN ROBERTS BAY, 2023

Date	Time	Zone	Easting	Northing	Species	No. Individuals	Age	Sex	Behaviour	Mitigation Action	Comments
8/29/2023											No observations
8/29/2023	12:21	13	525580	7624760	Harbour Seal	1	Adult	Not recorded	Travel	N	
8/29/2023	12:32	13	512015	7630232	Bearded Seal	2	Adult	Not recorded	Travel	N	
8/30/2023											No observations
8/30/2023											No observations
8/31/2023	21:05	13	525580	7624760	Hooded Seal	1	Adult	UNK	Travel	N	
8/31/2023	21:20	13	512015	7630232	Hooded Seal	1	Adult	UNK	Travel	N	
8/31/2023											No observations
8/29/2023											No observations
9/2/2023											No observations
9/2/2023											No observations
9/3/2023											No observations
9/3/2023											No observations
9/4/2023											No observations
9/5/2023	8:30				Unknown Seal	1	Adult	UNK	Resting	N	
9/5/2023	9:00				Bearded Seal	1	Adult	UNK	Playing	N	
9/6/2023											No observations
9/7/2023											No observations
9/8/2023											No observations
9/9/2023											No observations
9/10/2023	7:20				Unknown Seal	1	Adult	UNK	Resting	N	Resting on a rock in open water, didn't react to tug boats going by.
9/11/2023											No observations
9/12/2023											No observations
9/13/2023											No observations
9/14/2023											No observations
9/15/2023											No observations
9/16/2023	13:05				Unknown Seal	1	Adult	UNK	Basking	N	

## APPENDIX V      INVASIVE PLANT SPECIES TARGETED FOR MONITORING IN 2023

## APPENDIX V: INVASIVE PLANT SPECIES TARGETED FOR MONITORING IN 2023

Scientific Name <sup>1</sup>	Common Name	Type	Life Form	Predicted Invasiveness <sup>2</sup>	Observed 2023 (yes/no)
<i>Agropyron cristatum</i>	Crested wheat grass	Herbaceous	Graminoid	Not rated	No
<i>Amaranthus retroflexus</i>	Green amaranth	Herbaceous	Forb	Not rated	No
<i>Atriplex patula</i>	Spear saltbush	Herbaceous	Forb	Not rated	No
<i>Barbarea vulgaris</i>	Yellow rocket	Herbaceous	Forb	Not rated	No
<i>Berteoa incana</i>	Hoary false-alyssum	Herbaceous	Forb	Low	No
<i>Bromus inermis</i>	Awnless brome	Herbaceous	Graminoid	Moderate/low	No
<i>Capsella bursa-pastoris</i>	Shepherd's purse	Herbaceous	Forb	Not rated	No
<i>Caragana arborescens</i>	Siberian peashrub	Woody	Shrub	Low/potential	No
<i>Carum carvi</i>	Wild caraway	Herbaceous	Forb	Not rated	No
<i>Cirsium arvense</i>	Creeping thistle	Herbaceous	Forb	Moderate/low	No
<i>Hordeum vulgare</i>	Common barley	Herbaceous	Graminoid	Not rated	No
<i>Leucanthemum vulgare</i>	Oxeye daisy	Herbaceous	Forb	Not rated	No
<i>Matricaria discoidea</i>	Pineapple chamomile	Herbaceous	Forb	Not rated	No
<i>Medicago sativa</i>	Alfalfa	Herbaceous	Forb	Low	No
<i>Melilotus albus</i>	Sweet white clover	Herbaceous	Forb	Moderate	No
<i>Melilotus officinalis</i>	Yellow sweet clover	Herbaceous	Forb	Moderate	No
<i>Papaver somniferum</i>	Opium poppy	Herbaceous	Forb	Not rated	No
<i>Phalaris arundinacea</i>	Reed canary grass	Herbaceous	Graminoid	Moderate/low	No
<i>Plantago major</i>	Common plantain	Herbaceous	Forb	Not rated	No
<i>Poa compressa</i>	Flat-stem blue grass	Herbaceous	Graminoid	Minor/potential	No
<i>Poa pratensis</i>	Kentucky blue grass	Herbaceous	Graminoid	Minor/potential	No
<i>Polygonum aviculare</i>	Prostrate knotweed	Herbaceous	Forb	Not rated	No
<i>Puccinellia distans</i>	Spreading alkali grass	Herbaceous	Graminoid	Not rated	No
<i>Ranunculus acris</i>	Tall buttercup	Herbaceous	Forb	Not rated	No
<i>Sonchus arvensis</i>	Field sow thistle	Herbaceous	Forb	Not rated	No
<i>Tanacetum vulgare</i>	Common tansy	Herbaceous	Forb	Potential	No
<i>Taraxacum officinale</i>	Common dandelion	Herbaceous	Forb	Not rated	No
<i>Thlaspi arvense</i>	Field pennycress	Herbaceous	Forb	Not rated	No
<i>Tripleurospermum inodorum</i>	Scentless chamomile	Herbaceous	Forb	Not rated	No

Scientific Name <sup>1</sup>	Common Name	Type	Life Form	Predicted Invasiveness <sup>2</sup>	Observed 2023 (yes/no)
<i>Vicia cracca</i>	Tufted vetch	Herbaceous	Forb	Not rated	No
Other	Other	N/A	N/A	N/A	No

Notes:

<sup>1</sup> Invasive plant species targeted in 2023 surveys referenced:

Environment Canada. 2010. *Non-Native & Invasive species In Nunavut*. Canadian Endangered Species Conservation Council (CESCC).

Rescan. 2011. *Hope Bay Belt Project: 2010 Ecosystems and Vegetation Baseline Report*. Prepared for Hope Bay Mining Limited by Rescan Environmental Services Ltd.: Vancouver, British Columbia.

<sup>2</sup> Predicted Invasiveness derived from Hope Bay Belt Project: 2010 Ecosystems and Vegetation Baseline Report (Rescan 2011), which referenced Northwest Territories General Status Ranking Program (NWT Department of Environment and Natural Resources 2010), now the NWT Species Infobase.

## APPENDIX W      INVASIVE PLANT SPECIES MONITORING ATTRIBUTES



APPENDIX W: INVASIVE PLANT SPECIES MONITORING ATTRIBUTES

	Attribute <sup>1</sup>	Required	Description	Data Type	Domain <sup>2</sup>
Survey Grid Cell Information	Grid ID	Yes	Unique identifier field for each grid cell.	Integer (long)	–
	Grid Type	Yes	Grid cell type as linear or area used to determine grid cell dimensions (e.g., wider areas such as camps use 50 m grid, while linear features use elongated modified grid). Linear features are defined as roads or other corridors where feature width is < 20 m.	Text/String	GridType
	Grid Location	Yes	Identifies grid as being an edge (partial) or interior (full) grid cell.	Text/String	GridLocation
	Grid Dimensions	Yes	Grid cell dimensions (e.g., 50 m x 50 m or 250 m x 100 m).	Text/String	–
	Completion Status	Yes	Classification of the grid cell according to whether it has been fully surveyed or not, used to track survey progress.	Text/String	CompletionStatus
	Notes	No	Description of any supporting information about the observation that is not captured elsewhere.	Text/String	–
Basic Information	Survey Date/Time	Yes	Survey date (YYYY-MM-DD) and time (HH:MM AM/PM).	Date	–
	Area (m²)	Yes	Area of grid cell in square metres (m²), corresponding to survey area.	Double	–
	Latitude	Yes	Y coordinate of grid centroid in DD.	Double	–
	Longitude	Yes	X coordinate of grid centroid in DD.	Double	–
	UTM Zone	Yes	UTM Zone.	Integer (short)	–
	UTM Northing	Yes	Y coordinate of grid centroid in UTM.	Double	–
	UTM Easting	Yes	X coordinate of grid centroid in UTM.	Double	–
	Employer	No	Name of the company or agency that the person is directly employed by.	Text/String	–
	Funding Agency	No	Select the funding agency that is paying for the work to be done. If multiple funders exist or in cases when an agency has been hired to manage the work on behalf of the primary funding agency, multiple Funding Agencies may be chosen. However, multiple funding agencies must first have been indicated when the user signed into InvasivesBC.	Text/String	Agency
	Jurisdiction	No	This is the entity that has responsibility for the land base or waterbody where the infestation occurs. If the infestation falls on 2 or more jurisdictions, add jurisdictions using ADD ITEM and enter the % of each jurisdiction. Total must add to 100%. The data from observations and treatments with more than one jurisdiction can be split after the data is entered – when extracted from the database.	Text/String	Jurisdiction
	Location Description	Yes	Provide location directions – include both general area and how to get to the infestation. Format should be: General area of the province, closest town, Invasive Plant/Species Management Area (if applicable), road access directions from a landmark, ground access directions using direction and distance from a landmark. For example: NW BC, Smithers, Bulkley IPMA, Railroad Ave., 10 meters N from 30 km speed sign.	Text/String	–
	Access Description	No	Additional location information to find the infestation. Include the location of gates or hazards such as wet areas or needing an ATV or walk-in access or that the infestation is in a particular location within the geometry. Example of good location description will include regional district, closest municipality, proximity and orientation to majority landmarks. For example: Fraser Valley RD, 2km east of Mission, north side of Hwy 7 at upstream end of CP culvert.	Text/String	–
	Comments	No	Description of any supporting information about the observation that is not captured elsewhere.	Text/String	–
	Project Code	No	ERM Project Number.	Integer (short)	–

	Attribute <sup>1</sup>	Required	Description	Data Type	Domain <sup>2</sup>
General Observation	Pre-Treatment Observation	Yes	Yes if the observation was completed directly before a treatment occurs. No if the observation is occurring after the treatment or during a separate survey.	Text/String	YesNoUnknown
	Observer #1	Yes	Observation Person #1.	Text/String	Observer
	Observer #2	No	Observation Person #2.	Text/String	Observer
	Soil Texture	No	Relative amount of sand, silt, clay, organic matter, and bedrock throughout the observation area.	Text/String	SoilTexture
	Specific Use	Yes	Notable land uses or attributes within the observation area.	Text/String	SpecificUse
	Slope	Yes	Exact or general slope of the land expressed as a percentage.	Text/String	Slope
	Aspect	Yes	Average orientation that slope is facing within the observation area (e.g.; SE = southeast).	Text/String	Aspect
	Research Observation	No	Is this observation part of a research project? Add details in project code or comments fields.	Text/String	YesNoUnknown
	Visible Well nearby	No	Choose Yes if there is a visible well or other domestic water intake nearby. Look for a well head, dugout, pump house, etc. Indicate the distance from the observation in the comments.	Text/String	YesNoUnknown
	Suitable for Biocontrol agent(s)	No	Choose Yes if the infestation is large, evenly infested and the site appears secure from future disturbance.	Text/String	YesNoUnknown
Terrestrial Plant Observation Form	Invasive Plant	Yes	Invasive Plant Species Name.	Text/String	SpeciesNunavut
	Invasive Plant Observation Type	Yes	Occurrence describes the presence or absence of target invasive plants within a defined area. Positive – if the plant is found. Additional fields will appear if plant observation positive. Negative – if the plant is not found – used for extent surveys such as roads or large areas where the target invasive plant is not found.	Text/String	Occurrence
	Invasive Plant Percent Cover	Yes	Percent Cover.	Integer (short)	PercentCover
	Invasive Plant Density (plants/m <sup>2</sup> )	Yes	Average number of individual plants per square meter in patches expressed as a density class code.	Text/String	Density
	Invasive Plant Distribution	Yes	Description of the average arrangement of invasive plant clusters within the observation area expressed as a distribution code.	Text/String	Distribution
	Invasive Plant Life Stage	Yes	Average phenological stage of plant (e.g., seedlings, mature: flowering, etc.)	Text/String	LifeStage
	Invasive Plant Voucher Specimen Collected	Yes	Yes – if Voucher Specimen has been collected. Selecting Yes will bring up additional Fields: Voucher Sample ID, Date Voucher Collected, Date Voucher Verified, Name of Herbarium, Accession Number, Voucher verification completed by: Name, Organization. Exact UTM Coordinates of the voucher collection site: UTM Zone, UTM Easting, UTM Northing.	Text/String	YesNo
Editor Tracking	Global ID*	Yes	Unique code to a feature generated by ArcGIS Online.	Global ID	–
	Creator Name*	Yes	Editor tracking field for name of feature creator generated by ArcGIS Online.	String (50 char. text)	–
	Creation Date*	Yes	Editor tracking field for date of feature creation generated by ArcGIS Online.	Date	–
	Editor Name*	Yes	Editor tracking field for name of feature editor generated by ArcGIS Online.	String (255 char. text)	–
	Editor Date*	Yes	Editor tracking field for feature edit date generated by ArcGIS Online.	Date	–

Notes:

<sup>1</sup> Invasive plant species attributes were modified from the InvasivesBC Reference Guide (BC Ministry of Forests 2023).

<sup>2</sup> Domains refer to fields with automated values.

## APPENDIX X      INVASIVE PLANT SPECIES SURVEY123 FIELD FORM



KSM Invasive Plant Survey

Grid Information ▾

Grid ID\*

Date\*

MM/DD/YYYY

Time\*

03:26 PM

Location Description\*

Nunavut, Hope Bay, Hope Bay Belt Project

215

Access Description

255

Comments

Invasive Plant

1

255

Project Information ▾

Employer

ERM

Agency

Agnico Eagle

Jurisdiction

MN

Project Code

0685812-03

General Observations ▾

Observer #1\*

**Observer #2**

Angie Wu (ERM) ▼

**Pre-treatment Observation?\***☐ No☒ Yes**Soil Texture**

-Please select- ▼

**Specific Use\***

Mine Site ▼

**Research Observation**

Unknown ▼

**Visible Well Nearby?**

Unknown ▼

Suitable for Biocontrol Agent(s)

Unknown

▼

Invasive Plant

1

Were invasive plants identified in this grid cell?\*

☐

No

☒

Yes

Invasive Plant Info (1) ▼

Species Name\*

▼

Observation Type

☐

Negative

☒

Positive

Percent Cover

Code	Description	Details	Area if 50 m x 50 m grid
0	Not Present	Species is not observed within area	
1	<1%	< 1%: Trace abundance	<25 m <sup>2</sup>
2	1-10%	1-10%: Low abundance	25-250 m <sup>2</sup>
3	11-25%	11-25%: Moderate abundance	250-625 m <sup>2</sup>
4	26-50%	26-50%: High abundance	625-1250 m <sup>2</sup>
5	>50%	> 50%: Very high abundance	>1250 m <sup>2</sup>

Life Stage

-Please select-

▼

Voucher Specimen Collected?

☒ No










☐ Yes

Opportunistic Management Applied

255

Expand for distribution code description ▼



Invasive Plant Survey - Distribution Codes		
Code	Image	Description
1		Rare individual, a single occurrence
2		Few sporadically occurring individuals
3		Single patch or clump of a species
4		Several sporadically occurring individuals
5		A few patches or clumps of a species
6		Several well-spaced patches or clumps
7		Continuous uniform occurrence of well-spaced individuals
8		Continuous occurrence of a species with a few gaps in the distribution
9		Continuous dense occurrence of a species

Distribution Code

☐

1

☐

2

☐

3

☐

4

☐

5

☐

6

☐

7

☐

8

☐

9

Expand for density code description ▼

Unknown

1| <= 1plant/m2 (Low)

2| 2-5 plants/m2 (Med)

3| 6-10 plants/m2 (High)

4| >10 plants/m2 (Dense)

Not Applicable - actual foot-print or sample location

Invasive Plant

1

Density Code

☐

Low

☐

Medium

☐

High

☐

Dense

Photos

Submit

## APPENDIX Y      INVASIVE PLANT SPECIES SURVEY PRESENTATION & PLANT IDENTIFICATION 2023



## Hope Bay Mine Site

### *Invasive Plant Survey*

### *Presentation*

Presented to: Agnico Eagle Mines Limited  
Presented by: Katherine Baird and Angie Wu

August 2, 2023  
Updated: August 14, 2023

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*The business of sustainability*



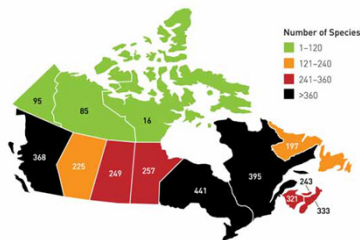
1

## What are Invasive Plant Species?

2

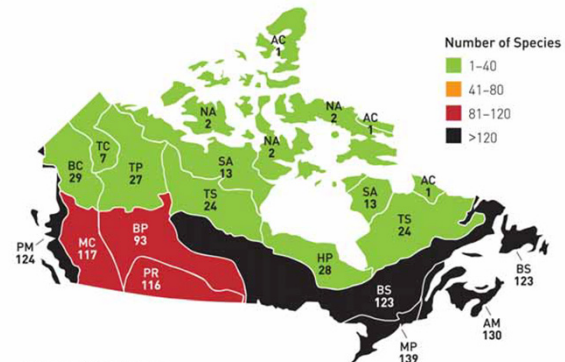
## What are “invasive” plant species?

- Non-native
- Introduced by human activities
- Naturalized
- Negative impacts on the environment, the economy, and/or society including human health
- 16 invasive plant species identified for Nunavut (CFIA 2008) - lowest in all of Canada



Note: Canada has 486 invasive alien plant species.

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### Ecozone Abbreviations

AC Arctic Cordillera  
AM Atlantic Maritime  
BC Boreal Cordillera  
BP Boreal Plain  
BS Boreal Shield  
HP Hudson Plain  
MC Montane Cordillera  
MP Mixedwood Plain

NA Northern Arctic  
PM Pacific Maritime  
Pr Prairie  
SA Southern Arctic  
TC Taiga Cordillera  
TP Taiga Plain  
TS Taiga Shield

Note: Based on the 162 species for which distribution maps were available.

3

## Properties of Invasive Plants

- Wide ecological tolerance
- Fast growth
- Larger size
- High seed production
- Vegetative reproduction (e.g., suckering)
- Long dispersal (wind, bird, water)
- Phenotypic plasticity
- Earlier / Longer growing season
- Modify ecosystem (e.g., Allelopathic)



Field Pennycress, *Thlaspi arvense* – Wisconsin Horticulture

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4

4

## Ecological Impacts of Invasive Plants

- Displace native plant species
- Reduce biodiversity
- Inhibit forest regeneration
- Impact natural succession
- Alter forest structure
- Reduce forest productivity
- Increase erosion / flooding
- Alter soil chemistry
- Disease spread
- Degrade wildlife habit

(Fagan & Peart 2004; Hejda et al. 2002;  
Narango et al. 2018; OIPC 2020: Quentin &  
Fuller 2013, etc.)



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5

5

## Pathways of Introduction/Spread

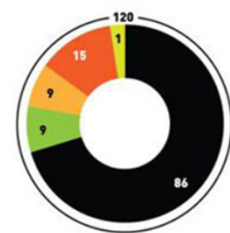
- ~54% invasive plants deliberately introduced; 46% unintentionally introduced to Canada (CFIA 2008)
- Most commonly: *Asteraceae* (daisy or composite family), *Poaceae* (grass family), *Brassicaceae* (mustard family), *Fabaceae* (pea family), and *Lamiaceae* (mint family)
- **Sources:** contaminated soil, sand, gravel; seeds or plant material on shoes/equipment
- **Corridors of spread:** roads, trails, watercourses

Total Number of invasive alien species with pathway information: 245 (out of 486)



Intentional Introduction 141

- as agricultural crop (food, fodder, fibre) [33]
- as ornamental or landscaping plant [73]
- for soil improvement, erosion control, reclamation [15]
- for herbal or medicinal use [15]
- for research (escape from research stations, botanical gardens, arboreta, etc.) [2]
- unknown purpose [3]



Unintentional Introduction 120

- with plant products (contaminants in seed, forage, produce, wood products, garden supplies) [86]
- with livestock or other animals [9]
- in soil, sand, gravel (including ballast soil) [9]
- with freight, packing materials, machinery, equipment, etc. [15]
- through recreation/tourism (baggage, camping equipment, boats, etc.) [1]

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6

6

## Why are we Monitoring Invasive Plants?

7

### Regulatory Requirements - NIRB

#### NIRB (Nunavut Impact Review Board):

- Hope Bay is regulated by NIRB who screens and assesses potential impacts of proposed developments in the Nunavut Settlement Area prior to approval of the required project authorizations
- NIRB assesses the potential biophysical and socio-economic impact of proposals using both traditional knowledge and recognized scientific methods. The Board will make recommendations and decisions about whether a project requires review and whether or not project proposals should proceed
- The Board may also establish monitoring programs for projects that have been assessed and approved to proceed



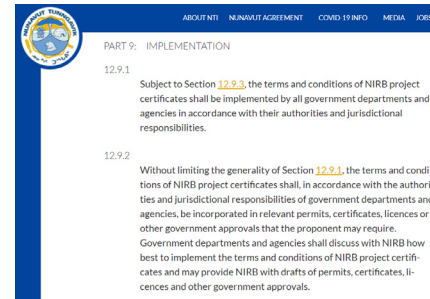
8



## Regulatory Requirements - NIRB

### Phase 2 Hope Bay Belt Project Certificate [NO.:009]:

- This site received a Project Certificate from NIRB in 2018 for approval to proceed and outlines the monitoring program requirements for Hope Bay
- Term and Condition No. 17
  - Category: Vegetation – invasive and rare plant species
  - Objective: to prevent the introduction of invasive plant species and protect rare plant species
  - Reporting Requirements: a description of monitoring and mitigation undertaken, and a summary of related results related to introduction of invasive plant and protection of rare plants shall be provided in the Proponent's annual report to the NIRB
- Commitment No. 4
  - Subject: Invasive Plant Management
  - Commitment: Include a section in the Wildlife Mitigation and Monitoring Plan (WMMP) on invasive plant species detection and management, and report in the annual compliance report



[12 - Nunavut Agreement \(tunnagvik.com\)](https://tunnagvik.com)

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9

## Regulatory Requirements –Wildlife Mitigation and Monitoring Plan

### 2.11 Vegetation Management

Hope Bay has designed the Project to minimize footprints on the land and avoid disturbance of vegetation and rare plants. Identified environmentally sensitive sites and plants were avoided to the extent possible during the design phase of the Project. Habitat loss for rare plants within the Project footprint will be monitored and compared to impact predictions (Section 3.1.1).

#### 2.11.1 Invasive Plants

Mitigation to prevent the introduction of invasive plant species through Project activities includes:

- Minimizing clearing and laydown areas, to reduce the areas where disturbance or de-vegetation would allow invasive plants to establish;
- Promptly re-vegetating short-term disturbance or clearing areas with native plant species, to avoid soil degradation;
- Inspecting all vehicles and mobile equipment for cleanliness prior to arrival on site, and inspecting again prior to use at site (i.e., no debris on tires/tread, rims, or interior flooring and seats); and
- Instructing personnel to clean gear (e.g., boots, shovels) prior to arrival at site.

#### 3.1.14.1 Invasive Plant Monitoring

Management for invasive plant species includes mitigations to prevent the establishment and spread of invasive plants (Section 2.11.1), and monitoring to determine presence and/or distribution of invasive plants.

Monitoring of invasive plants will be conducted at least every 5 years, or more frequently if invasive plant species in need of ongoing management are identified. Precise methods will be detailed in an Invasive Plant Monitoring SOP prior to the onset of surveys. Monitoring of invasive plants will include:

- Transects near infrastructure locations, cleared areas, roads, and sites where clearing is planned in future;
- Surveys conducted within the Local Study Areas established for Doris, Madrid, and Boston;
- Surveys for all transects conducted every 5 years through post-closure.

All monitoring results and incidental observations will be summarized in the annual WMMP Report. In the event that invasive plants are identified on site, the type of plant, the season of identification, and the degree

Hope Bay Project

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Wildlife Mitigation and Monitoring Plan  
February 2023



of invasion will be determined and reported to the GN DOE immediately. If control is required, appropriate treatment options and timing will be identified and implemented in consultation with the GN DOE.

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10

10



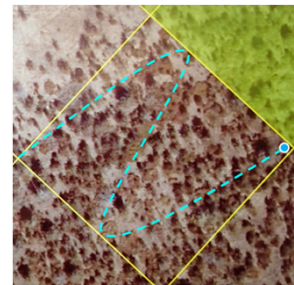
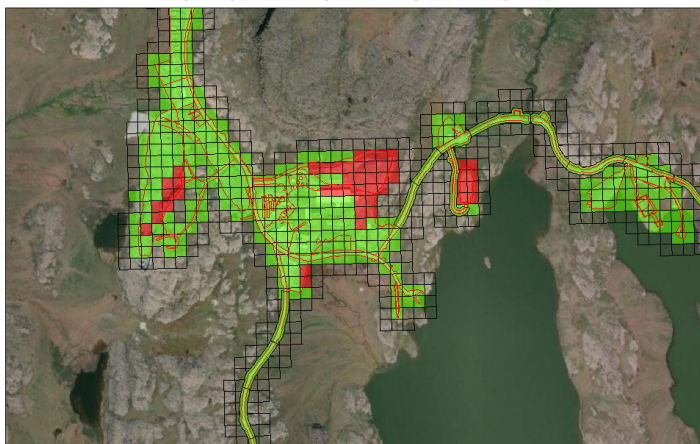
# Invasive Plant Monitoring Methods

ArcGIS Field Maps

11

## ArcGIS Field Maps

Hope Bay Invasive Species - July 31, 2023 (Doris)



Surveyed entire site including any roads along with all of Doris, Madrid, and Boston



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## Invasive Plant Survey Methods

Applications: ArcGIS Field Maps, Survey123  
Standardized fields/drop-downs

### Collected Data

- Species and Location
- Abundance (percent cover)
- Distribution
- Density
- Other details: location, date, features, etc.
- References InvasivesBC standards

### Survey Methods

- 50 m x 50 m survey grid
- Rapid survey along roads (10 m buffer) -  
3km/hr road assessment

Walked around infrastructure/disturbed areas

### Density codes

Unknown  
1|<= 1plant/m2 (Low)  
2|2-5 plants/m2 (Med)  
3|6-10 plants/m2 (High)  
4|>10 plants/m2 (Dense)  
Not Applicable - actual foot-  
print or sample location

### Distribution codes

Invasive Plant Survey - Distribution Codes		
Code	Image	Description
1		Rare individual, a single occurrence
2		Few sporadically occurring individuals
3		Single patch or clump of a species
4		Several sporadically occurring individuals
5		A few patches or clumps of a species
6		Several well-spaced patches or clumps
7		Continuous uniform occurrence of well-spaced individuals
8		Continuous occurrence of a species with a few gaps in the distribution
9		Continuous dense occurrence of a species

13

**Invasive Plants with  
Potential to Occur in the  
Arctic**

14



## Invasive Forbs/Shrubs

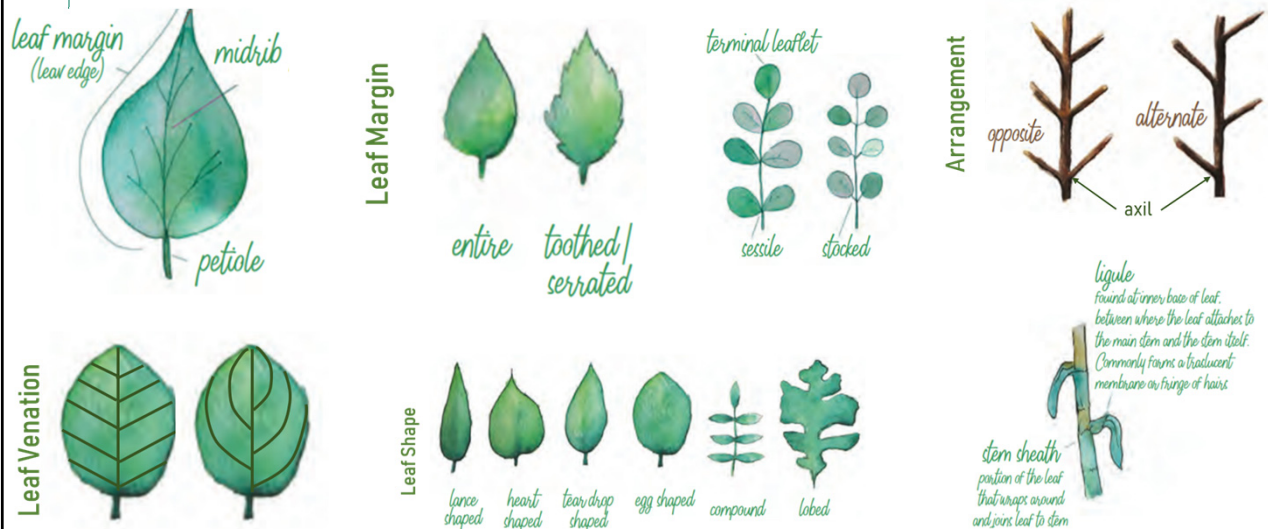
15

### Invasive Forbs/Shrubs with Potential to Occur in Hope Bay

Scientific Name	Common Name	Life Form	Predicted Invasiveness
<i>Amaranthus retroflexus</i>	green amaranth	forb	not rated
<i>Atriplex patula</i>	spear saltbush	forb	not rated
<i>Barbarea vulgaris</i>	yellow rocket	forb	not rated
<i>Bertea incana</i>	hoary false-alyssum	forb	low
<i>Capsella bursa-pastoris</i>	shepherd's purse	forb	not rated
<i>Caragana arborescens</i>	Siberian peashrub	shrub	low/potential
<i>Carum carvi</i>	wild caraway	forb	not rated
<i>Cirsium arvense</i>	creeping thistle	forb	moderate/low
<i>Leucanthemum vulgare</i>	oxeye daisy	forb	not rated
<i>Matricaria discoidea</i>	pineapple chamomile	forb	not rated
<i>Medicago sativa</i>	alfalfa	forb	low
<i>Melilotus albus</i>	sweet white clover	forb	moderate
<i>Melilotus officinalis</i>	yellow sweet clover	forb	moderate
<i>Papaver somniferum</i>	opium poppy	forb	not rated
<i>Plantago major</i>	common plantain	forb	not rated
<i>Polygonum aviculare</i>	prostrate knotweed	forb	not rated
<i>Ranunculus acris</i>	tall buttercup	forb	not rated
<i>Sonchus arvensis</i>	field sow thistle	forb	not rated
<i>Tanacetum vulgare</i>	common tansy	forb	potential
<i>Taraxacum officinale</i>	common dandelion	forb	not rated
<i>Thlaspi arvense</i>	field pennycress	forb	not rated
<i>Tripleurospermum inodorum</i>	scentless chamomile	forb	not rated
<i>Vicia cracca</i>	tufted vetch	forb	not rated

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## Plant Identification Features (Foliage)



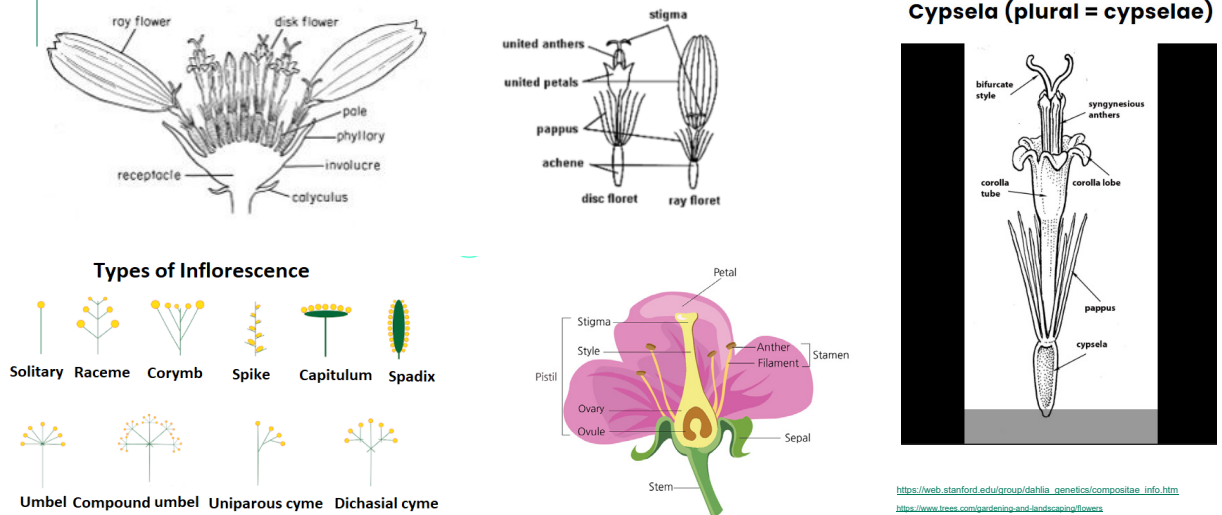
Plant ID Key for region near Hope Bay: [Vascular plants of Victoria Island \(Northwest Territories and Nunavut, Canada\): a specimen-based study of an Arctic flora \(pensoft.net\)](#)

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## Plant Identification Features (Flowers)



Plant ID Key for region near Hope Bay: [Vascular plants of Victoria Island \(Northwest Territories and Nunavut, Canada\): a specimen-based study of an Arctic flora \(pensoft.net\)](#)

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18



## Invasive: Scentless Chamomile (*Tripleurospermum inodorum*)

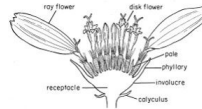
*Tripleurospermum inodorum* (Scentless False Mayweed) - Minnesota Wildflowers

- Flowers: Daisy-like
- Leaves: Compound, dissected, dill-like, not fleshy
- Phyllaries (bracts under flowers): **relatively narrow, margins light brown**
- Resin glands: **± circular** (lengths mostly 1–1.5x widths)
- Stems: typically **ascending** to erect
- Annual**
- Native Look-alike: *Tripleurospermum maritimum* subsp. *phaeocephalum*

ID Keys:

[http://www.efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=133732](http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=133732)

<https://inspection.canada.ca/plant-health/seeds/seed-testing-and-grading/seeds-identification/tripleurospermum-inodorum/eng/1405513897968/1405513898734>



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2007 © Peter M. Dziuk

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## Native: Seaside Chamomile (*Tripleurospermum maritimum* subsp. *phaeocephalum*)

*Tripleurospermum maritimum* subsp. *phaeocephalum* - Flora of the Canadian Arctic Archipelago

Inuktitut: imuguaq, misait, misartaq (Nunavik)

Syn. *Tripleurospermum hookeri*

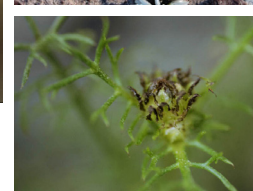
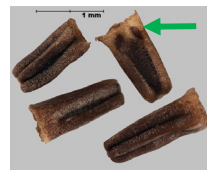
- Flowers: Daisy-like
- Leaves: Compound, dissected, dill-like, more fleshy
- Stems: typically procumbent (growing along ground), sometimes ascending
- Perennial (or biennial)**

**Native subspecies:** *Tripleurospermum maritimum* subsp. *phaeocephalum*

- Phyllaries (bracts under flowers): **relatively wide** (broadly triangular), margins **black/dark brown** and **0.4–1 mm wide**
- Cypselae (fruit): Resin glands **elongated** (lengths mostly **2x widths**)
- Habitat: seashores (near high tide strand line), moist sandy sites

**Introduced subspecies:** *Tripleurospermum maritimum* subsp. *maritimum*

- Phyllaries (bracts under flowers): **more narrow** (oblong or narrowly triangular), margins **pale/dark brown** and **0.2–0.4 mm wide**
- Cypselae (fruit): Resin glands **elongated** (lengths mostly **much more** than 2x widths)



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## Hope Bay *Tripleurospermum* specimen (Native subsp. *phaeocephalum*)



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## Invasive: Common Dandelion (*Taraxacum officinale*)

*Taraxacum officinale* (Common Dandelion) - Minnesota Wildflowers

- Flowers: Solitary yellow seed head is very dense with ray flowers
- Stems: Stout and hollow
- Leaves: **Undersides typically hairy**, deeply lobed
- Phyllaries (bracts under flowers): **usually hornless**, equal in length to the rays and are arrayed in 2 rows with the outermost row spreading out or curled down
- Fruit: dry seed, olive green, dull brown or grayish, with a tuft of white to grayish brown hairs to carry it off into the wind
- Other: Leaves/roots/stems exude milky sap when broken
- Native Look-alikes: *T. ceratophorum*, *T. hyparcticum*, *T. phymatocarpum*, *T. scopulorum*, *T. holmenianum*

ID Resources:

[Dandelion | Cornell Weed Identification](#)  
[E-Flora BC Atlas Page \(ubc.ca\)](#)

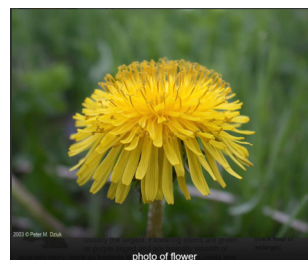
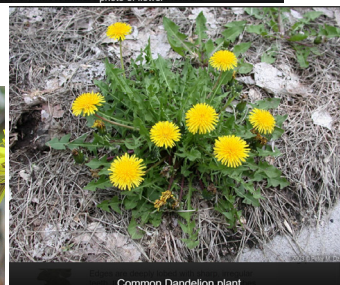


photo of flower



photo of fruit



Common Dandelion plant



photo of typical leaf

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## Native: Horned Dandelion (*Taraxacum ceratophorum*)

*Taraxacum ceratophorum* - Flora of the Canadian Arctic Archipelago

- Flowers: Solitary yellow, head very dense with ray flowers
- Stems: Stout and hollow
- Leaves: **Hairless**, sub-entire to deeply lobed
- Phyllaries (bracts under flowers): apex **notably horned**
- Other: Leaves/roots/stems exude milky sap when broken
- Habitat: wet meadows (at the edges), along streams, lakeshores, ridges; imperfectly drained moist areas, seepage slopes; gravel, sand, clay

Other native species: *T. hyparcticum*, *T. phymatocarpum*, *T. scopulorum*, *T. holmenianum*

ID Keys:

[Flora of North America \(Efloras.org\)](http://Flora of North America (Efloras.org))

[Vascular plants of Victoria Island \(Northwest Territories and Nunavut, Canada\): a specimen-based study of an Arctic flora \(pensoft.net\)](#)



[Vascular plants of Victoria Island \(Northwest Territories and Nunavut, Canada\): a specimen-based study of an Arctic flora \(pensoft.net\)](#)

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## Hope Bay *Taraxacum* specimen (Native *T. ceratophorum*)



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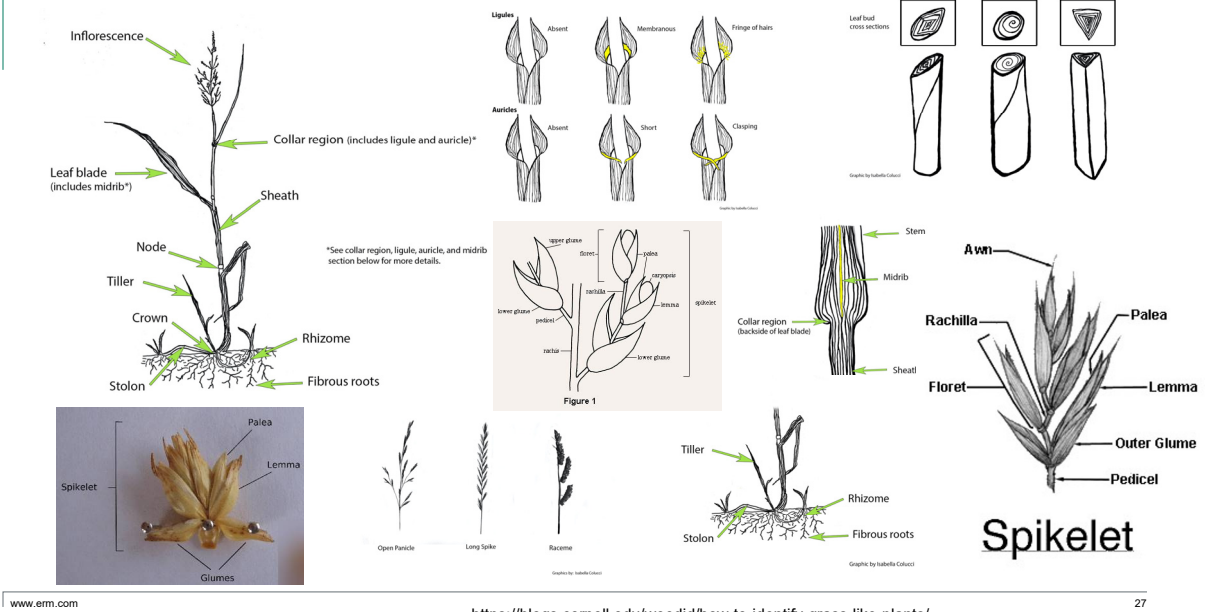
## Invasive Grasses with Potential to Occur in Hope Bay

Scientific Name	Common Name	Life Form	Predicted Invasiveness
<i>Agropyron cristatum</i>	crested wheat grass	graminoid	not rated
<i>Bromus inermis</i>	awnless brome	graminoid	moderate/low
<i>Hordeum vulgare</i>	common barley	graminoid	not rated
<i>Phalaris arundinacea</i>	reed canary grass	graminoid	moderate/low
<i>Poa compressa</i>	flat-stem blue grass	graminoid	minor/potential
<i>Poa pratensis</i>	kentucky blue grass	graminoid	minor/potential
<i>Puccinellia distans</i>	spreading alkali grass	graminoid	not rated

26

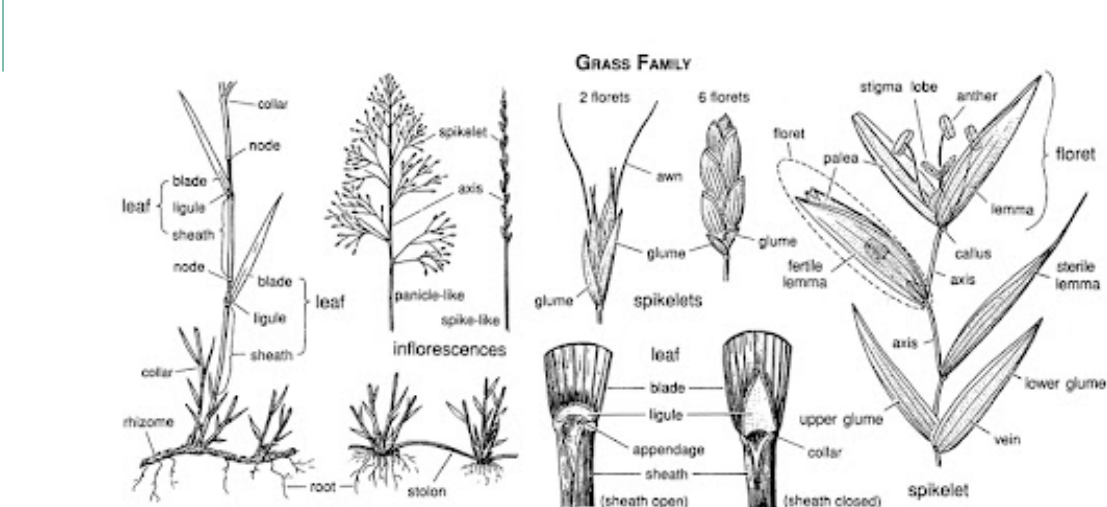


## Graminoid Identification Features



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## Grass Identification Features



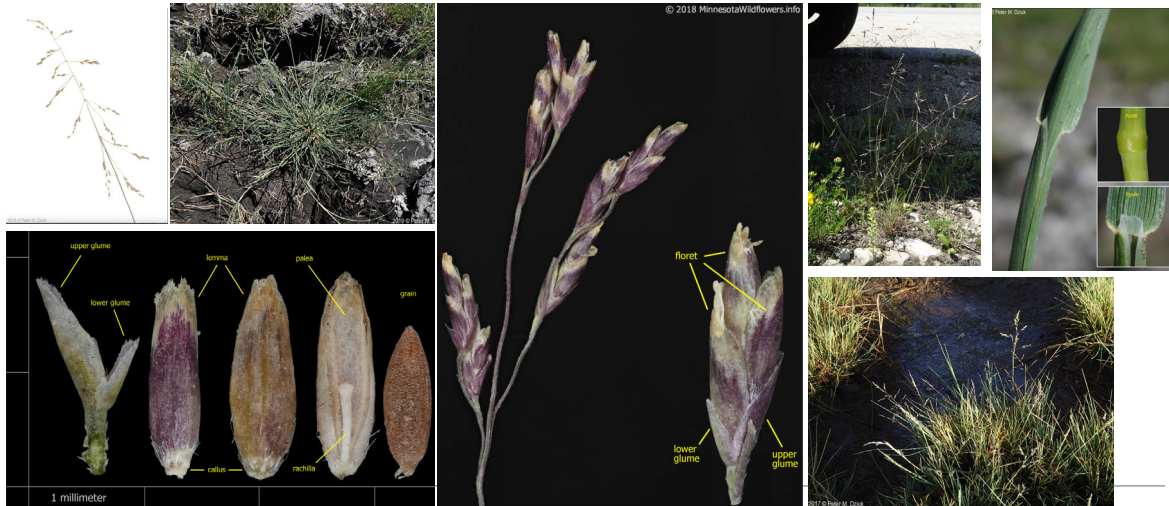
*Poaceae* glossary (Hickman, C. 'The Jepson Manual Higher Plants of California drawing by Linda Ann Vorobec et al. 1993)

28

## Invasive: *Puccinellia distans* (spreading alkali grass)

*Puccinellia distans* (Weeping Alkaligrass): Minnesota Wildflowers

Native Look-alikes: native *Puccinellia* species (e.g., *P. nuttalliana* [most similar], *P. andersonii*, *P. angustata*, *P. arctica*, *P. banksiensis*, *P. bruggemannii*, *P. phryganodes*, *P. tenella*, *P. vaginata*, *P. vahliana*)



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## Native: *Puccinellia nuttalliana* (Nuttall's Alkaligrass)



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## Hope Bay *Puccinellia* specimen (likely Native *P. nuttalliana*)



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## Monitoring Results



- Surveyed entire site including any roads along with all of Doris, Madrid, and Boston
- No Invasive Plants were found during the survey
- Dandelion and Chamomile species found in various areas of the site but were determined to be native species

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## Best Management Practices for Invasive Plant Species Prevention

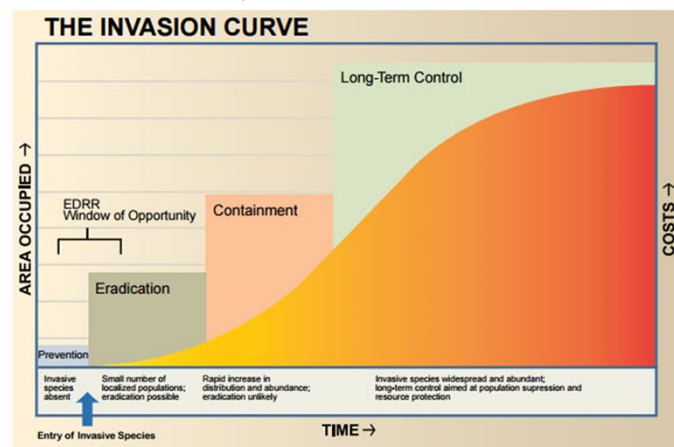
Ways to prevent introduction and spread

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### Preventing Invasive Plant Introductions

- **Stages of Invasion:** Introduction, Colonization, Proliferation
- Effectiveness of control decreases with time and costs of control increase
- **Management objective:** Due to the remote location of the Project and no occurrence of invasive plants currently, the goal is **Prevention** - to avoid the introduction species that may negatively affect native vegetation or wildlife
- Due to the remote location of the Project, the main source of introduced plants is mine activities (e.g., contamination shipments, equipment, clothing/boots); other uses from surrounding communities a lower risk
- Climate change risk for expansion of invasive species and increased potential in the Arctic

EDRR = Early Detection and Rapid Response



<https://www.floridainvasives.org/mgmt101.cfm>

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## Overview of Recommendations

### Wildlife Mitigation and Monitoring Plan (2023):

- Minimizing clearing and laydown areas, to reduce the areas where disturbance or de-vegetation would allow invasive plants to establish;
- Promptly re-vegetating short-term disturbance or clearing areas with native plant species, to avoid soil degradation (e.g., locally collected seed);
- Inspecting all vehicles and mobile equipment for cleanliness prior to arrival on site, and inspecting again prior to use at site (i.e., no debris on tires/tread, rims, or interior flooring and seats); and,
- Instructing personnel to clean gear (e.g., boots, shovels) prior to arrival at site.

Additionally – do not bring in outside soil/fill/seed/plant material for risk of contamination



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## Thank you

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## Invasive Plant ID Resources

Invasive Forbs/Shrubs

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### **Invasive:** *Amaranthus retroflexus* (Green Amaranth/Pigweed)

#### *Amaranthus retroflexus* (Redroot Pigweed): Minnesota Wildflowers

- Tiny flower are tightly packed in small clusters (glomerules) in a spike-like arrangement at the tips of branching stems and arising from leaf axils
- The spikes are thick, dense, relatively short, erect to ascending but not stiff, and usually numerous
- Flowers have 5 tepals that are 2.5 to 3.5 mm long, thin, translucent whitish with a green midrib, more or less oblong and rounded at the tip, with a minute, sharp point at the apex (mucronate)
- Male flowers have 3 to 5 yellow stamens and female flowers have a 3-parted style at the tip of an oval green ovary
- Leaves are alternate, 1 to 6 inches long, ½ to 3 inches wide, egg to diamond-shaped, widest at or below the middle, hairless to sparsely hairy, more densely hairy along the veins on the underside, bluntly pointed at the tip, wedge-shaped to somewhat rounded at the base. Edges are toothless and often somewhat wavy
- Fruit is a dry seed that is enclosed in a persistent ovary shell that has a seam around the middle with the top coming off like a cap to expose the seed
- Seeds are lens-shaped, 1 to 1.3 mm long and are smooth, shiny, and black to dark reddish-brown



photo of flower clusters



photo of stem and leaf stalk hairs

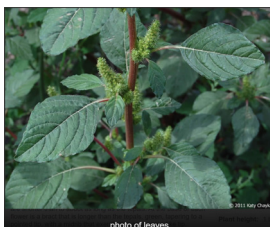
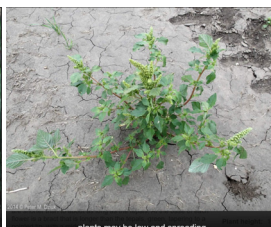


photo of leaves



plants may be low and spreading



close-up of female flower



photo of mature fruit

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## Invasive: *Atriplex patula* (Spear Saltbush)

[E-Flora BC Atlas Page \(ubc.ca\)](http://www.erm.com)

- Annual herb from a taproot with stems erect or ascending, simple or branched up to 5 to 80 cm tall
- Lower leaves are opposite with upper leaves alternate, stalked or stalkless, 1 to 10 cm long, lanceolate to broadly lanceolate, 2 to 4 cm wide, rounded at the base, smooth or toothed, upper leaves green below, others covered with a whitish mealy substance above and below when young but becoming glabrous and greenish with maturity
- Inflorescence of terminal or axillary spikes or panicles; pistillate bracteoles somewhat basally thickened at maturity, the largest bracteoles are somewhat diamond-shaped, margins united almost to the middle, lateral teeth present, densely compressed in the inflorescence, more or less uniform in size, 3 to 6 mm long
- Fruits are membranous pericarps, seeds erect, 1.5 to 2.5 mm long



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## Invasive: *Barbarea vulgaris* (Yellow Rocket)

[Barbarea vulgaris \(Garden Yellow Rocket\): Minnesota Wildflowers](http://www.erm.com)

- Flowers are in rounded clusters 1 to 1½ inches across at the top of branching stems in the upper plant
- Individual flowers are about 1/3 inch across with 4 yellow petals, 6 yellow-tipped stamens, and 4 yellow-green sepals
- Clusters elongate as the plant matures, with flowers blooming at the tip and fruit forming along the stem below
- Leaves become progressively smaller as they ascend the stem. Near the base of the plant they are deeply lobed with a large rounded lobe at the tip and 1 to 4 pairs of small rounded lobes on the stalk
- Basal leaves are up to 6 inches long and 2½ inches wide with edges often somewhat wavy
- At the top of the plant, the upper leaves are rather smaller and somewhat variable. They may be unlobed, wedge shaped to oval to shallowly lobed with little or no stalk. Attachment is alternate
- Fruits are slender green pods about 1 inch long that typically angle or curve up. The pods hold numerous tiny brown seeds



photo of flowers



photo of leaves



photo of upper leaves

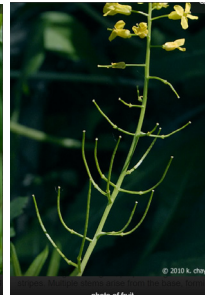


photo of fruit



plant gone to seed

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## **Invasive: *Berteroa incana* (hoary false-alyssum)**

### *Berteroa incana* (Hoary Alyssum): Minnesota Wildflowers

- Flowers are a rounded cluster 1 to 2 inches across at the end of branching stems near the top of the plant
- Individual flowers are  $\frac{1}{4}$  inch across and have 4 white petals that are deeply notched to look like 8
- There are 6 thick yellowish green stamens in the center
- Leaves are  $1\frac{1}{2}$  to 3 inches long and up to  $\frac{1}{2}$  inch wide, toothless, and have a pointed or blunt tip and no stalk
- They are covered in fine hairs that give them a grayish green color. Attachment is alternate
- Stems are densely hairy, single or multiple from the base and usually branching
- Fruit is a round, play pod that is  $\frac{1}{4}$  inch long with the stub of a style at the top. They run along the length of the elongated branching stems



photo of flowers



photo of leaves



photo of fruit



Hoary Alyssum plants, single stems



Hoary Alyssum plants, multiple stems from the base

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## **Invasive: *Capsella bursa-pastoris* (shepherd's purse)**

### *Capsella bursa-pastoris* (Shepherd's Purse): Minnesota Wildflowers

- Flowers are in rounded clusters at the end of the stems and at the top of the plant
- Individual flowers are about  $\frac{1}{4}$  inch across when fully open with 4 rounded white petals and 6 greenish yellow stamens in a ring
- A plant will have few to several flowering branches, depending on ground conditions
- Basal leaves and stem leaves are present, with stem leaves being widely spaced, narrowly arrowhead shaped, up to about 1 inch long and about  $\frac{1}{4}$  inch wide, and stalkless
- Basal leaves are stalked, about 4 inches long, up to 1 inch wide, deeply lobed with lobes pointed or rounded at the tip
- Stems are erect to sprawling, variously hairy and usually branched



photo of flowers



photo of fruit



Shepherd's Purse plant



flowers not fully open



sprawling plant with many stems

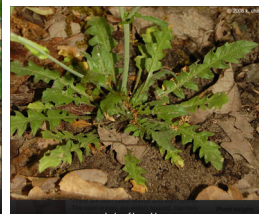


photo of basal leaves

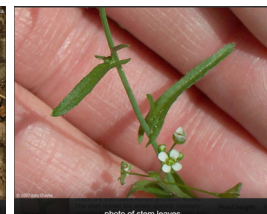


photo of stem leaves

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