



MEMO

TO	Blackwater Gold Ltd.
FROM	Patty Vadnais (ERM), Greg Sharam, and Makayla Swain (ERM)
DATE	28 June 2024
REFERENCE	0722163-02-002
SUBJECT	Blackwater 2024 Q1 Wildlife Monitoring Activity

1. INTRODUCTION

The Blackwater Mine (the Mine), owned by Blackwater Gold LTD. (BW Gold), a wholly owned subsidiary of Artemis Gold Inc., is a gold and silver open pit mine located in central British Columbia (BC). The Mine is located approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver.

BW Gold has developed a Wildlife Mitigation and Monitoring Plan (WMMP) to manage potential mine-related adverse effects on wildlife and wildlife habitat during the Construction, Operations, Closure, and Post-closure phases (ERM 2023). A Caribou Mitigation and Monitoring Plan (CMMP; ERM 2022) has also been developed to avoid, reduce, and offset effects on caribou (*Rangifer tarandus caribou*) and associated critical habitat. The 2023 WMMP Compliance Report (ERM 2024a) and 2023 CMMP EAC Compliance Report (ERM 2024b) were submitted in 2024 to the BC Environmental Assessment Office (BC EAO). The submitted 2023 WMMP Compliance Report included reporting of follow-up programs and monitoring of mitigation measures conducted during the period of January 1–December 31, 2023 (ERM 2024a).

This memo serves as an addendum to the 2023 WMMP Compliance Report (ERM 2024a) and associated 2023 CMMP EAC Compliance Report (ERM 2024b). This memo includes a summary of follow-up programs and monitoring conducted during the period of January 1–March 31, 2024, to encompass the entirety of the April 1, 2023–March 31, 2024 reporting period required by the Impact Assessment Agency of Canada (IAAC).

1.1 BACKGROUND

The WMMP incorporates requirements from the Environmental Assessment Certificate #M19-01 (EAC), the federal Decision Statement (DS), and the master Mitigation Table which was approved by the BC Environmental Assessment Office in November 2020 to address EAC condition 43 (ERM 2023a).

The CMMP (ERM 2022) is required by EAC Condition 22 and federal Condition 8.18. The CMMP is guided by federal and provincial legislation, the federal DS and EAC #M19-01, and best management practices and guidelines including the *Recovery Strategy for the Woodland Caribou, Southern Mountain Population (Rangifer tarandus caribou) in Canada* (Environment Canada 2014).

As defined by the WMMP (ERM 2023a) and relevant Mine conditions, a compliance report is prepared annually and will:

- Summarize and present the results of the follow up programs and monitoring of mitigation measures during the previous year, during Construction and Operation of the Mine;
- Include a table of concordance indicating where EAC and DS conditions have been addressed (ERM 2023a);
- Be sent to the BC EAO and Aboriginal Groups by March 31 the year following the reporting year;
- Subsequently, be sent to Environment and Climate Change Canada and Indigenous groups for review and comment by June 30 of the year following the reporting year (DS condition 2.12); and
- Be delivered in its final version to the Canadian Environmental Assessment Agency by September 30 of the year following the reporting year (DS condition 2.13).

The objectives of the annual 2023 WMMP Compliance Report (ERM 2024a), which includes the 2023 CMMP EAC Compliance Report (ERM 2024b), were to:

- Summarize and present the results of the follow-up programs carried out the previous year, as outlined in the WMMP (ERM 2023a);
- Summarize and present the results of the monitoring of mitigation measures carried out the previous year, as outlined in the WMMP (ERM 2023a);
- Provide analysis of monitoring results to test impact predictions from the Environmental Impact Statement (EIS; New Gold 2015, ERM 2017); and
- Provide an overview of adaptive management actions carried out the previous year, along with the reasoning and outcome for each action.

1.2 MONITORING REQUIREMENTS

Compliance monitoring programs conducted during the period of January 1–March 31, 2024 included in this addendum are:

- Pre-clearing Surveys and Mitigation (Section 2);
- Habitat Loss Monitoring (Section 3);
- Incidental Observations, Interactions, Incidents and Mortalities (Section 4); and
- Ungulate Snow Track Surveys (Section 5).

2. PRE-CLEARING SURVEYS AND MITIGATION

DS conditions addressed: 4.1, 8.9, 8.10, 8.14

EAC conditions addressed: 23.c, 23.h.ii

The pre-clearing survey program is outlined in Section 2.1 of the of the 2023 WMMP Compliance Report (ERM 2024a).

2.1 OBJECTIVE

The objective of pre-clearing surveys is to identify and protect wildlife features during designated sensitive periods as described in Table 2.1-1 of the 2023 WMMP Compliance Report (ERM 2024a).

2.2 METHODS

Pre-clearing surveys were completed in accordance with the bird nests and general wildlife features (i.e., bear and furbearer dens, bat roosts and hibernacula, and mineral licks) pre-clearing Standard Operating Procedures (SOPs) developed for the Mine (Appendix C and E of the 2023 WMMP Compliance Report [ERM 2024a]).

2.3 RESULTS

Pre-clearing surveys conducted for four areas within the Mine site footprint between February 14-March 22, 2024 are summarized in the *Blackwater Project Pre-Clearing Wildlife Survey Annual Report 2024* provided in Appendix A.

Pre-clearing surveys conducted for the transmission line right of way between January 4-March 31, 2024 are summarized in Appendix B.

2.3.1 POTENTIAL PILEATED WOODPECKER NEST SITES

In 2024, three potential pileated woodpecker nest sites were identified within the Blackwater Gold Transmission Line Right-of-Way (ROW) by a construction crew. On February 27, 2024 all three potential nest sites were assessed to determine whether they were viable pileated woodpecker nest cavities. This assessment is summarized in the *Pileated Woodpecker Nest Cavity Assessments and Recommendations* memo provided as Appendix C.

Of the three identified potential nest sites, two sites were confirmed to contain suitable pileated woodpecker nest cavities (TH-1205-003 - Pole 231 and MR-1512-2 - Pole 554) while the third site was deemed unsuitable for nesting activity due to the amount of decay within the cavity (JBL-1205-001 - Pole 234) and was cleared after March 15, 2024 following QP assessment and advice. Site MR-1512-2 - Pole 554 was assessed for windthrow by a qualified forestry technician and determined as at inherently higher risk of windthrow damage. However, it was also determined that the 10 m buffer would be sufficient in protection of the tree from windthrow and that cabling or bracing the tree would increase the risk of damage to the tree near the cavity. The surrounding forest was cleared to the 10 m buffer on March 30, 2024. Site TH-1205-003 - Pole 231 was not reached by March 31, 2024 and will be completed in the continuing 2024 season.

2.4 DISCUSSION

Clearing and construction activities are planned to occur outside of sensitive timing windows for wildlife, where possible, with pre-clearing surveys and mitigation mandated by provincial EAC condition 23.c if clearing must occur during sensitive timing windows, as well as Mines Act permit-246 condition C.7 and the Construction Environmental Management Plan. Results from the pre-clearing wildlife surveys conducted for bears, furbearers, bats, and birds are provided in Appendix A and B.

Pileated woodpecker is listed on Schedule 1 of the *Migratory Bird Regulations* (2022) within the *Migratory Birds Convention Act* (1994) and its nests receive year-round protection regardless of whether a live bird, viable egg, or any bird species is utilizing the nest. Nests must be deemed inactive for 36 months through the federal *Registry for Abandoned Nests* prior to disturbance or removal (Government of Canada 2022). Nest site-specific recommendations for the two potential pileated woodpecker nesting sites are provided in Appendix C. Of the two identified potential pileated woodpecker nest sites only Site MR-1512-2 - Pole 554 was buffered and the surrounding area treated between January 1 and March 31, 2024. Site TH-1205-003 - Pole 231 will be treated in the upcoming 2024 season.

3. HABITAT LOSS MONITORING

DS conditions addressed: none

EAC conditions addressed: 23.h

The habitat loss monitoring program is outlined in Section 2.2 of the of the 2023 WMMP Compliance Report (ERM 2024a).

3.1 OBJECTIVES

The objectives of habitat loss monitoring are to:

- Evaluate wildlife habitat loss from Mine construction and compare to predictions from the EIS.
- Measure the amount of habitat recovery at the site during Closure.

3.2 METHODS

Habitat loss was calculated in accordance with the methods described in Section 2.2.2 of the 2023 WMMP Compliance Report (ERM 2024a).

The 2023 annual habitat loss reported in the 2023 WMMP Compliance Report (ERM 2024a) accounted for all changes to the Mine footprint between January 1–December 31, 2023. This addendum reports habitat loss between January 1–March 31, 2024 and the cumulative habitat loss which was calculated as the difference between the footprint at the end of March 2024 and the pre-construction state.

Some species only had partial habitat suitability mapping along the transmission line. As a result, suitable habitat loss within these areas is not reported. Species seasons with missing habitat suitability data between pole 66 and 305 included grizzly bear winter, moose growing, moose winter, and western toad. Species seasons with missing habitat suitability data between pole 1 and 329 included caribou spring, summer, and winter.

3.3 RESULTS

Early Works and major works construction completed from January 1–March 31, 2024 accounted for 563.9 ha of habitat loss, 321.1 ha within the LSA and 242.8 ha within the RSA (Table 3.3-1). The total habitat loss at the Mine since 2022 accounts for 1,130.4 ha, which is 16% of the total area predicted to be lost in the EIS (7,032 ha; Table 3.3-1). Habitat loss in the RSA was primarily associated with forested habitat in 2024, therefore suitable habitat loss was greatest for species which rely on these areas, including moose (*Alces alces*), caribou (*Rangifer tarandus caribou*), grizzly bear (*Ursus arctos*), greater yellowlegs (*Tringa melanoleuca*) and forest interior birds (Table 3.3-1). There was no overlap between the 2024 clearing limits and short eared owl suitable habitat (Table 3.3-1). To date, among each of the species for which habitat loss is evaluated, between 0% and 1.0% of available suitable habitat within the RSA and 0% to 12.2% of suitable habitat within the LSA has been lost due to the Mine (Table 3.3-1).

FIGURE 3.3-1 BLACKWATER MINE FOOTPRINT, January - March, 2024

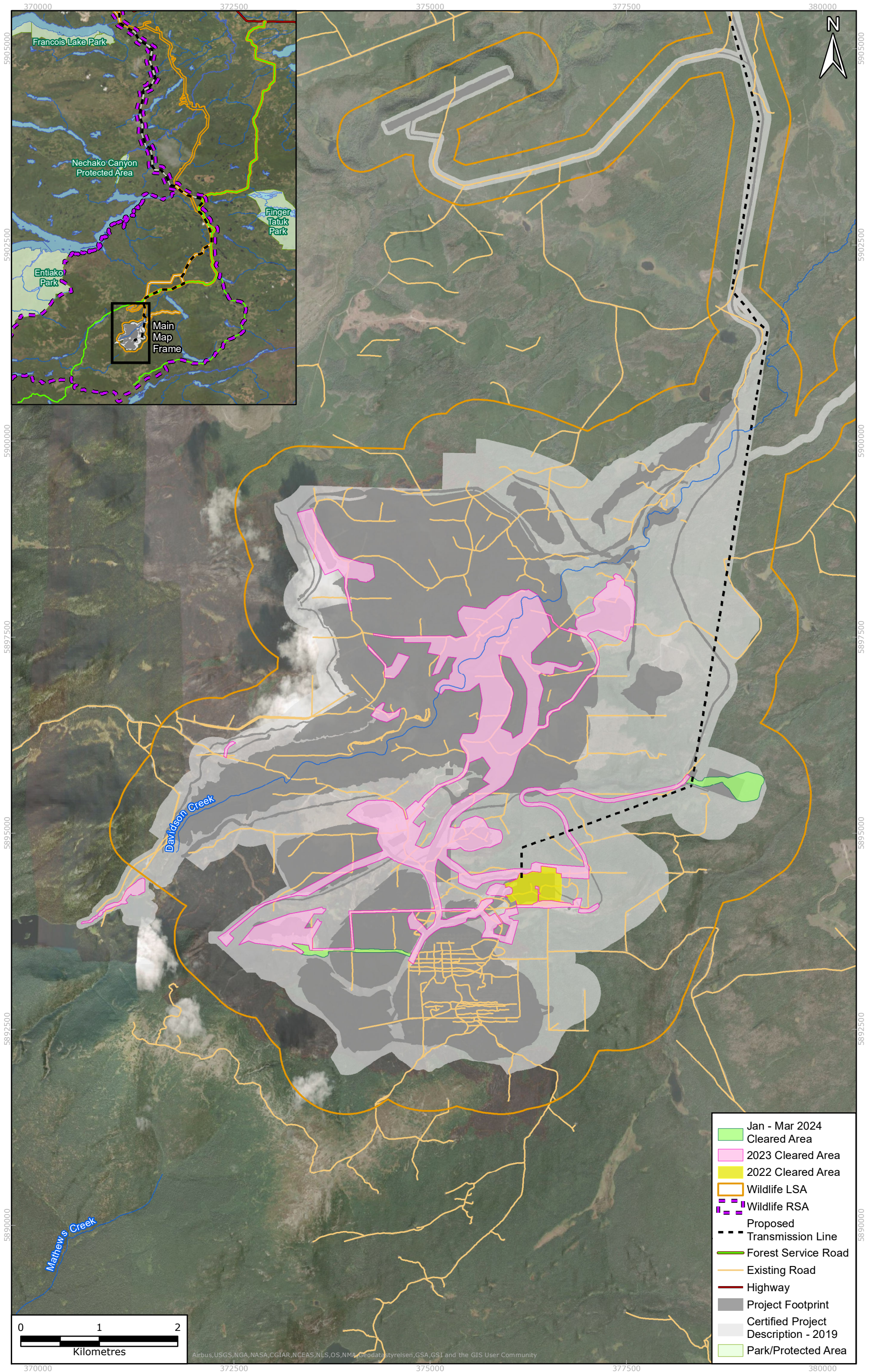


TABLE 3.3-1 ANNUAL AND CUMULATIVE HABITAT LOSS IN THE REGIONAL STUDY AREA BY SPECIES, JANUARY – MARCH 2024

Species		Suitable Habitat ¹			LSA Habitat Loss			RSA Habitat Loss		
Common Name	Scientific Name	Seasonal Habitat	RSA (ha) ²	LSA (ha) ³	January – March 2024 Loss (ha)	Cumulative Loss (%)	Predicted Cumulative Loss (%)	January – March 2024 Loss (ha)	Cumulative Loss (%)	Predicted Cumulative Loss (%)
Moose	<i>Alces alces</i>	Growing ⁵	81,623	7,709	405.7	9.0	32.7	408.6	0.9	28.0
		Winter ⁵	48,693	4,244	374.0	11.8	18.0	376.3	1.0	16.7
Caribou ⁴	<i>Rangifer tarandus caribou</i>	Spring ⁵	108,717	5,877	313.0	12.2	41.8	313.0	0.7	42.1
		Summer/ Fall ⁵	116,389	7,539	348.9	10.1	53.6	348.9	0.7	45.0
		Winter ⁵	114,701	6,572	319.9	11.6	46.7	319.9	0.7	44.4
Grizzly bear	<i>Ursus arctos horribilis</i>	Spring	88,316	7,445	87.7	4.2	31.6	180.4	0.5	30.3
		Summer	125,469	10,071	129.4	4.5	42.8	276.6	0.5	43.0
		Fall	136,664	10,056	124.8	4.7	42.7	277.1	0.5	46.8
		Winter ⁵	612,22	3,826	48.1	9.8	16.2	48.1	0.6	21.0
Short-eared owl	<i>Asio flammeus</i>	Nesting	1,013	0	0.0	0.0	0.0	0.0	0.0	0.3
Greater Yellowlegs	<i>Tringa melanoleuca</i>	Nesting	47,603	7,033	98.8	4.2	29.9	118.7	0.7	16.3
Wilson’s snipe	<i>Gallinago delicata</i>	Nesting	27,808	3775	50.2	1.4	16.0	76.6	0.3	9.5
Interior forest birds	NA	NA	128,685	10,633	155.2	6.5	45.1	215.8	0.6	44.1

Species		Suitable Habitat ¹			LSA Habitat Loss			RSA Habitat Loss		
Common Name	Scientific Name	Seasonal Habitat	RSA (ha) ²	LSA (ha) ³	January – March 2024 Loss (ha)	Cumulative Loss (%)	Predicted Cumulative Loss (%)	January – March 2024 Loss (ha)	Cumulative Loss (%)	Predicted Cumulative Loss (%)
Western Toad	<i>Anaxyrus boreas</i>	Living ⁵	94,341	10,700	144.8	2.8	45.4	159.0	0.3	32.3

¹ Suitable habitat is based on habitat suitability models developed for the EIS. Small variations exist in the RSA and LSA mapped for habitat suitability models to the current study area boundaries (New Gold 2015; ERM 2017).

² The RSA mapped for habitat suitability models accounted for a total of 291,714 ha in the EIS (ERM 2017).

³ The LSA mapped for habitat suitability models accounted for a total of 23,554 ha in the EIS (ERM 2017).

⁴ Caribou habitat suitability mapping only completed for the mine site LSA (14,061 ha) and RSA (258,408 ha), i.e., not including the Transmission Line (ERM 2017).

⁵ Habitat suitability mapping only completed for a portion of the Transmission Line (ERM 2017).

3.4 DISCUSSION

Habitat loss is monitored for specific species to validate predictions from the EIS and confirm the effectiveness of mitigation measures (ERM 2023a). Total habitat loss since 2022 accounts for 1,230.4 ha, with 563.9 ha of habitat loss attributed to construction completed from January 1–March 31, 2024. Most of this habitat loss was along the transmission line. The realized habitat loss to date is 16% of the predicted habitat loss within the LSA in the EIS (7,032 ha). Currently, habitat loss for the RSA represents between 0% and 1.0% of the predicted total habitat loss for the Mine across all species, based on the EIS (ERM 2017).

4. INCIDENTAL OBSERVATIONS, INTERACTIONS, INCIDENTS, AND MORTALITIES

DS conditions addressed: none

EAC conditions addressed: 23.n

The incidental observations, interactions, incidents, and mortalities reporting programs are outlined in Section 2.3 of the of the 2023 WMMP Compliance Report (ERM 2024a).

4.1 OBJECTIVES

The objectives of the incidental observations, interactions, incidents, and mortality monitoring are to:

- Record and report any wildlife related interaction, incident, and mortality associated with Mine activity.
- Monitor wildlife-vehicle incidents and mortalities, specifically for moose, caribou, mountain goat, and grizzly bear.

4.2 METHODS

Incidental observations, interactions, incidents, and mortalities were reported in accordance with the methods described in Section 2.3.3 of the 2023 WMMP Compliance Report (ERM 2024a).

4.3 RESULTS

4.3.1 INCIDENTAL OBSERVATIONS

In total, signs or observations of six species were incidentally recorded during the aerial-based snow track surveys on March 7, 2024 (Figure 4.3-1; Appendix D). Moose were the only species with individuals observed, with one individual observed between aerial transect 25 and 26. Tracks of Canada lynx (*Lynx canadensis*; n = 150), gray wolf (*Canis lupus*; n = 32), coyote (*Canis latrans*; n = 24), fox (*Vulpes vulpes*; n = 11), and North American river otter (*Lontra canadensis*; n = 11) were also recorded.

In total, seven incidental wildlife observations of eight individuals were recorded by Blackwater on-site personnel in the Blackwater Wildlife Sighting Log (Appendix E). Incidental observations provided in the Wildlife Sighting Log are not included on Figure 4.3-1 as only the general location of the observation was provided. All observations occurred near Mine roads and infrastructure. Species observed included American dipper (*Cinclus maxicanus*; n = 1), common raven (*Corvus corax*; n = 1), Canada lynx (n=1), muskrat (*Ondatra zibethicus*; n= 1), red fox (n = 2), bobcat (*Lynx rufus*; n = 1), and an unspecified furbearer (n = 1).

The raven was found dead near G Dorm in the main camp building. Prints on the ground indicated that a bird had been hopping around where the raven was observed – which may have been the raven before it died or another bird. There was no sign of a struggle or altercation and it did not appear to have flown into a building – no broken beak or bloody head. No apparent sign of disease or injury on the raven.

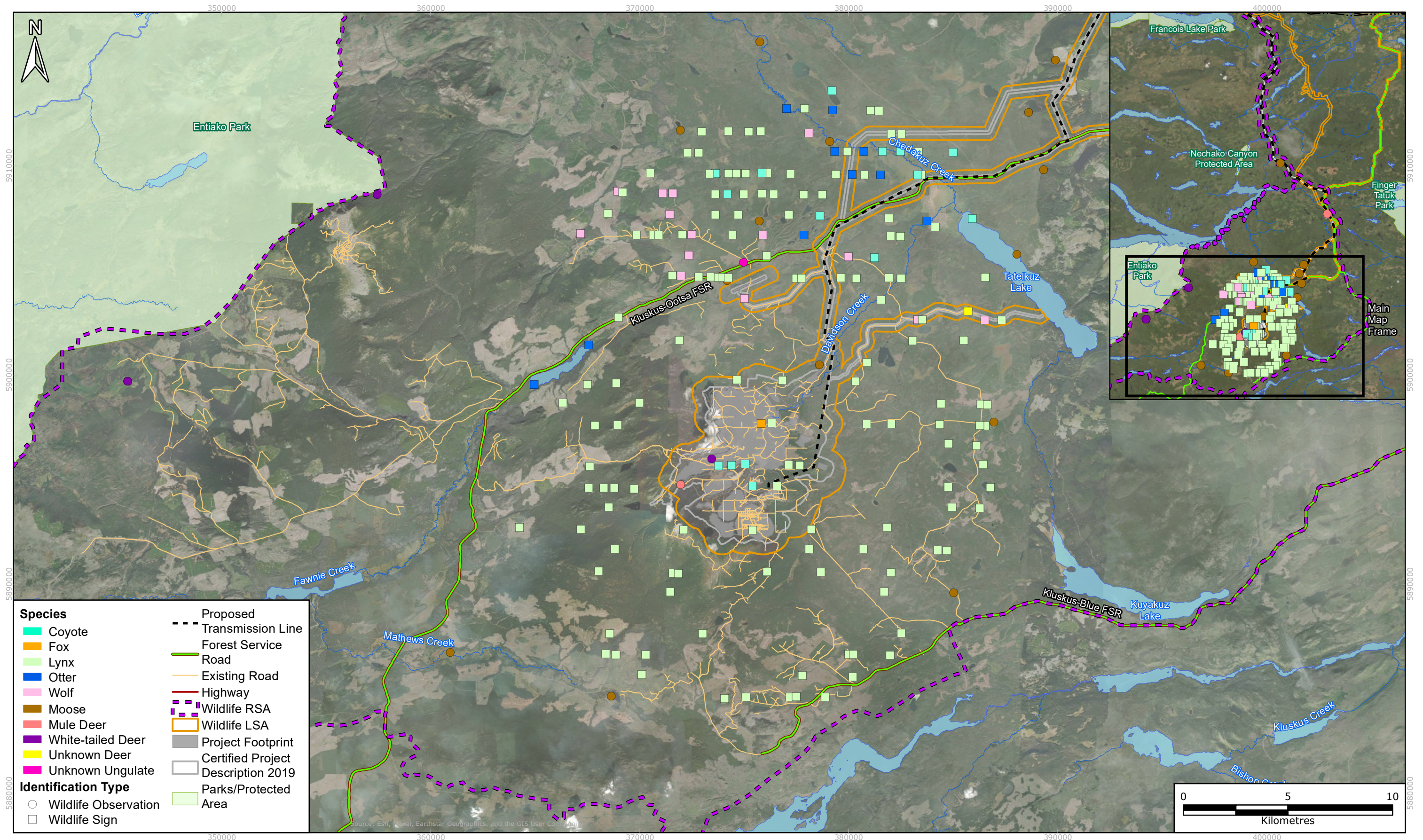
4.3.2 INTERACTIONS AND INCIDENTS

No non-vehicle related interactions or incidents occurred.

4.3.2.1 VEHICLE COLLISIONS

One vehicle collision occurred on March 10, 2024, when a truck driver hit a cow moose at KM19.5 of the Kluskus FSR (Appendix F). The collision resulted in the fatality of the cow moose and minor damage to the truck. The incident was reported to the BC Ministry of Forests on May 26, 2024.

FIGURE 4.3-1 INCIDENTAL WILDLIFE OBSERVATIONS, JANUARY - MARCH 2024



4.4 DISCUSSION

Incidental wildlife observations include all non-target wildlife observed during any WMMP wildlife compliance monitoring, as well as all wildlife observations reported to the Mine's Environment Department by personnel. Wildlife interactions are encounters with wildlife where deterrents may be used, but does not result in direct harm, injury, damage, or wildlife mortality. Wildlife incidents are interactions resulting in direct harm, injury, damage, and wildlife mortality.

All incidental observations that occurred during the 2024 WMMP wildlife compliance monitoring field season and by on-site personnel collected in the Blackwater Sightings Log between January 28–March 29, 2024. A total of ten species were visually observed or tracks were recorded. The most observed species was the Canada lynx (n = 151), followed by the gray wolf (n = 32).

One vehicle related incident resulted in the fatality of a cow moose on March 10, 2024. The collision occurred between the moose and the truck at KM19.5 of the Kluskus FSR. This event is the first vehicle collision and fatality of a focal species at the Mine. Existing mitigations to prevent wildlife vehicle collisions include speed limits, signage at potential wildlife crossings, and reporting incidental sightings.

5. UNGULATE SNOW TRACK SURVEYS

DS conditions addressed: 6.14

EAC conditions addressed: 23.h

The ungulate snow track survey program is outlined in Section 3.1 of the of the 2023 WMMP Compliance Report (ERM 2024a).

5.1 OBJECTIVES

The objectives of the snow track survey follow-up monitoring program are to:

- Monitor the winter distribution and relative density of ungulates within the buffered Mine area (DS condition 6.14);
- Determine whether there is a change in the relative abundance of ungulates, by proximity to the Mine site (DS condition 6.14);

5.2 METHODS

Snow track surveys were conducted in accordance with the methods described in Section 3.1.2.2 of the 2023 WMMP Compliance Report (ERM 2024a).

In 2023, both ground and aerial-based snow track surveys were completed (ERM 2024a). Aerial-based snow track surveys were determined to be more effective than ground-based snow track surveys in detecting ungulates (ERM 2024a) and therefore, only aerial-based snow track surveys were completed in 2024.

5.3 RESULTS

Aerial-based ungulate snow track surveys were conducted on March 7, 2024. In total, 30 aerial transects totalling 555 km of survey effort were completed (Appendix G). In total, 337 ungulate tracks were recorded, including 298 moose tracks, 8 mountain goat tracks, and 31 unspecified deer species tracks (Figure 5.3-1; Table 5.3-1; Appendix H). Additionally, seven individual moose and two moose beds were observed. No caribou tracks were observed.

FIGURE 5.3-1 AERIAL UNGULATE SNOW TRACK SURVEY OBSERVATIONS AND TRANSECTS, 2024

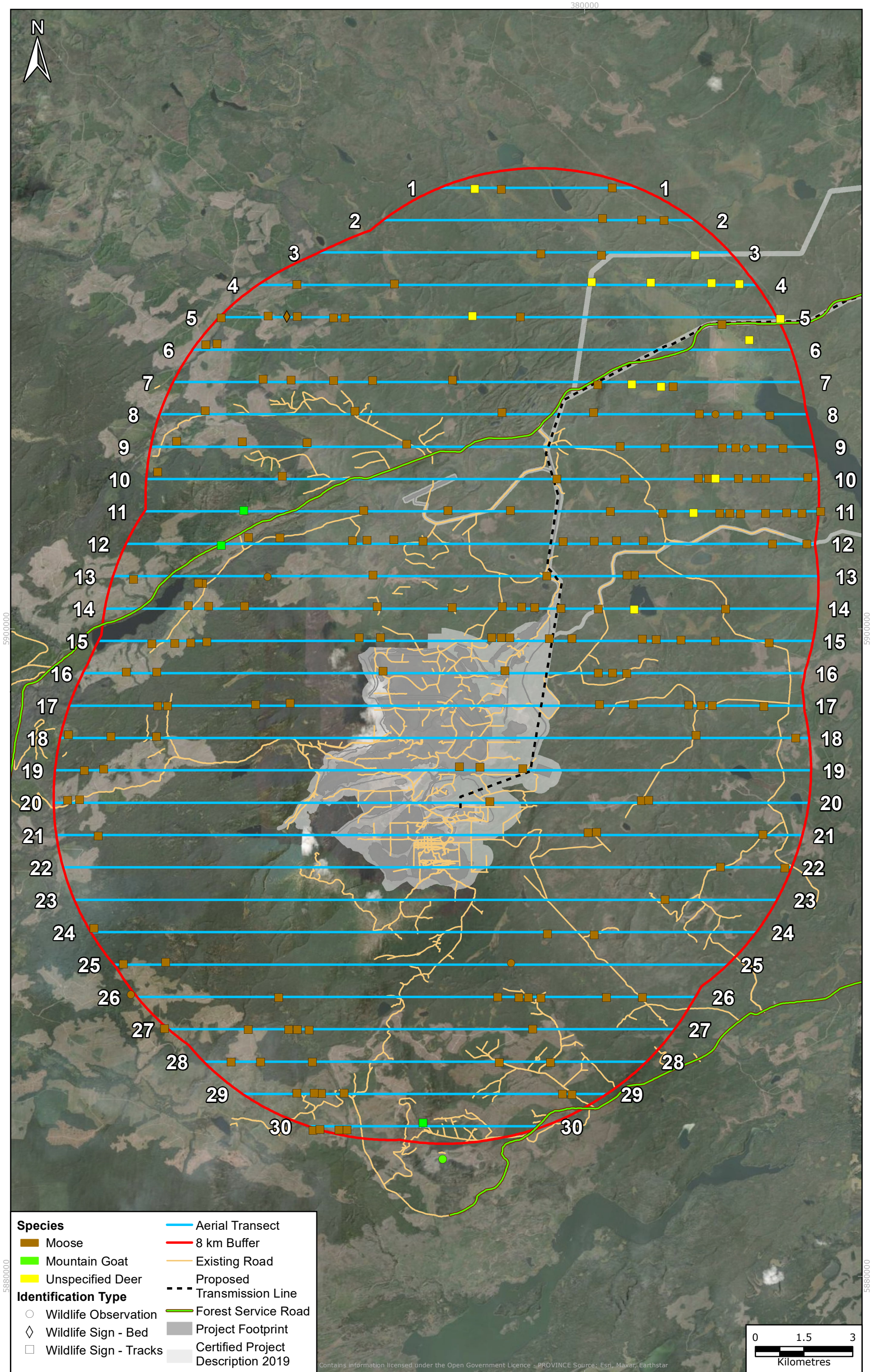


TABLE 5.3-1: AERIAL UNGULATE SNOW TRACK SURVEY RESULTS.

Transects ¹	Moose Tracks	Mountain Goat Tracks	Unspecified Deer Tracks	Moose Beds	Moose Individuals
1	2	-	6	-	-
2	3	-	-	-	-
3	3	-	3	-	-
4	2	-	5	-	-
5	19	-	4	1	2
6	3	-	4	-	-
7	11	-	4	-	-
8	20	-	-	-	1
9	19	-	-	1	1
10	18	-	1	-	-
11	15	1	2	-	-
12	24	-	-	-	-
13	12	1	-	-	1
14	17	-	1	-	-
15	22	-	-	-	1
16	11	-	-	-	-
17	14	-	-	-	-
18	6	-	-	-	-
19	10	-	-	-	-
20	10	-	-	-	-
21	5	-	-	-	-
22	2	-	-	-	-
23	2	-	-	-	-
24	5	-	-	-	-
25	3	-	-	-	1
26	9	-	-	-	-
27	7	-	-	-	-
28	8	6	-	-	-
29	10	-	-	-	-
30	6	-	-	-	-
Total	298	8	31	2	8

Note: ¹Figure 5.3-1 shows transect locations.

5.4 DISCUSSION

Ungulate snow track surveys were completed for the second year in March 2024 to determine whether there is a temporal change in relative ungulate abundance relative to the Mine site (ERM 2022). Only aerial snow track surveys were completed in 2024, as aerial snow track surveys detected a higher occurrence of ungulate sightings and signs than ground-based snow track surveys during the 2023 surveys (ERM 2024a). Additionally, aerial surveys were able to cover a wider variety of habitat types that ground surveys could not access.

Moose tracks were the most abundant ungulate tracks and were distributed relatively evenly across the study area with the exception of the southwestern portion of the study, near Mt. Davidson (Figure 5.3-1). The even distribution of moose tracks across the study area is unlike the 2023 survey, where most observations were concentrated in the north-east corner. Unspecified deer tracks were concentrated in the northeastern portion of the survey area and mountain goat tracks were observed in the south and northwestern portion of the survey area. In the previous survey completed in 2023 unspecified deer tracks were only observed once.

No caribou or caribou sign were recorded during the 2024 aerial snow track surveys. These findings are consistent with baseline and existing field data collected for the Mine between 2012 and 2023 (ERM 2022). Ground- and aerial- based animal and track surveys completed in March 2012, December 2015, February 2018, and March 2023 did not report any caribou. However, an aerial snow track survey in December 2021 reported a total of three caribou tracks. An incidental observation in February 2018 on top of Mt. Davidson also recorded a likely caribou track. Additionally, collar data (1980-2020) indicate that the Mine is not within a current movement corridor and appears to only be used intermittently by caribou.

Further data analysis including a power analysis and BACI analysis will be completed in future years, as described in Section 3.1.2.2 of the 2023 WMMP Compliance Report (ERM 2024a).

6. CONCLUSION

This memo served as an addendum to the 2023 WMMP Compliance Report (ERM 2024a) and associated 2023 CMMP EAC Compliance Report (ERM 2024b) to summarize follow-up programs and monitoring conducted from January 1 – March 31, 2024, to encompass the entirety of the April 1, 2023 – March 31, 2024, reporting period required by the IAAC. In total, this memo reports and summarizes four monitoring programs that had data collected between January 1 – March 31, 2024. Compliance monitoring associated with the WMMP and CMMP will continue throughout 2024 and be reported in the 2024 WMMP Compliance Report.

7. REFERENCES

1994. *Migratory Birds Convention Act*, SC. C. 22.

1996. *Wildlife Act*, RSBC. C. 488.

BC EAO. 2019. *Blackwater Gold Project Environmental Assessment Certificate #M19-01*. E. A. Office.

Environment Canada. 2014. *Recovery Strategy for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada*. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. viii + 103 pp.

ERM (Environmental Resources Management). 2017. *Blackwater Gold Project Application for an Environmental Assessment Certificate/ Environmental Impact Statement*. Prepared for New Gold Inc. by ERM Consultants Canada Ltd. Vancouver, BC.

ERM. 2022. *Blackwater Gold Project Caribou Mitigation and Management Plan Version 4*. Prepared by ERM for BW Gold Ltd. Vancouver, BC.

ERM. 2023a. *Blackwater Gold Project Wildlife Mitigation and Management Plan*. Prepared by ERM for BW Gold Ltd. Vancouver, BC.

ERM. 2024a. *Blackwater Mine 2023 Wildlife Mitigation and Management Program Compliance Report*. Prepared by ERM for BW Gold Ltd. Vancouver, BC.

ERM. 2024b. *Blackwater Mine 2023 Caribou Mitigation and Management Program EAC Compliance Report*. Prepared by ERM for BW Gold Ltd. Vancouver, BC.

Government of Canada. 2022. *Registry for Abandoned Nests*. <https://www.permispermits.ec.gc.ca/en/AbandonedNests> [Accessed March 14 2024].

New Gold. 2015. *Blackwater Gold Project Application for and Environmental Assessment Certificate*. Prepared by Amec for New Gold Inc., Vancouver. BC.

RIC. 2002. *Aerial-based Inventory Methods for Selected Ungulates: Bison, Mountain Goat, Mountain Sheep, Moose, Elk, Deer & Caribou*. Standards for Components of British Columbia's Biodiversity No. 32. Prepared by Ministry of Environment, Lands and Parks, Resources Inventory Branch for Terrestrial Ecosystem Task Force, Resources Inventory Committee (RIC): Victoria, BC.

RIC. 2006. *Ground-based Inventory Methods for Ungulate Snow-track Surveys*. Standards for Components of British Columbia's Biodiversity No. 33a. Prepared by Ministry of Environment, Lands and Parks, Resources Inventory Branch for Terrestrial Ecosystem Task Force, Resources Inventory Committee (RIC): Victoria, BC.



DATE
28 June 2024

REFERENCE
0722163-02-002

APPENDIX A

PRE-CLEARING WILDLIFE SURVEY
ANNUAL REPORT, 2024



Blackwater Project

Pre-Clearing Wildlife Survey

Annual Report

2024

Prepared By:

Olin Albertson R.P.Bio



Avison Management Services Ltd.
P.O. Box 774
220 East Stewart St.
Vanderhoof, B.C. V0J 3A0
(250) 567-2111

Table of Contents

1. Summary	4
2. Introduction.....	4
3. Location.....	4
3.1 Location References.....	4
4. Survey Standards and Methodology	4
4.1 Bear Den Surveys.....	4
4.2 Furbearer Den Surveys.....	5
4.3 Hibernacula Surveys.....	6
4.4 Nest Surveys	6
5. Wildlife Survey Results	14
5.1 Bear and Furbearer Den Survey Results.....	14
5.2 Hibernacula Survey Results.....	15
5.3 Nest Survey Result	15
6. Conclusions	15
7. Limitations	17
8. References.....	18
9. Appendices.....	20
9.1 Appendix 1. Map of pre-clearing sweep request locations as of April 23, 2024.....	20
9.2 Appendix 2. Summary of Results for Wildlife Pre-clearing Surveys.....	21
9.2.1 Week of February 11 th -17 th , 2024	21
9.2.2 Week of March 10 th -16 th , 2024	22
9.2.3 Week of March 17 th -23 rd , 2024.....	24
9.2.4 Week of March 17 th -23 rd , 2024.....	26
9.2.5 Week of April 21 st -27 th , 2024	28
9.2.6 Week of April 21 st -27 th , 2024.....	30

Table 1. List of potential Bear species whose distribution over-lap the Blackwater project. (E-Fauna BC, 2022). 5

Table 2. List of potential Furbearer species whose distribution over-lap the Blackwater project. (E-Fauna BC, 2022)..... 5

Table 3. List of potential Bat species whose distribution over-lap the Blackwater project. (E-Fauna BC, 2022). 6

Table 4. Avian species designated at risk that have been identified as utilizing or residing in the Caribou Regional District..... 7

Table 5. Blackwater Operations Camp - Pre-clearing Wildlife Survey, Feb 14th -15th, 2024..... 21

Table 6. Open Pit Area - Pre-clearing Wildlife Survey, March 11-13, 2024..... 22

Table 7. Eskers, Freshwater Reservoir (FWR) - Pre-clearing Wildlife Survey, March 18-21, 2024..... 24

2024 Annual Pre-clearing Wildlife Survey Report

Table 8. Stream 668 - Pre-clearing Wildlife Survey, March 22, 2024.	26
Table 9. LGO Stockpile- Pre-clearing Wildlife Survey, March 22-23, 2024.....	28
Table 10. Stream 668 - Pre-clearing Wildlife Survey, April 23, 2024.	30

2024 Annual Pre-clearing Wildlife Survey Report

1. Summary

Pre-clearing, fisher, wolverine and bear den surveys, hibernacula surveys, and nest surveys were carried out from February 14th through April 23rd, 2024 on an on-call basis. No fisher, wolverine and bear den dens, were identified during these surveys; bat hibernacula were also not located or identified during these surveys. A Pine marten den was discovered, but was confirmed to be unoccupied. No active bird nests or cavities were identified, although a pair of Black-backed woodpeckers were observed in the vicinity of a possible new cavity excavation. This cavity was confirmed to be unoccupied. Details regarding these activities can be found in Section 5.3. and in Appendix 2.

2. Introduction

The Blackwater Gold project is on the northern flanks of Mt. Davidson in the Nechako Plateau approximately 160 kilometres southwest of the city of Prince George and 110 km southwest of the town of Vanderhoof, in central British Columbia. In 2023 the mine officially entered the construction phase of the project commencing with clearing of roads and construction areas of the mine.

Avison Management Services (AMS) Ltd. was retained to conduct furbearer den, bear den, hibernacula, and nest surveys to determine presence of denning furbearers and bears, potential bat hibernacula, and stick or cavity nests, prior to clearing and building road access and decking areas from February through April of 2024.

Each year an annual report is to be submitted outlining pre-clearing activities that were conducted as part of the WMMP, DS conditions 4.1, 8.9, 8.10 and 8.14, and EAC condition 23. This report has been prepared as part of that requirement.

3. Location

3.1 Location References

The map in Appendix 1, is a map of polygons for conducting requested pre-clearing wildlife surveys or sweeps at the Blackwater Project. Pre-clearing wildlife surveys were completed and summarized in this document for the colored areas on the map.

4. Survey Standards and Methodology

4.1 Bear Den Surveys

The Resources Inventory Committee's Inventory methods for Bears outline survey methodology for enumeration of bears, but do not elaborate on methodology specific to detection of dens in linear features such as exploration trails or drill pads. Hodder and Ray (2005) provide information on ecotypes and general characteristics of bear den locations, but again do not elaborate on methodology specific to detection of dens. At a minimum, we implement SOP(s) and recommendations set out in the Wildlife Mitigation and Monitoring Plan (WMMP 2022). Our field approach to detecting bear dens when conducting pre-clearing surveys immediately prior to clearing, is based on walking a proposed disturbance feature

2024 Annual Pre-clearing Wildlife Survey Report

(i.e. exploration trail, drill pad, road allowance or, cut block), and walk a linear, or grid pattern survey and search and observe based on sight ability a 10-50 m observable area around the surveyor, watching for important den habitat features (i.e. evidence of natural or excavated ground dens, tracks, trails, scat, etc.). For areas that a surveyor suspects may be a denning site, but no tracks, evidence of digging, etc. are observable, a Forward Looking Infrared (FLIR) camera is utilized to determine if a hibernating bear is utilizing the denning location.

The following is a list of Bear species whose distribution overlap and have been observed in the Blackwater Mine area. The dens of these species were searched for during surveys.

Table 1. List of potential Bear species whose distribution over-lap the Blackwater project. (E-Fauna BC, 2022).

Common Name	Scientific Name
American Black Bear	<i>Ursus americanus</i>
Grizzly Bear	<i>Ursus arctos horribilis</i>

4.2 Furbearer Den Surveys

The Resources Inventory Committee's Inventory methods for medium-sized terrestrial carnivores, and for Marten and Weasel outline survey methodology for enumeration, but do not elaborate on methodology specific to detection of dens in linear features such as exploration trails or drill pads. The BC Fisher Working Group does provide some excellent information on fisher habitat and den sites which can also be broadly applied to marten and weasel. At a minimum, we implement SOP(s) and recommendations set out in the Wildlife Mitigation and Monitoring Plan (WMMP 2022). Our approach to detecting furbearer dens is based on walking a proposed disturbance feature (i.e. exploration trail, drill pad, road allowance or, cut block), and walk a linear or grid pattern survey and search and observe based on sight ability of a 10-50 m observable area around the surveyor, watching for tracks (i.e. good snow, conditions), important den habitat features (i.e. large diameter dead or rotting trees with potential for cavities, and evidence of ground dens, trails, excavations, scat, etc.).

The following is a list of Furbearer species whose distribution overlap and/or have been observed in the Blackwater Mine area. The dens of these species were searched for during surveys.

Table 2. List of potential Furbearer species whose distribution over-lap the Blackwater project. (E-Fauna BC, 2022).

Common Name	Scientific Name
American (Pine) Marten	<i>Martes americana</i>
Ermine (Short-tailed weasel)	<i>Mustela erminea</i>
American Mink	<i>Neovison vison</i>
Fisher	<i>Pekania pennanti</i>
Least Weasel	<i>Mustela nivalis</i>
North American River Otter	<i>Lontra canadensis</i>
Wolverine	<i>Gulo gulo</i>

4.3 Hibernacula Surveys

The Resources Inventory Committee’s inventory methods for Bats outlines survey methodology for detection and enumeration of Bats, but does not elaborate on methodology specific to detection of hibernacula in linear features such as exploration trails or drill pads. However, the hibernacula section of the Wildlife Habitat Features Field Guide (Kootenay Boundary Region), does elaborate on what feature to look for, to detect hibernacula. This document was referenced for detection of hibernacula. Our approach to detecting hibernacula is based on walking a proposed disturbance feature (i.e. exploration trail, drill pad, road allowance or, cut block), and walk a linear or grid pattern survey and search and observe based on sight ability a 10-50 m observable area around the surveyor, searching in and around those features to locate potential hibernacula sites.

The following is a list of Bat species that could potentially be present in the Blackwater Mine area.

Table 3. List of potential Bat species whose distribution over-lap the Blackwater project. (E-Fauna BC, 2022).

Common Name	Scientific Name
Big Brown Bat	<i>Eptesicus fuscus</i>
California Bat	<i>Myotis californicus</i>
Keen Bat	<i>Myotis keenii</i>
Hairy Winged Bat	<i>Myotis volans</i>
Hoary Bat	<i>Lasiurus cinereus</i>
Little Brown Bat	<i>Myotis lucifugus</i>
Long-Eared Bat	<i>Myotis evotis</i>
Silver-haired Bat	<i>Lasionycteris noctivagans</i>
Yuma Bat	<i>Myotis yumanensis</i>

4.4 Nest Surveys

There currently are no provincial or federal standards for conducting bird nest surveys. As such, it is the responsibility of the proponent of a proposed development project to produce and adhere to their own bird nest survey methodology to demonstrate due diligence in not contravening any related legislation. At a minimum, we implement SOP(s) and recommendations set out in the Wildlife Mitigation and Monitoring Plan (WMMP 2022) and the Pre-Clearing Wildlife Features Survey (ERM 2022).

Avison Management Services Ltd., biologists attempt to follow all standards relevant to nesting surveys outlined in the Inventory Methods for Forest and Grassland Songbirds, Standards for Components for British Columbia's Biodiversity No. 15 (RIC 1999) and Inventory Methods for Raptors, Standards for Components for British Columbia's Biodiversity No. 11 (RIC 2001), as well as recommendations outlined by the Canadian Wildlife Service (CWS). Where deemed appropriate, survey methods are modified to account for local and/or site-specific conditions.

2024 Annual Pre-clearing Wildlife Survey Report

The previous Migratory Birds Regulations protected the nests of all migratory birds, at all times, for as long as they existed, which meant that many nests were protected when they no longer benefited migratory birds. The new Migratory Birds Regulations, 2022, provide protection to migratory bird nests when they are considered to have a high conservation value for migratory birds. The nests of most migratory bird species may be destroyed, damaged, disturbed or removed when they do not contain a migratory bird or viable egg.

For most migratory bird species, removing the nest when it does not contain a migratory bird or viable egg (generally after the breeding season) will have no effect on the ability of those birds to nest again. The great majority build or occupy new nests each year. However, some species may reuse the same nest structure year after year, and the loss of these nests could have a negative effect on future nesting success. The nests of the 18 species, listed in Schedule 1 of the MBR 2022, are protected year-round and cannot be damaged, destroyed, removed or disturbed, even when they are unoccupied, unless the conditions of the regulations have been met. One of the most noteworthy changes to the amended Regulations of the Migratory Birds Convention Act is the inclusion of the Pileated Woodpecker on the list of species for which nesting sites are protected after active nesting.

Environment and Climate Change Canada (ECCC) encourages practices that will ensure the long-term conservation of migratory bird populations locally, including the retention of sufficient high-quality habitat. For cavity nesting species, this may mean the retention of dying and dead standing trees in forest stands, whether or not they contain the nesting cavity of the Pileated Woodpecker.

Avison Management Services Ltd., biologists attempt to follow all standards relevant to surveys provided by the Federal and Provincial governments and other reliable sources. Where deemed appropriate, survey methods are modified to account for local and/or site-specific conditions.

This assessment also included searching the Provincial BC Red List and BC Blue List, SARA, and the federally designated COSEWIC Endangered, COSEWIC Threatened, COSEWIC Special Concern lists. The following species of birds or breeding birds listed as species at risk in the Caribou Regional District of British Columbia were found in this search (see below). None of the nests of the species below were located during this assessment, nor were cavity nests of the Pileated Woodpecker found in this pre-clearing survey.

The following is a list of Avian species whose distribution overlap and/or have been observed in the Blackwater Mine area. The nest of these species is searched for during surveys, and any observations are documented.

Table 4. Avian species designated at risk that have been identified as utilizing or residing in the Caribou Regional District.

English Name	Scientific Name	BC List	Global	COSEWIC	SARA
American Avocet	<i>Recurvirostra americana</i>	Blue	G5 (2016)		
American Bittern	<i>Botaurus lentiginosus</i>	Blue	G5 (2016)		
American Golden-Plover	<i>Pluvialis dominica</i>	Blue	G5 (2016)		
American White Pelican	<i>Pelecanus erythrorhynchos</i>	Red	G4 (2016)	NAR	
Ancient Murrelet	<i>Synthliboramphus antiquus</i>	Blue	G4 (2016)	SC	1-SC (2006)

2024 Annual Pre-clearing Wildlife Survey Report

Band-tailed Pigeon	<i>Patagioenas fasciata</i>	Blue	G4 (2016)	SC	1-SC (2011)
Barn Owl	<i>Tyto alba</i>	Blue	G5 (2016)	T	1-T (2018)
Barn Swallow	<i>Hirundo rustica</i>	Yellow	G5 (2016)	SC	1-T (2017)
Bay-breasted Warbler	<i>Setophaga castanea</i>	Red	G5 (2016)		
Black Scoter	<i>Melanitta americana</i>	Blue	G5 (2016)		
Black Swift	<i>Cypseloides niger</i>	Blue	G4 (2016)	E	1-E (2019)
Black-crowned Night-heron	<i>Nycticorax</i>	Red	G5 (2016)		
Black-throated Green Warbler	<i>Setophaga virens</i>	Blue	G5 (2016)		
Bobolink	<i>Dolichonyx oryzivorus</i>	Red	G5 (2016)	SC	1-T (2017)
Brant	<i>Branta bernicla</i>	Blue	G5 (2016)		
Brewer's Sparrow, breweri subspecies	<i>Spizella breweri</i>	Blue	G5T5 (2016)		
Burrowing Owl	<i>Athene cunicularia</i>	Red	G4 (2016)	E	1-E (2003)
California Gull	<i>Larus californicus</i>	Red	G5 (2016)		
Canada Goose, occidentalis subspecies	<i>Branta canadensis occidentalis</i>	Red	G5T3 (2016)		
Canyon Wren	<i>Catherpes mexicanus</i>	Blue	G5 (2016)	NAR	
Cape May Warbler	<i>Setophaga tigrina</i>	Blue	G5 (2016)		
Caspian Tern	<i>Hydroprogne caspia</i>	Blue	G5 (2016)	NAR	
Cassin's Auklet	<i>Ptychoramphus aleuticus</i>	Red	G4 (2016)	SC	1-SC (2019)
Clark's Grebe	<i>Aechmophorus clarkii</i>	Red	G5 (2022)		
Common Murre	<i>Uria aalge</i>	Red	G5 (2016)		
Common Nighthawk	<i>Chordeiles minor</i>	Blue	G5 (2016)	SC	1-T (2010)
Double-crested Cormorant	<i>Nannopterum auritum</i>	Blue	G5 (2016)	NAR	
Eared Grebe	<i>Podiceps nigricollis</i>	Blue	G5 (2016)		
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Yellow	G5 (2016)	SC	1-SC (2019)
Ferruginous Hawk	<i>Buteo regalis</i>	Unknown	G4 (2016)	T	1-T (2010)
Flammulated Owl	<i>Psilosops flammeolus</i>	Blue	G4 (2016)	SC	1-SC (2003)
Forster's Tern	<i>Sterna forsteri</i>	Red	G5 (2016)	DD	
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	Red	G5 (2016)		
Gray Flycatcher	<i>Empidonax wrightii</i>	Blue	G5 (2016)	NAR	

2024 Annual Pre-clearing Wildlife Survey Report

Great Blue Heron, fannini subspecies	<i>Ardea herodias fannini</i>	Blue	G5T4 (2016)	SC	1-SC (2010)
Great Blue Heron, herodias subspecies	<i>Ardea herodias</i>	Blue	G5T5 (2016)		
Green Heron	<i>Butorides virescens</i>	Blue	G5 (2016)		
Gyr Falcon	<i>Falco rusticolus</i>	Blue	G5 (2016)	NAR	
Horned Lark, merrilli subspecies	<i>Eremophila alpestris merrilli</i>	Red	G5T4 (2016)		
Horned Lark, strigata subspecies	<i>Eremophila alpestris strigata</i>	Red	G5T2 (2016)	E	1-E (2005)
Horned Puffin	<i>Fratercula corniculata</i>	Red	G5 (2016)		
Hudsonian Godwit	<i>Limosa haemastica</i>	Red	G4 (2016)	T	
Lark Sparrow	<i>Chondestes grammacus</i>	Blue	G5 (2016)		
Lewis's Woodpecker	<i>Melanerpes lewis</i>	Blue	G4 (2016)	T	1-T (2012)
Long-billed Curlew	<i>Numenius americanus</i>	Yellow	G5 (2016)	SC	1-SC (2005)
Long-tailed Duck	<i>Clangula hyemalis</i>	Blue	G5 (2016)		
Marbled Murrelet	<i>Brachyramphus marmoratus</i>	Blue	G3 (2016)	T	1-T (2003)
Northern Fulmar	<i>Fulmarus glacialis</i>	Red	G5 (2016)		
Northern Goshawk, atricapillus subspecies	<i>Accipiter gentilis atricapillus</i>	Blue	G5T5 (2016)	NAR	
Northern Goshawk, laingi subspecies	<i>Accipiter gentilis laingi</i>	Red	G5T2 (2016)	T	1-T (2003)
Northern Pygmy-owl, swarthi subspecies	<i>Glaucidium gnoma swarthi</i>	Blue	G4G5T3T4 Q (2019)		
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Yellow	G4 (2016)	SC	1-T (2010)
Peregrine Falcon	<i>Falco peregrinus</i>	No Status	G4 (2016)	SC	1-SC
Peregrine Falcon, anatum subspecies	<i>Falco peregrinus anatum</i>	Red	G4T4 (2016)	NAR	1-SC (2012)
Peregrine Falcon, pealei subspecies	<i>Falco peregrinus pealei</i>	Blue	G4T3 (2016)	SC	1-SC (2003)
Pine Grosbeak, carlottae subspecies	<i>Pinicola enucleator carlottae</i>	Blue	G5T3 (2016)		
Prairie Falcon	<i>Falco mexicanus</i>	Red	G5 (2016)	NAR	
Purple Martin	<i>Progne subis</i>	Blue	G5 (2016)		
Red Knot	<i>Calidris canutus</i>	Blue	G4 (2016)	T	1-T (2010)
Red-necked Phalarope	<i>Phalaropus lobatus</i>	Blue	G4G5 (2016)	SC	1-SC (2019)
Rough-legged Hawk	<i>Buteo lagopus</i>	Blue	G5 (2016)	NAR	

2024 Annual Pre-clearing Wildlife Survey Report

Rusty Blackbird	<i>Euphagus carolinus</i>	Blue	G4 (2016)	SC	1-SC (2009)
Sage Thrasher	<i>Oreoscoptes montanus</i>	Red	G4 (2016)	E	1-E (2003)
Sharp-tailed Grouse, columbianus subspecies	<i>Tympanuchus phasianellus columbianus</i>	Blue	G5T3 (2022)		
Short-billed Dowitcher	<i>Limnodromus griseus</i>	Blue	G5 (2016)		
Short-eared Owl	<i>Asio flammeus</i>	Blue	G5 (2016)	T	1-SC (2012)
Smith's Longspur	<i>Calcarius pictus</i>	Blue	G4G5 (2016)		
Spotted Owl	<i>Strix occidentalis</i>	Red	G3G4 (2016)	E	1-E (2003)
Surf Scoter	<i>Melanitta perspicillata</i>	Blue	G5 (2016)		
Swainson's Hawk	<i>Buteo swainsoni</i>	Red	G5 (2016)		
Thick-billed Murre	<i>Uria lomvia</i>	Red	G5 (2016)		
Tufted Puffin	<i>Fratercula cirrhata</i>	Blue	G5 (2016)		
Tundra Swan	<i>Cygnus columbianus</i>	Blue	G5 (2016)		
Upland Sandpiper	<i>Bartramia longicauda</i>	Red	G5 (2016)		
Wandering Tattler	<i>Tringa incana</i>	Blue	G4G5 (2016)		
Western Grebe	<i>Aechmophorus occidentalis</i>	Red	G5 (2016)	SC	1-SC (2017)
Western Screech-Owl	<i>Megascops kennicottii</i>	No Status	G4G5 (2016)	T	1-T
Western Screech-Owl, kennicottii subspecies	<i>Megascops kennicottii</i>	Blue	G4G5T4 (2016)	T	1-T (2005)
Western Screech-Owl, macfarlanei subspecies	<i>Megascops kennicottii macfarlanei</i>	Blue	G4G5T4 (2016)	T	1-T (2005)
White-headed Woodpecker	<i>Dryobates albolarvatus</i>	Red	G4 (2016)	E	1-E (2003)
White-tailed Ptarmigan, saxatilis subspecies	<i>Lagopus leucura saxatilis</i>	Blue	G5T3T4 (2021)		
White-throated Swift	<i>Aeronautes saxatalis</i>	Blue	G5 (2016)		
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	Blue	G5 (2016)	E	1-E (2006)

2024 Annual Pre-clearing Wildlife Survey Report

Winter Wren	<i>Troglodytes hiemalis</i>	Blue	G5 (2016)		
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Red	G5 (2016)		
Yellow-breasted Chat	<i>Icteria virens</i>	Red	G5 (2016)	E	1-E (2003)
American Avocet	<i>Recurvirostra americana</i>	Blue	G5 (2016)		
American Bittern	<i>Botaurus lentiginosus</i>	Blue	G5 (2016)		
American Golden-Plover	<i>Pluvialis dominica</i>	Blue	G5 (2016)		
American White Pelican	<i>Pelecanus erythrorhynchos</i>	Red	G4 (2016)	NAR	
Ancient Murrelet	<i>Synthliboramphus antiquus</i>	Blue	G4 (2016)	SC	1-SC (2006)
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	Blue	G4 (2016)	SC	1-SC (2011)
Barn Owl	<i>Tyto alba</i>	Blue	G5 (2016)	T	1-T (2018)
Barn Swallow	<i>Hirundo rustica</i>	Yellow	G5 (2016)	SC	1-T (2017)
Bay-breasted Warbler	<i>Setophaga castanea</i>	Red	G5 (2016)		
Black Scoter	<i>Melanitta americana</i>	Blue	G5 (2016)		
Black Swift	<i>Cypseloides niger</i>	Blue	G4 (2016)	E	1-E (2019)
Black-crowned Night-heron	<i>Nycticorax</i>	Red	G5 (2016)		
Black-throated Green Warbler	<i>Setophaga virens</i>	Blue	G5 (2016)		
Bobolink	<i>Dolichonyx oryzivorus</i>	Red	G5 (2016)	SC	1-T (2017)
Brant	<i>Branta bernicla</i>	Blue	G5 (2016)		
Brewer's Sparrow, breweri subspecies	<i>Spizella breweri</i>	Blue	G5T5 (2016)		
Burrowing Owl	<i>Athene cunicularia</i>	Red	G4 (2016)	E	1-E (2003)
California Gull	<i>Larus californicus</i>	Red	G5 (2016)		
Canada Goose, occidentalis subspecies	<i>Branta canadensis occidentalis</i>	Red	G5T3 (2016)		
Canyon Wren	<i>Catherpes mexicanus</i>	Blue	G5 (2016)	NAR	
Cape May Warbler	<i>Setophaga tigrina</i>	Blue	G5 (2016)		
Caspian Tern	<i>Hydroprogne caspia</i>	Blue	G5 (2016)	NAR	
Cassin's Auklet	<i>Ptychoramphus aleuticus</i>	Red	G4 (2016)	SC	1-SC (2019)
Clark's Grebe	<i>Aechmophorus clarkii</i>	Red	G5 (2022)		
Common Murre	<i>Uria aalge</i>	Red	G5 (2016)		
Common Nighthawk	<i>Chordeiles minor</i>	Blue	G5 (2016)	SC	1-T (2010)

2024 Annual Pre-clearing Wildlife Survey Report

Double-crested Cormorant	<i>Nannopterum auritum</i>	Blue	G5 (2016)	NAR	
Eared Grebe	<i>Podiceps nigricollis</i>	Blue	G5 (2016)		
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Yellow	G5 (2016)	SC	1-SC (2019)
Ferruginous Hawk	<i>Buteo regalis</i>	Unknown	G4 (2016)	T	1-T (2010)
Flammulated Owl	<i>Psiloscopus flammeolus</i>	Blue	G4 (2016)	SC	1-SC (2003)
Forster's Tern	<i>Sterna forsteri</i>	Red	G5 (2016)	DD	
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	Red	G5 (2016)		
Gray Flycatcher	<i>Empidonax wrightii</i>	Blue	G5 (2016)	NAR	
Great Blue Heron, fannini subspecies	<i>Ardea herodias fannini</i>	Blue	G5T4 (2016)	SC	1-SC (2010)
Great Blue Heron, herodias subspecies	<i>Ardea herodias</i>	Blue	G5T5 (2016)		
Green Heron	<i>Butorides virescens</i>	Blue	G5 (2016)		
Gyr Falcon	<i>Falco rusticolus</i>	Blue	G5 (2016)	NAR	
Horned Lark, merrilli subspecies	<i>Eremophila alpestris merrilli</i>	Red	G5T4 (2016)		
Horned Lark, strigata subspecies	<i>Eremophila alpestris strigata</i>	Red	G5T2 (2016)	E	1-E (2005)
Horned Puffin	<i>Fratercula corniculata</i>	Red	G5 (2016)		
Hudsonian Godwit	<i>Limosa haemastica</i>	Red	G4 (2016)	T	
Lark Sparrow	<i>Chondestes grammacus</i>	Blue	G5 (2016)		
Lewis's Woodpecker	<i>Melanerpes lewis</i>	Blue	G4 (2016)	T	1-T (2012)
Long-billed Curlew	<i>Numenius americanus</i>	Yellow	G5 (2016)	SC	1-SC (2005)
Long-tailed Duck	<i>Clangula hyemalis</i>	Blue	G5 (2016)		
Marbled Murrelet	<i>Brachyramphus marmoratus</i>	Blue	G3 (2016)	T	1-T (2003)
Northern Fulmar	<i>Fulmarus glacialis</i>	Red	G5 (2016)		
Northern Goshawk, atricapillus subspecies	<i>Accipiter gentilis atricapillus</i>	Blue	G5T5 (2016)	NAR	
Northern Goshawk, laingi subspecies	<i>Accipiter gentilis laingi</i>	Red	G5T2 (2016)	T	1-T (2003)
Northern Pygmy-owl, swarthi subspecies	<i>Glaucidium gnoma swarthi</i>	Blue	G4G5T3T4 Q (2019)		
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Yellow	G4 (2016)	SC	1-T (2010)
Peregrine Falcon	<i>Falco peregrinus</i>	No Status	G4 (2016)	SC	1-SC

2024 Annual Pre-clearing Wildlife Survey Report

Peregrine Falcon, anatum subspecies	<i>Falco peregrinus anatum</i>	Red	G4T4 (2016)	NAR	1-SC (2012)
Peregrine Falcon, pealei subspecies	<i>Falco peregrinus pealei</i>	Blue	G4T3 (2016)	SC	1-SC (2003)
Pine Grosbeak, carlottae subspecies	<i>Pinicola enucleator carlottae</i>	Blue	G5T3 (2016)		
Prairie Falcon	<i>Falco mexicanus</i>	Red	G5 (2016)	NAR	
Purple Martin	<i>Progne subis</i>	Blue	G5 (2016)		
Red Knot	<i>Calidris canutus</i>	Blue	G4 (2016)	T	1-T (2010)
Red-necked Phalarope	<i>Phalaropus lobatus</i>	Blue	G4G5 (2016)	SC	1-SC (2019)
Rough-legged Hawk	<i>Buteo lagopus</i>	Blue	G5 (2016)	NAR	
Rusty Blackbird	<i>Euphagus carolinus</i>	Blue	G4 (2016)	SC	1-SC (2009)
Sage Thrasher	<i>Oreoscoptes montanus</i>	Red	G4 (2016)	E	1-E (2003)
Sharp-tailed Grouse, columbianus subspecies	<i>Tympanuchus phasianellus columbianus</i>	Blue	G5T3 (2022)		
Short-billed Dowitcher	<i>Limnodromus griseus</i>	Blue	G5 (2016)		
Short-eared Owl	<i>Asio flammeus</i>	Blue	G5 (2016)	T	1-SC (2012)
Smith's Longspur	<i>Calcarius pictus</i>	Blue	G4G5 (2016)		
Spotted Owl	<i>Strix occidentalis</i>	Red	G3G4 (2016)	E	1-E (2003)
Surf Scoter	<i>Melanitta perspicillata</i>	Blue	G5 (2016)		
Swainson's Hawk	<i>Buteo swainsoni</i>	Red	G5 (2016)		
Thick-billed Murre	<i>Uria lomvia</i>	Red	G5 (2016)		
Tufted Puffin	<i>Fratercula cirrhata</i>	Blue	G5 (2016)		
Tundra Swan	<i>Cygnus columbianus</i>	Blue	G5 (2016)		
Upland Sandpiper	<i>Bartramia longicauda</i>	Red	G5 (2016)		
Wandering Tattler	<i>Tringa incana</i>	Blue	G4G5 (2016)		
Western Grebe	<i>Aechmophorus occidentalis</i>	Red	G5 (2016)	SC	1-SC (2017)
Western Screech-Owl	<i>Megascops kennicottii</i>	No Status	G4G5 (2016)	T	1-T
Western Screech-Owl, kennicottii subspecies	<i>Megascops kennicottii</i>	Blue	G4G5T4 (2016)	T	1-T (2005)

2024 Annual Pre-clearing Wildlife Survey Report

Western Screech-Owl, <i>macfarlanei</i> subspecies	<i>Megascops kennicottii macfarlanei</i>	Blue	G4G5T4 (2016)	T	1-T (2005)
White-headed Woodpecker	<i>Dryobates albolarvatus</i>	Red	G4 (2016)	E	1-E (2003)
White-tailed Ptarmigan, <i>saxatilis</i> subspecies	<i>Lagopus leucura saxatilis</i>	Blue	G5T3T4 (2021)		
White-throated Swift	<i>Aeronautes saxatalis</i>	Blue	G5 (2016)		
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	Blue	G5 (2016)	E	1-E (2006)
Winter Wren	<i>Troglodytes hiemalis</i>	Blue	G5 (2016)		
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Red	G5 (2016)		
Yellow-breasted Chat	<i>Icteria virens</i>	Red	G5 (2016)	E	1-E (2003)

5. Wildlife Survey Results

Sections 5.1, 5.2, 5.3, highlight the overall results of den, nest, and hibernacula surveys. These sections also highlight specific actions that were implemented after an important feature was located, or suspected in a given area during surveys.

For specific survey details by date, please refer to Appendix 2, which provides detailed survey information including:

- the dates and surveys completed,
- with spatial areas covered (points and/or tracks, depending on the survey)
- observations, weather, site notes, etc.
- All mitigations applied (i.e., buffers implemented, what size, any activity allowances, any cameras or other monitoring implemented)
- Dates of follow up monitoring
- Details of any changes to mitigations and notes/reason
- Outcomes of mitigations – when buffers were removed and why

5.1 Bear and Furbearer Den Survey Results

A potential Pine marten den was located in the North east area of the Fresh Water Reservoir (FWR) area (Table 7). We checked this potential Marten den for three consecutive days, and did not observe any fresh Marten sign, and the infrared camera did not reveal any current use. The den not being actively used, so we did not put a buffer around it. However, we recommended that if this habitat feature does not need to be removed, it would be best to retain it as dens are relatively rare on the landscape and it is still early in the denning season.

2024 Annual Pre-clearing Wildlife Survey Report

We also found two (2) areas where we suspected, based on the amount of concentrated sign, that a marten den is in the vicinity, however after searching we did not find an actual den location. Both these locations were just outside the clearing polygons, and while we recommend the trees in these locations are preserved, we did not put a buffer around these locations as we are not certain an actual den exists, and was is still early in the denning season.

No active bear, wolverine, or Fisher dens were observed or identified in any of the surveyed areas.

5.2 Hibernacula Survey Results

No active hibernacula were observed or identified in any of the surveyed areas.

5.3 Nest Survey Result

No active nests or cavities nests were identified during pre-clearing our February through April surveys; however, we locate the beginnings of potential nest cavity of a Black-backed Woodpecker on our March 22, survey, as a new hole was observed in a burnt tree, in the survey area for stream 668. Both the male and female were observed in the vicinity of the cavity, but were never observed entering or using it, or displaying nesting behavior. This area was never logged after the first sweep. This cavity location was checked again on a second sweep on April 23, and again no Black-backed Woodpecker or other species were using the cavity. We did however, recommend, if possible, to retain this feature and surrounding burned trees if safe to do so.

Previously, the Migratory Birds Regulations (MBR) provided year-round protection for nests from being disturbed, destroyed or taken, anywhere in Canada where they were found, for as long the nest existed, for all 395 migratory bird species that are included in the Migratory Birds Convention Act. The Migratory Birds Regulations, 2022 (MBR 2022) change protection from all nests of migratory birds always being protected to most nests being protected only when they contain a live bird or viable egg. This supports conservation benefits, as the nests of most migratory birds only have conservation value when they are active (contain a bird or viable egg), and also provides flexibility and predictability for stakeholders to manage their compliance requirements as they undertake activities on the landscape that may affect migratory bird nests.” (<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/fact-sheet-nest-protection-under-mbr-2022.html>)

6. Conclusions

No bear, wolverine, or fisher dens, were identified during pre-clearing wildlife sweeps. One non-active Pine marten den was located in a large decayed spruce tree in the Fresh Water Reservoir area. While not being currently used, we recommend retaining the tree if the clearing plan allowed it.

No bat hibernacula were identified during these surveys.

During early surveys in mid-February through mid-April, no active bird nests or nest cavities were identified, however, we discovered the beginnings of potential nest cavity of a Black-backed Woodpecker on our March 22, survey, as a new hole was observed in a burnt tree, in the survey area for stream 668.

2024 Annual Pre-clearing Wildlife Survey Report

Both the male and female were observed in the vicinity of the cavity, but were never observed entering or using it, or displaying nesting behavior. This area was never logged after the first sweep, and this cavity location was checked again on a second sweep on April 23, and again no Black-backed Woodpecker or other species were found to be using the cavity. Although not an active nest, we recommended, this feature be retained if worker safety during the fish salvage would not be compromised.

7. Limitations

The assessment(s) of the project site(s) described in this report have been made using acceptable minimal standards for detecting Bear and Furbearer Dens, and Hibernacula. Additionally, the assessment(s) described in this report have been made using acceptable standards for an Active Bird Nest Survey Program (ABNSP) and inactive nests outside the breeding window for use in pre-clearing surveys. These surveys are designed to help meet requirements for due diligence on behalf of the client(s) to achieve compliance with Federal and Provincial legislation pertaining to migratory birds and species at risk. Legislation includes the Federal Migratory Bird Convention Act [1994 c.22] and Migratory Birds Regulations [C.R.C., c. 1035], Species at Risk Act [2002, c.29] and British Columbia Wildlife Act [RSBC 1996 c.4SS]. The ABNSP follows standards relevant to nesting surveys outlined in the Inventory Methods of Forest and Grassland Songbirds, Standards for Components of British Columbia's Biodiversity No. 15 (RIC 1999) and Inventory Methods for Raptors, Standards for Components of British Columbia's Biodiversity No. 11 (RIC 2001). The program also follows recommendations outlined by the Canadian Wildlife Service (CWS). Where appropriate, survey methods deemed may be modified to account for local and/or site-specific conditions.

Notwithstanding the recommendations and conclusions made in this correspondence, it must be acknowledged that bear dens, furbearer dens, hibernacula, stick nest, cavity nests, and other bird nests, can sometimes be difficult to locate despite following established protocols and making best possible survey efforts. While all reasonable efforts have been made to ensure the surveys were completed to the best possible standards, no guarantees are offered, or implied. It is both professionally and practically impossible to predict with absolute certainty that all bear dens, hibernacula, and nests have been accounted for. In accordance with standard protocols, the assessment presented in this correspondence, work windows following surveys are valid for a specified period of time after the last survey date. As the Avian nesting window intensifies, survey validity windows become shorter. Work windows following surveys typically range from two weeks to a couple of days, and are specified by the supervising survey wildlife biologist. If no work is initiated by the client(s) within specified time frames, a new survey is required. Approval and implementation of any recommendations made within this correspondence is the responsibility of the client, and in no way implies any inspection or supervisory role on the part of Avison Management Services Ltd. In the event that inspection or supervision of all or part of the implementation plan is requested, the request shall be in writing and the details agreed to in writing by both parties. Sketches, diagrams and photographs contained in this report, being intended as visual aids, should not be construed as engineering reports or legal surveys.

2024 Annual Pre-clearing Wildlife Survey Report

8. References

BC Fisher Habitat Working Group. 2019. Incorporating Fisher Habitat Conditions and Targets into Forest Planning: Recommendations for Partial Cutting Silvicultural Systems. (PDF, 0.2 MB)

BC Fisher Habitat Working Group. 2019. Guidance on Fisher Open Area Analysis. (PDF, 0.2MB)

B.C. Ministry of Environment and Climate Change Strategy. 2019. Ecosystems Branch Wildlife Habitat Features Field Guide (Kootenay Boundary Region).

BC Species & Ecosystems Explorer Cariboo Regional District. Accessed: March 7th, 2023.
<https://a100.gov.bc.ca/pub/eswp/search.do>

Blackwater Gold Ltd. 2022. Wildlife Mitigation and Monitoring Plan. Version H1. Blackwater Gold Project.

Ciarniello, L. M., M. S. Boyce, D. C. Heard, and D. R. Seip. 2005. Denning Behavior and Den Site Selection of Grizzly Bears along the Parsnip River, British Columbia, Canada. Ursus 16(1):47-58

E-Fauna BC. 2022. Electronic Atlas of Wildlife in British Columbia. Accessed March 7th, 2023.
<https://linnet.geog.ubc.ca/biodiversity/efauna/>

ERM 2022. Blackwater Mine - Pre-Clearing Wildlife Features Survey Standard Operating Procedure. 13 pp.

Hodder, D, Rea, R. 2005. Bear den site selection and considerations for forest management in the interior of British Columbia

Resources Inventory Committee. 1998. Vertebrates of BC: Scientific and English Names. Standards for Components of BC's Biodiversity No.2. Version 2.0. Min. Environ., Lands and Parks, Resources Inventory Branch, Victoria, BC. 122 pp.

Resources Information Standards Committee (RISC). 2022. Inventory Methods for Bats, Standards for Components of British Columbia's Biodiversity No. 20. Version 3.0. B.C. Ministry of Land, Water and Resource Stewardship, Ecosystems Branch, Victoria, B.C.

Resources Information Standards Committee (RISC). 1999. Inventory Methods for Medium Sized Carnivores: Coyote, Red Fox, Lynx, Bobcat, Wolverine, Fisher & Badger, Standards for Components of British Columbia's Biodiversity No. 25. Version 2.0. B.C. Ministry of Land, Water and Resource Stewardship, Ecosystems Branch, Victoria, B.C.

Resources Information Standards Committee (RISC). 1998. Inventory Methods for Marten and Weasels, Standards for Components of British Columbia's Biodiversity No. 24. Version 2.0. B.C. Ministry of Land, Water and Resource Stewardship, Ecosystems Branch, Victoria, B.C.

Resources Inventory Committee. 1998. Inventory methods for Bears. Standards for components of British Columbia's biodiversity No. 21. Version 2.0. Min. Environ., Lands and Parks, Resources Inventory Branch, Victoria, BC. 67 pp.

2024 Annual Pre-clearing Wildlife Survey Report

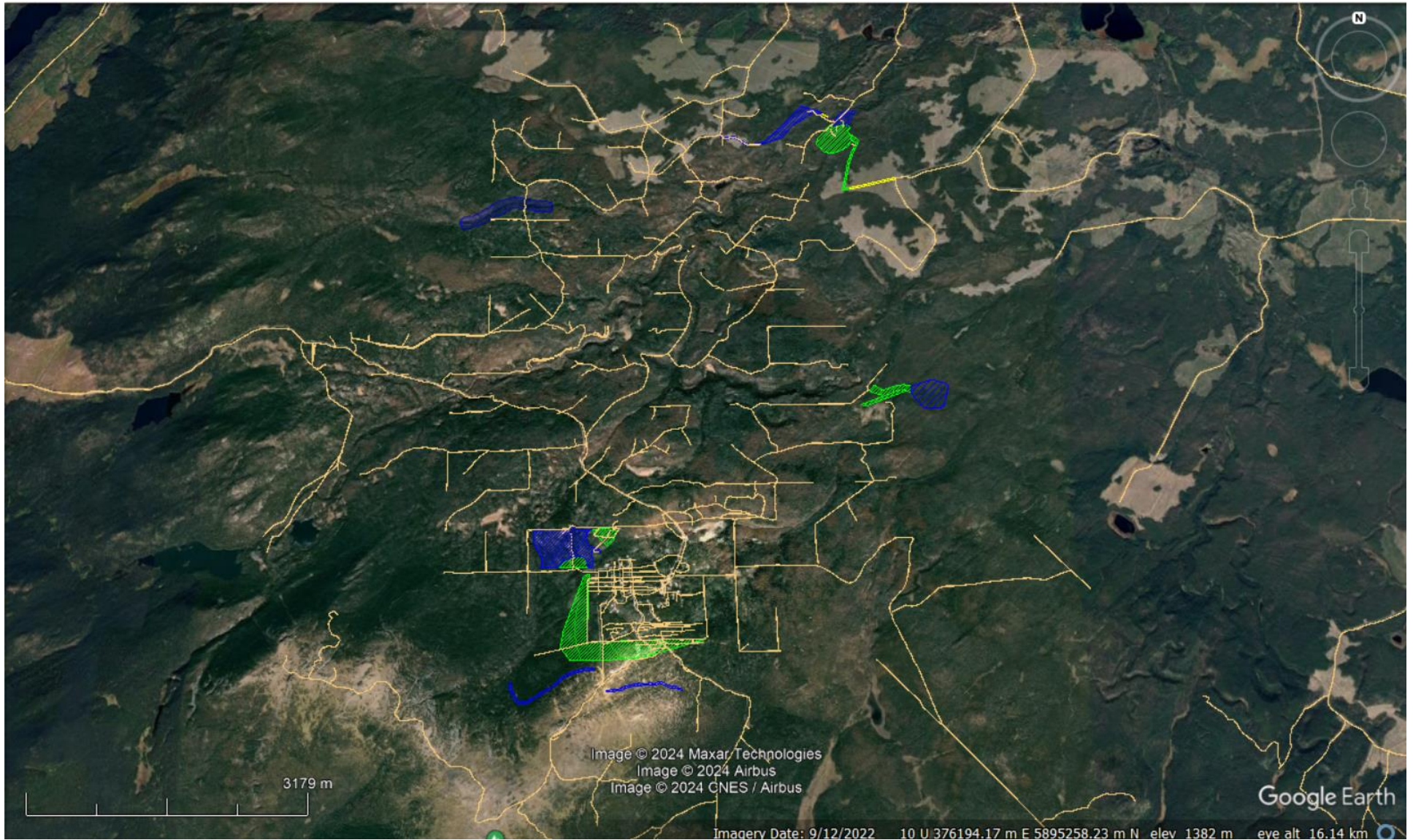
Resources Inventory Committee. 1999. Inventory methods for forest and grassland songbirds. Standards for components of British Columbia's biodiversity No. 15. Min. Environ., Lands and Parks, Resources Inventory Branch, Victoria, BC. 49 pp.

Resources Inventory Committee. 2001. Inventory methods for Raptors. Standards for components of British Columbia's biodiversity No. 11. Min. Environ., Lands and Parks, Resources Inventory Branch, Victoria, BC. 145 pp.

Weir, R. D., and P. Lara Almuedo. 2010. British Columbia's Interior: Fisher Wildlife Habitat Decision Aid. BC Journal of Ecosystems and Management 10(3):35-41. (PDF, 0.6MB)

9. Appendices

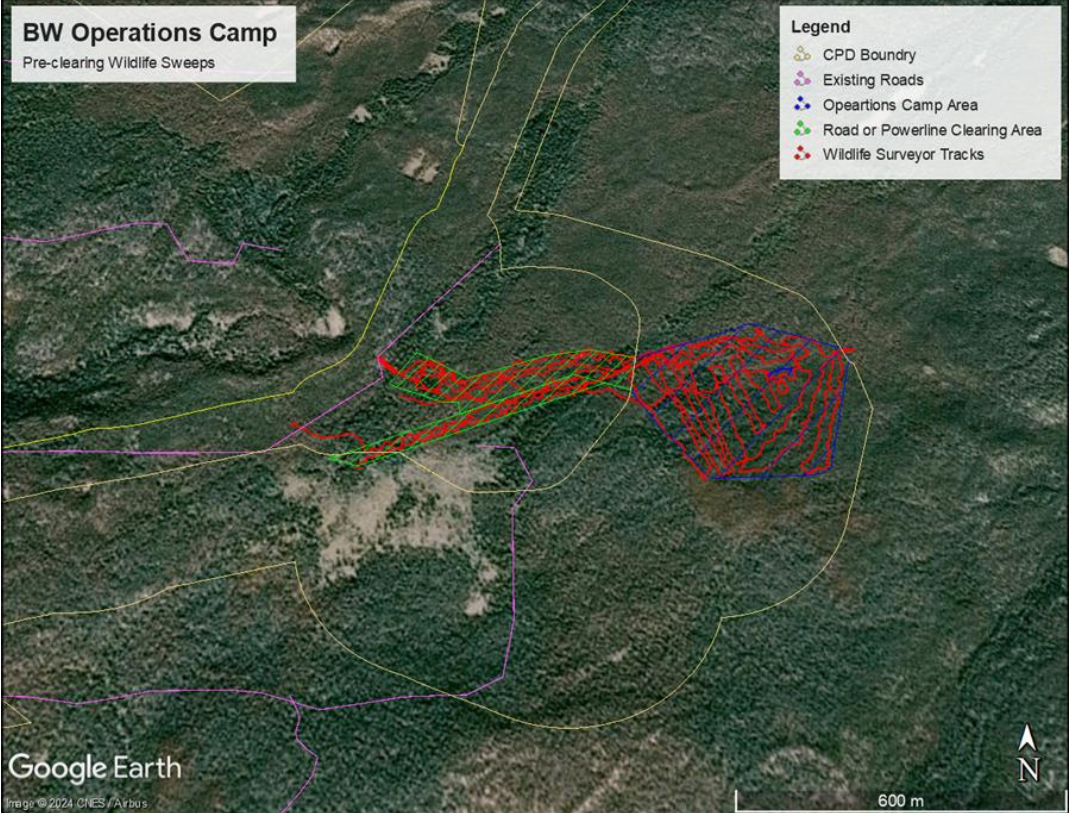
9.1 Appendix 1. Map of pre-clearing sweep request locations as of April 23, 2024.



9.2 Appendix 2. Summary of Results for Wildlife Pre-clearing Surveys.

9.2.1 Week of February 11th-17th, 2024

Table 5. Blackwater Operations Camp - Pre-clearing Wildlife Survey, Feb 14th -15th, 2024.

Area Name	Surveyor
<i>Blackwater Operations Camp</i>	<i>Olin Albertson/Steve Nicklie</i>
Survey Date	Survey Start and End Time
<i>Feb 14-15, 2024</i>	<i>8 am – 4pm PDT</i>
Weather	Conditions
<i>Clear and calm, -5^oC to -10^oC</i>	<i>~50 cm snow, 2.5 cm fresh snow</i>
Proposed Clearing Area Map and Survey Track	
	
Identified Wildlife and Features	Comments
<p>Wildlife <i>The following wildlife were identified by or their tracks were identified by sight, sound, or tracks during the survey:</i></p> <ul style="list-style-type: none"> • <i>Snowshoe hare,</i> • <i>Red squirrel,</i> • <i>Ermine spp.,</i> • <i>Canada lynx</i> <p>Features <i>No dens, nests, hibernacula, or other protected habitat features were identified in this survey.</i></p>	<p><i>We surveyed the Operations Camp and associated road and powerline polygons and found substantial signs and tracks of Snowshoe hare and Red squirrel; we also observed Lynx tracks that walked through the Ops camp, as well as several weasel species tracks in our sweeps. We did not however, observe or find evidence of Wolverine, Fisher, Pine marten, Black bear, or Grizzly bear dens in any of these polygons. We also did not observe or find evidence of any Bat hibernacula or nesting birds. From a wildlife pre-clearing Wildlife feature survey perspective, clearing is good to commence. The clearing window is 14 days for this survey.</i></p>

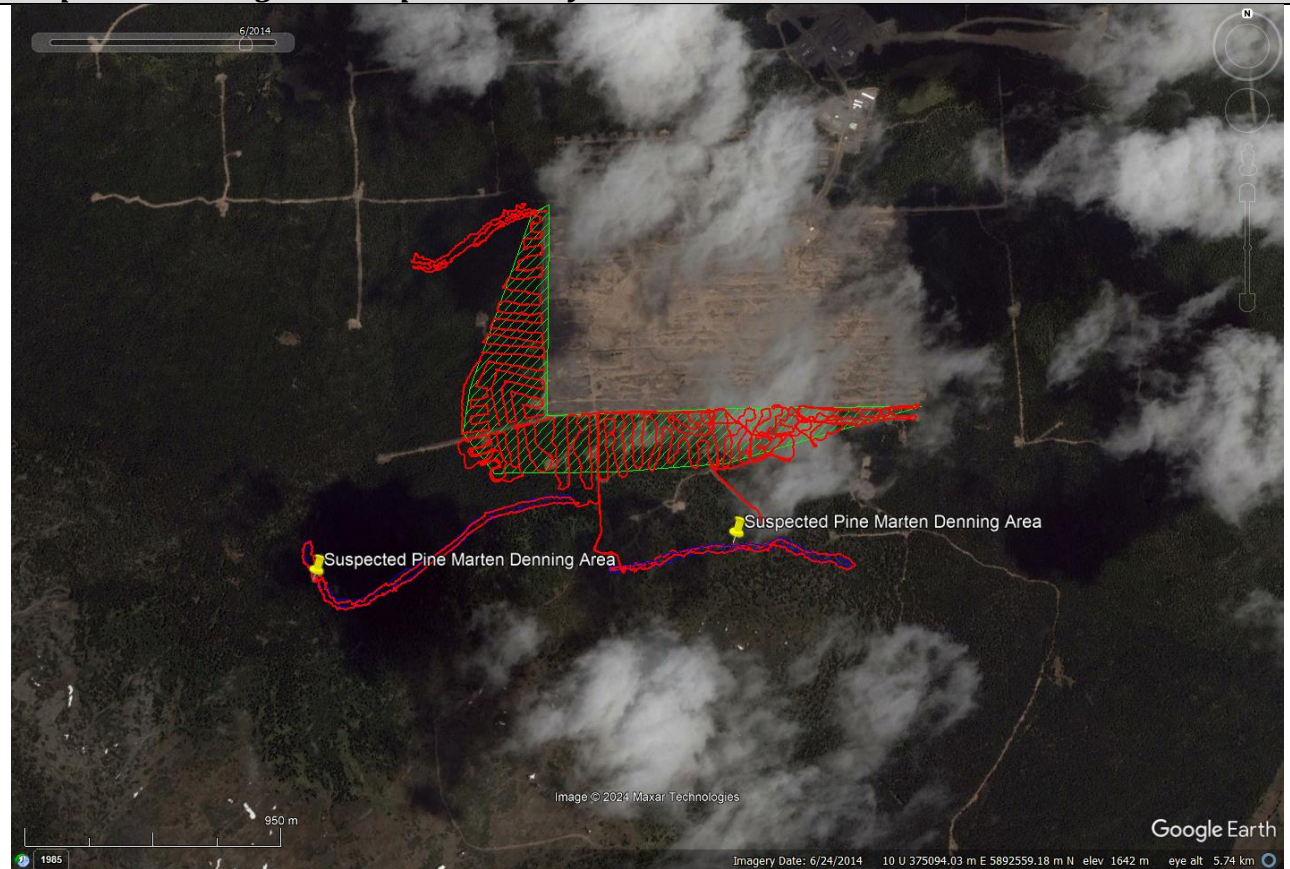
2024 Annual Pre-clearing Wildlife Survey Report

9.2.2 Week of March 10th-16th, 2024

Table 6. Open Pit Area - Pre-clearing Wildlife Survey, March 11-13, 2024.

Area Name	Surveyor
Open Pit Area	Olin Albertson/Steve Nicklie
Survey Date	Survey Start and End Time
Mar 11-13, 2024	8 am – 5pm PDT
Weather	Conditions
Partly Cloudy with occasional Snow squalls, -5 ^o C to -15 ^o C	~80 cm snow, ~5 cm fresh snow

Proposed Clearing Area Map and Survey Track



Identified Wildlife and Features	Comments
<p>Wildlife The following wildlife were identified by or their tracks were identified by sight, sound, or tracks during the survey:</p> <ul style="list-style-type: none"> • Snowshoe hare, • Red squirrel, • Pine marten • Ermine spp., • Canada lynx • Willow Ptarmigan • Red squirrel, 	<p><i>It is important to note, that much of the area in these polygons has been burned, however all areas both burned and not burned were surveyed. We found substantial signs and tracks of Pine Marten and a few Weasel tracks.</i></p> <p><i>We did find two (2) areas where we suspected, based on the amount of concentrated sign, that a marten den is in the vicinity, however after searching we did</i></p>

2024 Annual Pre-clearing Wildlife Survey Report

- *Clark's Nutcrackers*
- *Boreal Chickadee,*
- *Golden-crowned Kinglet,*
- *Gray Jay,*
- *Common Raven*

Features

Two potential but unconfirmed Pine Marten den areas were located. The dens are listed as potential, based solely on concentration of tracks in the area, but unconfirmed as no den entrance was located. Both sites were just outside the clearing area.

No other dens, nests, hibernacula, or other protected habitat features were identified in this survey.

not find an actual den location. Both these locations were just outside the clearing polygons, and while we recommend the trees in these locations are preserved, we did not put a buffer around these locations as we are not certain an actual den exists, and it is still early in the denning season.

Many Snowshoe hare and a few Red squirrel tracks were also observed. We did not however, observe or find evidence of Wolverine, Fisher, Black bear, or Grizzly bear dens in any of these polygons.

We also did not observe or find evidence of any Bat hibernacula.

We did observe Willow Ptarmigan and tracks. On two separate occasions we heard Clark's Nutcrackers in the distance, we also heard vocalizations and/or sighted Boreal Chickadee, Golden-crowned Kinglet, Gray Jay, and Common Raven. We did not however, observe or find evidence of any breeding or nesting birds.

From a wildlife pre-clearing Wildlife feature survey perspective, clearing is good to go inside the provided and surveyed polygons. The clearing window is 14 days for this survey.

2024 Annual Pre-clearing Wildlife Survey Report

9.2.3 Week of March 17th-23rd, 2024

Table 7. Eskers, Freshwater Reservoir (FWR) - Pre-clearing Wildlife Survey, March 18-21, 2024.

Area Name	Surveyor
<i>Eskers, Freshwater Reservoir (FWR)</i>	<i>Olin Albertson/Steve Nicklie</i>
Survey Date	Survey Start and End Time
<i>Mar 18-21, 2024</i>	<i>8 am – 5pm PDT</i>
Weather	Conditions
<i>Mostly clear, -2^oC to -5^oC</i>	<i>0 to ~40 cm snow</i>
Proposed Clearing Area Map and Survey Track	
Identified Wildlife and Features	Comments
<p>Wildlife <i>The following wildlife were identified by or their tracks were identified by sight, sound, or tracks during the survey:</i></p> <ul style="list-style-type: none"> • <i>Snowshoe hare,</i> • <i>Red squirrel,</i> • <i>Pine Marten</i> • <i>Ermine spp.,</i> • <i>Canada lynx</i> • <i>Red squirrel,</i> • <i>Clark's Nutcrackers</i> 	<p><i>Of note, we did find a potential Pine marten den in the North east area of the FWR. We checked this potential Marten den for three consecutive days, and did not observe any fresh Marten sign, and the infrared camera did not reveal any current use. The den does not appear to be currently actively used, so we did not put a buffer around it. However, if this habitat feature does not need to be removed, it would be good to retain it as they are relatively rare on the landscape and it is still early in the denning season.</i></p>

2024 Annual Pre-clearing Wildlife Survey Report

- *Boreal Chickadee,*
- *Golden-crowned Kinglet,*
- *Gray Jay,*
- *Common Raven,*
- *Ruffed grouse*
- *Spruce grouse*
- *Northern Goshawk*

Features

A potential Pine marten den was found in the North east area of the FWR. The den was checked for three consecutive days, no fresh Marten sign or use was observed, and the infrared camera did not reveal any current use.

No other dens, nests, hibernacula, or other protected habitat features were identified in this survey.

Snowshoe hare and a Red squirrels and their tracks were also readily observed, however, these were not recorded.

We did not, observe or find evidence of Wolverine, Fisher, Black bear, or Grizzly bear dens in any of these polygons.

We also did not observe or find evidence of any Bat hibernacula.

We did observe Ruffed grouse, and Spruce grouse and tracks. We also heard vocalizations and/or sighted Boreal Chickadee, Golden-crowned Kinglet, Gray Jay, Common Raven. Of note, is that we also heard vocalizations of a Northern Goshawk along the access polygon between the A road and the FWR. It was not near the road, and we did not observe or find evidence of any breeding or nesting pairs in the vicinity of the road. No bird nests were noted.

From a pre-clearing Wildlife feature survey perspective, clearing is good to go inside the provided and surveyed polygons.

As we get further into the Migratory breeding and nesting bird window, the approved clearing times will get shorter and shorter. At this elevation, there are still very few migratory bird species utilizing the area, this is expected to change drastically in the coming weeks. In the interim, clearing is good to continue for a period of 10 days from the date of survey completion. This is reduced from the 14 day clearing window from the previous week. As more migratory birds start utilizing the area we start observing breeding behavior, the clearing window will get shorter and shorter.

2024 Annual Pre-clearing Wildlife Survey Report

9.2.4 Week of March 17th-23rd, 2024

Table 8. Stream 668 - Pre-clearing Wildlife Survey, March 22, 2024.

Area Name	Surveyor
Stream 668	Olin Albertson/Steve Nicklie
Survey Date	Survey Start and End Time
Mar 22, 2024	10 am – 2pm PDT
Weather	Conditions
Mostly clear, -2 ^o C to -5 ^o C	0 to ~20 cm snow
Proposed Clearing Area Map and Survey Track	
Identified Wildlife and Features	Comments
<p>Wildlife <i>The following wildlife were identified by or their tracks were identified by sight, sound, or tracks during the survey:</i></p> <ul style="list-style-type: none"> • Boreal Chickadee, • Golden-crowned Kinglet, • Common Raven, • Black-backed Woodpecker • Sharp-tailed grouse <p>Features <i>A potential nest cavity of a Black-backed Woodpecker in the downstream section of the polygon was located. Both the male and female</i></p>	<p><i>We located the beginnings of potential nest cavity of a Black-backed Woodpecker as a new hole was observed in a burnt tree, in the downstream section of the polygon. Both the male and female were observed in the vicinity of the cavity, but were never observed entering or using it, or displaying nesting behavior. The upstream section is clear to go. The downstream section is also clear to go as no active nest were observed, however, if possible, it may be a good retain this cavity nest feature and surrounding trees. It may be worth having Artemis environmental staff check the potential nest cavity periodically to see if it is actually</i></p>


2024 Annual Pre-clearing Wildlife Survey Report

<p><i>were observed in the vicinity of the cavity, but were never observed entering or using it, or displaying nesting behavior.</i></p> <p><i>No other dens, nests, hibernacula, or other protected habitat features were identified in this survey.</i></p>	<p><i>being used, as we currently only have anecdotal observations of the Woodpeckers in the immediate vicinity.</i></p> <p><i>A few Snowshoe hare and a Red squirrel tracks were observed.</i></p> <p><i>We did not, observe or find evidence of Wolverine, Fisher, Black bear, or Grizzly bear dens in any of these polygons.</i></p> <p><i>We also did not observe or find evidence of any Bat hibernacula.</i></p> <p><i>We did observe sharp-tailed grouse. We also heard vocalizations and/or sighted Boreal Chickadee, Golden-crowned Kinglet, Common Raven. No other bird nests other than the previously mentioned potential Woodpecker cavity nest were noted.</i></p> <p><i>From a pre-clearing Wildlife feature survey perspective, clearing is good to go inside the provided and surveyed polygons.</i></p> <p><i>As we get further into the Migratory breeding and nesting bird window, the approved clearing times will get shorter and shorter. At this elevation, there are still very few migratory bird species utilizing the area, this is expected to change drastically in the coming weeks. In the interim, clearing is good to continue for a period of 10 days from the date of survey completion. This is reduced from the 14 day clearing window from the previous week. As more migratory birds start utilizing the area we start observing breeding behavior, the clearing window will get shorter and shorter</i></p>
---	--

2024 Annual Pre-clearing Wildlife Survey Report

9.2.5 Week of April 21st -27th, 2024

Table 9. LGO Stockpile- Pre-clearing Wildlife Survey, March 22-23, 2024.

Area Name	Surveyor
LGO Stockpile	Olin Albertson/Andrew Johnny
Survey Date	Survey Start and End Time
April 22-23, 2024	10 am – 2pm PDT
Weather	Conditions
Mostly clear, 5 ^o C to -7 ^o C	0 to ~50 cm snow
Proposed Clearing Area Map and Survey Track	
	
Identified Wildlife and Features	Comments
<p>Wildlife The following wildlife were identified by or their tracks were identified by sight, sound, or tracks during the survey:</p> <ul style="list-style-type: none"> • Red squirrel, • Boreal Chickadee, • Dark-eyed junco, • American robin, • Yellow-rumped warbler, • Gray Jay, • Common Raven, 	<p>We did hear vocalizations and/or sighted Gray jay, Common raven, Dark-eyed junco, American Robin, and Yellow-rumped warbler. Migratory bird species are now starting to utilize the area, and as we move more in to spring, we expect to see more and more species diversity and abundance. However, we did not find any active bird nests or cavity nest's during this round of sweeps.</p> <p>We did not, observe or find evidence of Wolverine, Fisher, Pine marten Black bear, or Grizzly bear dens in any of these polygons.</p>

2024 Annual Pre-clearing Wildlife Survey Report

Features

No dens, nests, hibernacula, or other protected habitat features were identified in this survey.

We also did not observe or find evidence of any Bat hibernacula.

We also did not observe or find evidence of any active amphibians, or their eggs, or young.

From a pre-clearing Wildlife feature survey perspective, clearing is good to go inside the provided and surveyed polygons. For this survey, clearing is good to continue for a period of 7 days from the date of survey completion; this is reduced from the 10 day clearing window from the previous survey. As more migratory birds start utilizing the area and we start observing increase breeding and nesting behavior, the clearing window will get shorter and shorter.

2024 Annual Pre-clearing Wildlife Survey Report

9.2.6 Week of April 21st -27th, 2024

Table 10. Stream 668 - Pre-clearing Wildlife Survey, April 23, 2024.

Area Name	Surveyor
Stream 668	Olin Albertson/Andrew Johnny
Survey Date	Survey Start and End Time
April 23, 2024	10 am – 2pm PDT
Weather	Conditions
Mostly clear, 5 ^o C to -3 ^o C	0 to ~20 cm snow
Proposed Clearing Area Map and Survey Track	
Identified Wildlife and Features	Comments
<p>Wildlife The following wildlife were identified by or their tracks were identified by sight, sound, or tracks during the survey:</p> <ul style="list-style-type: none"> • Boreal Chickadee, • Golden-crowned Kinglet, • Dark-eyed junco, • American robin, • Ruffed grouse <p>Features No dens, nests, hibernacula, or other protected habitat features were identified in this survey.</p>	<p>We did not find an active bird nests or cavity nest's during this round of sweeps. We also revisited the previously located potential nest cavity of a Black-backed Woodpecker on Creek 668, however, the potential cavity nest was not occupied, and no birds were observed in the vicinity.</p> <p>We did not, observe or find evidence of Wolverine, Fisher, Pine marten Black bear, or Grizzly bear dens in any of these polygons.</p> <p>We also did not observe or find evidence of any Bat hibernacula.</p>

2024 Annual Pre-clearing Wildlife Survey Report

We also did not observe or find evidence of any active amphibians, or their eggs, or young.

We did hear vocalizations and/or sighted Gray jay, Common raven, Dark-eyed junco, American Robin, and Yellow-rumped warbler. Migratory bird species are now starting to utilize the area, and as we move more in to spring, we expect to see more and more species diversity and abundance.

From a pre-clearing Wildlife feature survey perspective, clearing is good to go inside the provided and surveyed polygons. For this survey, clearing is good to continue for a period of 7 days from the date of survey completion; this is reduced from the 10 day clearing window from the previous survey. As more migratory birds start utilizing the area and we start observing increase breeding and nesting behavior, the clearing window will get shorter and shorter.

APPENDIX B

TRANSMISSION LINE PRE-CLEARING
WILDLIFE SURVEYS, JANUARY-MARCH
2024

DAILY FIELD REPORT

CREW NAME(S)	South Crew: Lorene Anouilh, Matt Robinson, Alaysia Martin, Leanne Matthews, Serena Stanisavljevic, Kristen Cradock	DATE	04/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	Clear, -2	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Team 1: Pole 487 to 483 (43.8 ha) Team 2: Pole 421 (7.6 ha)	Modification of buffer MR-1512-002	No sensitive wildlife features observed.

Daily Tasks Completed

- 6:45 crew held safety meeting and discussed day's survey plans.

Team 1:

- 7:15 – 8:00: travel to site, preparation to the day.
- 8:00 – 16:15: Wildlife sweep Pole 487 to 483.
- 16-15 – 16:45: crew identified a potential side road to be use the following days.
- 16:45 - 17:15: travel to Kluskus camp; data upload
- 18:00 – 19-30: Crew lead only: meet Sable and Tylson; update with Matt; DFR; Time Card

Team 2:

- 6:30 – 9:30 – Drove from Fraser Lake to km 124.5 on Kluskus via Holy Cross and 500 Road (500 road was very icy)
- 9:30 – 10:00 Met Alaysia Martin at meeting point on Davidson Road. Had tailgate meeting.
- 10:00 – 12:00 Installed a 6m travel lane within the 50m buffer around pileated woodpecker cavity MR-1512-002 at km 121+900 (near pole 554). Travel lane installed under the guidance of a Qualified Professional (QP) and as outlined in Memo 02_Frost_PIWO Management Recommendations (DWB 2023)
- 12:00-1:00 Drove to new site at km 1 on the Marten FSR. Road was not plowed.
- 1:00-3:00 Surveyed a 7.7. ha area around pole 421

- 3:00-6:00 Drove back to Fraser Lake
- 6:00-6:30 Communications with crew lead at Kluskus camp, planning for next day, summary e-mail sent to crew lead.

Mobilization/Demobilization

- Matt Robinson & Leanne travel from and to Fraser Lake crew house.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings

Crew held tailgate safety meeting to discuss survey plans.

Communications

Morning tailgate safety meeting held with Nick Henry (Frost).
Discussion about access road and Marten FSR not snow plow.

Plan for Tomorrow

Each team continues its wildlife transect.

Reporting

-DFR



Figure 1. Survey area for January 4th, 2024 from Pole 487 to 483 (43.8 ha).



Figure 2. Survey area for January 4, 2024 7.7. ha area around pole 421



Figure 3: Installation of a 6m travel lane within the 50m buffer around pileated woodpecker cavity MR-1512-002 at km 121+900 (near pole 554)

DAILY FIELD REPORT

CREW NAME(S)	South Crew: Lorene Anouilh, Matt Robinson, Alaysia Martin, Leanne Matthews, Serena Stanisavljevic, Kristen Cradock Sable Degenhardt; Tyson D.	DATE	05/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM Clear, PM Sunny cloudy -2	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 414.5 to 419.5 (66.6 ha).		No sensitive wildlife features observed.

Daily Tasks Completed

Team 1:

- 6:45 crew held safety meeting and discussed day's survey plans: only one area instead of 2, change in the initial location
- 7:20 – 8:30: travel to site, truck shuffling to place 1 truck on the Marten FSR at end of transect and the others at the beginning, preparation to the day, integration and explanation to the new crew members Sable and Tyson.
- 8:30 – 9:00: Met with other crew, discussed plans, held tailgate.
- 9:00 - 16:15: Wildlife sweep Pole 414.5 to 419.5 (66.6 ha).
- 16:15 – 16:40: truck shuffling.
- 16:40 - 17:30: travel to Kluskus camp; data upload
- 18:00 : Crew lead only: update with Matt; DFR; Time Card.

Team 2:

- 6:00-8:30 Drive to site
- 8:30-9:00 Met with other crew, discussed plans, held tailgate.
- 9:00-3:15 Surveying from Pole 414.5 to about Pole 418.
- 3:15-5:45 Drove back to Fraser Lake
- 5:45-6:00 Fueled up truck, communicated with other crew lead

Mobilization/Demobilization

- Matt Robinson & Leanne travel from and to Fraser Lake crew house.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 397632 5922055	Pole 418	AM-0501- 001	PIWO	Roosting cavity	As it is not a nesting cavity, no buffer needed.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings

Crew held tailgate safety meeting to discuss survey plans.

Communications

Morning tailgate safety meeting held with Nick Henry (Frost).
Discussion about access road and Marten FSR not snow plow.

Plan for Tomorrow

TBD in the morning if the crew splits in 2 teams

Reporting

-DFR

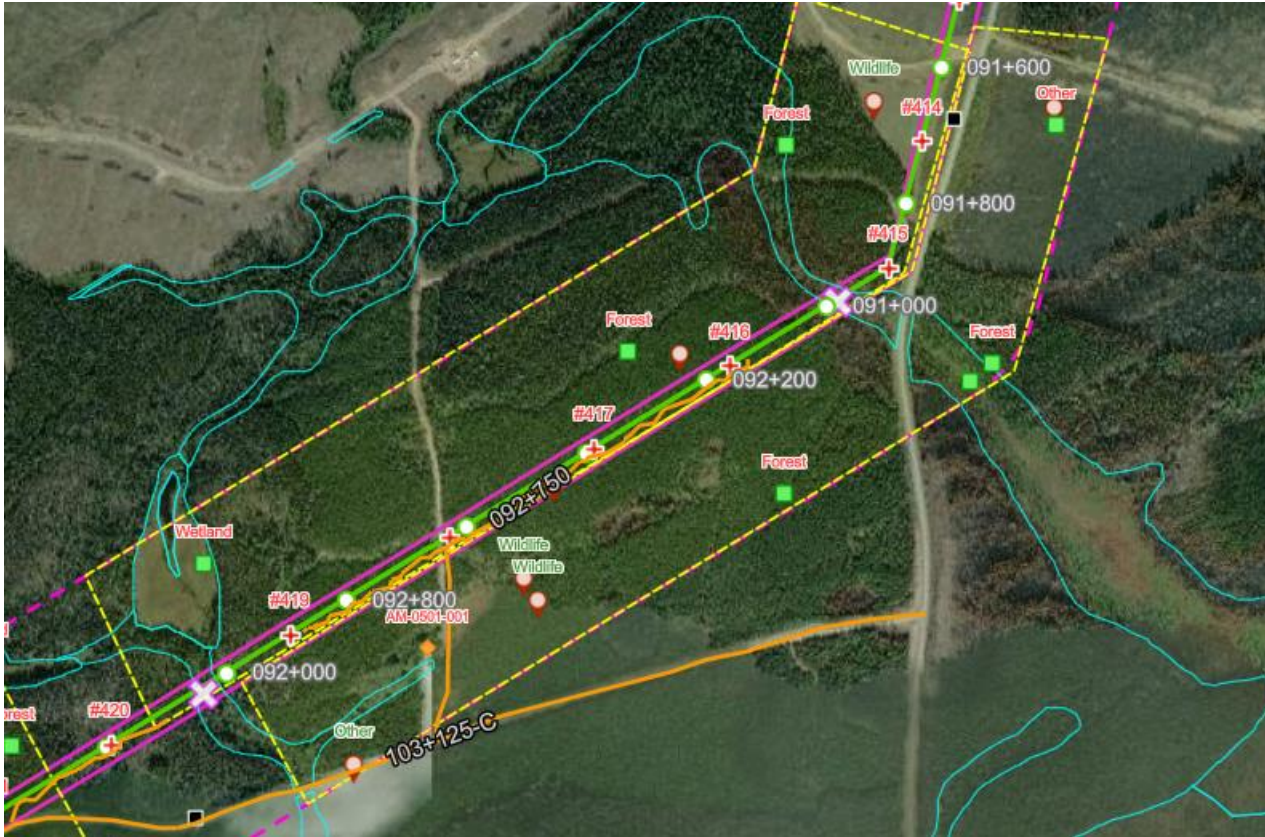


Figure 1. Survey area for January 5th, 2024 from Pole 414.5 to 419.5 (66.6 ha).



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	South Crew: Lorene Anouilh, Matt Robinson, Alaysia Martin, Leanne Matthews, Serena Stanisavljevic, Kristen Cradock; Lungi Roberts Sable Degenhardt; Tyson D.	DATE	06/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM Clear, PM Sunny cloudy -16 to -2	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 420 to 425.5 (57.2 ha).	No.	MR-0601-1; Suspected to be Bald eagle; buffer to be determined

Daily Tasks Completed

Team 1:

- 6:45 crew held safety meeting and discussed day's survey plans: only one area instead of 2, change in the initial location
- 7:20 – 8:30: travel to site, tailgate meeting, preparation to the day; meet with other crew
- 8:30 - 16:15: Wildlife sweep Pole 420 to 425.5 (57.2 ha).
- 16:15 - 17:00: travel to Kluskus camp; scouting newly plowed Marten FSR; fuel up; data upload
- 18:00 : Crew lead only: update with Matt & Lungi; DFR; Time Card.

Team 2 Fraser Lake

- 6:00-8:30 Drive to site and meet with other crew.
- 8:30-15:15: Wildlife sweep Pole 420 to 425.5 (57.2 ha).
Matt: 15:00- 18:00: Demobilization back to PG, communicated the crew lead, unpacked gear at shop.
Leanne: 15:15 – 18:00: Drove back to Fraser Lake
17:45-18:00: Sync data and send tracks to PM.

Lungi (replacing Matt):

- 6:30-11:45 Loaded equipment. Safety sign out. Project communications. Commute to site from PG.
- 11:45-15:15 Surveying.
- 15:15-17:45 Drive back to Fraser Lake.
- 17:45-18:00 Sync data and send tracks to PM. Communicate with crew lead. Check in with DWB safety.

Mobilization/Demobilization

- Matt Robinson & Leanne travel from and to Fraser Lake crew house.
- Matt R. : leaving to PG
- Lungi Roberts: commuting and surveying from PG

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 396972 5921693	Pole 422	MR-0601-1	Suspected to be Bald eagle	Large stick nest	90m away from ROW boundary; no buffer installed.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

COMMUNICATIONS

Meetings

Crew held tailgate safety meeting to discuss survey plans.

Communications

Morning tailgate safety meeting held with Nick Henry (Frost).

Discussion about access road and Marten FSR not snow plow → it was plowed today.

Plan for Tomorrow

TBD in the morning if the crew splits in 2 teams

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

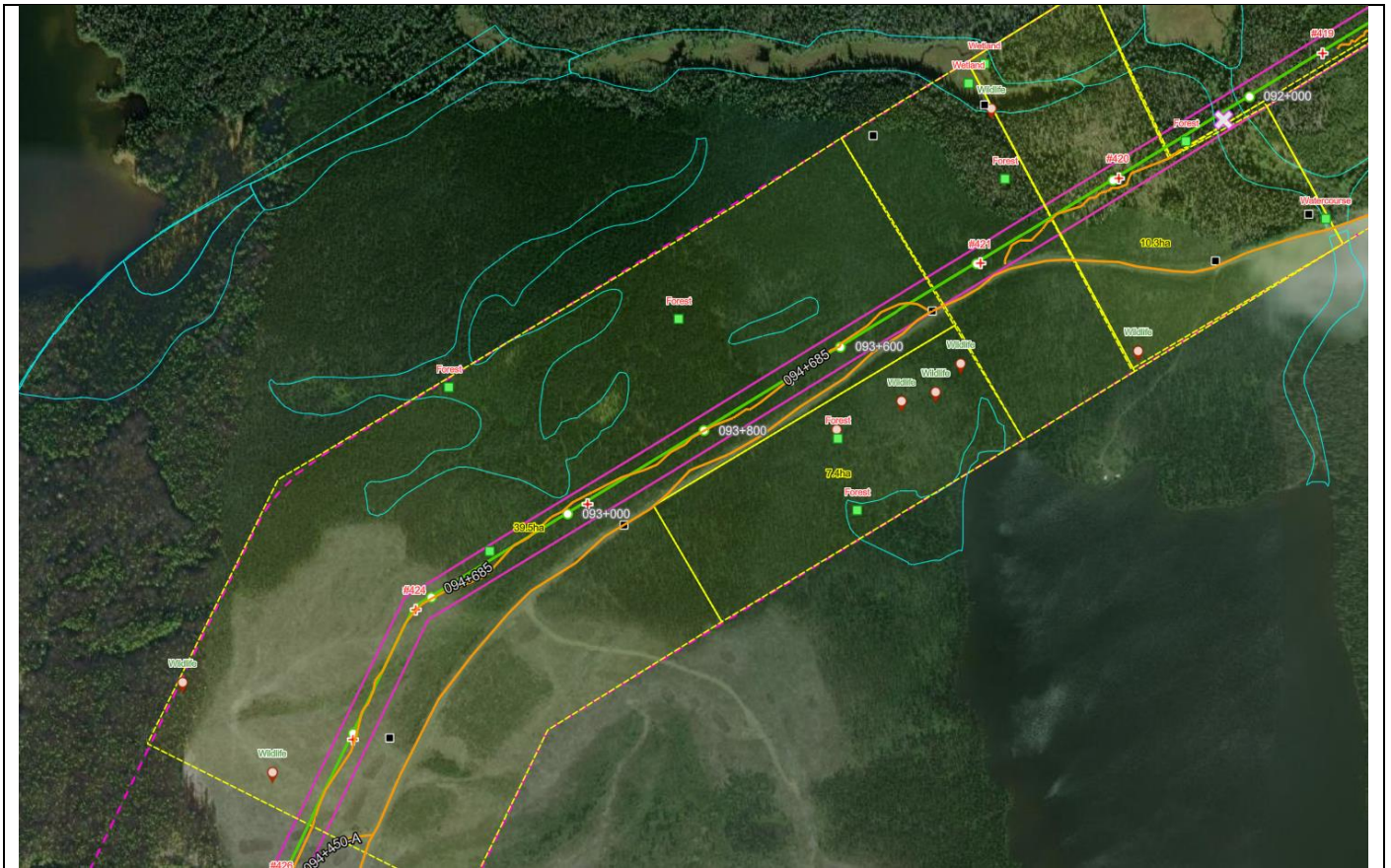


Figure 1. Survey area for January 5th, 2024 from Pole 420 to 425.5 (57.2 ha).



Figure 2: stick nest MR-0601-1 Found about 90m from right-of-way boundary.



Figure 3: Small mammal kill site.



Figure 4: potential River Otter tracks: track is 20cm width, 6cm paw, 132cm stride

DAILY FIELD REPORT

CREW NAME(S)	South Crew: Lorene Anouilh, Alaysia Martin, Leanne Matthews, Serena Stanisavljevic, Kristen Cradock; Lungi Roberts Tyson D.	DATE	07/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM cloudy, snow, PM cloudy -8 to -5	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 425.5 to 433 (50.8 ha).	No.	No important wildlife feature was observed

Daily Tasks Completed

Team 1:

- 6:45 crew held safety meeting and discussed day's survey plans: only one area instead of 2, change in the initial location
- 7:20 – 8:30: travel to site, tailgate meeting, preparation to the day; meet with other crew
- 8:30 - 16:15: Wildlife sweep Pole 425.5 to 433 (50.8 ha).
- 16:15 - 17:00: travel to Kluskus camp; data upload;
- 18:00 : Crew lead only: update with Lungi & Kaila & Andrew; DFR; Time Card.

Team 2 Fraser Lake

- 6:00-8:30 Drive to site and meet with other crew.
- 8:30-14:30: Wildlife sweep Pole 420 to 429.
- 14:30 – 16:45: Drove back to Fraser Lake; fueling up.
- 16:45-17:00: Sync data.

Mobilization/Demobilization

- Lungi & Leanne travel from and to Fraser Lake crew house.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings

Crew held tailgate safety meeting to discuss survey plans.

Communications

Morning tailgate safety meeting held on our own.

Lungi and Leanne will no longer commute from Fraser Lake and work in the North.

Plan for Tomorrow

The crew will be splitting in 2 teams to match the 2 priorities highlighted by Andrew:

Team 1: from pole 483 to 479; team 2: from pole 413 heading north on the transmission line.

Reporting



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

-DFR



Figure 1. Survey area for January 5th, 2024 from Pole 425.5 to 433 (50.8 ha).



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	North: Lungi Roberts, Leanne Matthews, Monica Matthews, Gary Tatlock	DATE	08/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM cloudy, snow, PM cloudy, snow -10 to -8	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	West side of ROW, Pole 159 to 162 (20.8 ha).	Yes.	No important wildlife feature was observed

Daily Tasks Completed

- 06:00-07:00: crew held safety meeting. Drove to Frost office to meet with Jonathan to discuss project work area for the day. Drove to Holy Cross FSR. Coordinated with incoming crew members (Gary Tatlock and Monica Matthews) regarding project logistics and work plan. Reviewed south crew DFR.
- 07:00-07:45: travel to site.
07:45-08:15: tailgate meeting, preparation to the day.
- 08:15-16:15: Wildlife sweep West side of ROW, Pole 159 to 162 (20.8 ha). Joined by Monica Matthews at 11:45.
- 16:15-17:00: travel to Fraser Lake crew house.
- 17:00-18:00: Data upload. Project correspondence with incoming crews. Time Card. DFR. Distribute data to Frost and DWB.

Mobilization/Demobilization

- Gary Tatlock travel from Prince George to Endako house and Monica Matthews travel from Smithers to Fraser Lake crew house.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 378583 5966981	161	LR-0801-001	Woodpecker	Cavity Tree	15.5m; no buffer installed
10U 378447 5967132	160C	LR-0801-002	Woodpecker	Cavity Tree	205m west of ROW boundary; no buffer installed.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes

COMMUNICATIONS

Meetings

Crew met with Jonathan St Jean (Frost) at Frost Office at 6:13am in Fraser Lake to discuss survey plans. Crew held tailgate safety meeting.

Communications

Morning tailgate safety meeting held on our own.

Plan for Tomorrow

TBD.

Reporting

DFR.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 8th, 2024 from Pole 159 to 162 (20.8 ha).



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	South Crew: Lorene Anouilh, Alaysia Martin, Serena Stanisavljevic, Kristen Cradock, Kyle Clarke, Willis Sloat. Tyson D.	DATE	08/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM/PM: cloudy, snow, -8 to -5	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 483 to 479 (41.2 ha) Pole 409.5 to 408.5 (9.1 ha) Pole 413 to 408.5 (43 ha)	No.	A large stick nest was observed AAM-0108-001 at pole 414. Buffer is not installed and TBD.

Daily Tasks Completed

Team 1: Lorene, Tyson and Kristen

- 6:45 crew held safety meeting and discussed day's survey plans.
- 7:20 – 8:30: travel to site, concrete road blocks were removed on side road to access site
- 8:30 – 14:15: Wildlife sweep Pole 483 to 479 (41.2 ha)
- 14:15 – 15:00: Travel to meet with Team 2
- 15:00-16:30: Wildlife sweep Pole 409.5 to 408.5 (9.1 ha).
- 16:30 - 17:15: travel to Kluskus camp; data upload;
- 18:00 : Crew lead only: update with Andrew; DFR; Time Card.

Team 2:

Alaysia and Serena:

- 6:45-8:30: crew held safety meeting, discussed days plan; Drive to site
- 8:30-16:30: Wildlife sweep Pole 413 to 408.5 (43 ha)
- 16:30 - 17:15: travel to Kluskus camp; data upload;

Kyle and Willis:

- 6:30-10:30: Load gear at shop, pickup equipment from office, commute to site from PG.
- 10:30-16:30: Meet with crew and wildlife survey.
- 16:30-17:00: Commute to Kluskus Camp.
- 17:00-17:15: Sync data, communicate with crew lead.

Mobilization/Demobilization

- Kyle & Willis drove from PG to join the crew.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 398469 5923194	414	AAM-0108-001	TBD	Large stick nest	No buffer was installed and QP asked to collect extra information. Stick nest is on the ROW.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings

Crew held tailgate safety meeting to discuss survey plans.

Communications

Morning tailgate safety meeting held on our own.

Plan for Tomorrow

The crew will be splitting in 2 teams.

Reporting

-DFR



Figure 1. Survey area for January 8th, 2024 from Pole 483 to 479 (41.2 ha).

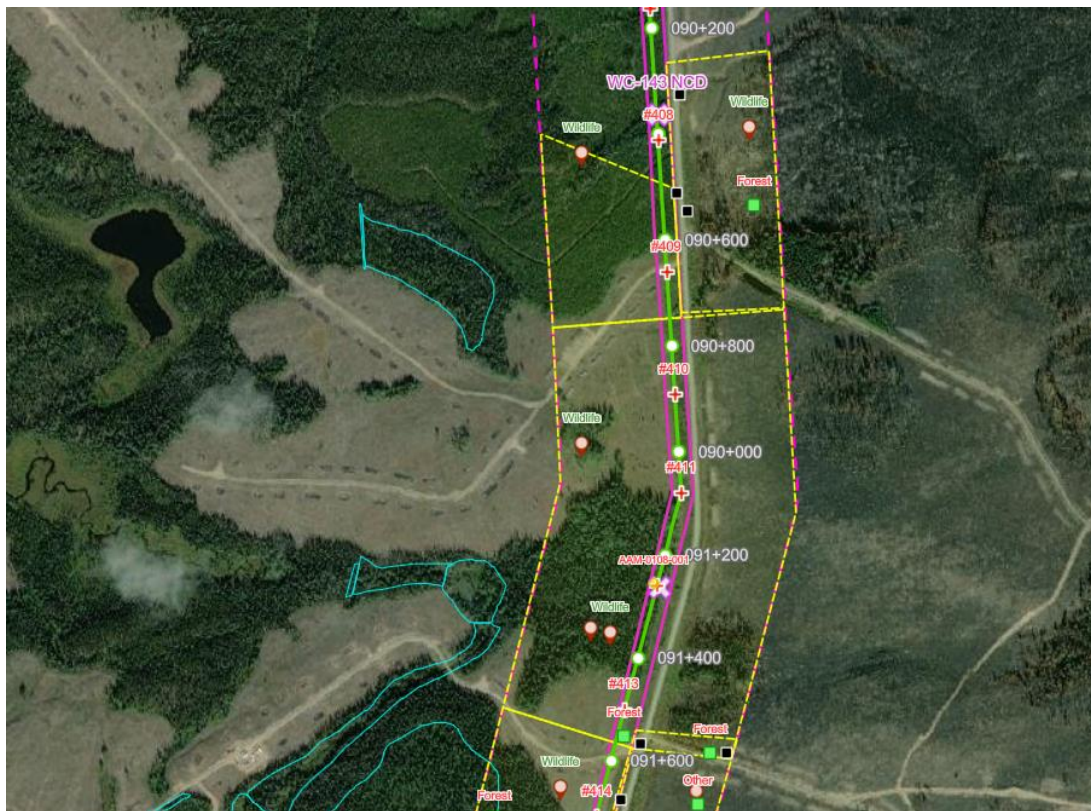


Figure 2. Survey areas for January 8th, 2024 from Pole 409.5 to 408.5 (9.1 ha) & Pole 413 to 408.5 (43 ha)



Figure 3. AAM-0108-001 Large stick nest in ROW at pole 414; 10U 398469 5923194.

DAILY FIELD REPORT

CREW NAME(S)	North: Lungi Roberts, Leanne Matthews, Monica Matthews, Gary Tatlock, Sable Degenhardt	DATE	09/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM cloudy, snow, PM cloudy, snow -10 to -8	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	East side of ROW, Pole 158 to 162 (21.4 ha)	Yes.	No important wildlife feature was observed
Pre-disturbance Wildlife	West side of ROW, Pole 151 to 148 (19.6 ha).	Yes.	No important wildlife feature was observed

Daily Tasks Completed

- 06:30-07:15: crew held safety meeting on upcoming cold weather work conditions. Drove to Frost office to meet with Jonathan to discuss project work area for the day. Met with Gary (DWB) and Sable (Frost). Drove to Holy Cross FSR. Coordinated with incoming crew members (Jasmine Graham and Mitchell MacKenzie) regarding project logistics and work plan.
- 07:15-08:00: travel to site.
08:00-08:30: tailgate meeting, preparation to the day.
- 08:30-16:15: Wildlife sweep East side of ROW, Pole 158 to 162 (21.4 ha) and West side of ROW, Pole 151 to 148 (19.6 ha).
- 16:15-17:00: travel to Fraser Lake crew house. Refuel vehicle and plugged in in preparation for cold temperatures. Cleared snow from other work trucks.
- 17:00-18:15: Data upload. Project correspondence with incoming crews. Time Card. DFR. Distribute data to Frost and DWB.

Mobilization/Demobilization

- Jasmine Graham and Mitchell MacKenzie travel from Prince George to Fraser Lake.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 379020 5967329	160	LR-0901-001	Woodpecker	Cavity Tree	4 roosting cavities located in top two meters of 12-meter spruce snag; 180m east of Pole 160; no buffer installed.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 3379269 5951778	½ way between 234 & 235	JBL-1205-001	PIWO	Cavity/ 50m	Dec 5	~32m	Travel-lane flagged
10U 378134 5958174	234	TH-1205-001	PIWO	Cavity/50m	Dec 5	150m from clearing boundary. No tree heights taken.	160m W of clearing boundary
10U 378916 5952758	N of pole 231	TH-1205-003	PIWO	Cavity/50m	Dec 5	~27m	Travel-lane flagged
10U 378256 5957838	½ way between 206 & 207	TH-1209-006	PIWO	Cavity/50m	Dec 9	~33m	
10U 378821 5966726	163	SRL-1312-001	PIWO	Cavity/No buffer	Dec 13	178m from clearing boundary. No tree heights taken.	178m E of clearing boundary



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

10U 378513 5966719	NW of pole 163	TH-1214-001	PIWO	Cavity/50m	Dec 13	~30m	Modified buffer to existing access road

COMMUNICATIONS

Meetings

Crew met with Jonathan St Jean (Frost) at Frost Office at 7:00am in Fraser Lake to discuss survey plans. Crew held tailgate safety meeting.

Communications

Morning tailgate safety meeting held on our own.

Plan for Tomorrow

TBD.

Reporting

DFR.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

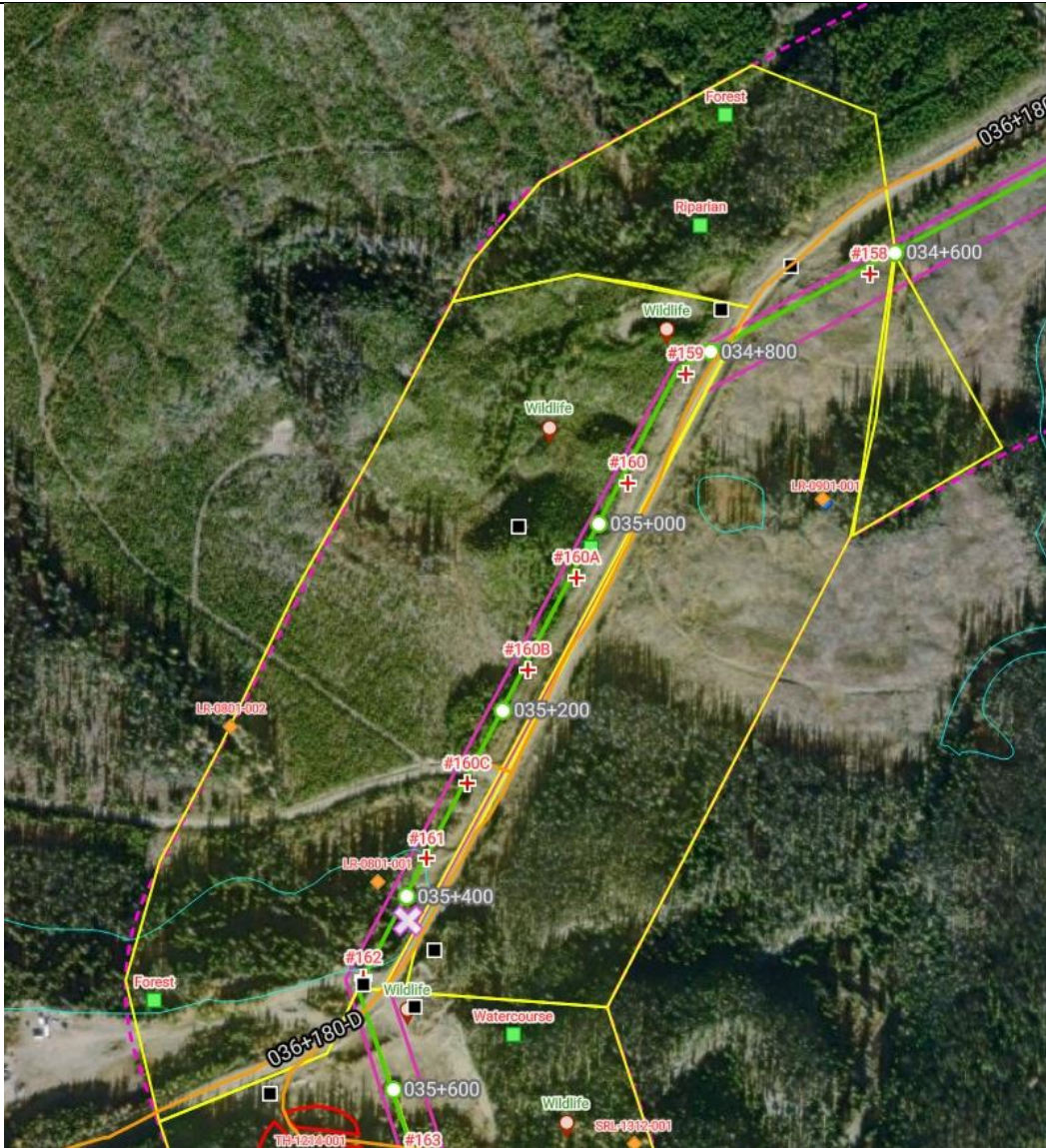


Figure 1. Survey area 1 for January 9th, 2024, from Pole 158 to 161 (21.4 ha).



Figure 2. Survey area 2 for January 9th, 2024, from Pole 151 to 148 (19.6 ha).



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	South Crew: Lorene Anouilh, Alaysia Martin, Serena Stanisavljevic, Kristen Cradock, Kyle Clarke, Willis Sloat. Tyson D.	DATE	09/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM/PM: cloudy, snow, -8 to -6	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 430 to 436.5 (42.5 ha) Pole 408.5 to 405.5 (42.8 ha)	No.	The large stick nest observed yesterday AAM-0108-001 does not need to be buffer as it was deemed to be inactive American Goshawk.

Daily Tasks Completed

Team 1: Lorene, Tyson and Kristen

- 6:45 crew held safety meeting and discussed day's survey plans.
- 7:20 – 8:30: drive to site, preparation of day.
- 8:30 – 16:30: Wildlife sweep Pole 430 to 436.5 (42.5 ha).
- 16:30 - 17:15: travel to Kluskus camp; data upload;
- 18:00 : Crew lead only: update with Andrew/Nick; DFR; Time Card.

Team 2:

Alaysia, Serena, Kyle, Willis:

- 6:45-8:30: crew held safety meeting, discussed days plan; Drive to site
- 8:30-16:15: Wildlife sweep Pole 408.5 to 405.5 (42.8 ha)



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

- 16:30 - 17:00: travel to Kluskus camp; data upload;

Mobilization/Demobilization

- Lorene & Serena will partially survey and drive to PG. Jesse Lewis & Jen Miller will replace them.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 398469 5923194	412	AAM-0108-001	American Goshawk	Large stick nest	The nest was determined to be inactive American Goshawk; no buffer installed.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings

Crew held tailgate safety meeting to discuss survey plans.

Communications

Morning tailgate safety meeting held with Nick.

Plan for Tomorrow

The crew will be working in one team.

Reporting

-DFR

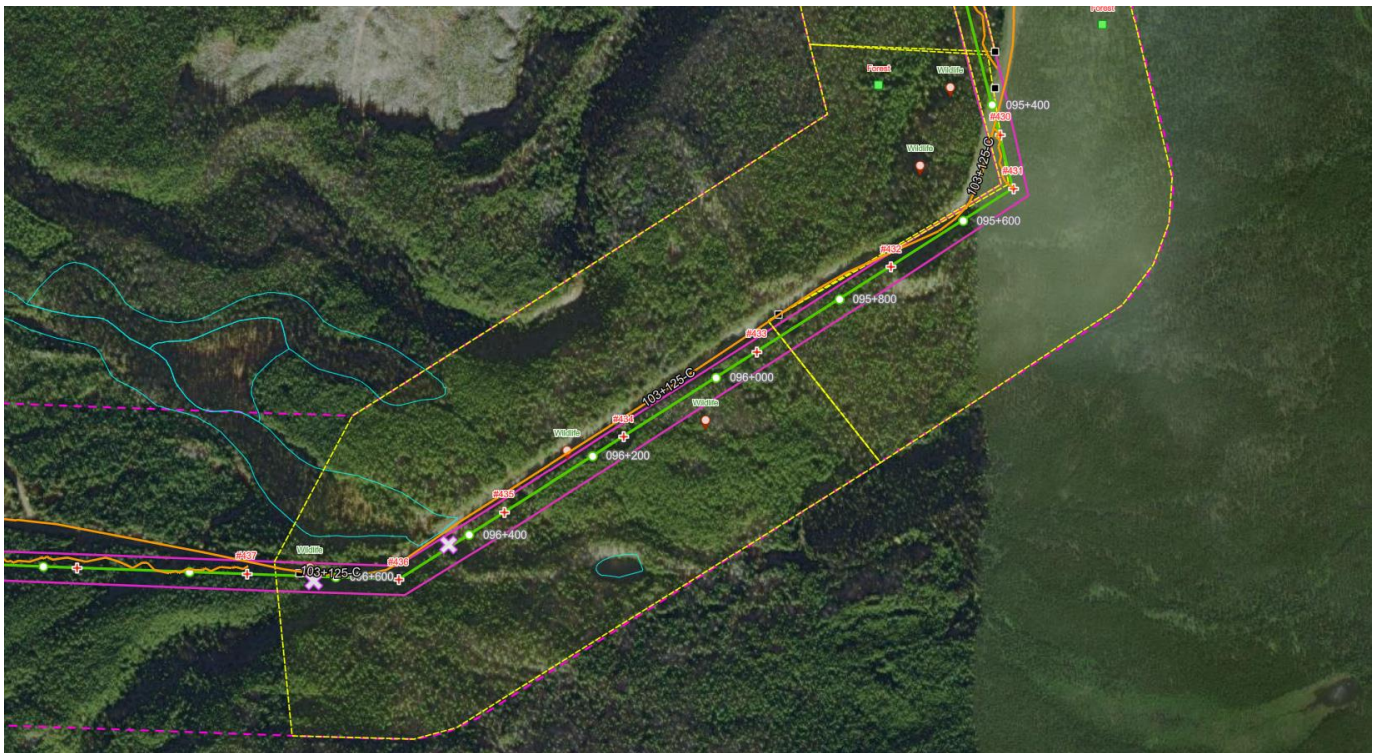


Figure 1. Survey area for January 9th, 2024 from Pole 430 to 436.5 (42.5 ha).



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for January 9th, 2024 from Pole 408.5 to 405.5 (42.8 ha)



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	North: Lungi Roberts, Leanne Matthews, Monica Matthews, Gary Tatlock, Sable Degenhardt, Jasmine Graham, Mitchell MacKenzie	DATE	10/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM cloudy, snow, PM cloudy, snow -18 to -21	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 151 to 139 (99.7 ha).	Yes.	No important wildlife feature was observed

Daily Tasks Completed

- 06:30-07:15: crew held safety meeting on upcoming cold weather work conditions. Drove to Frost office to meet with Jonathan to discuss project work area for the day. Met with Gary, Jasmine, Mitchell (DWB) and Sable (Frost).
- 07:15-08:00: travel to site.
08:00-08:30: tailgate meeting; shuffled trucks and split crews to East and West side of ROW, respectively; preparation to the day.
- 08:30-16:00: Wildlife sweep Pole 151 to 139 (99.7 ha).
- 16:00-16:45: travel to Fraser Lake crew house. Refuel vehicle and plugged in in preparation for cold temperatures. Cleared snow from other work trucks.
- 16:45-18:00: Data upload. Project correspondence with incoming crews. Time Card. DFR. Distribute data to Frost and DWB.

Mobilization/Demobilization

N/A

Wildlife Features Observed

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 381566 5969761	143	LR-1001-001	Woodpecker	Cavity Tree	4x4cm nesting cavity located in 10-meter spruce snag; 170m east of pole 143; no buffer installed.
10U 381694 5969670	142	LR-1001-002	Woodpecker	Cavity Tree	8x10cm roosting cavity along with 4 roosting cavities located tightly along spruce snag; 170m east of Pole 142; no buffer installed.
10U 381944 5970381	139	SD-1001-001	Woodpecker	Cavity Tree	1 10x10cm PIWO nesting cavity in 49 DBH Aspen snag; additional 6 roosting cavities of varying smaller sizes located in two other aspen snags; 163m SE of pole 139; no buffer installed.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 3379269 5951778	½ way between 234 & 235	JBL-1205-001	PIWO	Cavity/ 50m	Dec 5	~32m	Travel-lane flagged
10U 378134 5958174	234	TH-1205-001	PIWO	Cavity/50m	Dec 5	150m from clearing boundary. No tree heights taken.	160m W of clearing boundary
10U 378916 5952758	N of pole 231	TH-1205-003	PIWO	Cavity/50m	Dec 5	~27m	Travel-lane flagged
10U 378256 5957838	½ way between 206 & 207	TH-1209-006	PIWO	Cavity/50m	Dec 9	~33m	



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

10U 378821 5966726	163	SRL-1312-001	PIWO	Cavity/No buffer	Dec 13	178m from clearing boundary. No tree heights taken.	178m E of clearing boundary
10U 378513 5966719	NW of pole 163	TH-1214-001	PIWO	Cavity/50m	Dec 13	~30m	Modified buffer to existing access road

COMMUNICATIONS

Meetings

Crew met with Jonathan St Jean (Frost) at Frost Office at 7:00am in Fraser Lake to discuss survey plans. Crew held tailgate safety meeting.

Communications

Morning tailgate safety meeting held on our own.

Plan for Tomorrow

TBD.

Reporting

DFR.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area 1 for January 10th, 2024, from Pole 151 to 139 (99.7 ha).



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	South Crew: Lorene Anouilh, Alaysia Martin, Serena Stanisavljevic, Kristen Cradock, Kyle Clarke, Willis Sloat, Jesse Lewis, Jen Miller, and Tyson D.	DATE	10/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-15 to - 22, overcast, light snow,	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 436.5 to 445	Yes	No sensitive wildlife features were observed. One inactive small mammal den was noted off of the ROW.

Daily Tasks Completed

- 6:45: Crew held safety meeting and discussed day's survey plans.
- 7:20 – 8:30: travel to site
- 8:30 – 16:30: Wildlife sweep Pole 436.5 to Pole 445
- 16:30 -- 17:15: Travel to Kluskus camp; data upload;
- 17:15 -- 18:45: Crew lead only: Update with Andrew/Nick; DFR; Time Card.

Mobilization/Demobilization

- Lorene & Serena ½ day survey and drive to PG. Jesse Lewis & Jen Miller will replace them.
- 08:00 – 11:30: Jesse and Jen pick up gear, purchase hand warmer pads, mobilize to site.
- 12:45 – 15:00: Lorene and Serena demobilize back to Prince George.
- 16:15 – 17:15: Equipment drop-off and data upload for Lorene and Serena.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 394528 5919800	419	JBL-1001-001	Small mammal	den	Inactive small mammal den

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings

Crew held tailgate safety meeting to discuss survey plans.

Communications

Morning tailgate safety meeting held with Nick.

Plan for Tomorrow

TBD.

Reporting

-DFR



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 10th, 2024 from Pole 436.5 to 444. The wildlife feature noted above is indicated by the blue marker on the map.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	North: Lungi Roberts, Leanne Matthews, Monica Matthews, Gary Tatlock, Jasmine Graham, Mitchell MacKenzie	DATE	11/01/2024
PRIME CONTACT	Jonathan St Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	AM cloudy, snow, PM cloudy, snow -35 to -28	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 139 to 137 (19.6 ha).	Yes.	No important wildlife feature was observed.

Daily Tasks Completed

- 06:30-07:30: crew held safety meeting on cold weather work conditions. Drove to Frost office to meet with Jonathan, Jamie, Victor (Frost) to discuss project work area for the day and conduct safety tailgate meeting regarding cold weather conditions. Met with Gary, Jasmine, Mitchell (DWB) and Sable (Frost).
- 07:30-08:30: transferred remaining maps to all tablets for crew. Coordinated with South crew and corresponded with PMs (Frost and DWB) with regards to cold weather plan. Crew house maintenance.
- 08:30-09:15: Organized all tablets with required maps and buffers to limit exposure of hands in the field. Emailed maps and buffer to crew phones in event of tablets freezing.
- 09:15-10:00: Standby to re-evaluate working conditions. Met with Mary Margaret Walsh for crew house maintenance and coordination for future crews.
- 10:00-10:45: travel to site.
- 10:45-11:00: tailgate meeting; split crews to East and West side of ROW, respectively; preparation to the day.
- 11:00-15:30: Wildlife sweep from pole 139 to 137 (19.6 ha).
- 15:30-16:15: travel to Fraser Lake crew house.
- 16:15-17:45: Data upload. Project correspondence and debrief with PM. Time Card. DFR. Distribute data to Frost and DWB.

Mobilization/Demobilization

Demobilization of all North crew Jan 12.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 382023 5970597	138	MAM-1124-001	Unknown; not eagle or osprey	Large Stick Nest	106m SE of pole 138; no buffer installed
10U 381876 5970876	137	JG-1101-001	Woodpecker	Cavity Tree	180m NW from pole 137; no buffer installed

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 3379269 5951778	½ way between 234 & 235	JBL-1205-001	PIWO	Cavity/ 50m	Dec 5	~32m	Travel-lane flagged
10U 378134 5958174	234	TH-1205-001	PIWO	Cavity/50m	Dec 5	150m from clearing boundary. No tree heights taken.	160m W of clearing boundary
10U 378916 5952758	N of pole 231	TH-1205-003	PIWO	Cavity/50m	Dec 5	~27m	Travel-lane flagged
10U 378256 5957838	½ way between 206 & 207	TH-1209-006	PIWO	Cavity/50m	Dec 9	~33m	
10U 378821 5966726	163	SRL-1312-001	PIWO	Cavity/No buffer	Dec 13	178m from clearing	178m E of clearing boundary



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

						boundar y. No tree heights taken.	
10U 378513 5966719	NW of pole 163	TH-1214-001	PIWO	Cavity/50m	Dec 13	~30m	Modified buffer to existing access road

COMMUNICATIONS

Meetings

Crew met with Jonathan St Jean (Frost) at Frost Office at 7:00am in Fraser Lake to discuss survey plans and conduct safety meeting.

Communications

Morning tailgate safety meeting held on our own.

Plan for Tomorrow

TBD.

Reporting

DFR.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area 1 for January 11th, 2024, from Pole 139 to 137 (19.6 ha).



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Alaysia Martin, Kristen Cradock, Kyle Clarke, Willis Sloat, and Jen Miller	DATE	11/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-33 to -30, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 405 to 403	Yes	Extreme cold limited survey abilities. No wildlife features were observed.

Daily Tasks Completed

- 6:45 – 07:00: Crew held safety meeting and discussed day’s survey plans, including the cold weather plan which is to delay the start time until 10:00
- 10:00 – 10:30: Travel to site
- 10:30 – 14:30: Wildlife sweep Pole 405 to 403
- 14:30 – 15:00: Travel to Kluskus camp; data upload;
- 18:00 – 21:00: All crew members demobilized back to Prince George
- 21:00 – 21:45: Gear drop-off and management
- 21:30 – 22:30: DFR and Time Card (Crew lead only).

Mobilization/Demobilization

All crews demobilized from Kluskus camp to delay work because of dangerous cold weather conditions.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

Crew held tailgate safety meeting to discuss cold weather and survey plans with Nick. It was determined to wait until 10:00 to bring temperatures up to 30 degrees before starting surveys. Once returned to camp, we got the message from Kaila to demobilize back to Prince George and delay surveys until Sunday when it warms up.

Plan for Tomorrow

Not working due to cold weather.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 11th, 2024 from Pole 403 to 405.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Evan Ball, Shelby Lepine, Kyle Clarke, Willis Sloat, Sable, and Jen Miller	DATE	14/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-17 to -25, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 400 to 403	Yes	No wildlife features were observed. Mobilization occurred today so there was a ½ day in the field.

Daily Tasks Completed

- 08:00 – 08:30: Meet at DWB shop and gather trucks and additional gear.
- 08:30 – 11:30: Travel to site.
- 11:30 – 15:45: Wildlife sweep Pole 400 to 403
- 15:45 – 16:30: Travel to Kluskus camp; check in and data upload;
- 16:30 – 18:00: Crew lead completed DFR and Timecard and prepared maps for the next day.

Mobilization/Demobilization

All crew members mobilized from Prince George.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Continue sweeping North from Pole 403.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

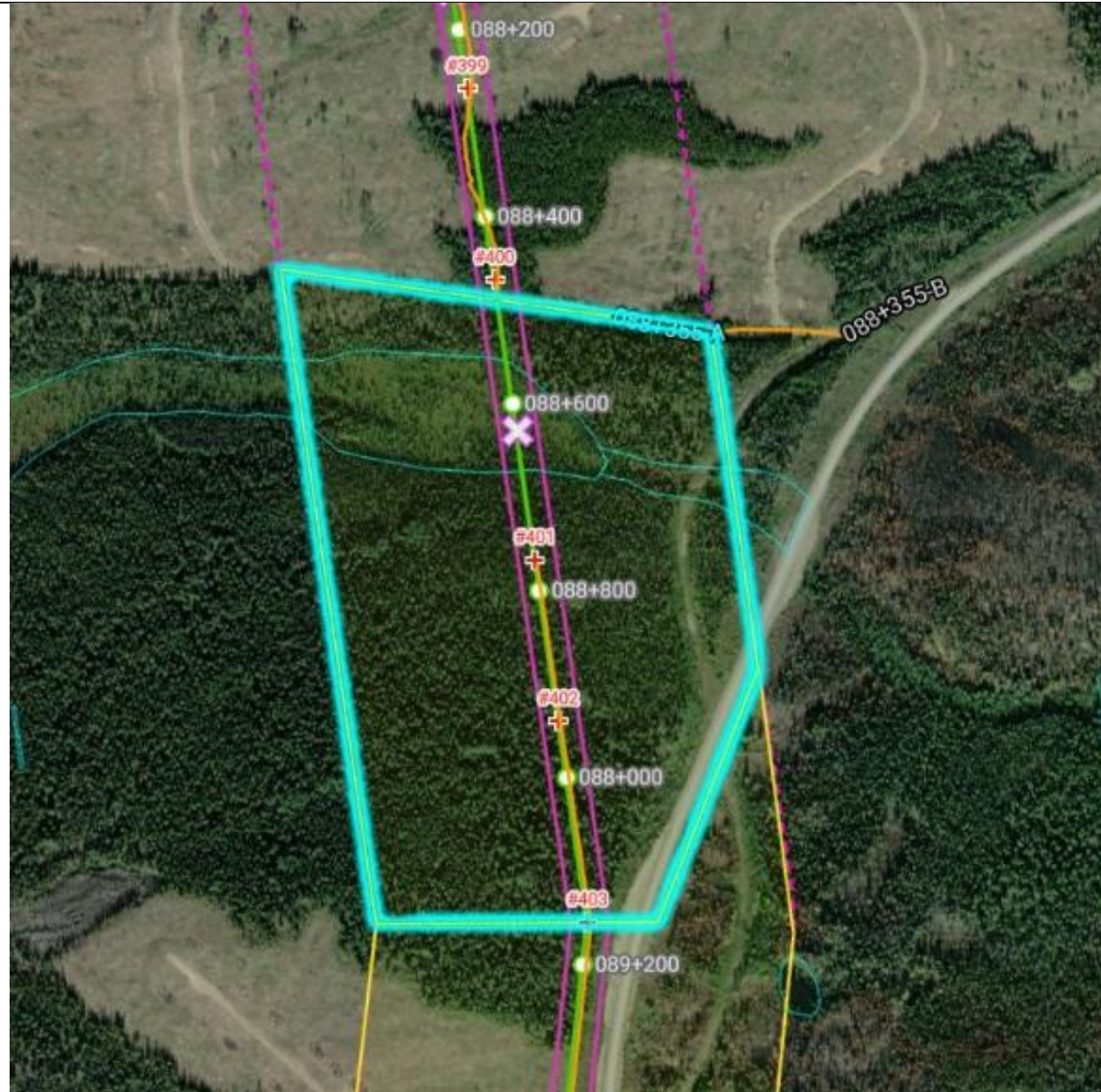


Figure 1. Survey area for January 14th, 2024 from Pole 400 to 403.



Figure 2. Habitat photo within survey area.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Lorene Anouilh, Monica Matthews, Nathan Drummond-Stoyles, Matt Robinson, Mitchell Mackenzie, Jasmine Graham, Josh Mantler, Itagia Lapaná	DATE	15/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-23 to -17, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 137 to 132	Yes	Cold but clear skies and low wind. Some coordination in town resulted in a shorter day.

Daily Tasks Completed

- 07:00 – 11:00: Lorene Anouilh and Matt Robinson commuted from Prince George
- 11:00 – 11:15: Coordination meeting with entire crew for the day in Fraser Lake
- 11:15 – 11:45: Travel to site.
- 11:45 – 16:45: Wildlife sweep Pole 137 to 132
- 16:45 – 17:45: Travel to Fraser Lake Accommodations; data upload;
- 20:00 – 21:00: DFR and Time Card (Crew lead only).

Mobilization/Demobilization

Remaining field staff for this shift (Lorene Anouilh & Matt Robinson) mobilized from Prince George to Fraser Lake.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

Crew coordinated in town with members who were mobilizing from Prince George and held tailgate safety meeting to determine plan for the day.

Plan for Tomorrow

Coordinate with Jonathan at 7am tailgate meeting to determine most pressing areas to survey; otherwise carry on surveying North from Pole 132.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

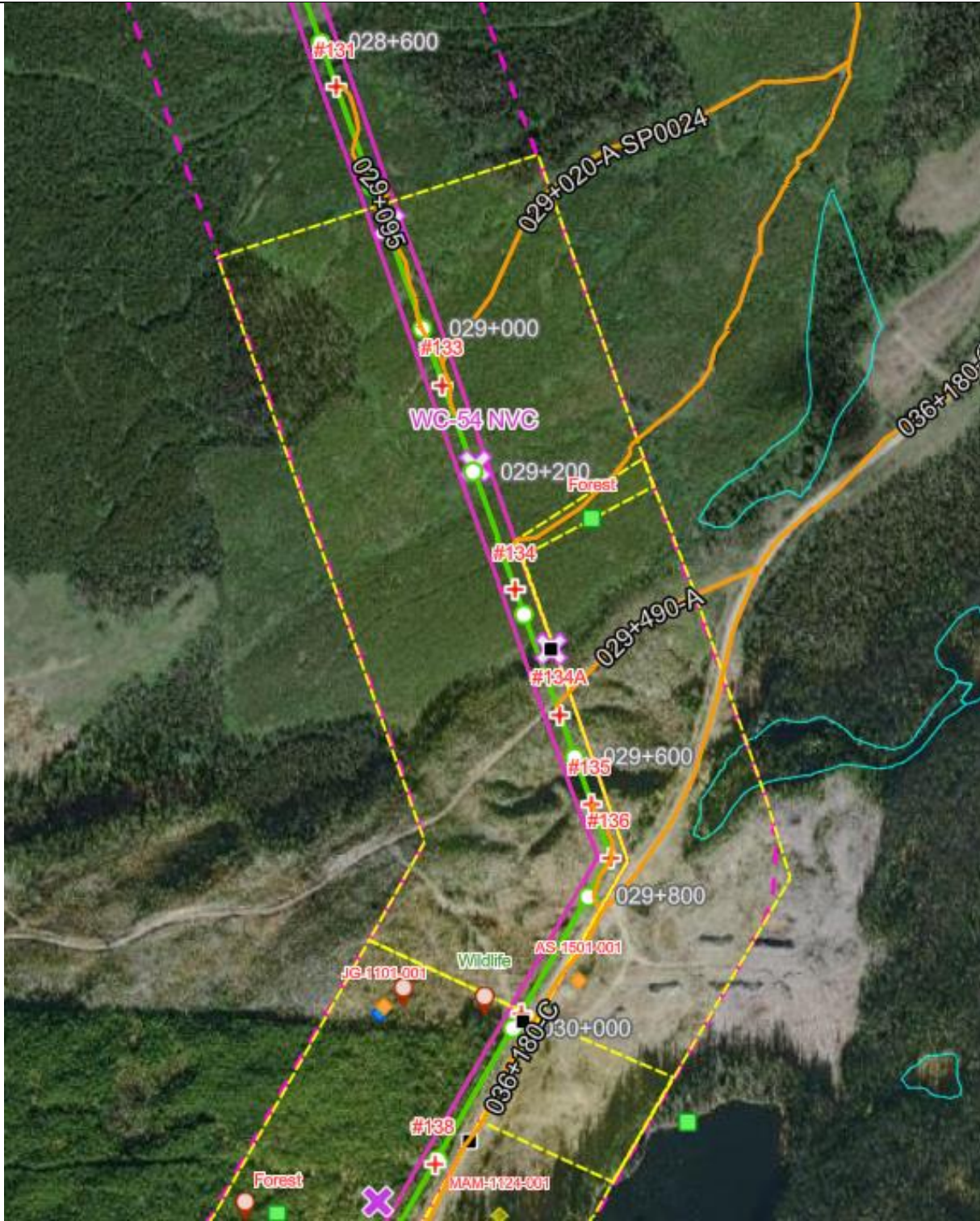


Figure 1. Survey area for January 15th, 2024 from Pole 137 to 132.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Evan Ball, Shelby Lepine, Kyle Clarke, Willis Sloat, Sable, and Jen Miller	DATE	15/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-17 to -22, overcast	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 400 to 395 and 391.5 to 388 a total of 2.2km	Yes	No wildlife features were observed.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:00: Travel to site.
- 08:00 – 16:30: Wildlife sweep Pole 400 to 395 and pole 391.5 to 388, a total of 2.2 km.
- 16:30 – 17:15: Travel to Kluskus camp; data proof and upload;
- 17:15 – 18:45: Completed DFR, timecard, map preparation and planning for tomorrow.

Mobilization/Demobilization

No crew members mobilized or demobilized today.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Continue sweeping South from Pole 444

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 15th, 2024 from Pole 400 to 395.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for January 15th, 2024 from Pole 391.5 to 388.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

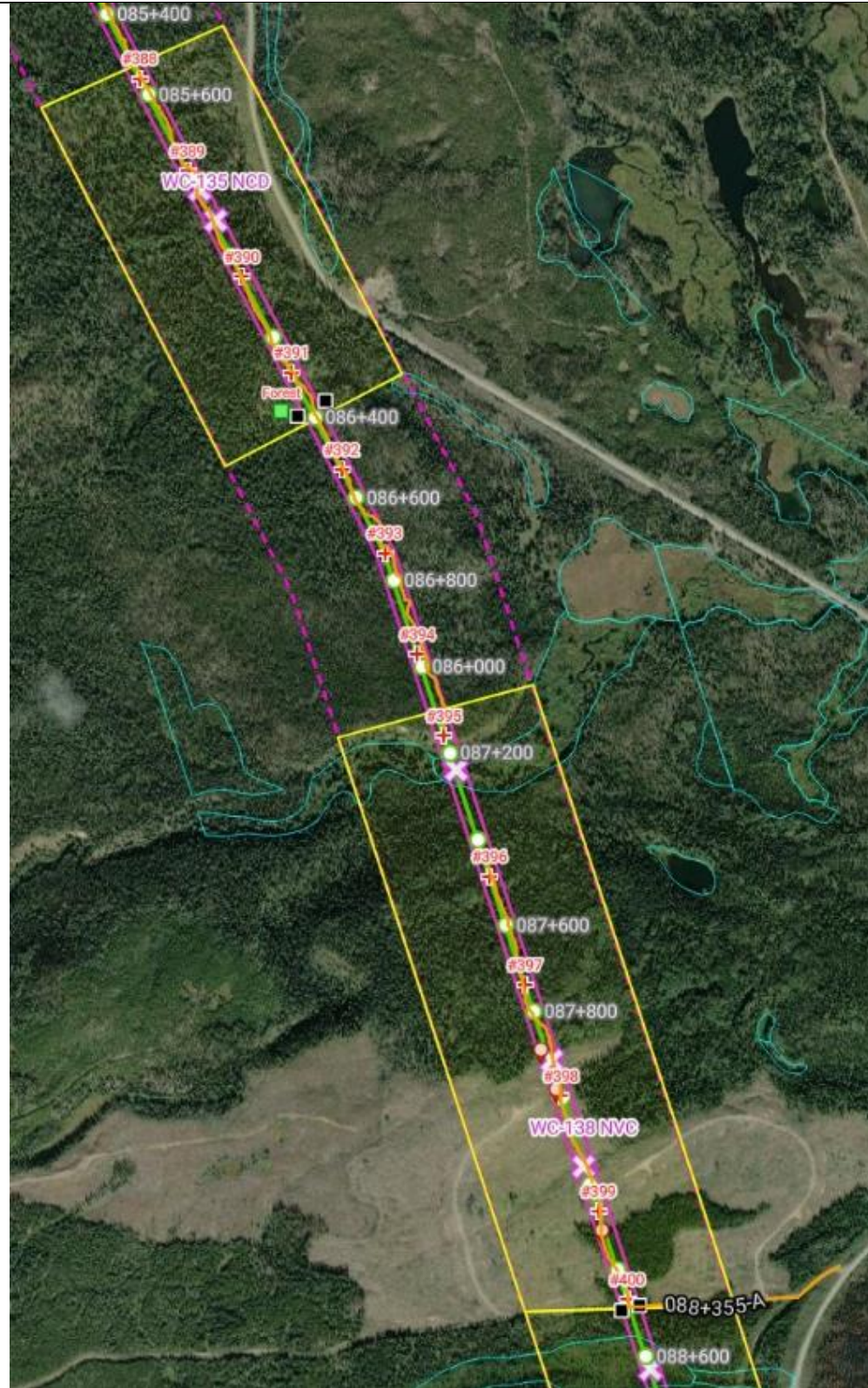


Figure 3: Overview of surveys completed on Jan 15, 2024.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Lorene Anouilh, Monica Matthews, Nathan Drummond-Stoyles, Matt Robinson, Mitchell Mackenzie, Jasmine Graham, Josh Mantler, Itagia Lapana, Alaysia Martin	DATE	16/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-16 to -12, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Crew 1: Pre-disturbance Wildlife	Pole 158 to 152	Yes	Wet snow all day. Progress was slower as significant dump in fresh snow led to knee to waist high snow throughout plantation. Buffer and ROW to the South of Holy Cross Rd was surveyed, and half of the buffer to the North of the road was surveyed
Crew 2: Pre-disturbance Wildlife	Pole 127.5 to 132	Yes	Wet snow all day. Snowmobile logistics/briefing led to a slower start and longer day.

Daily Tasks Completed

- 06:45 – 07:00: Warming up trucks, removing snow, drive to Frost office
- 07:00 – 07:30: Tailgate meeting with Jonathan
- 07:30 – 08:00: Truck and teams organization
- 08:00 – 09:00: Drive to site

Crew 1

- 09:00 – 15:15: Wildlife sweep from pole 158 to 152; North of Road buffer between Pole 155 and 152 remains incomplete
- 15:00 – 16:00: Drive to Fraser Lake
- 16:00 – 16:15: Data upload



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Crew 2

- 09:00 – 10:00: Snowmobile briefing and transport to ROW
- 10:00 – 16:00: Wildlife sweep from Pole 127.5 to 132
- 16:00 – 16:45: Snowmobile back to trucks and load snowmobiles
- 16:45 – 17:45: Drive back to Fraser Lake
- 17:45 – 18:00: Data upload

- 18:00 – 18:15: Polygon upload and coordinate with crew lead (Second Crew lead only)
- 20:00 – 21:00: DFR and Time Card (Crew lead only).

Mobilization/Demobilization

Analysia Martin mobilized from Prince George and joined Crew 1 at 13:00 to survey between poles 154 and 152.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed priority areas to cover in advance of mulching and brushing. Established next series of sections to survey over coming few days. Discussed safety aspects of weather and snowmobiles.

Plan for Tomorrow

Coordinate with Jonathan at 7am tailgate meeting. Continue survey North of pole 127 to Pole 122/123 at the water crossing. Complete remaining buffer between poles 155 and 152; move on to priority areas between poles 121 to 117; Poles 115 to 111; Poles 108 to 102 depending on speed of work.

Reporting

-DFR

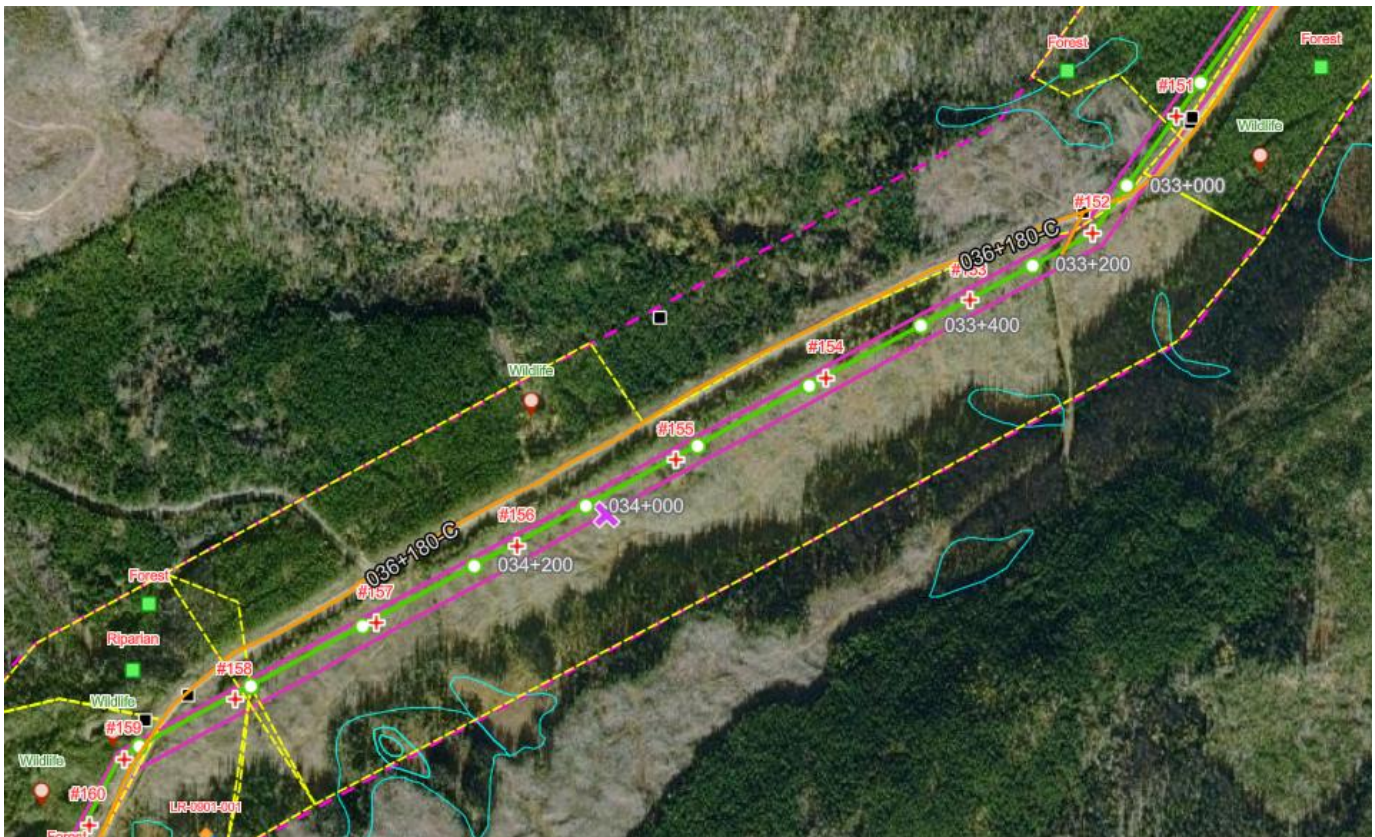


Figure 1. Survey area for January 16th, 2024 from Pole 158 to 152 by Crew 1.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for January 16th, 2024 from Pole 127.5 to 132 by Crew 2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Evan Ball, Shelby Lepine, Kyle Clarke, Willis Sloat, and Jen Miller	DATE	16/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-12 to -18, overcast and snowing all day.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 445 to 457. A total of 2.5 km	Yes, however, flagging was difficult to see with heavy snow, especially in the previously cleared areas, (pole 448 – 542)	No wildlife features were observed.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:00: Travel to site.
- 08:00 – 16:30: Wildlife sweep Pole 445 to 457, a total of 2.5 km.
- 16:30 – 17:15: Travel to Kluskus camp; data proof and upload;
- 17:15 – 19:00: Completed DFR, timecard, map preparation and planning for tomorrow (Crew Lead only).

Mobilization/Demobilization

No crew members mobilized or demobilized today.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Fill in Gap from pole 395 to 391.5. Then, continue sweeping North from Pole 388.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

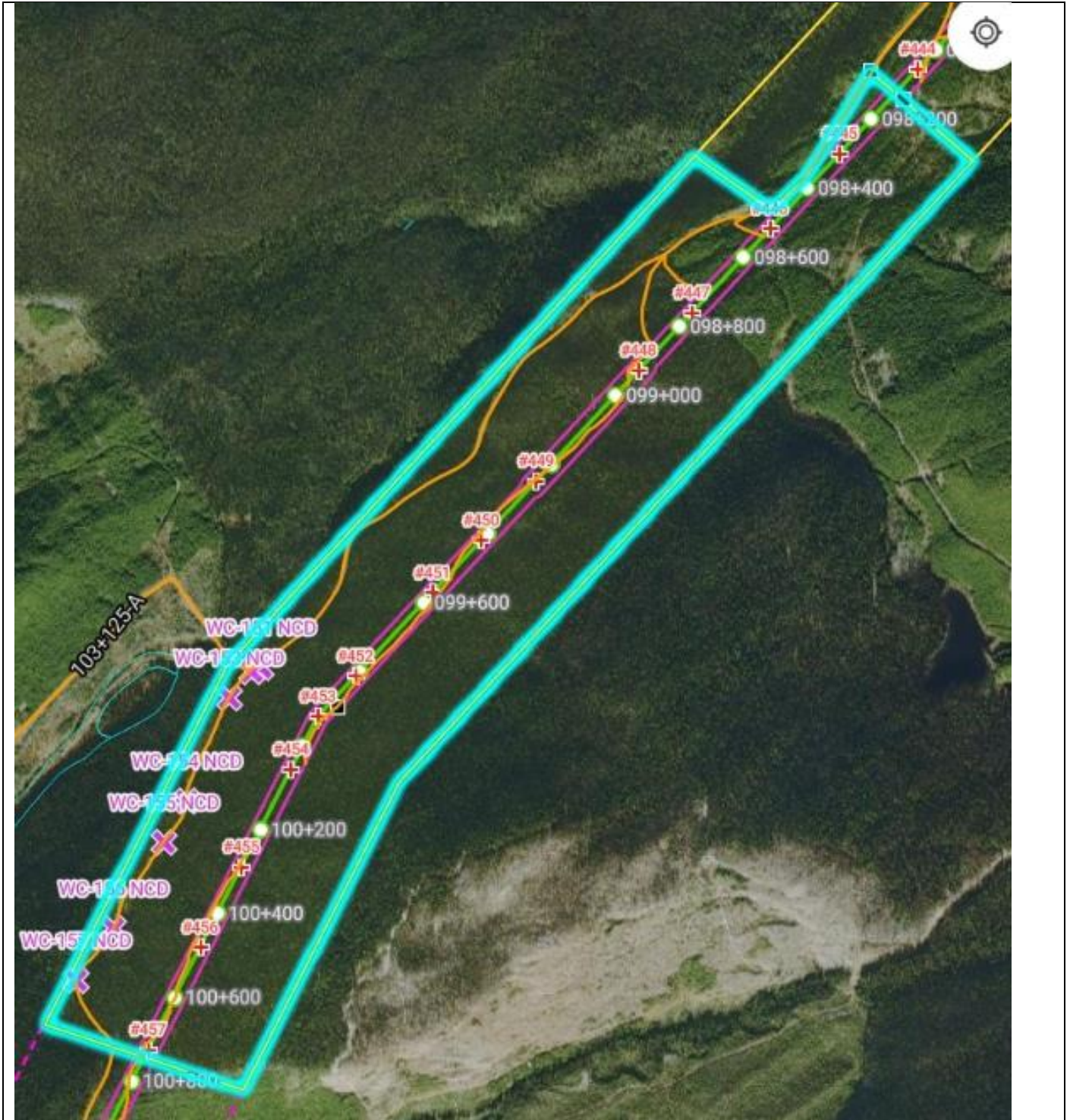


Figure 1. Survey area for January 16th, 2024 from Pole 445 to 457.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Lorene Anouilh, Monica Matthews, Nathan Drummond-Stoyles, Matt Robinson, Mitchell Mackenzie, Jasmine Graham, Josh Mantler, Itagia Lapan, Alaysia Martin	DATE	17/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-25 to -5, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Crew 1: Pre-disturbance Wildlife	Pole 152 to 155	Yes	Deep snow in first quarter of survey (knee to thigh depth), little snow in more mature pine plantation beyond that. No features of import found. Completed buffer North of Holy Cross Rd.
	Pole 241 to 247	Yes	Snow between a full boot and half a boot high (20 – 40 cm or so); light and powdery so walking not significantly impeded. Completed remaining area between poles 244 and 241 and expanded surveyed area south to pole 247. One stick nest found, species unknown, measures to be discussed.
Crew 2: Pre-disturbance Wildlife	Pole 126.5 to 121	Yes	Deep snow throughout (knee to thigh depth or greater) slowed down progress somewhat. No features of import found.

Daily Tasks Completed

- 06:45 – 07:00: Warming up trucks, removing snow, drive to Frost office
- 07:00 – 07:30: Tailgate meeting with Jonathan
- 07:30 – 08:30: Truck fueling and drive to site



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Crew 1

- 08:30 – 10:00: Wildlife sweep from pole 152 to 155 to complete North of Road buffer
- 10:00 – 11:15: Drive Pole 244 along Kenney Dam Road
- 11:15 – 16:15: Wildlife sweep from pole 241 to 247 to complete remaining area North of Kenney Dam Rd and expand cleared area south
- 16:15 – 17:45: Drive back to Fraser Lake
- 17:45 – 18:00: Data upload

Crew 2

- 08:30 – 09:30: Snowmobile unloading and transport to ROW survey area
- 09:30 – 15:45: Wildlife sweep from Pole 126.5 to 121
- 15:45 – 16:25: Snowmobile back to trucks and load snowmobiles
- 16:25 – 16:45: Road access recon for tomorrow
- 16:45 – 17:30: Drive back to Fraser Lake
- 17:30 – 17:45: Data upload

- 17:45 – 18:15: Polygon upload, communications for changes in crew members and coordinate with crew lead (Second Crew lead only)
- 20:00 – 21:00: DFR and Time Card (Crew lead only).

Mobilization/Demobilization

NA

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 380689 5950362	245	MR-1701-01	Unknown	Nest	In live aspen tree with dbh of 54cm, 25m high, stick nest 70x100cm, nest near top (18m), Not all eagle or osprey, possibly goshawk



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed priority areas to cover in advance of mulching and brushing. Established next series of sections to survey over coming few days, with crews remaining split between the area off Holy Cross rd (poles 126 – 121) and off the Kenney Dam rd (Poles 241 – 247). Discussed safety aspects of weather, snowmobiles, and snow hazards (buried obstacles and falling snow mounds).

Plan for Tomorrow

Coordinate with Jonathan at 7am tailgate meeting. Crew 2 to continue survey North of pole 121. Crew 2 to continue survey South from Pole 247 as far as day allows. Additional snowmobiles (2) arriving by Friday to facilitate access to remote areas for both crews.

Reporting

-DFR

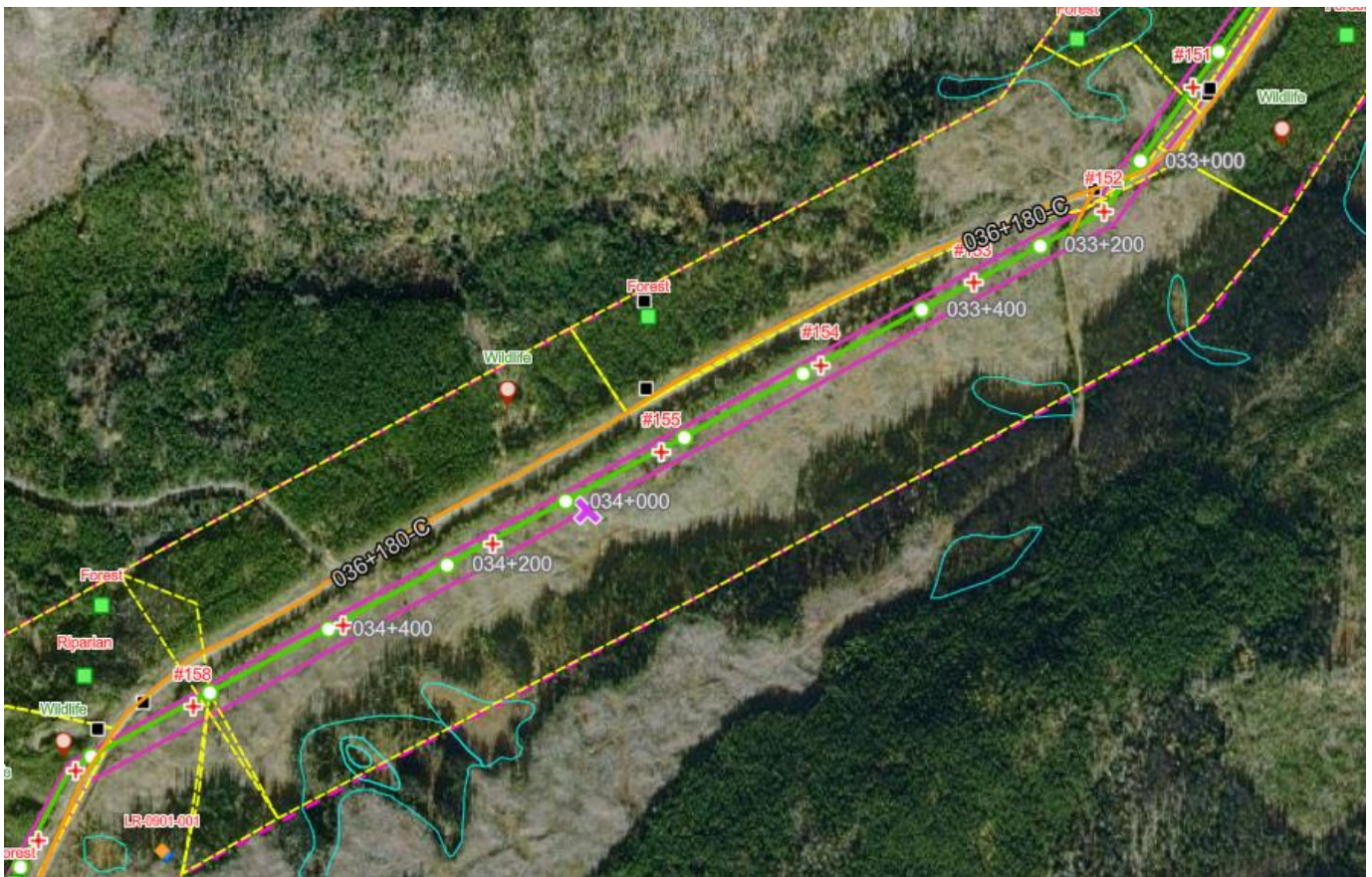


Figure 1. Survey area for January 17th, 2024 from Pole 152 to 155 by Crew 1.



Figure 2. Survey area for January 17th, 2024 from Pole 241 to 247 by Crew 1.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

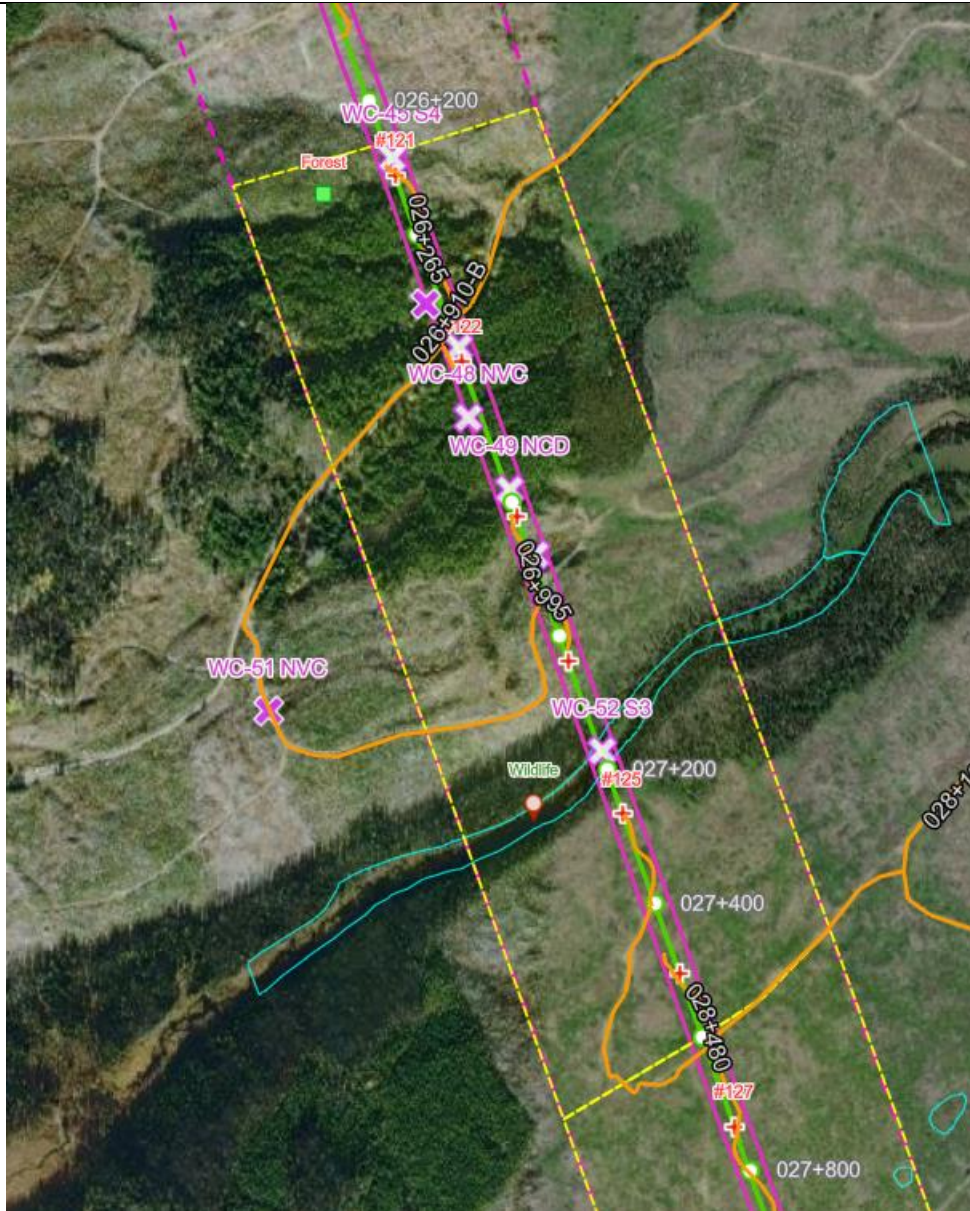


Figure 3. Survey area for January 17th, 2024 from Pole 126.5 to 121 by Crew 2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Evan Ball, Shelby Lepine, Kyle Clarke, Willis Sloat, and Jen Miller	DATE	17/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-14 to -18, partially cloudy, snow depth of about 70cm.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 395 to 391.5 and 388 to 382.5. A total of 1.7 kms	Yes, however, flagging was often difficult to see with the heavy snow.	No wildlife features were observed.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:00: Travel to site.
- 08:00 – 16:30: Wildlife sweep Pole 395 to 391.5 and 388 to 382.5, a total of 1.7 km.
- 16:30 – 17:00: Travel to Kluskus camp; data proof and upload;
- 17:00 – 18:30: Completed DFR, timecard, map preparation and planning for tomorrow (Crew Lead only).

Mobilization/Demobilization

No crew members mobilized or demobilized today.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Continue sweeping South from Pole 457

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 17th, 2024 from Pole 395 to 391.5.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2: Survey area for January 17th, 2024 from Pole 388 to 382.5.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Lorene Anouilh, Monica Matthews, Nathan Drummond-Stoyles, Matt Robinson, Mitchell Mackenzie, Jasmine Graham, Josh Mantler, Itagia Lapan, Alaysia Martin	DATE	18/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-27 to -11, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Crew 1: Pre-disturbance Wildlife	Pole 247 to 251.5	Yes	Worked South from Kenney Dam Rd to accessible snowmobile line – to increase efficiency of survey with snowmobile access tomorrow; No features of import found
Crew 2: Pre-disturbance Wildlife	Pole 108 to 102	Yes	Worked North from access point at pole 108 to pole 102. One potential feature found – measures to be discussed.

Daily Tasks Completed

- 06:45 – 07:00: Warming up trucks, removing snow, drive to Frost office
- 07:00 – 07:40: Tailgate meeting with Jonathan

Crew 1

- 07:40 – 10:00: Drive to site where Kenney Dam Rd meets Pole 247
- 10:00 – 14:30: Wildlife survey from pole 247 to 251.5
- 14:30 – 15:00: Road reconnaissance for access to pole 251 using sleds for Jan 19 2024
- 15:00 – 16:30: Drive back to Fraser Lake
- 16:30 – 16:45: Data upload

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Crew 2

- 07:40 – 08:30: Drive to site (122km on Holy Cross rd)
- 08:30 – 09:15: Unloading sleds, warming engine, Recon to find Chesslata trail, update with Jono (Frost) & Richard (logging supervisor)
- 09:15 – 16:35: Drive to and Wildlife survey of pole 108 to 102
- 16:35 – 17:15: Drive back to Fraser Lake
- 17:15 – 17:30: Data upload

- 17:30 – 17:45: Polygon upload, coordinate with crew lead (Second Crew lead only)
- 20:00 – 21:00: DFR and Time Card (Crew lead only).

Mobilization/Demobilization

NA

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 381149 5978282	103.5	IL-0118-001	Unknown	Roosting	Roosting cavity in aspen tree.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed priority areas to cover in advance of mulching and brushing. Established next series of sections to survey over coming few days, with crews remaining split between the area off Holy Cross rd (poles 102 – 108) and off the Kenney Dam rd (Poles 247 – 251.5). Discussed safety aspects of weather, snowmobiles, and snow hazards (buried obstacles and falling snow mounds).

Plan for Tomorrow

Coordinate with Jonathan at 7am tailgate meeting.

Reporting

-DFR



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

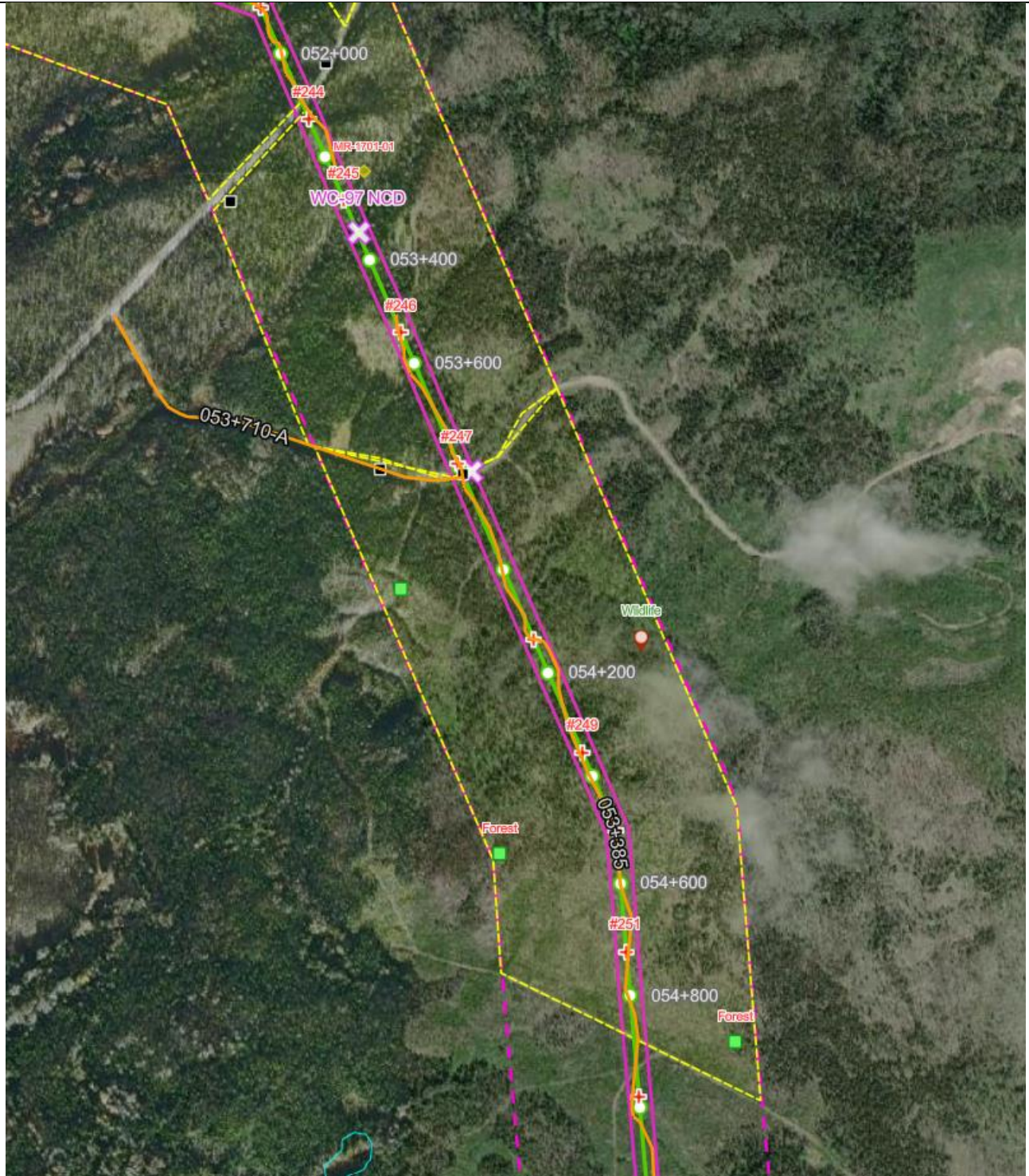


Figure 1. Survey area for January 18th, 2024 from Pole 247 to 251.5 by Crew 1.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for January 18th, 2024 from Pole 108 to 102 by Crew 2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Evan Ball, Shelby Lepine, Kyle Clarke, Willis Sloat, and Jen Miller	DATE	18/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-23 to -18, partially cloudy, snow depth of about 70cm.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 457 to 468.5. A total of 2.5 kms	Yes, however, flagging was often difficult to see with the heavy snow.	Three wildlife features were recorded, however, none of them required mitigation.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:15: Travel to site.
- 08:00 – 16:30: Wildlife sweep Pole 457 to 468.5, a total of 2.5 km.
- 16:30 – 17:15: Travel to Kluskus camp; data proof and upload;
- 17:15 – 19:00: Completed DFR, timecard, map preparation and planning for tomorrow (Crew Lead only).

Mobilization/Demobilization

No crew members mobilized or demobilized today.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 391944 5917250	458	JBL-1801-001	Small mammal	Den	Tracks leading into a small mammal den, appears to be rabbit tracks. No mitigation required.
10U 391543 5916543	461	JBL-1801-002	Woodpecker sps.	Cavity	Medium size cavities in snag, too small for PIWO, just off of the ROW. No mitigation required.
10U 390973 5915459	467	JBL-1801-003	NOFL	Cavity	NOFL sized cavity in large snag within ROW. No mitigation required.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Continue sweeping North from Pole 382.5

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 18th, 2024 from Pole 457 to 468.5



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Lorene Anouilh, Monica Matthews, Nathan Drummond-Stoyles, Matt Robinson, Mitchell Mackenzie, Jasmine Graham, Itagia Lapana, Nathaniel Martin, Leanne Matthews	DATE	20/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-17 to -8, snowy	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Crew 1: Pre-disturbance Wildlife	Pole 257 to 262	Yes	Continued working South from Kenney Dam Rd; some light snow falling and up to half a foot added to roads. Dense blowdown throughout survey area. 48.7 ha surveyed
Crew 2: Pre-disturbance Wildlife	Pole 108 to 113; Pole 120 to 121	Yes	Continued survey along Holy Cross Road area. Completed survey of east side of transmission line through dense vegetation. 37 ha surveyed total.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting with Jonathan
- Crew 1
- 07:30 – 09:30: Drive to access point off Swanson road
- 09:30 – 10:30: Snowmobile access to survey area
- 10:30 – 15:30: Wildlife survey from pole 257 to 262
- 15:30 – 16:30: Snowmobile back to trucks
- 16:30 – 18:30: Drive back to Fraser Lake
- 18:30 – 18:45: Data upload



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Crew 2

- 07:30 – 08:20: Drive to site
- 08:20 – 14:00: Wildlife survey from Pole 108 to 113 (East side of transmission line; very thick vegetation)
- 14:00 – 15:15: Snowmobile to Pole 120
- 15:15 – 16:45: Wildlife sweep from Pole 120 to 121
- 16:45 – 17:25: Snowmobile back to trucks
- 17:25 – 18:15: Drive back to Fraser Lake
- 18:15 – 18:30: Data upload

- 18:30 – 18:45: Polygon upload, coordinate with crew lead and office (Second Crew lead only)
- 19:30 – 20:30: DFR and Time Card (Crew lead only).

Mobilization/Demobilization

NA

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes

COMMUNICATIONS



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed access, scope of operations for coming days, and safety hazards.

Plan for Tomorrow

Continue surveys South of the Kenney Dam Road and along Holy Cross Road

Reporting

-DFR

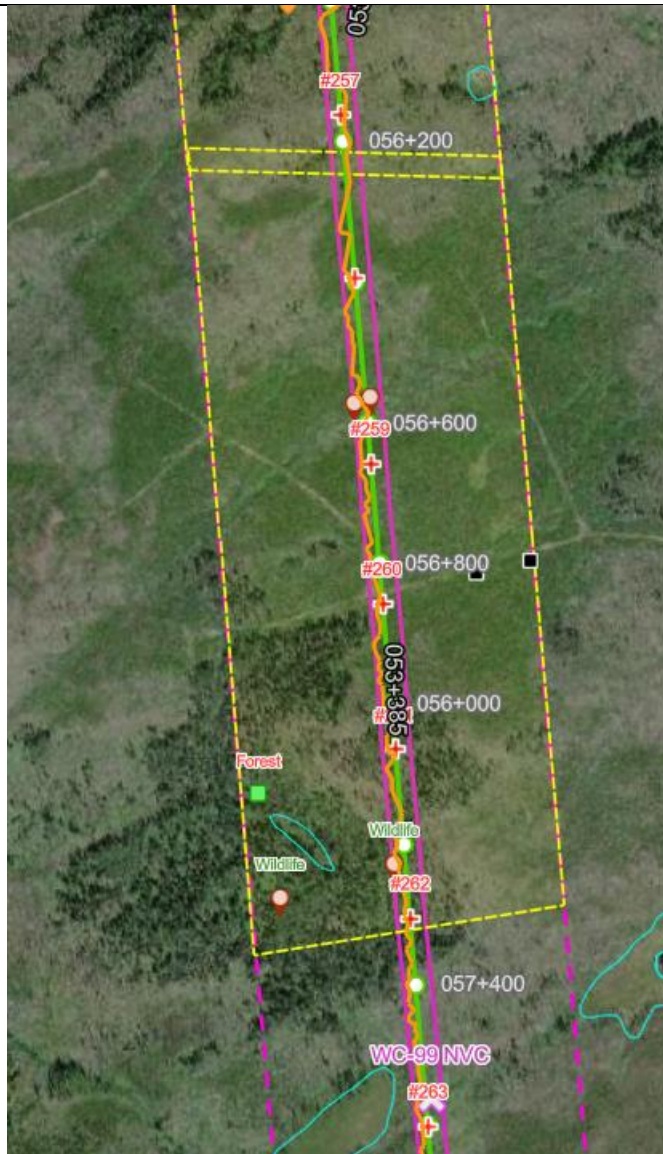


Figure 1. Survey area for January 20th, 2024 from Pole 257 to 262 by Crew 1.



Figure 2. Survey area for January 20th, 2024 from Pole 108 to 113 by Crew 2 (East side of transmission line).



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

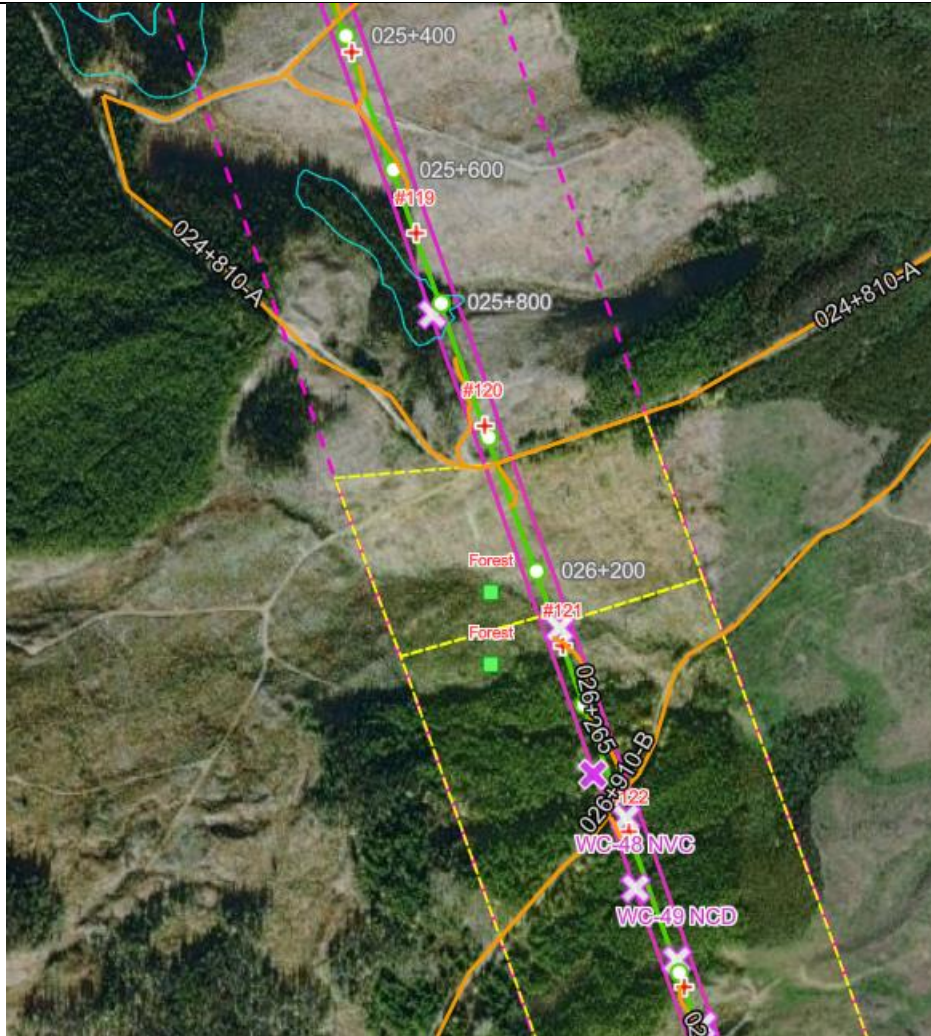


Figure 3. Survey area for January 20th, 2024 from Pole 120 to 121 by Crew 2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Evan Ball, Shelby Lepine, Alaysia Martin, Kristen Cradock, Josh Mantler	DATE	20/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-12 to -9, light snow throughout the day, overcast, snow depth of about 100 cm.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 376 to 374.5 and pole 469 to 474, A total of 1.9 kms	Yes, however, flagging was often difficult to see with the heavy snow.	No wildlife features were observed.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:15: Travel to site.
- 08:00 – 16:30: Wildlife sweep Pole 376 to 374.5 and pole 469 to 474, a total of 1.9 km.
- 16:30 – 17:15: Travel to Kluskus camp; data proof and upload;
- 17:15 – 18:45: Completed DFR, timecard, map preparation and planning for tomorrow (Crew Lead only).

Note: The current snow depth of 100cm decreases detectability of wildlife features, especially ground dwelling dens.

Mobilization/Demobilization

No personal mobilizing or demobilizing today.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Continue sweeping North from Pole 479. This will close out the surveys on the Martin FSR.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 20th, 2024 from Pole 469 to 474.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for January 20th, 2024 from Pole 376 to 374.5.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Lorene Anouilh, Monica Matthews, Nathan Drummond-Stoyles, Matt Robinson, Mitchell Mackenzie, Jasmine Graham, Itagia Lapana, Nathaniel Martin, Leanne Matthews	DATE	21/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-9 to -6, snowy	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Crew 1: Pre-disturbance Wildlife	Pole 262 to 266	Yes	Continued working South from Kenney Dam Rd; some light snow falling but warmer than previous days. Dense blowdown throughout survey area. One tree cavity feature found. Encountered a sharp cliff and an Arch site (marked on Fieldmaps) just past Pole 266, so long sled access areas should be and we can return to road access off the Swanson Rd going forward. 47.9 ha surveyed
Crew 2: Pre-disturbance Wildlife	Pole 120 to 115	Yes	Continued survey along Holy Cross Road area. Filled in gap between poles 120 and 115 to finish this local area. 54.5 ha surveyed total.

Daily Tasks Completed

- 06:45 – 07:00: Drive to Frost office
- 07:00 – 07:30: Tailgate meeting with Jonathan

Crew 1

- 07:30 – 09:30: Drive to access point off Swanson road
- 09:30 – 10:45: Snowmobile access to survey area
- 10:45 – 15:00: Wildlife survey from pole 262 to 266



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

- 15:00 – 16:15: Snowmobile back to trucks
- 16:15 – 18:15: Drive back to Fraser Lake
- 18:15 – 18:30: Data upload

Crew 2

- 07:30 – 08:20: Drive to site
- 08:20 – 09:30: Snowmobile access to survey area and coordination with heavy equipment in area
- 09:30 – 15:10: Wildlife survey from Pole 120 to 115
- 15:10 – 15:50: Snowmobile back to trucks
- 15:15 – 16:45: Wildlife sweep from Pole 120 to 121
- For Leanne, Monica, Nathan:
 - 15:50 – 16:35: Drive back to Fraser Lake
 - 16:35 – 16:50: Data upload
- For Lorene and Ita:
 - 16:35 – 17:20: Roads recon for tomorrow + fueling snowmobiles + drive back
 - 17:20 – 17:30: Dat upload
- 17:30 – 17:45: Polygon upload, coordinate with crew lead and office (Second Crew lead only)
- 19:30 – 20:30: DFR and Time Card (Crew lead only).

Mobilization/Demobilization

NA

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 381107 5946360	262	AS-0121-001	Unknown	Tree cavity	2 small round cavities (~ 4x4cm round) with smooth edges in a dead aspen snag about 9m tall/31cm dbh (cavities located at 6m and 7.5m above ground on snag). Feeding cavities noticed at base of snag.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed access, scope of operations for coming days, and safety hazards.

Plan for Tomorrow

Some crew shuffling is occurring – 2 crew members demobilizing and 2 others mobilizing from Prince George to take their place. The eight crew members in the field will form one large team and focus on an area with decent road access.

Reporting

-DFR

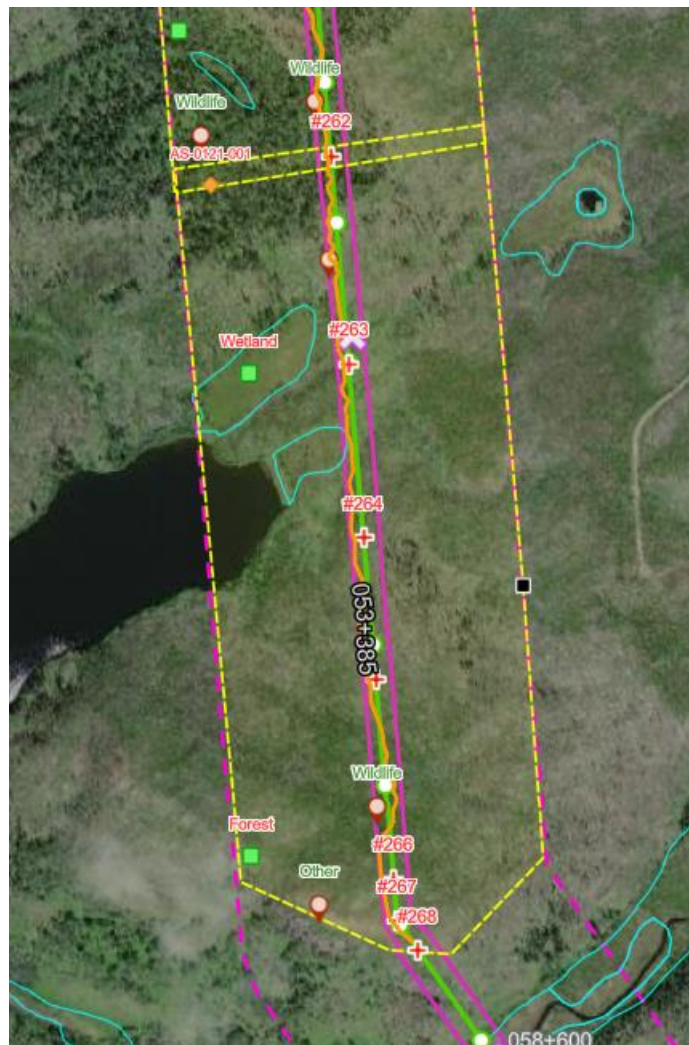


Figure 1. Survey area for January 21th, 2024 from Pole 262 to 266 by Crew 1. An Arch site was encountered (marked as 'Other' on this image)



Figure 2. Survey area for January 21th, 2024 from Pole 120 to 115 by Crew 2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Evan Ball, Shelby Lepine, Alaysia Martin, Kristen Cradock, Josh Mantler	DATE	21/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-7 to -1, light snow throughout the day, overcast, snow depth of about 80 cm.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 374.5 to 367, A total of 1.3 kms	Yes, however, flagging was often difficult to see with the heavy snow.	No wildlife features were observed.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:15: Travel to site.
- 08:15 – 15:30: Wildlife sweep Pole 374.5 to 367, a total of 1.3 km.
- 15:30 – 16:15: Travel to Kluskus camp; data proof and upload;
- 16:15 – 17:30: Completed DFR, timecard, map preparation and planning for tomorrow (Crew Lead only).

Note: The current snow depth of 80cm decreases detectability of wildlife features, especially ground dwelling dens.

Mobilization/Demobilization

No personal mobilizing or demobilizing today.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Continue sweeping North from Pole 479. This will close out the surveys on the Martin FSR.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 21th, 2024 from Pole 374.5 to 367.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Lorene Anouilh, Monica Matthews, Nathan Drummond-Stoyles, Mitchell Mackenzie, Jasmine Graham, Itagia Lapana, Nathaniel Martin, Leanne Matthews, Adam Sprott, Matt Robinson, Willis Sloat, Evan Pinter	DATE	22/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-8, overcast	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Crew 2: Pre-disturbance Wildlife	Pole 98 to 102 (0.85 km of transmission line or 51.3 ha).	No	No important wildlife feature was observed.
Crew 1: Pre-disturbance Wildlife	Pole 98 to 92 (1.1 km of transmission line or 38.1 ha)	No	No important wildlife feature was observed.

Daily Tasks Completed

- 06:45 – 07:00: Drive to Frost office
- 07:00 – 07:30: Tailgate meeting with Jonathan.

Evan and Willis:

- 07:00 – 11:30: Check in with PM in PG. Mobilization of gear. Drive from PG to pole 98.

Crew 1

- 07:30 – 8:15: Drive to pole 98.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

- 08:15 – 08:40: Unloading and Snowmobiling to pole 93.
- 08:40 – 15:25: Wildlife survey from pole 98 to 92. Willis and Evan arrived at 11:30 and were shuttle to participate at the survey.
- 15:25 – 15:45: Snowmobiling back to trucks, loading, securing.
- 15:45 – 16:30: Drive back to accommodations.
- 16:30 – 16:45: Data upload.

Crew lead only:

- 16:45 – 17:00: Polygon drawing & upload data, coordinate with second crew lead and office.
- 17:45 – 18:45: DFR and time card.

Crew 2

- 07:30 – 08:15: Drive to pole 98.
- 08:15 – 15:00: Wildlife survey from Pole 98 to 102.
- 15:00 – 15:45: Drive back to accommodations.
- 15:45 – 16:00: Data upload.

Second crew lead only:

- 16:45 – 17:00: Polygon drawing & upload data, coordinate with crew lead and office.

Mobilization/Demobilization

Willis and Evan mobilized from Prince George to Fraser Lake.

Adam and Matt demobilized from Fraser Lake to respectively Fort St John and Prince George.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height	Notes



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

						Within Buffer (m)	
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



COMMUNICATIONS

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed access and safety hazards.

Plan for Tomorrow

TBD.

Reporting

-DFR



Figure 1. Survey areas for January 22th, 2024 from Pole 102 to 92 by Crew 1&2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Evan Ball, Shelby Lepine, Alaysia Martin, Kristen Cradock, Josh Mantler	DATE	22/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-7 to -1, overcast, snow depth of about 60-70 cm.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 367 to 361, A total of 1.3 kms	Yes, however, flagging was often difficult to see with the heavy snow.	No wildlife features were observed.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:15: Travel to site.
- 08:15 – 15:30: Wildlife sweep Pole 367 to 361, a total of 1.3 km.
- 15:15 – 16:00: Travel to Kluskus camp; data proof and upload;
- 16:00 – 17:30: Completed DFR, timecard, map preparation and planning for tomorrow (Crew Lead only).

Note: The current snow depth decreases detectability of wildlife features, especially ground dwelling dens.

Mobilization/Demobilization

No personal mobilizing or demobilizing today.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 394855 5932824	364	AM-0122-001	PIWO	Nest Cavity	60m West of ROW boundary close to Kluskus FSR. No mitigation required.
10U 394693 5933011	363	AM-0122-002	Corvid or Raptor	Stick nest	Medium size stick nest in tree 20m off of ROW. No mitigation required.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Continue sweeping North from Pole 479. This will close out the surveys on the Martin FSR.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 22th, 2024 from Pole 367 to 361.



Figure 2. AM-0122-001 PIWO nest cavity 60m West of ROW boundary at pole 364, close to the Kluskus FSR. No mitigation required.



Figure 3: Canada Lynx tracks in snow.



Figure 4: AM-0122-002 20m East of ROW boundary at 363. Likely a Raven or raptor nest, but not a species that requires mitigation.

DAILY FIELD REPORT

CREW NAME(S)	Lorene Anouilh, Monica Matthews, Nathan Drummond-Stoyles, Mitchell Mackenzie, Jasmine Graham, Itagia Lapana, Nathaniel Martin, Leanne Matthews, Willis Sloat, Evan Pinter	DATE	23/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-10 to 2, AM: overcast; PM: sunny	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Crew 1: Pre-disturbance Wildlife	Pole 65 to 60 (1.2 km of transmission line or 53.5 ha).	No	No important wildlife feature was observed.
Crew 2: Pre-disturbance Wildlife	Pole 268 to 274 (1.3 km of transmission line or 60.6 ha)	No	No important wildlife feature was observed.

Daily Tasks Completed

- 06:45 – 07:00: Drive to Frost office
- 07:00 – 07:30: Tailgate meeting with Jonathan.
- 07:30 - 07:45: trucks and maps organization.

Crew 1

- 07:45 – 08:10: Drive to airstrip road.
- 08:10 – 09:05: Unloading and Snowmobiling to pole 65 (about 6,5 km). Only 2 snowmobiles for 5, so drive back to shuttle all the crew members.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

- 09:05 – 15:30: Wildlife survey from pole 65 to 60.
- 15:30 – 16:15: Snowmobiling back to trucks, loading, securing.
- 16:15 – 16:30: Drive back to accommodations in Fraser Lake for Willis, Evan and Lorène.
- 16:30 - 16:45: drive from Fraser Lake airstrip road to Fort Fraser accommodation for Ita and Nathaniel.
- 16:45 – 17:00: Data upload.

Crew lead only:

- 17:45 – 18:30: Polygon drawing & upload data, coordinate with second crew lead and office and new crew members joining tomorrow.
- 18:30 – 19:30: DFR and time card.

Crew 2

- 07:45 – 09:30: Drive to access point off Swanson road.
- 09:30 – 10:30: Unloading and Snowmobiling. Only 2 snowmobiles for 5, so drive back to shuttle all the crew members.
- 10:30 – 14:30: Wildlife survey from pole 268 to 274.
- 14:30 – 15:30: Snowmobiling back to trucks, loading, securing.
- 15:30 – 17:30: Drive back to accommodations.
- 17:30 – 17:45: Data upload.

Second crew lead only:

- 17:45 – 18:00: Polygon drawing & upload data, coordinate with crew lead and office.

Mobilization/Demobilization

N/A

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed access and safety hazards.

Plan for Tomorrow

Continuing from both locations.

Reporting

-DFR

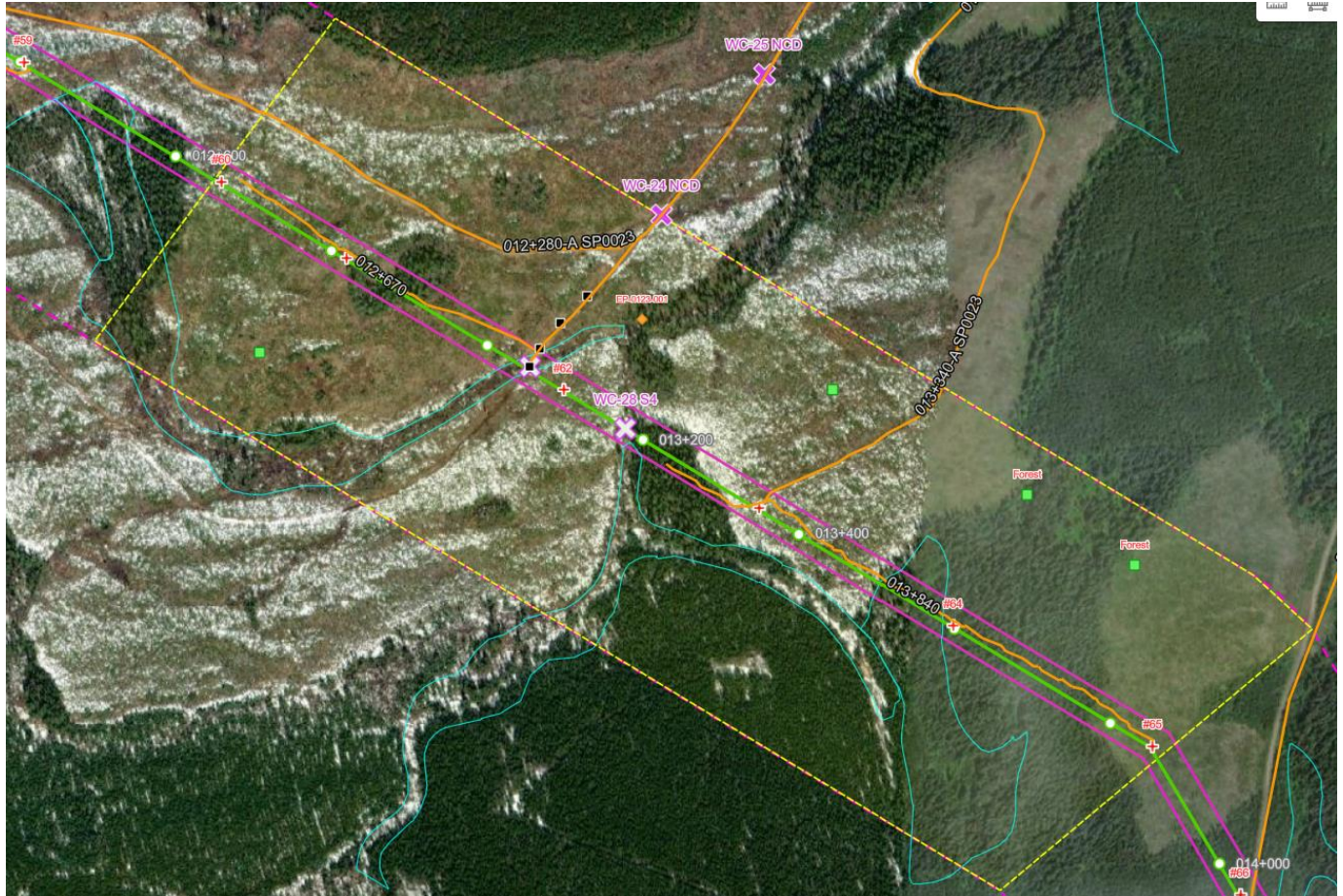


Figure 1. Survey areas for January 23rd, 2024 from Pole 65 to 60 by Crew 1.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey areas for January 23rd, 2024 from Pole 268 to 274 by Crew 2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Jesse Lewis, Shelby Lepine, Alaysia Martin, Kristen Cradock, Josh Mantler, Justin Smith	DATE	23/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-5 to 3, snowing to overcast, snow depth of about 60-70 cm.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 475 to 479 (1.1 kms) Pole 361 to 358 (650 m) Days total 1.75 kms	Yes, Snow melt allowing for better visual of flagging	No wildlife features were observed.

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:15: Travel to site.
- 08:15 – 13:00: Wildlife sweep Pole 475 to 479, a total of 1.1 km.
- 13:00 – 13:45: Travel to second site.
- 13:45 – 15:15: Wildlife Sweep Pole 361 to 358, a total of 650 m.
- 15:15 – 16:00: Travel to Kluskus camp; data proof and upload;
- 16:00 – 17:30: Completed DFR, timecard, map preparation and planning for tomorrow (Crew Lead only).

Note: The current snow depth decreases detectability of wildlife features, especially ground dwelling dens.

Mobilization/Demobilization

- Jesse Lewis and Alaysia Martin traveled back to PG after sweeping.
- Justin Smith mobilized from PG and joined the crew partway through the day.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

N/A

Plan for Tomorrow

Continue sweeping North from Pole 358.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for January 23th, 2024 from Pole 475 to 479.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for January 23th, 2024 from Pole 361 to 358.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Nathaniel Martin, Evan Pinter, Spencer Woyke, Justin Smith, Willis Sloat	DATE	30/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	+11 to +15, Blue sky with some wispy clouds	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 51 to 43 (1.9 km of transmission line or 81.8 ha)	No	A stick nest and a large cavity were encountered and marked during the survey. The stick nest is close to the ROW edge, but is likely not a species of concern and not active at this time. The cavity is large and round and may warrant further discussion. A section of private land with barbed wire fence was encountered near pole 44 and was not surveyed over this fence.

Daily Tasks Completed

- 06:45 – 07:00: Drive to Frost office
- 07:00 – 07:30: Tailgate meeting with Sable
- 07:30 – 08:15: Drive to access point just past Pole 55. Organize crew and maps
- 08:15 – 08:30: Walk in to start of survey at Pole 50
- 08:30 – 15:45: Complete surveys from Pole 51 to 43
- 15:45 – 16:00: Walk out to trucks from Pole 50
- 16:00 – 16:45: Drive back to Fraser Lake or Fort Fraser
- 16:45 – 17:00: Data review and upload



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Crew lead only:

- 18:00 – 17:00: Polygon drawing & upload data, coordinate with second crew lead and office; DFR and time card.

Mobilization/Demobilization

- Willis Sloat demobilized to Prince George

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 373360 5985920	51	AS-3001-001	Unknown	Nest	Stick nest near top of live aspen. In good condition and close to ROW. Approx 1 ½ ft diameter. Large stick nest (possibly goshawk or raven) and likely not an Eagle or Osprey nest. Large sticks but not branches used to build. Unlikely to be a species of concern.
10 U 373247 5986249	50	JS-3001-001	Unknown	Tree Cavity	Circular, round cavity with smooth edges. 6m up on a cottonwood tree with ~12.5 (5in) diameter. Measures TBD.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226-001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at 07:00 with Sable. Discussed access, safety hazards, and plan of operations for coming days.

Plan for Tomorrow

Access from Nithi Road near Pole 39 to survey South to Pole 43. Depending on conditions once back to the trucks continue North from Pole 38.

Reporting

-DFR

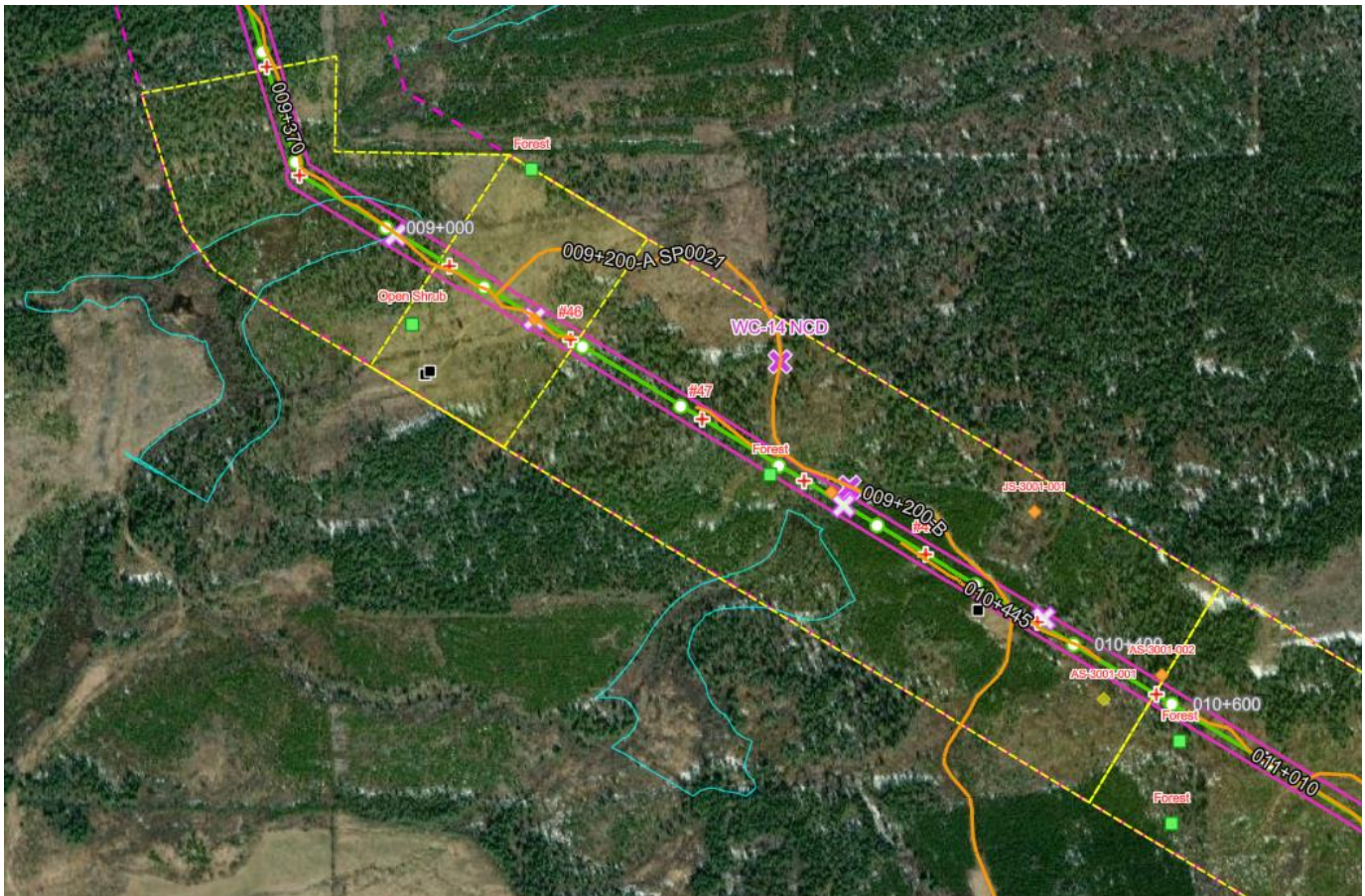


Figure 1. Survey areas for January 30th, 2024 from Pole 51 to 43.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Matt Robinson, Jesse Lewis, Michelle Gagnon, Miranda Tuininga, Megan Southward, Kyle Clarke	DATE	30/01/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	5 to 6, clear, snow depth 30-40 cm.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 299 to 288	Yes.	No sensitive wildlife features identified

Daily Tasks Completed

- 07:00 – 07:30: Tailgate meeting
- 07:30 – 08:00: Travel to site.
- 08:00 – 08:30: Unloading sleds, snowmobiling into survey area (near Pole 299)
- 08:30 – 16:00: Wildlife sweep Pole 299 to 288
- 16:00 – 16:30: Snowmobiling back to trucks, loading sleds to trucks
- 16:30 – 17:00 Travel to Kluskus camp;
- 17:00 – 17:15: Data checking and upload.
- 17:15 – 17:45: Completed DFR, timecard, map preparation and planning for tomorrow (crew leads only).

Note: The current snow depth decreases detectability of wildlife features, especially ground dwelling dens.

Mobilization/Demobilization

None.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
----------------	-----------------	--------------	---------	--------------	-------

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

Morning tailgate meeting with DWB survey crew and Nick Henry (Frost)

Plan for Tomorrow

Continue sweeping north from Pole 288 to Pole 283.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

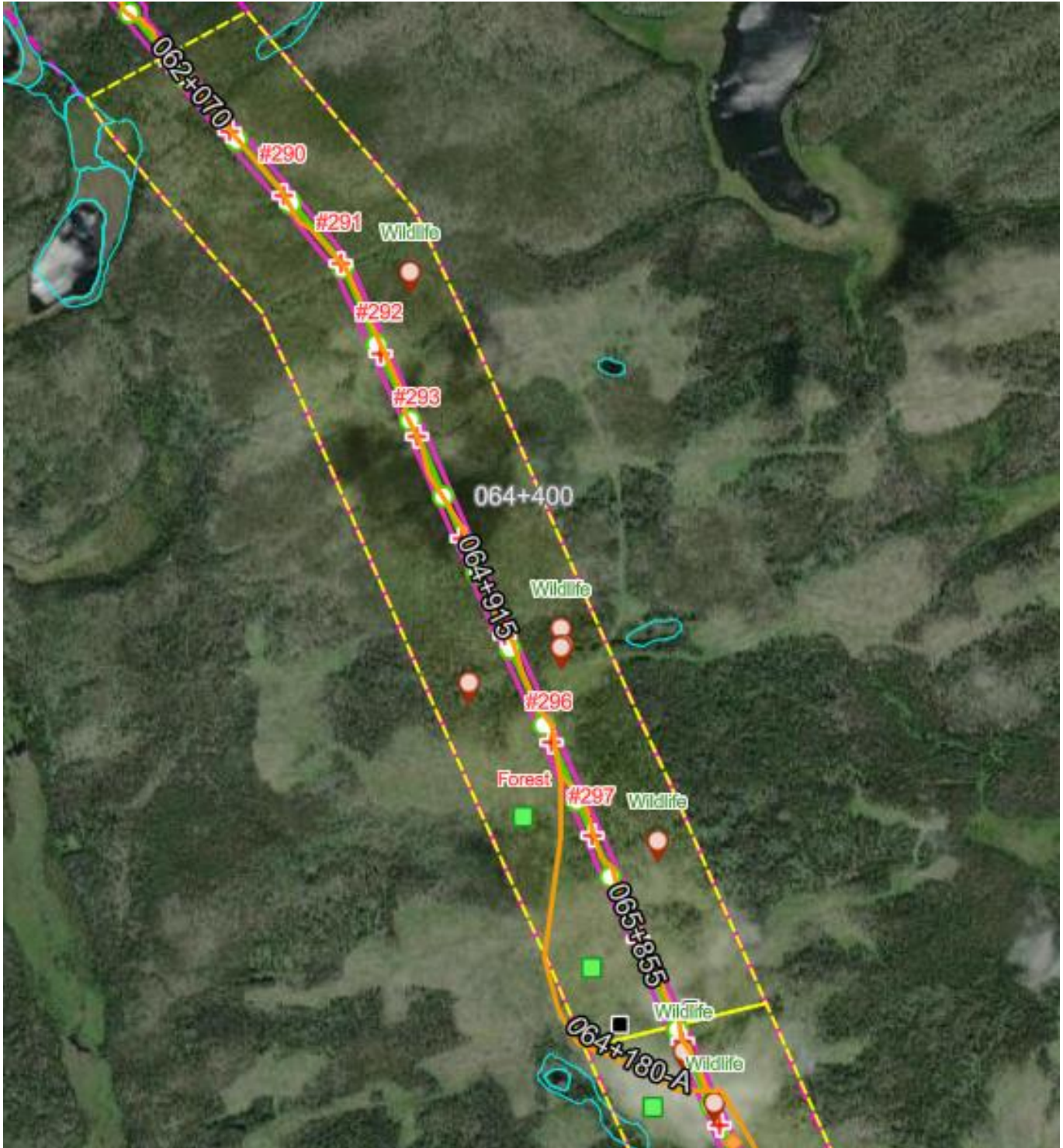


Figure 1. Survey area for January 30, 2024 from Pole 299 to 288.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Nathaniel Martin, Evan Pinter, Spencer Woyke, Justin Smith, Leanne Matthews, Monica Matthews, Nathn Drummond-Stoyles	DATE	01/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	+5 to +13, Blue skies with abundant wispy clouds	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 33 to 28A (1.5 km of transmission line or 65.2 ha) Pole 10 to 14 (0.79 km of transmission line or 13.5 ha)	No	No wildlife features of concern found. Abundant moose beds, tracks, and scat.

Daily Tasks Completed

- 06:45 – 07:00: Drive to Frost office
- 07:00 – 07:30: Tailgate meeting with Jonathan
- 07:30 – 08:00: Drive to access point at Pole 33 along Ely Subdivision Road. Organize crew and maps
- 08:00 – 12:30: Wildlife sweep from Pole 33 to 28A. Monica and Nathan met crew in the field.
- 13:00 – 13:30: Drive to access point near Pole 10. Nathaniel, Evan, and Justin demobilized to Prince George
- 13:30 – 16:30: Met up with full survey crew, Wildlife sweep from Pole 10 to 14.
- 16:30 – 16:45: Drive back to Fraser Lake or Fort Fraser
- 16:45 – 17:00: Data review and upload



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Crew lead only:

- 18:00 – 19:00: Polygon drawing & upload data, coordinate with second crew lead and office; DFR and time card.

Mobilization/Demobilization

- Monica Matthews and Nathan Drummond-Stoyles mobilized to Fraser Lake
- Nathaniel Martin, Evan Pinter, and Justin Smith demobilized from Fraser Lake

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226-001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed access, safety hazards, and plan of operations for coming days.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Plan for Tomorrow

Access Poles 21 to 27 and Poles 14 to 20 from access point near Pole 10 along existing transmission line.

Reporting

-DFR



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

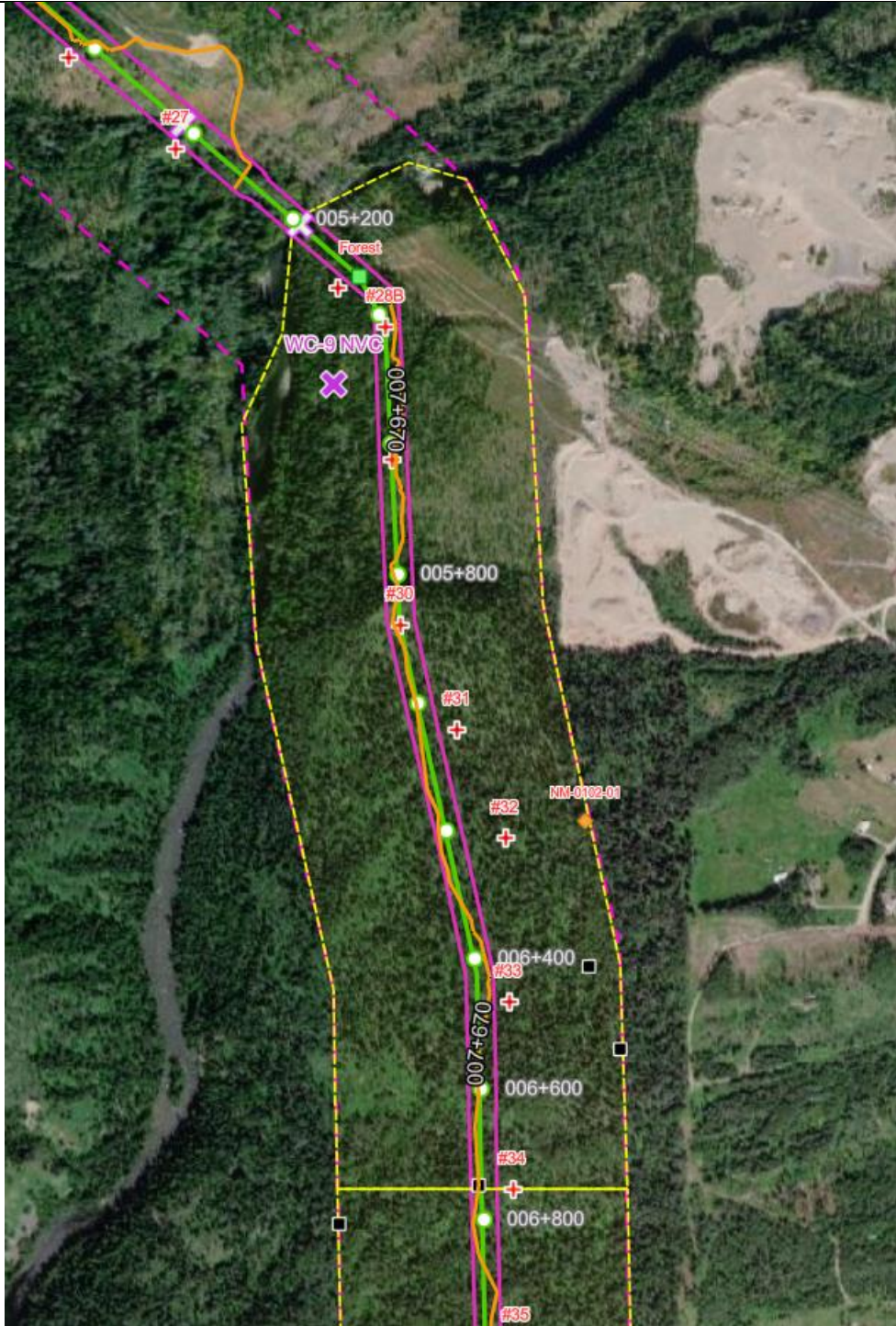


Figure 1. Survey areas for February 1st, 2024 from Pole 33 to 28A.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey areas for February 1st, 2024 from Pole 10 to 14.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Matt Robinson, Jesse Lewis, Michelle Gagnon, Miranda Tuininga, Megan Southward, Kyle Clarke	DATE	01/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	5 to 7, clear, snow depth 30-50 cm.	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 1 to 14	Yes.	Two stick nests observed, but both were located outside the right-of-way clearing boundary and are not expected to affect clearing works.

Daily Tasks Completed

- 06:45 – 07:00: Tailgate meeting
- 07:00 – 09:30: Drive to site west of Fraser Lake (Endako Mine Road)
- 09:30 – 16:30: Wildlife sweep from Pole 1 to Pole 14
- 16:30 – 17:00 Travel back to Fraser Lake, checking into motel, unpacking gear.
(Meagan Southward traveled to Last Spike in Fort Fraser).
(Miranda Tuininga traveled to Prince George)
- 17:00 – 17:15: Data checking and upload.
- 17:15 – 18:15: Completed DFR, timecard, map preparation, crew coordination and planning for tomorrow (crew lead only).

Mobilization/Demobilization

- Miranda Tuininga demobilized to Prince George

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
54.072030, -124.999928	Pole 6	KC-0102-1	Common Raven/Red-tailed Hawk	Stick nest	80 m from right-of-way clearing boundary. Not expected to affect clearing work.
54.072247, -125.002973	Pole 7	MG-0102-1	Common Raven or America Crow	Stick nest	80 m from right-of-way clearing boundary. Not expected to affect clearing work.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.

COMMUNICATIONS

Meetings & Communications

Morning tailgate meeting with DWB survey crew and Nick Henry (Frost)

Plan for Tomorrow

Survey between Pole 14 and 20.

Reporting

-DFR



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

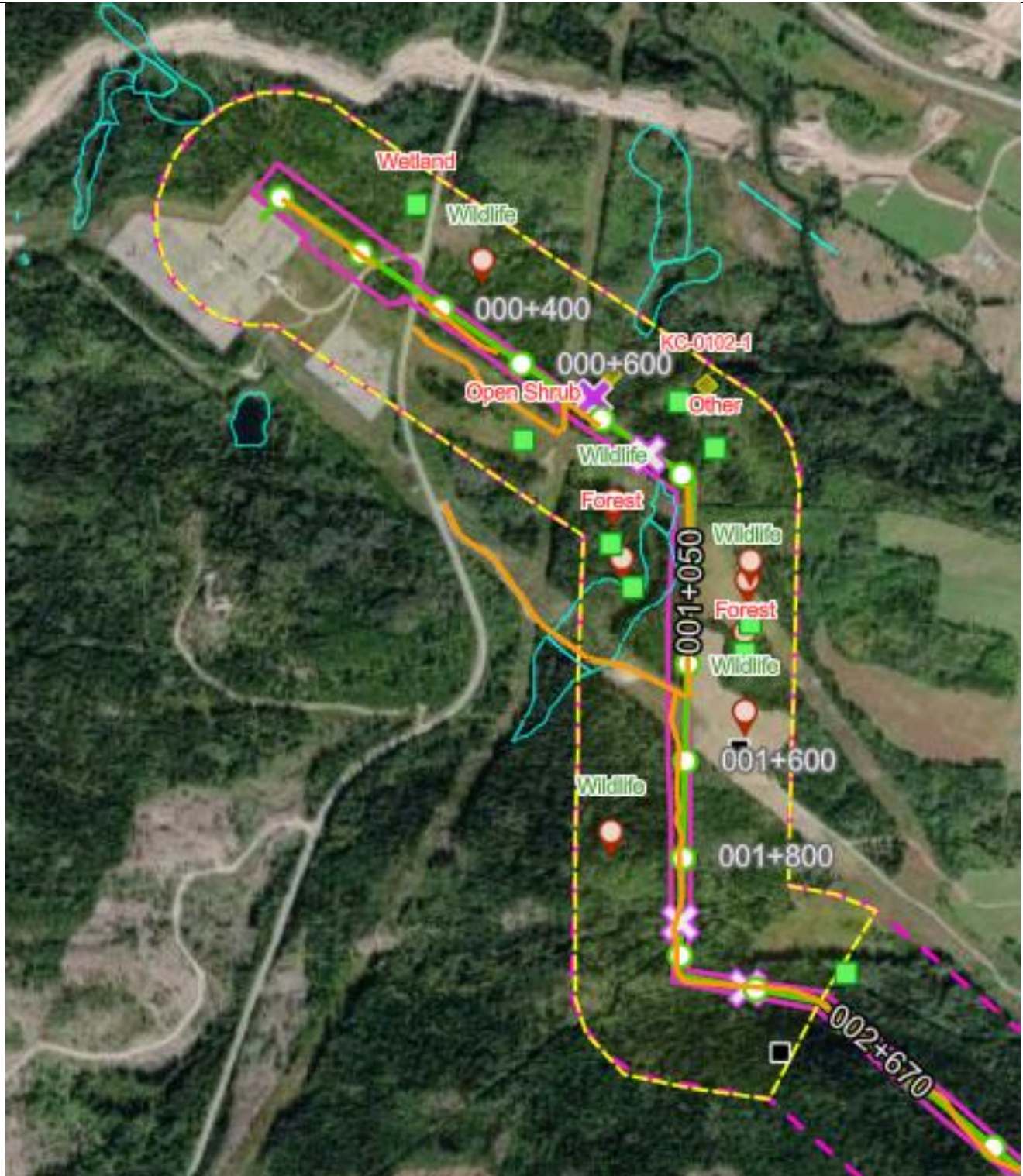


Figure 1. Survey area for February 1, 2024 from Pole 1 to 14.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Spencer Woyke, Nathan Drummond-Stoyles, Jesse Lewis, Matt Robinson, Michelle Gagnon, Kyle Clarke, Meagan Southward, Miranda Tuininga, Leanne Matthews, Monica Matthews	DATE	02/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	+5 to +13, Blue skies with abundant wispy clouds	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 14 to 20 (1.5 km of transmission line or 69.8 ha) Pole 14 to 20 (9.6 km of transmission line or 41.7 ha)	No	No wildlife features of concern found. Abundant moose beds, tracks, and scat. Plent of Squirrel middens.

Daily Tasks Completed

- 06:45 – 07:00: Drive to Frost office
- 07:00 – 07:30: Tailgate meeting with Jonathan
- 07:30 – 08:00: Drive to access point at Pole 10. Organize crew and maps
- 08:00 – 08:30: Sledding in/Walking in for survey crews to Pole 14 or Pole 21
- Crew 1
- 08:30 – 13:30: Wildlife sweep from Pole 14 to 20
- Crew 2
- 08:30 – 13:30: Wildlife sweep from Pole 21 to 27



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

- 13:30 – 14:30: Coordinate crews and regroup at trucks near Pole 10
- 14:30 – 14:45: Drive back to Fraser Lake or Fort Fraser
- 14:30 – 14:45: Demobilize (various destination)
- 16:45 – 17:00: Data review and upload

Crew lead only:

- 19:00 – 20:00: Polygon drawing & upload data, coordinate with second crew lead and office; DFR and time card.

Mobilization/Demobilization

- Most crew members fully demobilized (Nathan Drummond-Stoyles, Jesse Lewis, Matt Robinson, Michelle Gagnon, Kyle Clarke, Meagan Southward, Miranda Tuininga, Leanne Matthews, Monica Matthews)
- Remaining crew staff will demobilize tomorrow (Adam Sprott, Spencer Woyke).

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512- 2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226- 001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at 07:00 with Jonathan. Discussed access, safety hazards, and plan of operations for coming days.

Plan for Tomorrow

All remaining crew members will demobilize tomorrow.

Reporting

-DFR

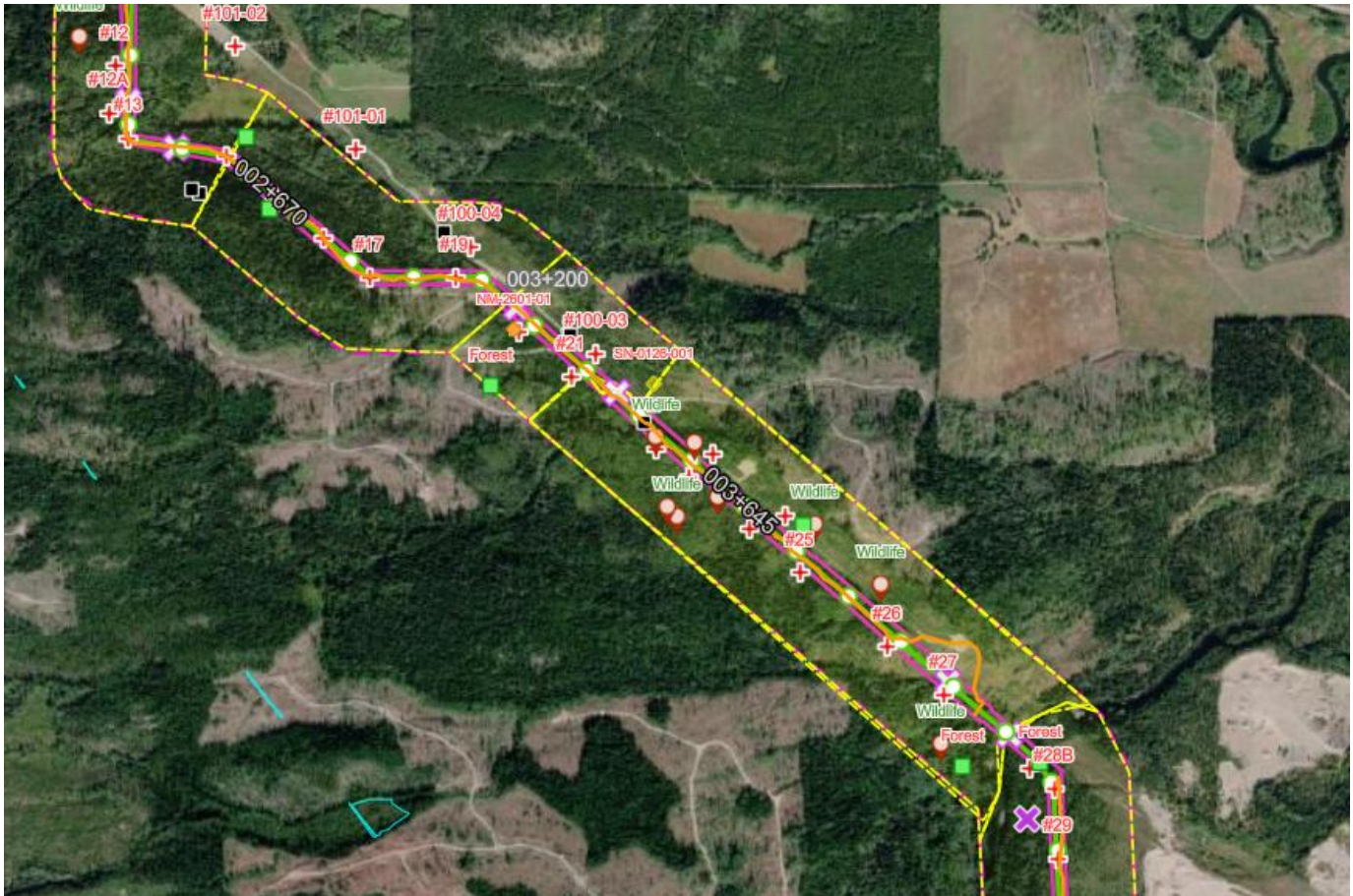


Figure 1. Survey areas for February 2nd, 2024 from Pole 14 to 20, and Pole 21 to 27.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Leanne Matthews, Monica Matthews, Nathaniel Martin, Nathan Drummond-Stoyles	DATE	13/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACT ER	Frost Group
WEATHER / TEMPERATURE	-12 to +2, sunny, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 424 to 426 (18.3 hectares)	No	No wildlife features were observed.

Daily Tasks Completed

Crew 1: Leanne Matthews/Nathaniel Martin

- 09:00-09:30: Tailgate meeting at Prince George Shop.
- 09:30-9:45: Collect gear for shift at PG shop.
- 9:45-10:00: Commute to PG office to collect additional gear.
- 10:00-1:30: Commute to Martin FSR.
- 13:30-16:00: Completed re-sweeps from Pole 424 to 426.
- 16:00-16:30 : Commute to Kluskus camp and complete check-in with the crew.
- 16:30-16:45: Check into camp and complete data uploads.

Crew 2: Monica Matthews/Nathan Drummond-Stoyles

- 07:00-09:30: Monica completed commute to Burns Lake to pick up Nathan.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

- 09:30-13:30: Commute to the Martin FSR to join with Leanne/Nathaniel. Fuel truck in Fort Fraser.
- 13:30-16:00: Completed re-sweeps from Pole 424 to 426.
- 16:00-16:30 : Commute to Kluskus camp and complete check-in with the crew.
- 16:30-16:45: Check into camp and complete data uploads.

Crew lead only:

- 17:00-18:30: Polygon drawing & complete data uploads, coordinate with second crew lead and office; DFR and time card.

Mobilization/Demobilization

- Adam mobilize from Fort St John to Kluskus Camp.
- Sean mobilize from Burns Lake to Kluskus Camp.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226-001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at Prince George shop at 9:00am.

Plan for Tomorrow

TBD.

Reporting

DFR.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for February 13th, 2024 from Pole 20 to 21 Crew 1 & 2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Leanne Matthews, Monica Matthews, Nathaniel Martin, Nathan Drummond-Stoyles, Sean Neufeld	DATE	14/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACT ER	Frost Group
WEATHER / TEMPERATURE	-19 to +4, sunny, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 588 to 590 (21.73 hectares)	No	No wildlife features were observed.
Pre-disturbance Wildlife	Pole 479 to 474.5 (46.48 hectares)	No	No wildlife features were observed.

Daily Tasks Completed

- 06:30-07:00: Tailgate safety meeting with Tyson
- 07:00-08:15: Drive to access near Pole 588
- 08:15-10:30: Completed re-sweeps from Pole 588 to 590.
- 10:30-11:15: Drive to access near Pole 479
- 11:15-15:30: Completed re-sweeps from Pole 479 to 474.5
- 15:30-16:30: Investigated potential access
- 16:30-17:15: Drive to Kluskus Camp
- 17:15-17:30: Data upload and review



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Crew lead only:

- 17:30–18:30: Polygon drawing & complete data uploads, coordinate with second crew lead and office; DFR and time card.

Mobilization/Demobilization

NA

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 389760 5913037	479	Other	Unknown	Wildlife Observation	Large witch's broom clump offering potential nest shape. No nest of concern observed

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226-001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at with Tyson at Frost trailer at Kluskus Camp.

Plan for Tomorrow

TBD.

Reporting

DFR.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 1. Survey area for February 14th, 2024 from Pole 588 to 590.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for February 14th, 2024 from Pole 574.5 to 479.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Leanne Matthews, Monica Matthews, Nathaniel Martin, Nathan Drummond-Stoyles, Sean Neufeld	DATE	17/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER / TEMPERATURE	-19 to -1, sunny, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 399 to 398 (17.00 hectares)	No	No wildlife features were observed.
Pre-disturbance Wildlife	Pole 40 to 45 (42.49 hectares)	No	A cavity was observed off of the ROW with a small mammal seen inside – classed as active small mammal den

Daily Tasks Completed

- 07:00-07:30: Tailgate safety meeting with Tyson
- 07:30-08:00: Drive to access near Pole 399
- 08:00-09:15: Completed re-sweeps from Pole 399 to 398
- 09:15-13:00: Commute to Fraser Lake
- 13:00-13:15: Drive to access near Pole 39
- 13:15-17:15: Completed re-sweeps from Pole 40 to 45
- 17:15-17:30: Drive to Fraser Lake or Fort Fraser
- 17:30-17:45: Data upload and review

Crew lead only:

- 18:00–19:00: Polygon drawing & complete data uploads, coordinate with office; DFR and time card.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Mobilization/Demobilization

- Entire crew commuted to Fraser Lake for Northern area resweeps

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 372232 5986771	45	SN-0217-001	Unknown	Small Mammal Den	Rectangular cavity about 8cm wide and 15cm tall. About 5m up on a live cottonwood that was 27m tall. A small mammal was observed peeking out of the cavity at times.

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226-001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

COMMUNICATIONS

Meetings & Communications

Tailgate meeting at with Tyson at Frost trailer at Kluskus Camp.

Plan for Tomorrow

TBD.

Reporting

DFR.



Figure 1. Survey area for February 17th, 2024 from Pole 399 to 398.



DWB Consulting Services Ltd.

Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for February 17th, 2024 from Pole 40 to 45.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Leanne Matthews, Monica Matthews, Nathaniel Martin, Nathan Drummond-Stoyles, Sean Neufeld	DATE	18/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER/TEMPERATURE	-12 to +4, sunny, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 30 to 28A (25.93 hectares)	No	No wildlife features were observed.
Pre-disturbance Wildlife	Pole 6 to 14 (35.0 hectares)	No	An active large mammal den was observed in WC #2 between Pole 6 and 7. Work in area was stopped and a 60m buffer will be installed tomorrow morning. Photos attached in Figures 3,4, and 5.

Daily Tasks Completed

- 06:45-07:00: Commute to Frost Office
- 07:00-07:30: Tailgate safety meeting with Jono
- 07:30-08:30: Drive to access near Pole 35 and walk to end of brushing
- 08:30-12:00: Completed re-sweeps from Pole 30 to 28A
- 12:00-12:30: Drive to access near Pole 6
- 12:45-16:45: Completed re-sweeps from Pole 6 to 14
- 16:45-17:00: Drive to Fraser Lake or Fort Fraser
- 17:00-17:15: Data upload and review

Crew lead only:

- 18:00–19:00: Polygon drawing & complete data uploads, coordinate with office; DFR and time card.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Mobilization/Demobilization

NA

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes
10U 369070 5993223	6 / WC #2	AS-SN-0218-001	Unknown	Active Den	Active den observed with large mammal seen inside. Animal was active and hissed/growled at crew as den was discovered. Possibly a young black bear, but not confirmed. Work was immediately halted in area and a 60m buffer will be installed tomorrow (Feb 19) morning. Photos attached in Figures 3,4, and 5

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226-001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

COMMUNICATIONS

Meetings & Communications

Tailgate meeting with Jono at Frost Office.

Plan for Tomorrow

TBD.

Reporting

DFR.

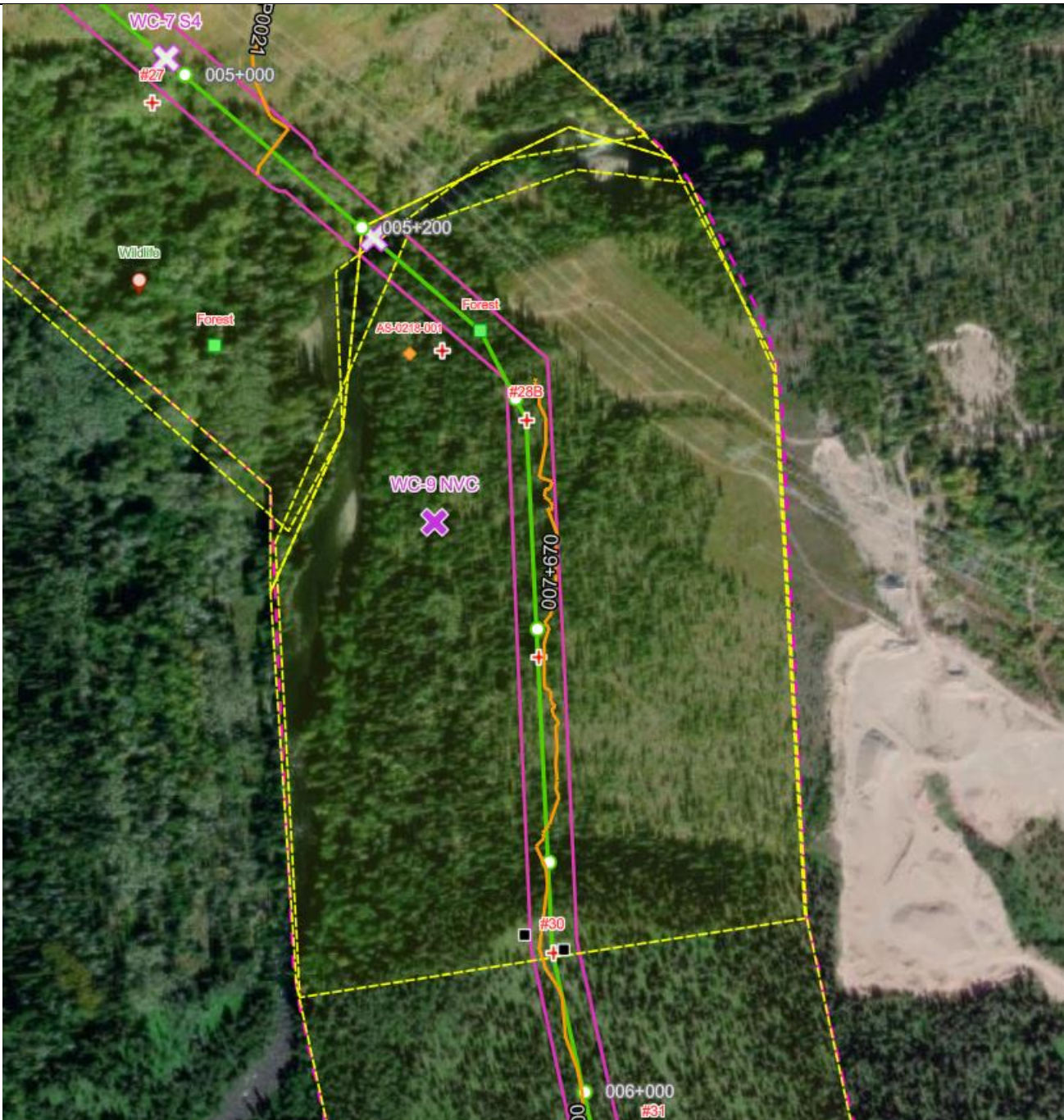


Figure 1. Survey area for February 18th, 2024 from Pole 30 to 28A.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB



Figure 2. Survey area for February 18th, 2024 from Pole 6 to 14.



Figure 3: Photo 1 of active den observed in WC #2.



Figure 4: Photo 2 of active den observed in WC #2.



Figure 5: Photo 3 of active den observed in WC #2.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Leanne Matthews, Monica Matthews, Nathaniel Martin, Nathan Drummond-Stoyles, Sean Neufeld	DATE	19/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER/TEMPERATURE	-16 to +3, sunny, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 12A to 27 (hectares)	No	No wildlife features were observed.

Daily Tasks Completed

- 06:45-07:00: Commute to Frost Office
- 07:00-07:30: Tailgate safety meeting with Sable
- 07:30-08:30: Drive to access near Pole 10
- 08:30-10:05: Construct buffer around Bear Den near Pole 6
- 10:05-17:15: Completed re-sweeps from Pole 12A to 27
- 17:15-17:45: Drive to Fraser Lake or Fort Fraser
- 17:45-18:00: Data upload and review

Crew lead only:

- 18:00–19:00: Polygon drawing & complete data uploads, coordinate with office; DFR and time card.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Mobilization/Demobilization

NA

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226-001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.
10U 36909 5993223	6	AS-SN-0218-001	Unknown	Active Den	Feb 18	25	

COMMUNICATIONS

COMMUNICATIONS

Meetings & Communications

Tailgate meeting with Jono at Frost Office.

Plan for Tomorrow

TBD.

Reporting

DFR.

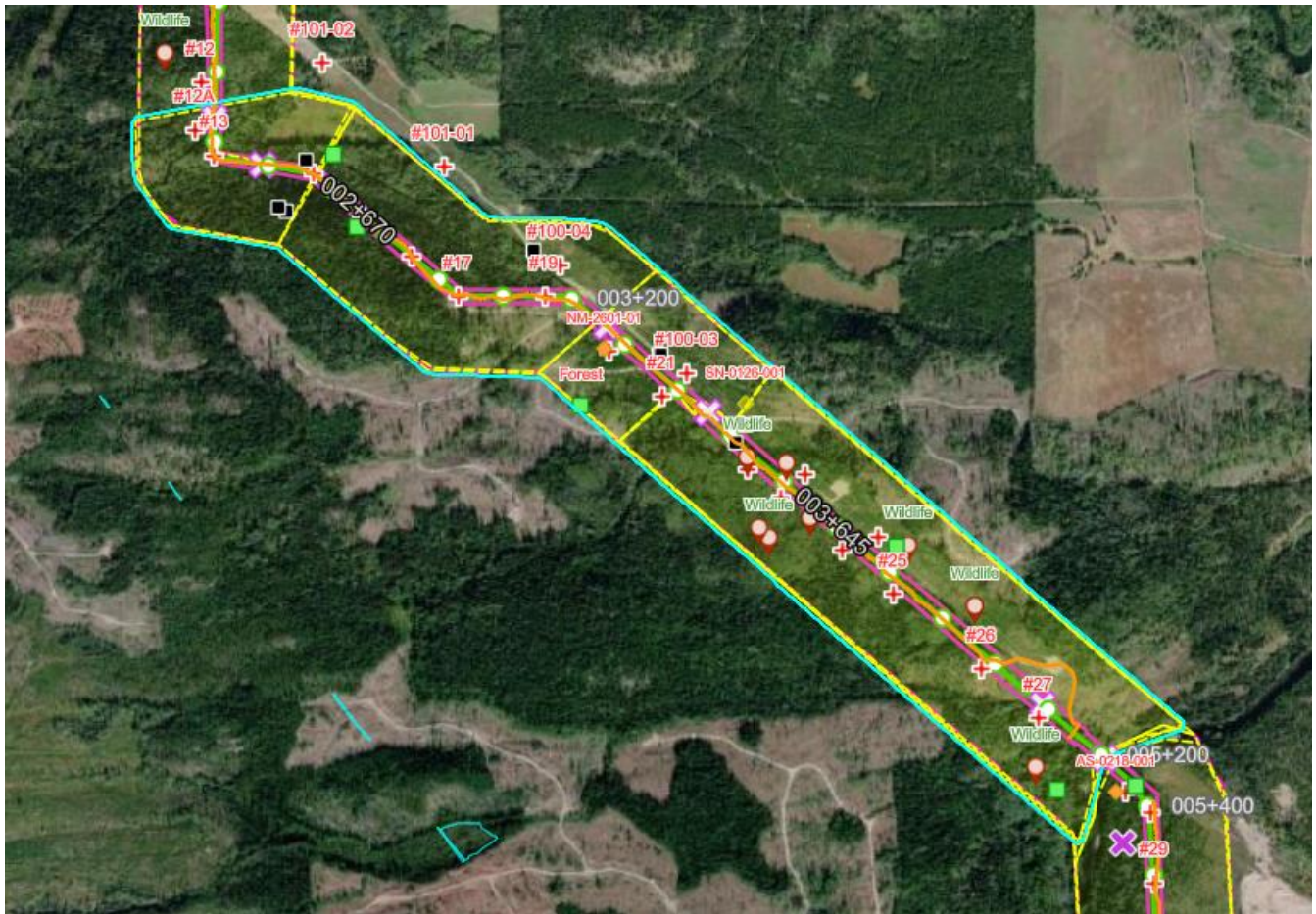


Figure 1. Survey area for February 19th, 2024 from Pole 12A to 27.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

DAILY FIELD REPORT

CREW NAME(S)	Adam Sprott, Leanne Matthews, Monica Matthews, Nathaniel Martin, Nathan Drummond-Stoyles, Sean Neufeld	DATE	20/02/2024
PRIME CONTACT	Jonathan St. Jean	PRIME CONTACTER	Frost Group
WEATHER/ TEMPERATURE	-12 to +5, sunny, clear	ONSITE ACTIVITIES	Wildlife surveys

SUMMARY

Surveys Completed

Survey Type	Survey Location	Was Project Footprint Flagged	Results Summary
Pre-disturbance Wildlife	Pole 197 to WC #73 (66.66 hectares)	No	No wildlife features were observed.

Daily Tasks Completed

- 06:45-07:00: Commute to Frost Office
- 07:00-07:30: Tailgate safety meeting with Jono
- 07:30-09:00: Drive to access near Pole 200
- 09:00-15:30: Completed re-sweeps from Pole 197 to 189
- 15:30-17:00: Drive to Fraser Lake or Fort Fraser
- 17:00-17:15: Data upload and review

Crew lead only:

- 18:00-19:00: Polygon drawing & complete data uploads, coordinate with office; DFR and time card.



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

Mobilization/Demobilization

- Most crew members demobilized to Prince George, Burns Lake, or Smithers. Adam Sprott will demobilize tomorrow to Fort St John.

Wildlife Features Observed

Location (GPS)	Pole # Location	Feature Name	Species	Feature Type	Notes

Wildlife Buffers/Mitigations (Ongoing)

Location (GPS)	Pole # Location	Feature ID	Species	Feature Type / Buffer Size	Date Located	Tallest Tree Height Within Buffer (m)	Notes
10U 378903, 5905111	554	MR-1512-2	PIWO	50m, circular	Dec 15	30	Cavity tree is right near ROW centerline.
10 U 370548 5991413	21/22	SN-1226-001	Osprey	Nest / No Buffer	Jan 26		On existing Hydro Pole. 70 m NE of ROW boundary. Inactive.
10U 369060 5993223	6	AS-SN-0218-001	Unknown (Black bear)	Active Den / 60 m, circular	Feb 18	25	In bank of WC #2 along ROW. Machine free zone. 11 m from N boundary of ROW



Transmission Line Blackwater Artemis Gold Pre-disturbance Surveys

Produced by DWB

COMMUNICATIONS

Meetings & Communications

Tailgate meeting with Jono at Frost Office.

Plan for Tomorrow

Shift complete. Remainder of crew to demobilize

Reporting

DFR.

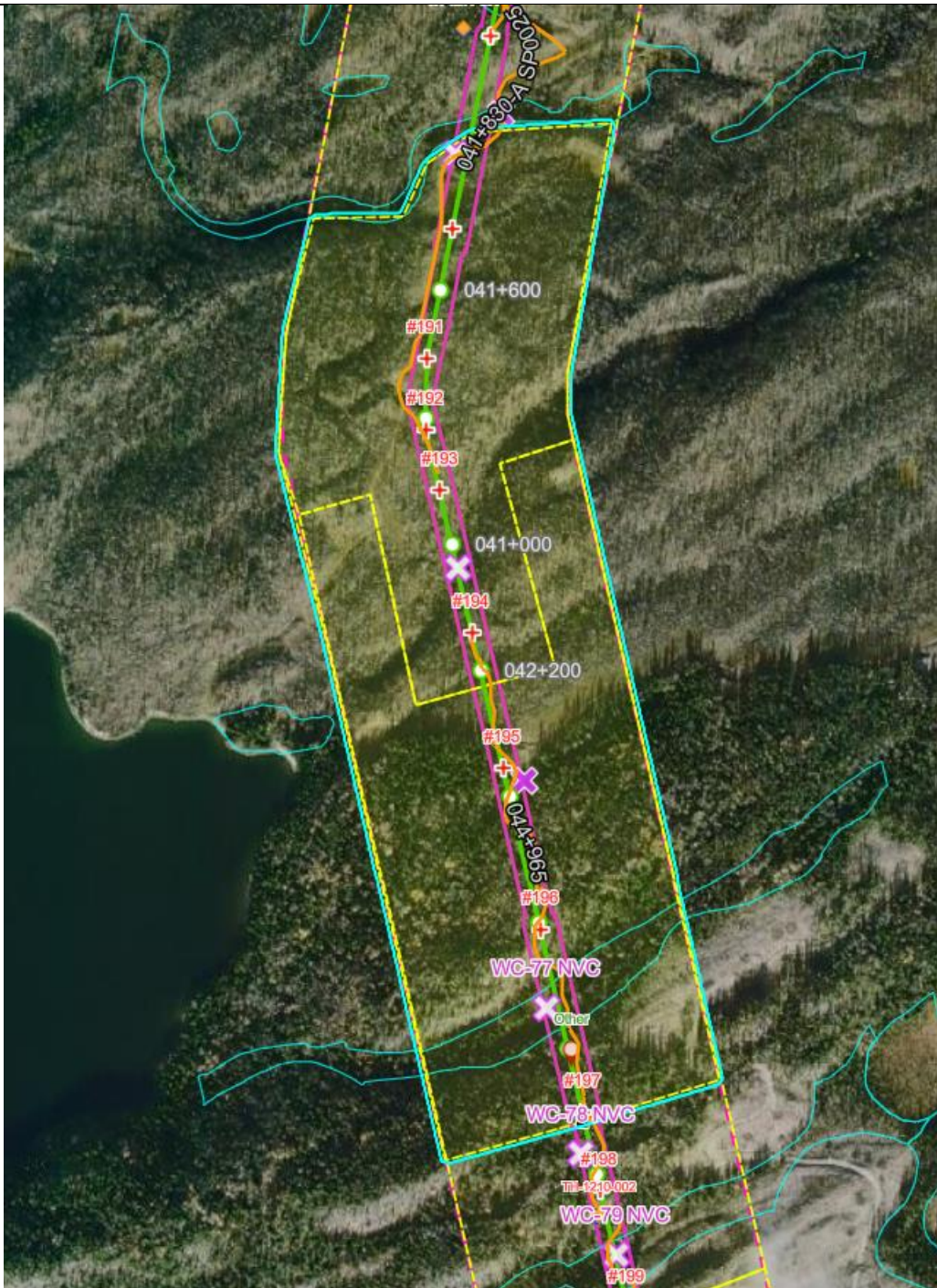


Figure 1. Survey area for February 20th, 2024 from Pole 197 to WC #73.



DATE
28 June 2024

REFERENCE
0722163-02-002

APPENDIX C

PILEATED WOODPECKER NEST CAVITY ASSESSMENTS AND RECOMMENDATIONS MEMO



MEMO

TO	Ryan Todd (Artemis Gold Inc.)
FROM	Hannah Visty, RPBio (ERM Consultants Canada Ltd.)
DATE	15 03 2024
REFERENCE	0722163-11
SUBJECT	Pileated Woodpecker Nest Cavity Assessments and Recommendations

Dear Mr. Todd,

I am writing to provide a summary of the field work and subsequent recommendations for three cavities identified along the Blackwater Gold Transmission Line Right-of-Way (ROW) which were assessed as potential Pileated Woodpecker (*Dryocopus pileatus*) nest sites.

1. BACKGROUND

DWB Consulting Services Ltd. (DWB), retained by Frost Group (Frost), identified three potential Pileated Woodpecker nest sites within the ROW boundary of the Blackwater Gold Transmission Line (DWB 2024):

- TH-1205-003, located near Pole 231
- JBL-1205-001, located near Pole 234
- MR-1512-2, located near Pole 554

The objective of the fieldwork conducted by ERM Consultants Canada Ltd. (ERM) was to assess all three potential nest sites, and to determine whether these were viable Pileated Woodpecker nest cavities. Pileated Woodpecker is listed on Schedule 1 of the Migratory Bird Regulations (2022) within the *Migratory Birds Convention Act* (1994) and its nests receive year-round protection regardless of whether a live bird, viable egg, or any bird species is utilizing the nest. Nests must be deemed inactive for 36 months through the federal Abandoned Nest Registry system prior to disturbance or removal (Government of Canada 2022).

2. FIELD VISIT

All three potential Pileated Woodpecker nest sites were visited on February 27, 2024. The nest cavity surveys were conducted by a Qualified Professional (QP), Hannah Visty (ERM Wildlife Biologist, RPBio), with the assistance of the following personnel: Jonathan St Jean (Frost Environmental Manager, RPBio), Antony Yerkovic (Blackwater Gold

Electrician), Shawn Sadler (Apex Survey Solutions, Surveyor), and Griffin Kirschke (Frost Assistant).

Nest site JBL-1205-001 (Pole 234) was assessed using an endoscopic camera, which enabled surveying and photos of the inside of the cavity. Nest site TH-1205-003 (Pole 231) and MR-1512-2 (Pole 554) were assessed via drone due to their height in respective trees, making them inaccessible by endoscopy.

Data collection at each site included:

- Precise cavity heights in trees;
- Photos at cavity height and within cavities, where accessible; and
- Precise nest site coordinates.

2.1 FIELD SURVEY RESULTS

Below are the survey results and associated photos for the three potential Pileated Woodpecker nest sites.

Nest Site TH-1205-003 (Pole 231)

Nest site TH-1205-003 (Pole 231; Photo 1-1) was confirmed to contain two suitable Pileated Woodpecker nest cavities (Photo 1-2 and Photo 1-3). This assessment is based on the characteristics of the tree and the cavity dimensions (Government of Canada 2023). Internal cavity characteristics were not investigated due to the height of the tree preventing access by endoscope.

- Location: UTM Zone 10N 5952762 378910.3, 798.471
- Tree Characteristics (Photo 1-1)
 - Mature, live trembling aspen (*Populus tremuloides*)
 - Tree Height (est): 24-25 m
 - Diameter at Breast Height (DBH): 50 cm
- Cavity Characteristics
 - Cavity #1 (Photo 1-2)
 - Height: 18 m
 - Hole Shape: round
 - Hole Size (est): 12 cm high X 10 cm wide
 - Cavity #2 (Photo 1-3)
 - Height: 14 m
 - Hole Shape: round
 - Hole Size (est): 10 cm high X 10 cm wide
- Distance to Poles
 - Pole 230: 250 m
 - Pole 231: 99 m

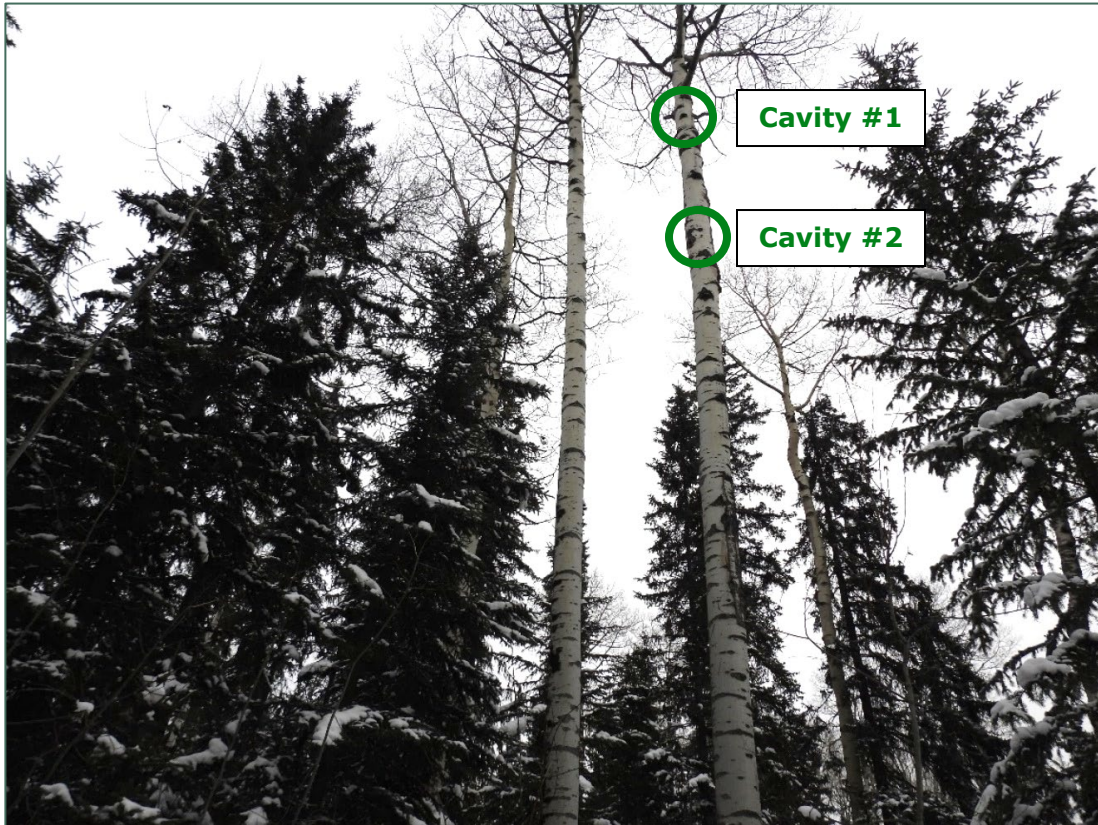


PHOTO 1-1: SITE TH-1205-003 (POLE 231) TREE AND SURROUNDING HABITAT



PHOTO 1-2: CAVITY #1 AT SITE TH-1205-003 (POLE 231)



PHOTO 1-3: CAVITY #2 AT SITE TH-1205-003 (POLE 231)

Nest Site MR-1512-2 (Pole 554)

Nest site MR-1512-2 (Pole 554) was confirmed to contain one potential Pileated Woodpecker nest cavity (Photo 1-4). A potential second cavity on the tree was confirmed to be a woodpecker drill hole that did not lead to a cavity (Photo 1-5). The tree characteristics and cavity hole size are appropriate for a Pileated Woodpecker nest site. However, the cavity exhibits some features which may be more typical of a feeding cavity (less rounded hole opening, multiple drilling locations; Photos 1-5 and 1-6; Government of Canada 2023). The internal cavity features could not be checked due to the height of the cavity, and cannot be ruled out as a Pileated Woodpecker nest site. It is therefore appropriate to regard MR-1512-2 (Pole 554) as a confirmed Pileated Woodpecker nest site.

A notable site characteristic was extensive deadfall and/or windthrow surrounding the nest site tree, making nest site MR-1512-2 (Pole 554) at particular risk of windthrow.

- Location: UTM Zone 10N 5905110 378903.9, 1059.524
- Tree Characteristics (Photos 1-4 and 1-5)
 - Mature, live trembling aspen (*Populus tremuloides*)
 - Tree Height (est): 30 m
 - Diameter at Breast Height (DBH): 41 cm

- Cavity Characteristics (Photo 1-6)
 - Height: 24 m
 - Hole Shape: irregular
 - Hole Size (est): 9 cm high X 11 cm wide
- Distance to Poles
 - Pole 554: 83 m
 - Pole 555: 193 m



PHOTO 1-4: SITE MR-1512-2 (POLE 554) TREE AND SURROUNDING HABITAT



PHOTO 1-5: SITE MR-1512-2 (POLE 554) WOODPECKER ACTIVITY



PHOTO 1-6: SITE MR-1512-2 (POLE 554) POTENTIAL NEST CAVITY

Nest Site JBL-1205-001 (Pole 234)

The potential nest site (Photo 1-7) was confirmed to be unsuitable for nesting activity because of the amount of decay within the cavity (viewed via endoscopic camera; Photo 1-8). Site JBL-1205-001 (Pole 234) can therefore be cleared, within regular pre-clearing windows and practices, and does not require any additional mitigations or management related to Pileated Woodpeckers.

- Location: UTM Zone 10N 379269 378903.9, 5951778
- Tree Characteristics (Photo 1-7)
 - Dead, decaying trembling aspen (*Populus tremuloides*)
 - Tree Height (est): 8 m
 - Diameter at Breast Height (DBH): 40 cm
- Cavity Characteristics (Photos 1-7 and 1-8)
 - Height (est): 4 m
 - Hole Shape: round
 - Hole Size (est): 10 cm high X 10 cm wide
 - Cavity Interior: Decayed

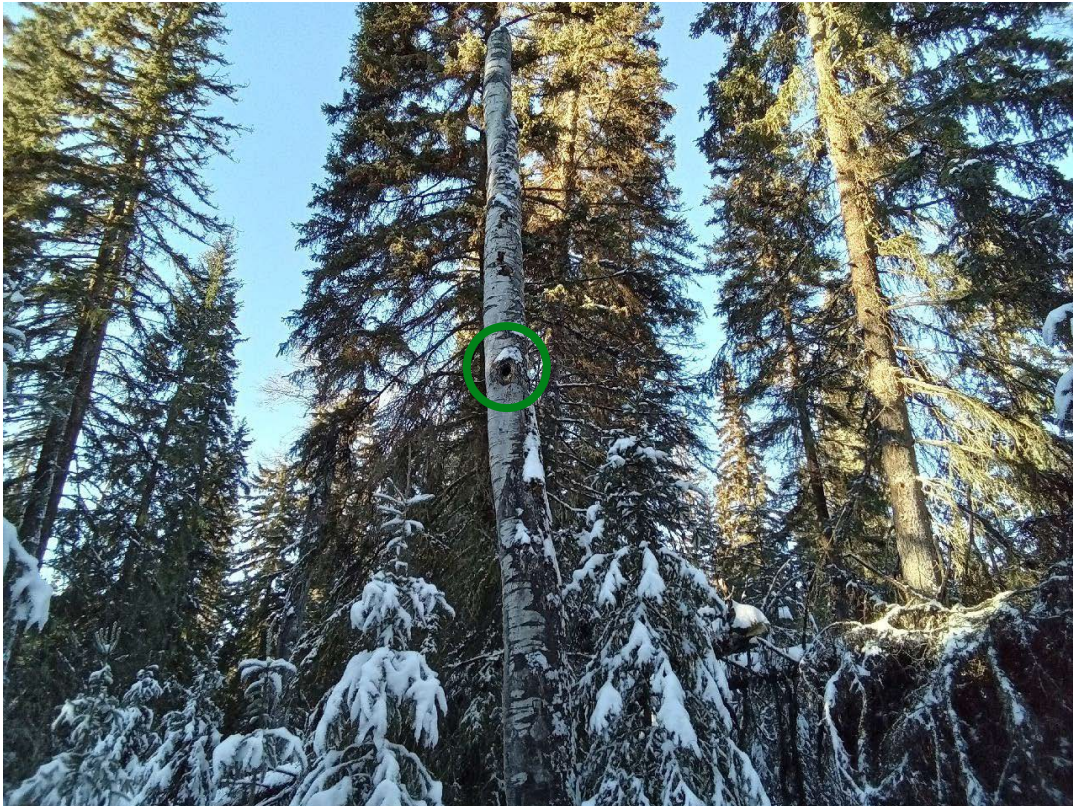


PHOTO 1-7: SITE JBL-1205-001 (Pole 234) TREE AND SURROUNDING HABITAT

Photo credit: DWB Consulting 2024



PHOTO 1-7: INTERIOR OF THE CAVITY AT SITE JBL-1205-001 SHOWING EXTENSIVE DECAY

3. SITE SPECIFIC RECOMMENDATIONS

The following are nest site specific recommendations for TH-1205-003 (Pole 231) and MR-1512-2 (Pole 554), based on results from the field surveys. Site JBL-1205-001 (Pole 234) was not identified as a Pileated Woodpecker nest site and does not require specific mitigation or management.

The following mitigations applies to both nest sites:

- A field assessment should be conducted at both sites to determine the viable stubbing height for trees within the site-specific buffer zones of the nest sites.
 - This will maintain the surrounding habitat characteristics and preserve the viability of the nest sites, in compliance with the Migratory Bird Regulations.
 - Tree stubbing should be minimized within nest site buffers and will be as high as possible, to a minimum of cavity height.
 - If select trees require stubbing to a lower height, an alternate option is to re-attach tree tops post-construction. This option should only be used where no other engineering solutions are available.
- Additional activity within the buffer may be approved with a site-specific prescription, outside of the bird breeding period or when the nest site does not have an active nest. For example:

- Installation of a transmission line pole within the buffer
- Removal or further stubbing of individual trees within the buffer
- The bird breeding window starts mid-April, and the cavities will need to be checked, as per regular pre-clearing mitigations, for nesting activity no later than April 15th. Exact timing of nest surveys should be coordinated with on-site biologists (Frost/DWB) dependent on spring weather and associated breeding activity.
 - The nest site buffers outlined below (Section 3.1 and 3.2) may need to be increased if a cavity has an active bird nest.

3.1 NEST SITE TH-1205-003 (POLE 231)

- Minimum nest site buffer: 10 m
- Stubbing of trees is allowed within the 10 m buffer, pending the following conditions:
 - Stubbing of trees within the buffer should not fall below 18 m (cavity height), or as specified by the field assessment.
 - No physical alternations, including topping, to the nest tree.

3.2 NEST SITE MR-1512-2 (POLE 554)

- Minimum nest site buffer: 20 m, unless nest tree is assessed for windthrow and approved for cabling/bracing (see below), in which case buffer may be reduced to 10 m.
- The risk of the nest tree falling over due to windthrow at this site is high. A windthrow assessment should be conducted by a qualified forestry technician to inform the appropriate clearing distance and acceptable stubbing distance/height to protect the nest tree.
 - The goal is to prevent indirect loss of the nest tree as a cumulative result of clearing nearby.
 - Indirect loss via windthrow is considered a violation of the Migratory Bird Regulations.
- Bracing and/or cabling of the nest tree may also be used as an alternative to a windthrow assessment to reduce the risk of indirect loss of the tree via windthrow. Considerations for this strategy include:
 - Bracing should occur more than one meter below the nest cavity to minimize visual and structural disturbance to the cavity.
 - Bracing should be completed using the least intrusive methods available (e.g. wrapping the tree is preferable to drilling supports into the trunk).
 - A qualified forestry technician will assess the tree to ensure that bracing is a viable strategy to stabilize the tree and, if suitable, the bracing will be completed by a qualified forestry technician.

- If bracing is deemed as a suitable method to minimize windthrow risk, the buffer may be reduced to 10 m once the nest tree bracing/cabing is completed.
- Stubbing of trees within the 20 m buffer, pending the windthrow assessment or bracing, should observe the following conditions:
 - Stubbing of trees within the buffer should not fall below 24 m (cavity height), or as specified by the field assessment.
 - No physical alternations, including topping, to the nest tree.
- No stubbing within the 20 m buffer of the nest tree is to be carried out until a windthrow assessment is conducted by a qualified forestry technician and stubbing within the buffer is approved, or bracing/cabing is assessed and completed by a qualified forestry technician.

4. REFERENCES

Migratory Birds Convention Act 1994. SC 1994, c. 22

Migratory Birds Regulations 2022. SOR/2022-105

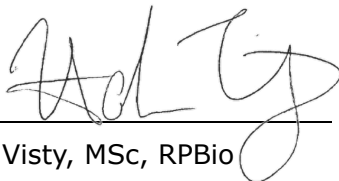
DWB Consulting Services (DWB). 2024. *Memorandum: Pileated Woodpecker (Dryocopus pileatus) Nest Cavities Photo Log*. February 20, 2024.

Government of Canada. 2022. *Registry for Abandoned Nests*. <https://www.permis-permits.ec.gc.ca/en/AbandonedNests> [Accessed March 14 2024]

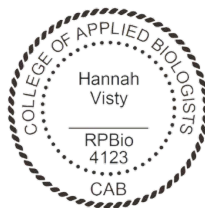
Government of Canada. 2023. *Pileated Woodpecker Cavity Identification Guide*. <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/pileated-woodpecker-cavity-identification-guide.html> [Accessed March 14 2024]

5. SIGNATURE

Please do not hesitate to contact Hannah Visty (hannah.visty@erm.com) should you require clarification or additional information regarding this memo.



Hannah Visty, MSc, RPBio



Senior Wildlife Biologist / Managing Technical Consultant ERM

APPENDIX D INCIDENTAL WILDLIFE DETECTIONS
DURING THE WIDLIFE FIELD SEASON,
JANUARY-MARCH 2024

Appendix D: Incidental Wildlife Detections during the Wildlife Field Season, January - March, 2024

Survey Type	Site ID	Date	Easting	Northing	Species Common Name	Group	Observation or Sign	Total Detected/ Observed	Signs Observed
Aerial Snow Track	2	2024-03-07	379234	5912680	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	374709	5907666	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	373614	5907664	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	372246	5907670	Wolf	Mammal	Sign	2	Tracks
Aerial Snow Track	7	2024-03-07	371441	5907693	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	368474	5907733	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	8	2024-03-07	367165	5906770	Wolf	Mammal	Sign	3	Tracks
Aerial Snow Track	8	2024-03-07	368274	5906747	Wolf	Mammal	Sign	5	Tracks
Aerial Snow Track	8	2024-03-07	369843	5906694	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	8	2024-03-07	370650	5906709	Lynx	Mammal	Sign	2	Tracks
Aerial Snow Track	8	2024-03-07	370916	5906713	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	8	2024-03-07	372042	5906718	Lynx	Mammal	Sign	2	Tracks
Aerial Snow Track	8	2024-03-07	372489	5906721	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	8	2024-03-07	374435	5906712	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	8	2024-03-07	375893	5906704	Wolf	Mammal	Sign	2	Tracks
Aerial Snow Track	2	2024-03-07	381043	5912653	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	8	2024-03-07	377858	5906689	Otter	Furbearer	Sign	2	Tracks
Aerial Snow Track	8	2024-03-07	382014	5906662	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	8	2024-03-07	382474	5906642	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	2	2024-03-07	381445	5912642	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	9	2024-03-07	381227	5905631	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	9	2024-03-07	379986	5905652	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	9	2024-03-07	376074	5905695	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	9	2024-03-07	652371	5906496	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	9	2024-03-07	372350	5905729	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	371558	5904761	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	371983	5904744	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	2	2024-03-07	382458	5912620	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	372825	5904708	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	373401	5904701	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	373757	5904684	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	373946	5904673	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	374232	5904656	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	377484	5904637	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	377745	5904643	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	379620	5904647	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	380364	5904642	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	381925	5904656	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	382497	5904643	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	10	2024-03-07	386528	5904668	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	11	2024-03-07	381548	5903596	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	11	2024-03-07	375014	5903662	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	3	2024-03-07	382523	5911545	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	12	2024-03-07	368985	5902762	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	12	2024-03-07	380986	5902725	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	3	2024-03-07	382043	5911541	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	12	2024-03-07	383301	5902648	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	12	2024-03-07	383525	5902649	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	12	2024-03-07	386510	5902632	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	12	2024-03-07	387316	5902635	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	13	2024-03-07	385509	5901658	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	13	2024-03-07	383061	5901644	Fox	Mammal	Sign	1	Tracks

Survey Type	Site ID	Date	Easting	Northing	Species Common Name	Group	Observation or Sign	Total Detected/ Observed	Signs Observed
Aerial Snow Track	13	2024-03-07	383061	5901644	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	13	2024-03-07	371888	5901658	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	13	2024-03-07	367552	5901441	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	3	2024-03-07	378091	5911590	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	14	2024-03-07	380877	5900607	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	3	2024-03-07	375788	5911656	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	15	2024-03-07	380321	5899716	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	15	2024-03-07	376834	5899740	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	3	2024-03-07	375217	5911650	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	15	2024-03-07	374649	5899773	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	15	2024-03-07	368877	5899613	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	15	2024-03-07	367508	5899562	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	15	2024-03-07	364957	5899547	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	3	2024-03-07	374240	5911662	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	16	2024-03-07	366327	5898682	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	16	2024-03-07	366779	5898663	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	16	2024-03-07	369988	5898660	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	3	2024-03-07	372969	5911649	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	16	2024-03-07	384410	5898622	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	16	2024-03-07	386321	5898604	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	16	2024-03-07	386633	5898594	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	386534	5897572	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	386274	5897584	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	384354	5897646	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	383949	5897628	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	382044	5897661	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	380861	5897659	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	376317	5897711	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	375808	5897678	Fox	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	375808	5897678	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	368947	5897614	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	17	2024-03-07	367860	5897584	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	18	2024-03-07	384768	5896715	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	18	2024-03-07	386117	5896632	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	19	2024-03-07	386434	5895724	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	19	2024-03-07	377642	5895683	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	19	2024-03-07	377133	5895717	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	4	2024-03-07	372294	5910627	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	19	2024-03-07	375047	5895740	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	19	2024-03-07	374397	5895688	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	19	2024-03-07	373781	5895654	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	19	2024-03-07	367618	5895620	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	4	2024-03-07	372827	5910626	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	20	2024-03-07	367557	5894602	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	20	2024-03-07	368276	5894599	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	20	2024-03-07	368783	5894584	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	20	2024-03-07	369728	5894543	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	20	2024-03-07	375399	5894697	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	20	2024-03-07	376571	5894694	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	20	2024-03-07	384761	5894650	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	20	2024-03-07	386773	5894612	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	21	2024-03-07	386922	5893544	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	21	2024-03-07	385516	5893644	Lynx	Mammal	Sign	1	Tracks

Survey Type	Site ID	Date	Easting	Northing	Species Common Name	Group	Observation or Sign	Total Detected/ Observed	Signs Observed
Aerial Snow Track	21	2024-03-07	380109	5893704	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	4	2024-03-07	379327	5910689	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	22	2024-03-07	364249	5892699	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	22	2024-03-07	367185	5892619	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	22	2024-03-07	372100	5892603	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	22	2024-03-07	375405	5892576	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	22	2024-03-07	378214	5892638	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	22	2024-03-07	381844	5892707	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	4	2024-03-07	379939	5910715	Lynx	Mammal	Sign	2	Tracks
Aerial Snow Track	23	2024-03-07	384698	5891612	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	23	2024-03-07	384255	5891623	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	23	2024-03-07	380704	5891665	Lynx	Mammal	Sign	2	Tracks
Aerial Snow Track	23	2024-03-07	378103	5891685	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	23	2024-03-07	368806	5891678	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	24	2024-03-07	368035	5890617	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	24	2024-03-07	371594	5890526	Lynx	Mammal	Sign	2	Tracks
Aerial Snow Track	24	2024-03-07	371853	5890517	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	24	2024-03-07	376090	5890594	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	24	2024-03-07	378666	5890571	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	24	2024-03-07	382018	5890544	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	4	2024-03-07	380735	5910717	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	25	2024-03-07	381686	5889630	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	25	2024-03-07	371460	5889624	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	4	2024-03-07	381616	5910696	Coyote	Mammal	Sign	2	Tracks
Aerial Snow Track	27	2024-03-07	382520	5887651	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	27	2024-03-07	373009	5887637	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	27	2024-03-07	368566	5887636	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	1	2024-03-07	379204	5913600	Coyote	Mammal	Sign	2	Tracks
Aerial Snow Track	4	2024-03-07	382470	5910705	Coyote	Mammal	Sign	2	Tracks
Aerial Snow Track	28	2024-03-07	368378	5886663	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	28	2024-03-07	368874	5886619	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	28	2024-03-07	370286	5886609	Lynx	Mammal	Sign	2	Tracks
Aerial Snow Track	28	2024-03-07	380002	5886638	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	4	2024-03-07	383332	5910689	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	28	2024-03-07	380222	5886636	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	28	2024-03-07	381974	5886581	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	29	2024-03-07	380189	5885571	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	29	2024-03-07	377781	5885629	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	29	2024-03-07	370102	5885672	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	30	2024-03-07	374067	5884517	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	30	2024-03-07	375084	5884592	Lynx	Mammal	Sign	2	Tracks
Aerial Snow Track	30	2024-03-07	377192	5884596	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	30	2024-03-07	377492	5884608	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	30	2024-03-07	378867	5884604	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	384991	5910649	Coyote	Mammal	Sign	2	Tracks
Aerial Snow Track	5	2024-03-07	383473	5909583	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	383312	5909591	Coyote	Mammal	Sign	2	Tracks
Aerial Snow Track	5	2024-03-07	381524	5909595	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	380759	5909592	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	380759	5909592	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	380170	5909597	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	379391	5909608	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	377216	5909637	Lynx	Mammal	Sign	1	Tracks

Survey Type	Site ID	Date	Easting	Northing	Species Common Name	Group	Observation or Sign	Total Detected/ Observed	Signs Observed
Aerial Snow Track	5	2024-03-07	376106	5909662	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	375843	5909660	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	375843	5909660	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	375074	5909640	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	374630	5909651	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	374247	5909647	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	373634	5909651	Coyote	Mammal	Sign	2	Tracks
Aerial Snow Track	5	2024-03-07	373349	5909631	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	370510	5909656	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	5	2024-03-07	368769	5909601	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	368959	5908780	Wolf	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	369180	5908738	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	371097	5908706	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	371097	5908706	Wolf	Mammal	Sign	4	Tracks
Aerial Snow Track	6	2024-03-07	371595	5908691	Wolf	Mammal	Sign	4	Tracks
Aerial Snow Track	6	2024-03-07	373612	5908668	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	374187	5908667	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	2	2024-03-07	377035	5912753	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	374985	5908672	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	375853	5908675	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	376403	5908664	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	377856	5908622	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	378724	5908626	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	6	2024-03-07	385093	5908924	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	385917	5907490	Coyote	Mammal	Sign	3	Tracks
Aerial Snow Track	2	2024-03-07	377886	5912744	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	384147	5907088	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	383740	5907379	Otter	Furbearer	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	381925	5907516	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	378622	5907620	Coyote	Mammal	Sign	1	Tracks
Aerial Snow Track	7	2024-03-07	377141	5907665	Lynx	Mammal	Sign	1	Tracks
Aerial Snow Track	-	2024-03-07	365978	5888697	Moose	Mammal	Observation	1	-

APPENDIX E

BLACKWATER WILDLIFE SIGHTING LOG,
JANUARY-MARCH 2024

Appendix E: Blackwater Wildlife Sighting Log, January - March, 2024

Date	Time	Department	Species Observed	Group	Total Detected/ Observed	Observation or Sign	Gender of Species Observed	Age of Animal(s)	Health of Animal	Behaviour	Location	Comments
2024-01-28	14:45:00	Environment	American Dipper	Upland Bird	1	Observation	Unknown	Adult	Healthy	Foraging at streamside.	DCDS Pipeline Outflow	
2024-02-02	03:00:00	Marmac	Canada Lynx	Mammal	1	Observation	Unknown	Juvenile	Healthy	Crossed road around 3 am in front of my sand truck.	4 km marker on Davidson Road	-
2024-02-13	08:15:00	Environment	Common Raven	Raptor	1	Observation	Unknown	Adult	Dead	Raven found dead near G dorm.	G Dorm	Unsure cause of death.
2024-02-15	08:30:00	HSE	Muskrat	Mammal	1	Observation	Unknown	Unknown	Healthy	Foraging	Scott Steel Erectors Dry Shack	Muskrat and Red Fox observed together.
2024-02-15	08:30:00	HSE	Red Fox	Mammal	1	Observation	Unknown	Unknown	Healthy	Foraging	Scott Steel Erectors Dry Shack	Muskrat and Red Fox observed together.
2024-03-03	08:00:00	Geology	Unspecified Furbearer	Mammal	1	Sign - Tracks	-	-	-	-	TSF ends of ctrail offshoot road	-
2024-03-28	17:40:00	EPC	Bobcat	Mammal	1	Observation	Unknown	Unknown	Healthy	Normal	Kluskus km 131	-
2024-04-08	05:45:00	HSE	Red Fox	Mammal	1	Observation	Unknown	Adult	Healthy	Walking (true east) along the perimeter road (the one off the plant site). Possible hunting.	Fuel pumps close to Plant site	I've seen tracks that appeared to be

APPENDIX F

BLACKWATER WILDLIFE INCIDENTS,
JANUARY-MARCH 2024

Appendix F: Blackwater Wildlife Incidents January - March, 2024

Date	Time	Location	Description	Actions Taken
2024-03-10	10:00:00	19.5 KM Kluskus	Driver with Donver truck hit cow moose, resulting in slight damage to truck and fatality of animal.	Ensured truck was operational. Reported to Security at arrival to site. May 26 - MOF notified of moose collision and fatality.



DATE
28 June 2024

REFERENCE
0722163-02-002

APPENDIX G UNGULATE AERIAL WINTER TRACK
SURVEY TRANSECT DATA 2024

Appendix G: Ungulate Aerial Winter Track Survey Transect Data, 2024

Date	Transect ID	Easting	Northing	Easting	Northing	Observers
2024-03-07	1	381742	5913593	376607.389	5913591.174	DR, MS
2024-03-07	2	374617	5912923	383211	5912594	DR, MS
2024-03-07	3	384719	5911684	372031	5911631	DR, MS
2024-03-07	4	369936	5910750	385992	5910649	DR, MS
2024-03-07	5	386052	5909579	368769	5909601	DR, MS
2024-03-07	6	367834	5908745	386345	5908656	DR, MS
2024-03-07	7	386773	5907580	367277	5907608	DR, MS
2024-03-07	8	367165	5906770	385727	5906595	DR, MS
2024-03-07	9	377859	5906689	366476	5905820	DR, MS
2024-03-07	10	366643	5904854	387262	5904666	DR, MS
2024-03-07	11	387301	5903634	366124	5903523	DR, MS
2024-03-07	12	365959	5902927	387317	5902635	DR, MS
2024-03-07	13	387330	5901627	365511	5901612	DR, MS
2024-03-07	14	365737	15900724	387650	5900486	DR, MS
2024-03-07	15	387195	5899395	368322	5899593	DR, MS
2024-03-07	16	365234	5898691	386811	5898593	DR, MS
2024-03-07	17	386953	5897576	363971	5897604	DR, MS
2024-03-07	18	364050	5896735	387175	5896651	DR, MS
2024-03-07	19	386891	5895731	363761	5895629	DR, MS
2024-03-07	20	363631	5894679	387101	5894580	DR, MS
2024-03-07	21	386923	5893544	363562	5893614	DR, MS
2024-03-07	22	363597	5892712	378103	5891685	DR, MS
2024-03-07	23	386113	5891570	364228	5891633	DR, MS
2024-03-07	24	364627	5890775	385340	5890504	DR, MS
2024-03-07	25	384470	5889477	365746	5889643	DR, MS
2024-03-07	26	366210	5888691	383423	5888619	DR, MS
2024-03-07	27	382852	5887495	367019	5887638	DR, MS
2024-03-07	28	368199	5886673	381974	5886581	DR, MS
2024-03-07	29	380682	5885524	369412	5885666	DR, MS
2024-03-07	30	371374	5884534	379181	5884633	DR, MS



DATE
28 June 2024

REFERENCE
0722163-02-002

APPENDIX H UNGULATE AERIAL WINGTER TRACK
SURVEY OBSERVATIONS 2024

Appendix H: Ungulate Aerial Winter Track Survey Observations, 2024

Transect	Waypoint	Easting	Northing	Species	Observation /Sign	Sign Type	Total	Signage	Comments
1	T3	381445	5912642	Moose	Sign	Tracks	1	Old	-
1	T5	377426	5913580	Moose	Sign	Tracks	1	Old	-
1	T5	377426	5913580	Unspecified Deer	Sign	Tracks	1	New	Whole bunch in this opening
1	T6	376607	5913591	Unspecified Deer	Sign	Tracks	5	New	Whole bunch in this opening
2	T11	380562	5912673	Moose	Sign	Tracks	1	Old	-
2	T14	381771	5912634	Moose	Sign	Tracks	1	New	-
2	T15	382458	5912620	Moose	Sign	Tracks	1	Old	-
3	T18	383418	5911546	Unspecified Deer	Sign	Tracks	2	New	-
3	T21	380521	5911550	Moose	Sign	Tracks	2	Old	-
3	T21	380521	5911550	Unspecified Deer	Sign	Tracks	1	New	-
3	T22	378655	5911583	Moose	Sign	Tracks	1	Old	-
4	T30	371105	5910644	Moose	Sign	Tracks	1	Old	-
4	T33	374127	5910657	Moose	Sign	Tracks	1	Old	-
4	T36	380228	5910720	Unspecified Deer	Sign	Tracks	1	New	-
4	T39	382051	5910694	Unspecified Deer	Sign	Tracks	1	New	-
4	T42	383930	5910682	Unspecified Deer	Sign	Tracks	1	Old	-
4	T42	383930	5910682	Unspecified Deer	Sign	Tracks	2	New	-
4	T43	384789	5910657	Unspecified Deer	Sign	Tracks	1	New	-
5	T45	386052	5909579	Unspecified Deer	Sign	Tracks	2	New	-
5	T54	378016	5909630	Moose	Sign	Tracks	1	Old	-
5	T56	376540	5909656	Unspecified Deer	Sign	Tracks	2	New	-
5	T64	372601	5909616	Moose	Sign	Tracks	1	New	-
5	T65	372240	5909615	Moose	Sign	Tracks	4	New	-
5	T66	371118	5909650	Moose	Sign	Tracks	4	New	-
5	T67	370803	5909647	Moose	Sign	Bed	1	New	-
5	T67	370803	5909647	Moose	Sign	Tracks	4	New	-
5	T69	370217	5909667	Moose	Sign	Tracks	4	New	-
5	T70	368769	5909601	Moose	Sign	Tracks	1	New	-
6	T72	368296	5908781	Moose	Sign	Tracks	1	Old	-
6	T73	368643	5908804	Moose	Sign	Tracks	1	Old	-
6	T85	384247	5909396	Moose	Sign	Tracks	1	New	-
6	T86	385093	5908924	Unspecified Deer	Sign	Tracks	4	New	-
7	T92	382736	5907481	Moose	Sign	Tracks	1	New	-
7	T93	382364	5907483	Unspecified Deer	Sign	Tracks	2	New	-
7	T95	381467	5907554	Unspecified Deer	Sign	Tracks	2	New	-
7	T96	380413	5907543	Moose	Sign	Tracks	1	New	-
7	T99	375925	5907684	Moose	Sign	Tracks	2	New	-
7	T102	373458	5907664	Moose	Sign	Tracks	2	New	-
7	T103	372246	5907670	Moose	Sign	Tracks	2	New	-
7	T105	370927	5907696	Moose	Sign	Tracks	1	Old	-
7	T106	370066	5907720	Moose	Sign	Tracks	2	Old	-
8	T110	368274	5906747	Moose	Sign	Tracks	1	Old	-
8	T116	372906	5906729	Moose	Sign	Tracks	1	Old	-
8	T118	375893	5906704	Moose	Sign	Tracks	4	New	-
8	T119	377453	5906687	Moose	Sign	Tracks	2	New	-
8	T121	380277	5906676	Moose	Sign	Tracks	2	New	-
8	T124	383548	5906630	Moose	Sign	Tracks	4	Old	-
8	T126	384740	5906611	Moose	Sign	Tracks	4	New	-
8	T127	385726	5906595	Moose	Sign	Tracks	2	New	On Lake
9	T129	386140	5905577	Moose	Sign	Tracks	1	New	-
9	T130	385489	5905602	Moose	Sign	Tracks	2	New	-
9	T132	384676	5905585	Moose	Sign	Tracks	4	New	-
9	T133	384271	5905592	Moose	Sign	Tracks	1	New	-
9	T134	382486	5905592	Moose	Sign	Tracks	1	New	-
9	T136	381096	5905633	Moose	Sign	Tracks	4	New	-
9	T136	381096	5905633	Moose	Sign	Bed	1	New	-
9	T139	652371	5906496	Moose	Sign	Tracks	1	New	-
9	T141	371425	5905744	Moose	Sign	Tracks	1	Old	-
9	T142	369419	5905779	Moose	Sign	Tracks	3	Old	-
9	T143	367388	5905795	Moose	Sign	Tracks	1	Old	-
10	T146	366802	5904854	Moose	Sign	Tracks	2	New	-
10	T147	370661	5904727	Moose	Sign	Tracks	4	New	-
10	T157	379147	5904634	Moose	Sign	Tracks	1	Old	-
10	T160	381249	5904626	Moose	Sign	Tracks	1	New	-
10	T163	383526	5904649	Moose	Sign	Tracks	2	Old	-
10	T164	383841	5904639	Moose	Sign	Tracks	2	New	-
10	T165	384053	5904641	Unspecified Deer	Sign	Tracks	1	Old	-
10	T166	384761	5904638	Moose	Sign	Tracks	2	Old	-
10	T167	385303	5904645	Moose	Sign	Tracks	1	New	-
10	T168	385595	5904647	Moose	Sign	Tracks	2	New	-

Transect	Waypoint	Easting	Northing	Species	Observation/Sign	Sign Type	Total	Signage	Comments
10	T170	386902	5904678	Moose	Sign	Tracks	1	Old	-
11	T172	387300	5903634	Moose	Sign	Tracks	1	New	-
11	T173	386721	5903567	Moose	Sign	Tracks	1	Old	-
11	T174	386248	5903587	Moose	Sign	Tracks	1	Old	-
11	T175	385601	5903571	Moose	Sign	Tracks	2	New	-
11	T176	384823	5903563	Moose	Sign	Tracks	1	New	-
11	T177	384487	5903568	Moose	Sign	Tracks	1	Old	-
11	T178	384179	5903566	Moose	Sign	Tracks	1	Old	-
11	T179	383372	5903576	Unspecified Deer	Sign	Tracks	2	New	-
11	T180	382421	5903569	Moose	Sign	Tracks	1	Old	-
11	T182	380802	5903622	Moose	Sign	Tracks	3	New	-
11	T183	377712	5903663	Moose	Sign	Tracks	1	New	-
11	T184	375785	5903666	Moose	Sign	Tracks	1	Old	-
11	T186	373170	5903654	Moose	Sign	Tracks	1	New	-
11	T187	368344	5903720	Goat	Sign	Tracks	1	New	-
12	T191	369620	5902826	Moose	Sign	Tracks	3	New	-
12	T192	370589	5902812	Moose	Sign	Tracks	1	Old	-
12	T193	372827	5902718	Moose	Sign	Tracks	3	Old	-
12	T194	373277	5902738	Moose	Sign	Tracks	1	New	-
12	T195	374105	5902746	Moose	Sign	Tracks	2	Old	-
12	T196	375009	5902711	Moose	Sign	Tracks	1	Old	-
12	T197	379336	5902689	Moose	Sign	Tracks	3	New	-
12	T198	380301	5902709	Moose	Sign	Tracks	2	New	-
12	T199	380986	5902725	Moose	Sign	Tracks	2	New	-
12	T200	381815	5902721	Moose	Sign	Tracks	3	New	-
12	T202	383525	5902649	Moose	Sign	Tracks	1	Old	-
12	T203	385816	5902627	Moose	Sign	Tracks	1	Old	-
12	T205	386875	5902629	Moose	Sign	Tracks	1	Old	-
13	T210	381550	5901656	Moose	Sign	Tracks	3	New	-
13	T211	381316	5901661	Moose	Sign	Tracks	1	Old	-
13	T212	378832	5901628	Moose	Sign	Tracks	1	New	-
13	T213	373464	5901655	Moose	Sign	Tracks	3	New	-
13	T215	370201	5901607	Moose	Sign	Tracks	1	New	With observation
13	T216	368678	5901347	Goat	Sign	Tracks	1	New	A little farther East
13	T217	368195	5901404	Moose	Sign	Tracks	1	New	-
13	T218	368064	5901416	Moose	Sign	Tracks	1	Old	-
13	T220	366058	5901540	Moose	Sign	Tracks	1	Old	Very Old
14	T223	367757	5900722	Moose	Sign	Tracks	2	Old	-
14	T224	368381	5900712	Moose	Sign	Tracks	2	Old	-
14	T225	369497	5900697	Moose	Sign	Tracks	1	Old	-
14	T226	373596	5900686	Moose	Sign	Tracks	1	Old	-
14	T227	375914	5900663	Moose	Sign	Tracks	2	Old	-
14	T228	377458	5900686	Moose	Sign	Tracks	1	Old	-
14	T229	378054	5900675	Moose	Sign	Tracks	1	Old	-
14	T230	378463	5900662	Moose	Sign	Tracks	2	Old	-
14	T231	379272	5900639	Moose	Sign	Tracks	2	Old	-
14	T232	380427	5900620	Moose	Sign	Tracks	1	New	-
14	T234	381539	5900606	Unspecified Deer	Sign	Tracks	1	Old	-
14	T235	384362	5900618	Moose	Sign	Tracks	2	New	-
15	T238	385713	5899568	Moose	Sign	Tracks	1	New	-
15	T239	384056	5899624	Moose	Sign	Tracks	1	New	-
15	T240	382981	5899658	Moose	Sign	Tracks	3	New	-
15	T241	382215	5899675	Moose	Sign	Tracks	1	New	-
15	T242	381786	5899685	Moose	Sign	Tracks	1	New	-
15	T244	379607	5899707	Moose	Sign	Tracks	1	Old	-
15	T245	378910	5899705	Moose	Sign	Tracks	2	New	-
15	T246	377693	5899722	Moose	Sign	Tracks	1	Old	-
15	T247	377430	5899731	Moose	Sign	Tracks	2	New	-
15	T248	377129	5899734	Moose	Sign	Tracks	1	Old	-
15	T251	373693	5899726	Moose	Sign	Tracks	1	New	-
15	T252	373038	5899728	Moose	Sign	Tracks	1	New	-
15	T254	368321	5899593	Moose	Sign	Tracks	1	New	-
15	T255	367825	5899573	Moose	Sign	Tracks	2	New	-
15	T257	367335	5899555	Moose	Sign	Tracks	2	New	-
15	T258	366629	5899538	Moose	Sign	Tracks	1	Old	-
16	T261	365836	5898664	Moose	Sign	Tracks	2	Old	-
16	T263	366779	5898663	Moose	Sign	Tracks	2	New	-
16	T265	373767	5898696	Moose	Sign	Tracks	2	New	-
16	T266	377538	5898709	Moose	Sign	Tracks	1	Old	-
16	T267	380426	5898633	Moose	Sign	Tracks	1	Old	-
16	T268	380866	5898632	Moose	Sign	Tracks	1	Old	-

Transect	Waypoint	Easting	Northing	Species	Observation/Sign	Sign Type	Total	Signage	Comments
16	T269	381309	5898624	Moose	Sign	Tracks	2	Old	-
17	T277	385547	5897607	Moose	Sign	Tracks	1	Old	-
17	T279	383949	5897628	Moose	Sign	Tracks	2	Old	-
17	T280	383604	5897633	Moose	Sign	Tracks	4	New	-
17	T281	383223	5897648	Moose	Sign	Tracks	1	New	-
17	T283	381509	5897668	Moose	Sign	Tracks	1	Old	-
17	T285	380468	5897666	Moose	Sign	Tracks	1	Old	-
17	T289	370900	5897714	Moose	Sign	Tracks	1	New	Through edge of burn
17	T290	369831	5897666	Moose	Sign	Tracks	1	New	-
17	T293	367113	5897617	Moose	Sign	Tracks	1	Old	-
17	T294	366803	5897620	Moose	Sign	Tracks	1	Old	-
18	T296	364050	5896735	Moose	Sign	Tracks	2	New	-
18	T297	365358	5896674	Moose	Sign	Tracks	1	New	-
18	T298	366766	5896670	Moose	Sign	Tracks	1	Old	-
18	T299	383445	5896711	Moose	Sign	Tracks	1	New	-
18	T302	386526	5896624	Moose	Sign	Tracks	1	New	-
19	T306	378095	5895684	Moose	Sign	Tracks	3	New	-
19	T309	376771	5895724	Moose	Sign	Tracks	2	New	-
19	T310	376140	5895747	Moose	Sign	Tracks	3	New	-
19	T315	365140	5895658	Moose	Sign	Tracks	1	New	-
19	T316	364545	5895621	Moose	Sign	Tracks	1	New	-
20	T319	364015	5894702	Moose	Sign	Tracks	2	Old	-
20	T320	364395	5894717	Moose	Sign	Tracks	1	New	-
20	T327	377077	5894669	Moose	Sign	Tracks	2	New	-
20	T328	381761	5894695	Moose	Sign	Tracks	4	New	-
20	T329	381984	5894699	Moose	Sign	Tracks	1	New	-
21	T335	386263	5893628	Moose	Sign	Tracks	2	Old	-
21	T337	384948	5893673	Moose	Sign	Tracks	1	New	-
21	T338	380375	5893711	Moose	Sign	Tracks	1	New	-
21	T340	364972	5893605	Moose	Sign	Tracks	1	Old	-
22	T349	384205	5892634	Moose	Sign	Tracks	1	Old	-
22	T350	386199	5892614	Moose	Sign	Tracks	1	Old	-
23	T355	382492	5891640	Moose	Sign	Tracks	2	New	-
24	T361	364836	5890741	Moose	Sign	Tracks	1	New	-
24	T367	378852	5890568	Moose	Sign	Tracks	2	New	-
24	T368	380304	5890547	Moose	Sign	Tracks	2	New	-
25	T373	377731	5889670	Moose	Sign	Tracks	1	New	-
25	T375	367052	5889699	Moose	Sign	Tracks	1	New	-
25	T376	365745	5889643	Moose	Sign	Tracks	1	New	-
26	T380	370544	5888607	Moose	Sign	Tracks	1	New	-
26	T381	377318	5888624	Moose	Sign	Tracks	1	Old	-
26	T382	377970	5888613	Moose	Sign	Tracks	1	Old	-
26	T383	378265	5888604	Moose	Sign	Tracks	1	Old	-
26	T384	378653	5888593	Moose	Sign	Tracks	1	Old	-
26	T385	380684	5888608	Moose	Sign	Tracks	1	Old	-
26	T386	381785	5888604	Moose	Sign	Tracks	3	Old	-
27	T391	378395	5887630	Moose	Sign	Tracks	1	Old	-
27	T393	371487	5887607	Moose	Sign	Tracks	1	New	-
27	T394	371121	5887615	Moose	Sign	Tracks	1	Old	-
27	T395	370855	5887623	Moose	Sign	Tracks	1	Old	-
27	T396	369611	5887622	Moose	Sign	Tracks	1	New	-
27	T397	368566	5887636	Moose	Sign	Tracks	1	Old	-
27	T398	367019	5887638	Moose	Sign	Tracks	1	Old	-
28	T402	369076	5886614	Moose	Sign	Tracks	1	Old	-
28	T403	369988	5886613	Moose	Sign	Tracks	2	New	-
28	T403	369988	5886613	Moose	Sign	Tracks	2	Old	-
28	T405	371590	5886604	Moose	Sign	Tracks	1	New	-
28	T406	374458	5886581	Goat	Sign	Tracks	6	New	-
28	T407	377366	5886595	Moose	Sign	Tracks	1	Old	-
28	T408	378951	5886603	Moose	Sign	Tracks	1	New	-
29	T414	379614	5885613	Moose	Sign	Tracks	1	Old	-
29	T415	379324	5885625	Moose	Sign	Tracks	1	Old	-
29	T417	372573	5885651	Moose	Sign	Tracks	2	Old	-
29	T418	371872	5885644	Moose	Sign	Tracks	2	New	-
29	T419	371649	5885649	Moose	Sign	Tracks	3	New	-
29	T420	371111	5885656	Moose	Sign	Tracks	1	Old	-
30	T424	371612	5884502	Moose	Sign	Tracks	1	Old	-
30	T425	371828	5884532	Moose	Sign	Tracks	1	Old	-
30	T426	372406	5884511	Moose	Sign	Tracks	2	Old	-
30	T427	372665	5884526	Moose	Sign	Tracks	2	New	-
8	T125	384053	5906632	Moose	Observation	-	1	-	-

Transect	Waypoint	Easting	Northing	Species	Observation/Sign	Sign Type	Total	Signage	Comments
9	T131	385005	5905580	Moose	Observation	-	1	-	-
13	T215	370201	5901607	Moose	Observation	-	1	-	-
15	T251	373693	5899726	Moose	Observation	-	1	-	-
25	T373	377731	5889670	Moose	Observation	-	1	-	-
5	T65	372240	5909615	Moose	Observation	-	2	-	-