Animal Trapping Report: Bioavailability of Arsenic in Yellowknife, NWT

Prepared by

Environmental Sciences Group
Royal Military College
Kingston, Ontario

November 2000
RMC-CCS-CE-00-21

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ACKNOWLEDGEMENTS

Trapping of small and large mammals in the Yellowknife, NWT area was conducted in September, 2000 to provide information to satisfy several Toxic Substances Research Initiative (TSRI) objectives. All trapping and associated activities summarized in this report were performed by the Environmental Sciences Group (ESG) at the Royal Military College of Canada, directed by Dr. Ken Reimer.

We are grateful to the Miramar Con and Giant Mine, Ltds. for unlimited access to both properties during our trapping program. We would like to thank Michael Borden, Environmental Coordinator, Miramar Con Mine, Ltd. for his mining expertise and intimate site knowledge, which he provided tirelessly throughout our work. A similar thanks goes to Ron Connell, Environmental Coordinator, Miramar Giant Mine, Ltd. for his advice and the aid provided in ensuring our work ran smoothly.

We would like to thank Stephen Harbicht, as well as the rest of the Environment Canada, Yellowknife Office, for providing exceptional logistical support and laboratory space during our fieldwork. Thanks again to Bill Coedy, Head of Laboratory Services of DIAND, for his continued patience in accommodating us at the Water Resources Lab. We also extend thanks to Bill Erasmus, National Chief of the Dene First Nation; Richard Edjericon, Chief of the community of Dettah; Peter Liske, Chief of the community of Ndilo; and Bob Turner, Chief of the North Slave Métis Alliance, for permission to conduct our study. Our utmost thanks also go to Allison Armstrong, Dene First Nation, whose actions helped to facilitate much of the work accomplished in Yellowknife, during the 2000 field season. Finally, we would like to thank Dr. Brett Elkin and Dr. Suzanne Carrière of RWED, Government of the NWT for their knowledge of and help with small mammal trapping and for their aid in expediting the permit approval process.

The fieldwork was led by Dr. Iris Koch, ESG, with assistance from Christopher Hough and Christopher Ollson. We would like to thank the shipping and purchasing, and logistics teams, Doug Noonan, Roy Adamson, Kaitryn Campbell and Saskia Harvey for their support during our fieldwork.

Christopher Hough authored this report, with support from Christopher Ollson and Dr. Iris Koch. Thanks again to Christopher Ollson for graphics support and Deborah Reimer for overseeing project financial support.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS i
TABLE OF CONTENTS ii
LIST OF TABLES iv
LIST OF MAPS v
LIST OF PHOTOGRAPHS vi
1.0 BACKGROUND 1
2.0 REPORT OBJECTIVES 3
3.0 TRAPPING METHODS 3
3.1 DAILY WEATHER 9
3.2 HABITAT SUMMARIES 10
3.2.1 CON AND NEGUS MINE TRAPPING LOCATIONS 10
3.2.1.1 Negus Tailings (N prefix) 12
3.2.1.2 Taylor Dam (TD prefix) 15
3.2.1.3 North Middle Pud Tailings (NM prefix) 17
3.2.1.4 Middle West Pud Tailings (MW prefix) 19
3.2.1.5 Upper West Pud Tailings (UW prefix) 21
3.2.1.6 Water Discharge (WD prefix) 23
3.2.2 GIANT MINE TRAPPING LOCATIONS 25
3.2.2.1 North Giant Tailings (NG prefix) 25
3.2.2.2 Central Giant Tailings (CG prefix) 28
3.2.2.3 South Giant Tailings (SG prefix) 30
3.2.2.4 Northwest Giant Tailings (NWG prefix) 32
3.2.3 BACKGROUND TRAPPING LOCATIONS 34
3.2.3.1 Background Area One (B1 prefix) 34
3.2.3.2 Background Area Two (B2 prefix) 37
3.2.4 SNARING/TRAPPING LOCATIONS (ST prefix) 38
4.0 RESULTS AND DISCUSSION 40
4.1 NEGUS (N prefix) 40
4.2 TAYLOR DAM (TD prefix) 40
4.3 NORTH MIDDLE PUD (NM prefix) 40
4.4 UPPER WEST PUD (UW prefix) 40
4.5 MIDDLE WEST PUD (MW prefix) 41
4.6 WATER DISCHARGE (WD prefix) 41
4.7 NORTH GIANT (NG prefix) 41
4.8 CENTRAL GIANT (CG prefix) 41
4.9 SOUTH GIANT (SG prefix) 41
4.10 NORTHWEST GIANT (NWG prefix) 41
4.11 BACKGROUND AREA ONE (B1 prefix) 41
4.12 OVERALL SMALL MAMMAL TRAPPING 42
4.13 SNARING/TRAPPING LOCATIONS (ST prefix) 42
5.0 FUTURE WORK 42
6.0 REFERENCES 43
7.0 APPENDICES 44
APPENDIX A – TRAPPING RESULTS BY AREA 44

APPENDIX B – SPECIMEN DESCRIPTIONS 57

LIST OF TABLES

Table 1. Daily Trapping Weather 9
Table 2. Daily trapping results for Negus (N) trapping area 44
Table 3. Daily trapping results for Taylor Dam (TD) trapping area 45
Table 4. Daily trapping results for North Middle Pud (NM) trapping area 46
Table 5. Daily trapping results for Upper West Pud (UW) trapping area 47
Table 6. Daily trapping results for Middle West (MW) trapping area 48
Table 7. Daily trapping results for Water Discharge (WD) trapping area 49
Table 8. Daily trapping results for North Giant (NG) trapping area 50
Table 9. Daily trapping results for Central Giant (CG) trapping area 51
Table 10. Daily trapping results for South Giant (SG) trapping area 52
Table 11. Daily trapping results for Northwest Giant (NWG) trapping area 53
Table 12. Daily trapping results for Background (B1) trapping area 54
Table 13. Daily trapping results for Snaring/Trapping (ST) locations 55
Table 14. Summary of overall trapping results by area 56
Table 15. Description of animals collected during Con Mine trapping 57
Table 16. Description of animals collected during Giant Mine trapping 58
Table 17. Description of animals collected during background trapping and large mammal snaring and trapping 59

LIST OF MAPS

Map 1. Location of Yellowknife, NWT 2
Map 2. Small mammal trapping areas on the Miramar Con Mine property are indicated in red 11
Map 3. Small mammal trapping areas on the Miramar Giant mine property are indicated in red and snaring and trapping locations are shown in blue. 26
Map 4. Small mammal background trapping locations south of the city of Yellowknife. Locations are indicated in red. 35

LIST OF PHOTOGRAPHS

Photograph 1. Deer mouse trapped with "Museum Special" snap trap at MW1 4
Photograph 2. Red squirrel trapped with "Victor" snap trap at MW7 5
Photograph 3. Gray Jay (*Perisoreus canadensis* - bycatch) trapped with "Museum Special" snap trap at TD5 5
Photograph 4. Wire snare set up to capture snowshoe hare and red fox 7
Photograph 5. Spruce Grouse (*Dendragapus canadensis* - bycatch) captured using a wire snare 8
Photograph 6. Snowshoe hare captured using a wire snare 8
Photograph 7. Negus Tailings (Trapping Area) 12
Photograph 8. Taylor Dam (Trapping Area) 15
Photograph 9. North Middle Pud Tailings (Trapping Area) 17
Photograph 10. Middle West Pud Tailings (Trapping Area) 19
Photograph 11. Upper West Pud Tailings (Trapping Area) 21
Photograph 12. Water Discharge (Trapping Area) 23
Photograph 13. North Giant Tailings (Trapping Area) 25
Photograph 14. Central Giant Tailings (Trapping Area) 28
Photograph 15. South Giant Tailings (Trapping Area) 30
Photograph 16. Northwest Giant Tailings (Trapping Area) 32
Photograph 17. Background Area One (Trapping Area) 34
Photograph 18. Background Area Two (Trapping Area) with red fox in foreground 37
Photographs 19 and 20. Snaring and Trapping [Trapping Areas – Giant mine (19) and near Dettah (20)] 38

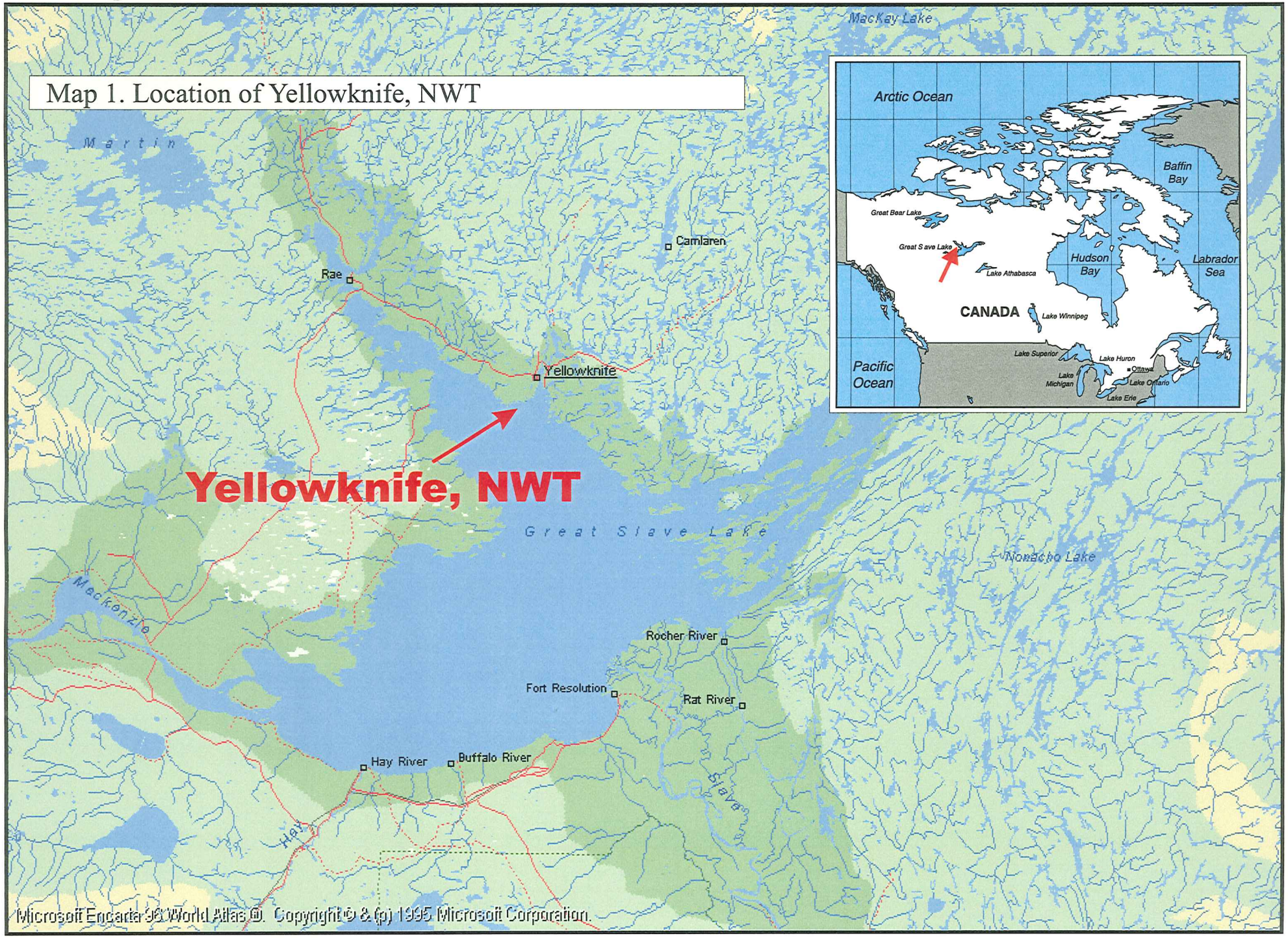
1.0 BACKGROUND

The city of Yellowknife is located on the north shore of Great Slave Lake in the Northwest Territories (Map 1). Yellowknife is host to two active gold mining operations, the Miramar Con and Giant mines, and one inactive operation, the Negus mine. Arsenic, associated with gold bearing refractory ore as arsenopyrite (FeAsS), is generated as mine waste during the gold extraction and refining process. This waste is created as three different waste streams: solid and liquid tailings, treated water effluent and aerial emissions. As a result of over 60 years of mining activity, several large, well characterized waste (or tailings) ponds have been created in the vicinity of the mines.

Previous studies conducted in the Yellowknife area have shown that arsenic is present in soil[1,2], tailings[1,2,3], sediment[1,2,3,4], porewater[1,2,3,4], biota[2,5,6] and water[1,2,3,4] at elevated levels. Elevated arsenic levels in the Con, Giant and old Negus tailings ponds [1,2,3] provided an excellent opportunity to trap and analyze small mammals that reside in these areas.

Numerous small mammal specimens were collected in the Environmental Sciences Group's (ESG) recent September 2000 field trip. The collection of these specimens was done under the Government of the Northwest Territories Department of Resources, Wildlife and Economic Development (GNWT RWED) Wildlife Research Permit WL002782. The small mammals collected will provide information to satisfy one of the research objectives, that being to evaluate changes in arsenic forms in a selected food chain as a tool for assessing ecosystem health. These specimens will ultimately be used, along with plants and soils/tailings also collected, to determine the arsenic species present and their transformation in the terrestrial short food chain of deer mice (*Peromyscus maniculatus*) that live in close proximity to the Con, Giant and Negus mine tailings ponds.

Larger mammals were also collected to satisfy a second research objective. This was to obtain information on arsenic forms (if any) in game present in the Yellowknife area, such as red fox (*Vulpes vulpes*), snowshoe hare (*Lepus americanus*) and muskrat (*Ondatra zeibethicus*). Aid was provided by the Yellowknives Dene First Nation to trap, snare and hunt these animals.


Map 1. Location of Yellowknife, NWT
MacKay Lake
Martin
Camlaren
Rae
Yellowknife
Yellowknife, NWT
Great Slave Lake
Nonacho Lake
Mackenzie
Rocher River
Fort Resolution
Rat River
Hay River
Buffalo River
Arctic Ocean
Baffin Bay
Great Bear Lake
Great Slave Lake
Hudson Bay
Labrador Sea
Lake Athabasca
CANADA
Lake Winnipeg
Pacific Ocean
Lake Superior
Lake Huron
Ottawa
Lake Michigan
Lake Ontario
Lake Erie
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2.0 REPORT OBJECTIVES

This report will summarize the activities associated with small and large mammal trapping that was conducted from September 10 – 22, 2000. Methods, trapping information and results are included in this report for the interest and use of GNWT RWED, the Yellowknife Arsenic Soil Remediation Committee (YASRC) and all other stakeholders. Further information will be disseminated in subsequent reports as analytical results are received.

3.0 TRAPPING METHODS

From literature and based on the advice of GNWT RWED staff, trapping was conducted in a manner consistent with other scientific studies to obtain small mammal specimens (red-backed and meadow voles, deer mice and shrews). Detailed trapping methods were obtained from "Small Mammal Survey in the Northwest Territories and Nunavut, Report 1998"[7] and modified to focus on specific geographical areas which have been shown in previous studies to have elevated levels of arsenic. The majority of these areas were close to mine tailings ponds located at the Miramar Con and Giant mines and the Negus mine. Traps were also laid at a background area to provide small mammals to use as a control for comparative purposes.

The trapping methods used for this study were as follows[7]:

1. Traplines were placed in areas consistent with known small mammal habitats.
2. Traplines were marked with flagging tape, so that trapping can be conducted in the future at the same locations.
3. Trapping locations were a minimum of 15 metres apart and consisted of one to three traps placed at the best location within 3 metres of the station.
4. Detailed habitat summaries were created for all trapping locations, including geographical position.
5. Trapping was done with "Museum Special" and "Victor" snap traps.
6. Bait consisted of peanut butter and rolled oats and was replaced at least every four days.
7. Traps were laid at the Negus and Con mine properties on 9 September 2000 and checked for the following 11 days. Traps were laid at the background area on 13 September 2000 and checked for the following seven days and on the Giant mine property on 15 September 2000 and checked for the following five days.
8. Traps were checked daily within the same two-hour window. Traps at the Negus and Con mine properties, as well as at the background area, were checked between 8:00 AM and 10:00 AM. Traps at the Giant mine property were checked between 1:00 PM and 3:00 PM.
9. Data sheets summarizing daily trapping results were completed daily. Weather was also recorded, as well as any other event of interest.

10. Captured animals were identified by species and placed in ziploc bags. Deer mice and red squirrels (*Tamiasciurus hudsonicus*) were subsequently washed, sexed, weighed, measured and dissected into several tissue types. Birds (bycatches) were only weighed and measured.
11. Lost traps were replaced as necessary to keep the number of traps constant at each trapping location. Additional traps were placed at several locations based on the success of trapping in that area and the number of trap misfires that had occurred (with all bait eaten).
12. Soils/tailings and all vegetation present at successful trapping locations were also sampled to provide information for arsenic bioavailability in the short food chain of deer mice (soil/tailings⇒vegetation⇒deer mice).

The following photographs show the traps in use, with various trapped animals.

Photograph 1. Deer mouse trapped with "Museum Special" snap trap at MW1

Photograph 2. Red squirrel trapped with "Victor" snap trap at MW7

Photograph 3. Gray Jay (*Perisoreus canadensis* - bycatch) trapped with "Museum Special" snap trap at TD5

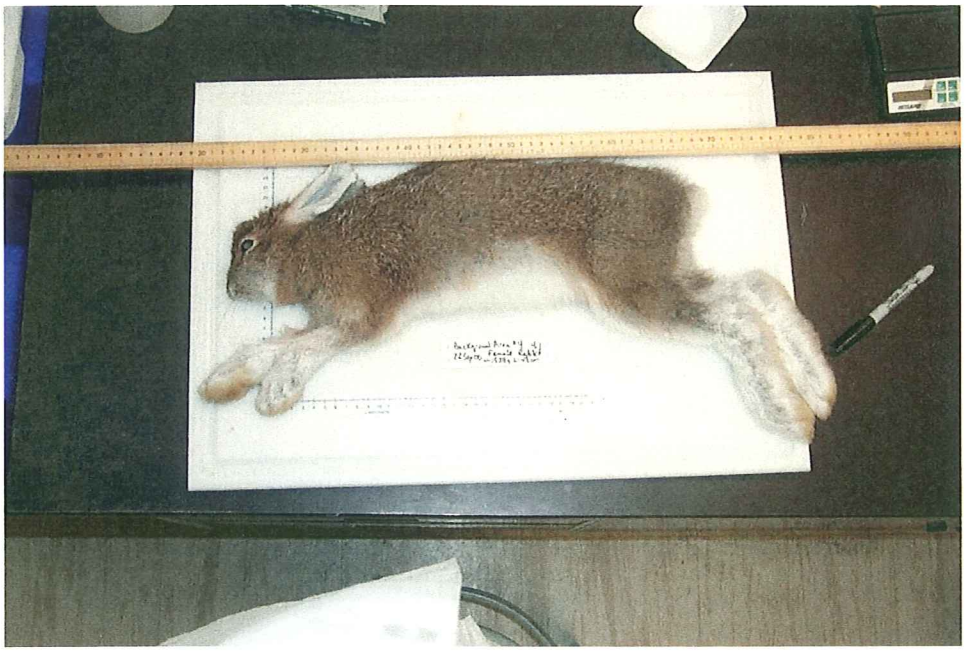
As an additional part of the fieldwork conducted in Yellowknife, trapping, snaring and hunting were undertaken to collect larger mammal specimens (red fox, snowshoe hare and muskrat). Trapping, snaring and hunting of these animals occurred in the vicinity of the Giant mine tailings ponds and in a background area that is known as a successful trapping and hunting ground. Assistance and expertise in laying traps and snares was provided by Yellowknives Dene First Nation. The trapping, snaring and hunting methods used for larger mammals consisted of:

1. Traps and snares were placed in locations that indicated larger mammal activity. Detailed habitat summaries were created for all trapping/snaring locations, including geographical position.
2. Trapping was done with "Connenbaire" traps and snares were of a wire-rope variety.
3. Bait for the traps consisted of sardines.
4. Traps/snares were laid at the background area and the Giant mine property on 20 September 2000 and checked for the following two days.
5. Traps/snares at the background area and the Giant mine property were checked between 8:00 AM and 10:00 AM daily.
6. Data sheets summarizing daily trapping results were completed daily. Weather was also recorded, as well as any other event of interest.
7. Hunting was undertaken during the same dates, from 6:00 to 8:00 PM nightly near the background area.
8. Captured animals were identified by species and placed in large plastic bags. They were subsequently washed, sexed, weighed, measured and dissected into several tissue types.

The following pictures show a wire snare set up for capture, as well as two of the animals snared during this activity.

Photograph 4. Wire snare set up to capture snowshoe hare and red fox

Photograph 5. Spruce Grouse (*Dendragapus canadensis* - bycatch) captured using a wire snare



Photograph 6. Snowshoe hare captured using a wire snare

3.1 DAILY WEATHER

Weather was noted prior to the checking of traplines each day, as well as when weather changed significantly. This information was compared to the number of misfired traps. Weather did not appear to have a significant effect on trap misfires based on this comparison. The following table denotes the weather conditions throughout the trapping program.

Table 1. Daily Trapping Weather

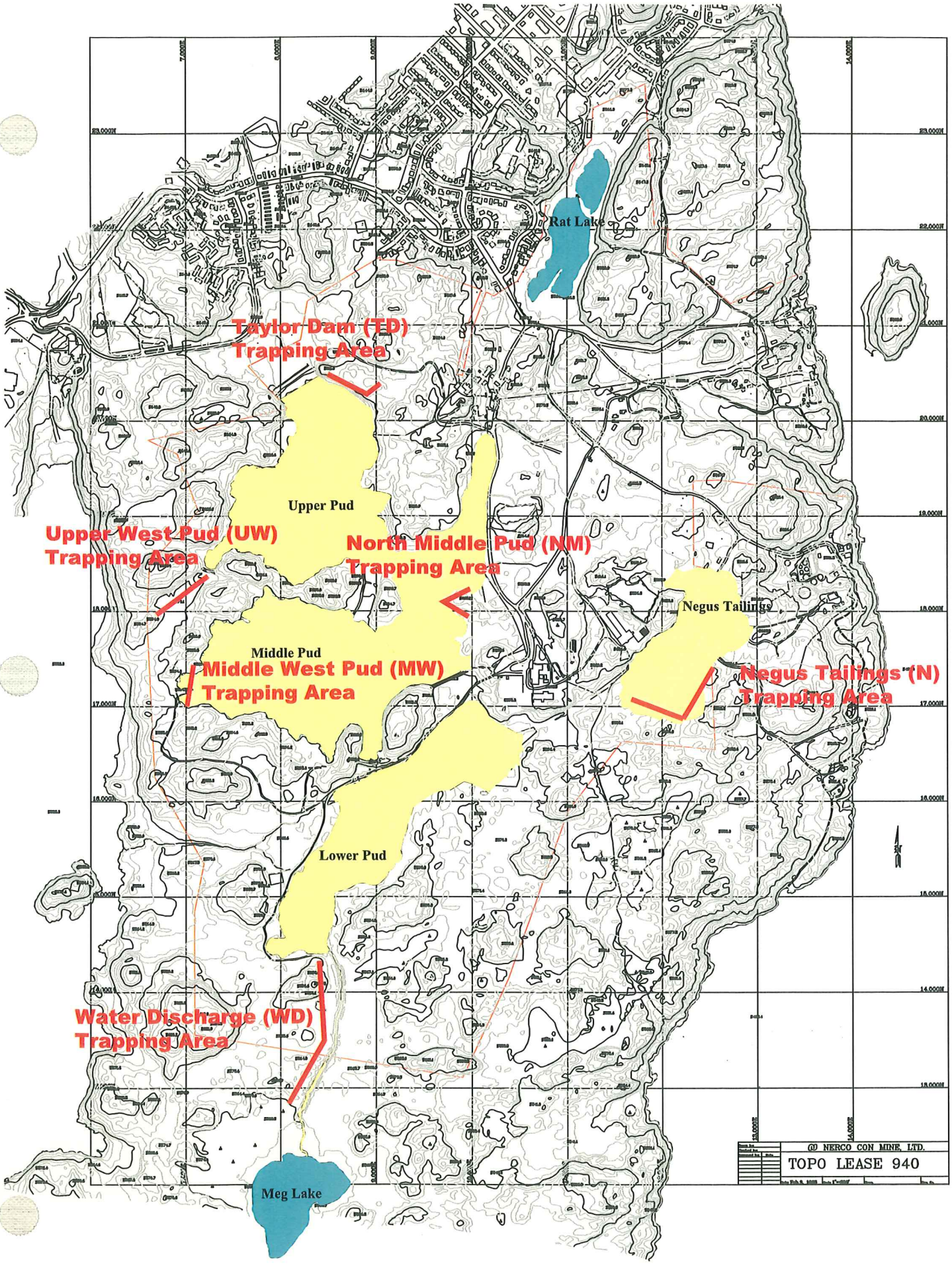
DATE	TIME	WEATHER CONDITIONS
10-Sep-00	0745	Skies overcast, light rain, winds N @ 25 kph, 10° C, visibility 14 km and humid
11-Sep-00	0745	Skies partially overcast, winds NE @ 25 kph, 5° C and visibility unlimited
12-Sep-00	0745	Clear skies, winds light, 2° C and visibility unlimited
13-Sep-00	0745	Clear skies, winds light, 6° C and visibility unlimited
14-Sep-00	0745	Skies overcast (high cloud), winds SW @ 20 kph, 8° C and visibility 16 km
15-Sep-00	0745	Skies partially overcast, winds NW @ 23 kph, 8° C and visibility 14 km
15-Sep-00	1030	Winds freshened to 45 kph
16-Sep-00	0745	Clear skies, winds light, 8° C and visibility unlimited
17-Sep-00	0745	Skies overcast, light rain, winds light, 6° C and visibility 10 km
17-Sep-00	1330	Skies overcast, moderate rain, winds SW @ 22 kph, 6° C and visibility 13 km
18-Sep-00	0745	Skies overcast, light rain, winds light, 8° C and visibility 13 km
19-Sep-00	0745	Skies overcast, light rain, winds light, 2° C and visibility 10 km
20-Sep-00	0745	Clear skies, winds SW @ 30 kph, 2° C and visibility unlimited
21-Sep-00	0800	Skies partially overcast, winds light, 3° C and visibility 13 km
22-Sep-00	0800	Skies overcast, winds S @ 22 kph, 3° C and visibility 13 km

3.2 HABITAT SUMMARIES

Habitat summaries were compiled for each trapping location as previously discussed in section 3.0. The following four sections break the trapping program into four overall areas, the Miramar Con (and Negus) mine, the Miramar Giant mine, background areas and snaring/trapping areas. All relevant details concerning the habitat at each trapping and snaring location was noted, including geographical position, vegetation present, ground cover, the presence of ground litter and canopy provided.

3.2.1 CON AND NEGUS MINE TRAPPING LOCATIONS

Six areas on and around the Miramar Con (and Negus) mine property were deemed to support a suitable habitat for small mammals. Trapping was conducted in a manner consistent with section 3.0 in these six areas. Map 2 shows the locations and orientation of the trapping areas on the Con mine property.



Map 2. Small mammal trapping areas on the Miramar Con Mine property are indicated in red.

3.2.1.1 Negus Tailings (N prefix)

Photograph 7. Negus Tailings (Trapping Area)

Traps were laid at sixteen locations to the south and west of the Negus tailings pond. The first eleven (N1 to N11) were placed to the south of the tailings pond on a heading of 229° at roughly fifteen metre intervals. The next five (N12 to N16) were placed to the west of the tailings pond on a heading of 293° at fifteen metre intervals. Two traps were laid at each location within three metres of each other. The following sections describe the habitat at each trapping location.

N1: UTM 0636440 6924795. Location was near an open area (four metres to the west) and under a 4 metre high willow tree. Ground cover was minimal and canopy was partial at this location.

N2: UTM 0636431 6924787. Location was beside a 2 metre high willow tree and near bearberry bushes. Significant ground litter (leaves) was present at this location. Ground cover was minimal and canopy was partial at this location.

N3: UTM 0636420 6924782. Location was near 2.5 metre high birch and willow bushes. Significant ground litter (leaves) was present at this location. Ground cover was minimal and no canopy was present at this location.

N4: UTM 0636412 6924774. Location was in the vicinity of 2 metre high birch tree with small spruce saplings surrounding. Scrub and ground litter (leaves) were present at this location. Numerous mushrooms were observed in the vicinity as well. Ground cover was 50% and no canopy was present at this location.

N5: UTM 0636401 6924769. Location was interspersed between soapberry, willow and bearberry bushes (at ground). Ground cover was minimal and no canopy was present at this location.

N6: UTM 0636392 6924766. Location was in an open area with small willow bushes in vicinity. Ground cover was 50% and no canopy was present at this location.

N7: UTM 0636379 6924756. Location was under 1.5 metre high willow tree. 0.7 metre high fireweed, grasses and ground litter (leaves) cover ground (100%) and canopy was partial at this location.

N8: UTM 0636370 6924751. Location was near 1.0 to 2.0 metre high willow trees. Small fireweed and significant foxtail present at ground, with ground litter (leaves) and moss on surface. Ground cover was 75% and no canopy was present at this location.

N9: UTM 0636361 6924744. Location was between several 1.0 metre high willow trees, in an open area. Grasses, foxtail and fireweed present in location at ground. Ground cover was 50% and no canopy was present at this location.

N10: UTM 0636352 6924739. Location was in an area surrounded by several 1.0 to 2.0 metre high willow trees. Horsetails, moss and significant mushroom population at ground. Ground cover was 25% and no canopy was present at this location.

N11: UTM 0636342 6924732. Location was in a clearing, partially under 1.5 metre high willow trees that surround the clearing. Fireweed and horsetail were present at ground. Ground cover was 25% and canopy was partial at this location.

N12: UTM 0636330 6924737. Location was on an open rocky area, near a small gooseberry bush and several small spruce saplings. Grasses and ground litter (leaves) at ground. Ground cover was minimal and no canopy was present at this location.

N13: UTM 0636320 6924742. Location was on an olive green tailings material, partially under a 1.0 metre high willow bush. Remainder of the area was totally open with minimal ground cover.

N14: UTM 0636312 6924750. Location was under a small (0.5 metre high) willow bush with small shrubs, scrub brush and horsetails in the vicinity. Ground cover was 50% and canopy was partial at this location.

N15: UTM 0636302 6924755. Location was beside a small (0.5 metre high) willow bush. Foxtails were present at ground level. Ground cover was 25% and no canopy was present at this location.

N16: UTM 0636292 6924766. Location was in an open area vegetated with foxtail and horsetails (0.3 metre high). Significant deadfall was present in vegetation. Ground cover was 100% and no canopy was present at this location.

3.2.1.2 Taylor Dam (TD prefix)

Photograph 8. Taylor Dam (Trapping Area)

Traps were laid at six locations to the north of the northeast portion of the Upper Pud tailings pond. The traps were placed in a vegetated area just to the northeast of Taylor Dam in an east-west line at roughly fifteen metre intervals. Two traps were initially laid at each location within three metres of each other. The following sections describe the habitat at each trapping location.

TD1: UTM 0635273 6925826. Location was in an open, highly vegetated area of 1.5 metre high willow trees, 0.5 metre high grasses, spruce saplings, rose and wheatgrass. Ground cover was 100% and no canopy was present at this location.

TD2: UTM 0635283 6925826. Location was an open area with vegetation consisting of primarily lichen, some horsetail and several 0.5 metre high willow bushes. Ground cover was 100% and no canopy was present at this location.

TD3: UTM 0635293 6925822. Location was in a wooded area of 1.0 metre high willow and 2 metre high spruce trees. Surface vegetation consisted of moss, horsetail, lichen, rose and grasses. Ground cover was 100% and canopy was partial at this location.

TD4: UTM 0635300 6925814. Location was beside a bedrock outcropping, in an clearing between many, large spruce trees (greater than 3 metres high). Surface vegetation consisted of horsetail, lichen, moss, rose and grasses. Ground cover was 100% and canopy was partial at this location.

TD5: UTM 0635310 6925811. Location was in a wooded area, under spruce trees. Surface vegetation consisted of moss, labrador tea and soapberry bushes. Ground cover was 100% and a total canopy was present at this location.

TD6: UTM 0635320 6925822. Location was in an open area, near a felled spruce tree. Surface vegetation consisted of horsetails, grasses, moss and rose. Ground cover was 75% and no canopy was present at this location.

3.2.1.3 North Middle Pud Tailings (NM prefix)

Photograph 9. North Middle Pud Tailings (Trapping Area)

Traps were laid at six locations in a wooded area between the Upper and Middle Pud tailings ponds. The traps were placed in a northwest-southeast line at roughly fifteen metre intervals. Two traps were initially laid at each location, with the exception of NM6, which had three traps laid, within three metres of each other. The following sections describe the habitat at each trapping location.

NM1: UTM 0635475 6924995. Location was in an opening of a wooded area with aspen, birch and spruce trees surrounding. Surface vegetation consisted of grasses/sedges, moss, bearberry and rose bushes. Ground cover was 100% and canopy was partial at this location.

NM2: UTM 0635478 6925981. Location was an open area with birch and willow trees surrounding. Surface vegetation consisted of moss and grasses. A substantial cover of ground litter (leaves) was also present. Ground cover was 100% and canopy was partial at this location.

NM3: UTM 0635487 6924975. Location was in a wooded area, under 2.5 metre high birch trees. Surface vegetation consisted of moss, bearberry bushes, puffball mushrooms, spruce saplings and small willow bushes. Ground cover was 100% and a total canopy was present at this location.

NM4: UTM 0635500 6924987. Location was beside an alder bush and under a 2 metre high birch tree. This location was vegetated with moss and alder bush at the surface. Substantial ground litter of dead leaves was also present. Ground cover was 100% and canopy was partial at this location.

NM5: UTM 0635516 6924990. Location was on an open, rocky outcropping adjacent to a log. No surface vegetation was present at the location, but a rose bush was present 1 metre to the north. Ground cover was minimal and no canopy was present at this location.

NM6: UTM 0635530 6925009. Location was in an open, rocky outcropping area, adjacent to a 2 metre high birch. Bearberry bushes were the only surface vegetation at this location. Ground cover was 50% and no canopy was present at this location.

3.2.1.4 Middle West Pud Tailings (MW prefix)

Photograph 10. Middle West Pud Tailings (Trapping Area)

Traps were laid at eight locations to the west of the Middle Pud tailings pond, in the vicinity of Dam 2. The traps were placed in a north-south line at roughly twenty metre intervals. Two traps were laid at each location within three metres of each other. The following sections describe the habitat at each trapping location.

MW1: UTM 0634858 6924727. Location was in an open area adjacent to Dam 2, west of a "dead" tree zone. No vegetation was present at this location. This area is totally open with minimal ground cover and no canopy.

MW2: UTM 0634864 6924747. Location was beside a dead 1.5 metre high willow tree. Area is predominately exposed rock with some vegetation on soil-covered areas. Vegetation at this location consisted of assorted grasses, foxtail, lichen and aster. Ground cover was minimal and no canopy was present at this location.

MW3: UTM 0634860 6924760. Location was in a field of foxtail (0.3 metre high). Surficial soil appeared to be mine tailings material. Ground cover was minimal and no canopy was present at this location.

MW4: UTM 0634856 6924774. Location was in an open area vegetated with foxtail and assorted grasses (0.2 metre high). Surficial soil appeared to be mine tailings material. Ground cover was minimal and no canopy was present at this location.

MW5: UTM 0634853 6924803. Location was on a barren, rocky area, with traps set on interspersed organic areas. Vegetation consisted of willow and foxtail, with deadfall present in vegetation. Ground cover was minimal and no canopy was present at this location.

MW6: UTM 0634857 6924821. Location was similar to MW4. Ground cover was minimal and no canopy was present at this location.

MW7: UTM 0634848 6924866. Location was in a bush/wooded area. Trees are stressed or dead spruce of varying size. Surface vegetation consisted of moss and lichen, with a soapberry bush in the vicinity. Ground cover was nearly 100% and canopy was partial at this location.

MW8: UTM 0634801 6924712. Location was in a field of wheatgrass and foxtail (0.4 metre high) to the west of Dam 2. Lichen was present sporadically at ground level in the area. Ground cover was 100% and no canopy was present at this location.

3.2.1.5 Upper West Pud Tailings (UW prefix)

Photograph 11. Upper West Pud Tailings (Trapping Area)

Traps were laid at five locations to the west of the Upper Pud tailings pond. The traps were placed adjacent to a wetland area in an east-west line at roughly twenty metre intervals. Two traps were initially laid at each location within three metres of each other. The following sections describe the habitat at each trapping location.

UW1: UTM 0634905 6925082. Location was in an area of spruce trees and significant deadfall. Surface vegetation was dense in this area, consisting of spruce saplings, foxtail and lichen. Ground cover was 100% and no canopy was present at this location.

UW2: UTM 0634893 6925070. Location was similar to UW1, but the location was also vegetated with horsetail. A blackcurrant bush was also located in the vicinity. Ground cover was 100% and no canopy was present at this location.

UW3: UTM 0634888 6925050. Location was in an open area with 100% ground cover of foxtail, wheatgrass, horsetail, and lichen. One gooseberry bush was located 2 metres to the south of the trapping location. Ground cover was 100% and no canopy was present at this location.

UW4: UTM 0634879 6925031. Location was in open area adjacent to a wooded area. The area was vegetated with horsetail, lichen and soapberry bushes. Ground cover was 100% and no canopy was present at this location.

UW5: UTM 0634868 6925020. Location was in a wooded area, in a gap between tree lines. Vegetation consisted of lichen, foxtail and soapberry bushes. Ground cover was 100% and canopy was partial at this location.

3.2.1.6 Water Discharge (WD prefix)

Photograph 12. Water Discharge (Trapping Area)

Traps were laid at eight locations to the west of the drainage course from the Lower Pud tailings pond to Meg Lake. The traps were placed in a north-south line at roughly twenty metre intervals for the first five locations, then at forty metre intervals for the last three locations. Two traps were initially laid at each location, with the exception of WD8, which had three traps laid, within three metres of each other. The following sections describe the habitat at each trapping location.

WD1: UTM 0635359 6923907. Location was in an open area with 100% ground cover consisting of foxtail, horsetail, fireweed and wheatgrass. No canopy was present at this location.

WD2: UTM 0635368 6923892. Location was adjacent to a wooded area of spruce and willow trees. Surface vegetation consisted of low bushes of spruce and willow, moss, lichen, horsetail, wheatgrass and labrador tea. Ground cover was 100% and no canopy was present at this location.

WD3: UTM 0635379 6923877. Location was in an open area, vegetated with horsetail, foxtail and fireweed. Several exposed soil patches were present in the area. Ground cover was 75% and no canopy was present at this location.

WD4: UTM 0635389 6923850. Location was near a spruce tree line. This location was vegetated with lichen, moss, horsetail and soapberry bushes. Ground cover was 100% and no canopy was present at this location.

WD5: UTM 0635404 6923815. Location was in an open area, adjacent to a large pile of organic soil. Surface vegetation consisted of foxtail, horsetail and grasses. Several exposed soil patches were present in the area. Ground cover was 75% and no canopy was present at this location.

WD6: UTM 0635389 6923759. Location was adjacent to a 1.5 metre high spruce tree, along the western edge of the open area. Surface vegetation consisted of labrador tea, lichen, horsetail and foxtail. Ground cover was 100% and no canopy was present at this location.

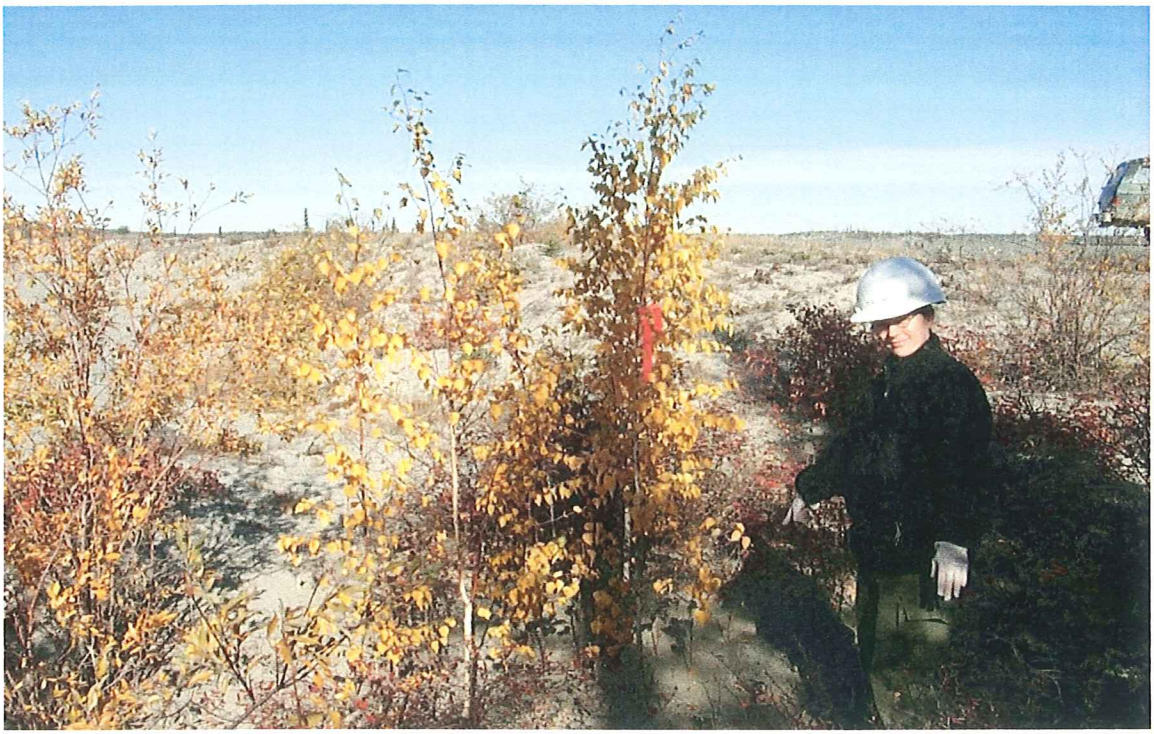
WD7: UTM 0635394 6923702. Location was in a wooded area, adjacent to several spruce and bog birch trees. Other types of vegetation present at the location were moss, lichen, mushrooms and fireweed. Ground cover was 100% and no canopy was partial at this location.

WD8: UTM 0635391 6923624. Location was in an open area near the mouth of Meg Lake, adjacent to bog birch and willow trees. Surface vegetation consisted of horsetail, foxtail and fireweed. Ground cover was 100% and no canopy was present at this location.

3.2.2 GIANT MINE TRAPPING LOCATIONS

Four areas on the Miramar Giant mine property were deemed to support suitable habitat for small mammals. Trapping was conducted in a manner consistent with section 3.0 in these four areas. Map 3 shows the locations and orientation of the trapping areas on the Giant mine property.

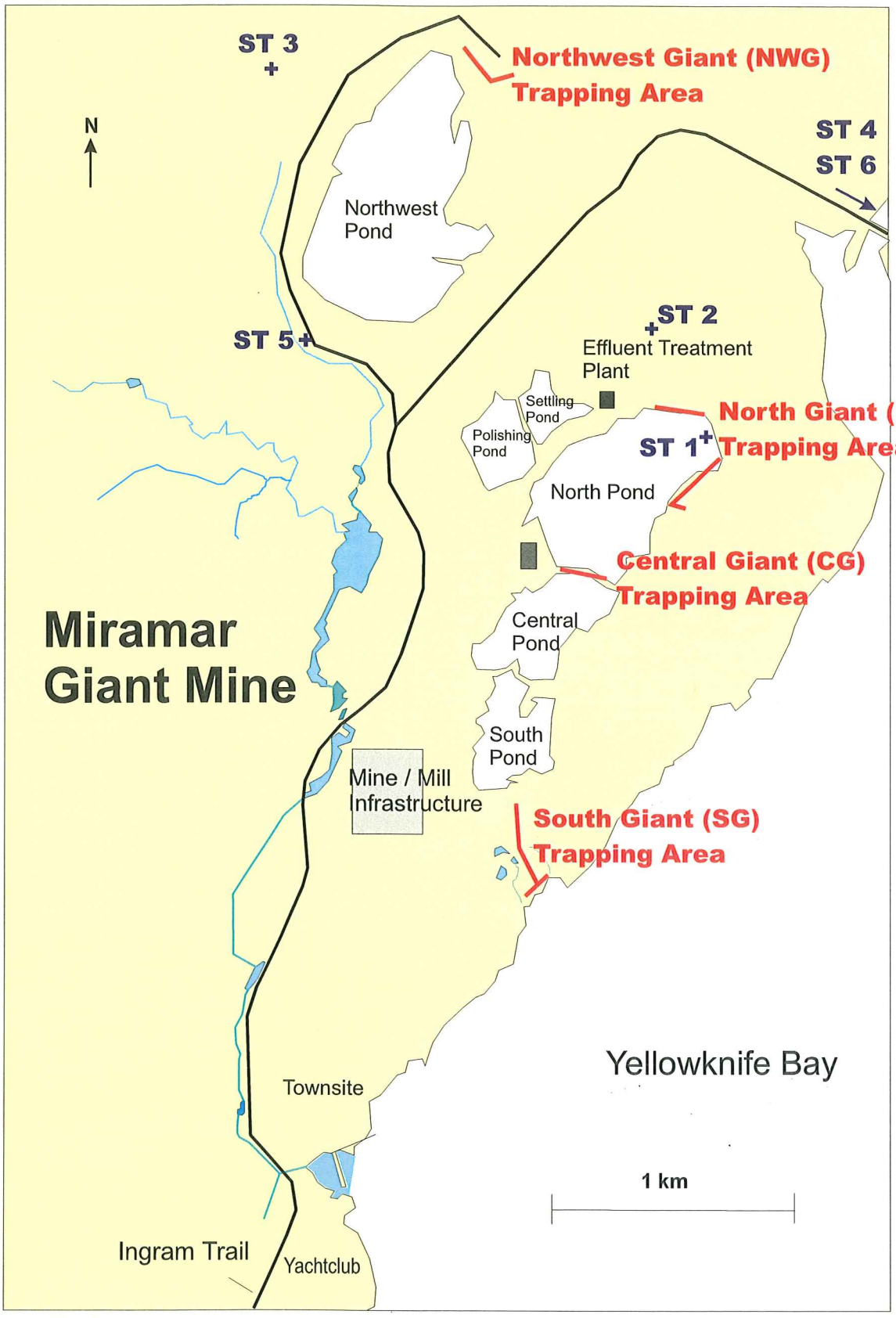
3.2.2.1 North Giant Tailings (NG prefix)



Photograph 13. North Giant Tailings (Trapping Area)

Traps were laid at six locations to the north of Giant mine's north tailings pond and at one location (NG7) to the northwest of the tailings pond, which close to several burrow holes. The traps at locations NG1 to NG6 were placed in a west-east line at roughly fifteen metre intervals. Two traps were initially laid at each location within three metres of each other, with the exception of locations NG1 (three traps) and NG7 (four traps). The following sections describe the habitat at each trapping location.

NG1: UTM 0637428 6933741. Location was immediately adjacent to the tailings pond, but is situated on tailings material. 1.0 metre tall willow and alder trees surround the location, and surface vegetation consisted of rose and wheatgrass. Ground cover was 25% and no canopy was present at this location.



Map 3. Small mammal trapping areas on the Miramar Giant Mine property are indicated in red and snaring and trapping (ST) locations shown in blue.

NG2: UTM 0637418 6933721. Location was in a high grass area with many dead spruce trees present. Soil in the area appeared to mine tailings material. Surface vegetation consisted of horsetail, foxtail, wheatgrass and aster. Ground cover was 75% and no canopy was present at this location.

NG3: UTM 0637399 6933722. Location was just off the northeast extremity of the tailings pond, in a wooded area. Trees present consisted of willow trees mixed with some dead spruce. The surface in this area was mostly barren with minimal vegetation of moss, rose, foxtail and wheatgrass. Ground cover was 25% and no canopy was present at this location.

NG4: UTM 0637389 6933716. Location was similar to NG3, but traps were located between bushes of rose, willow, and labrador tea. Ground cover was 25% and no canopy was present at this location.

NG5: UTM 0637373 6933713. Location was similar to NG3, but vegetation consisted of willow bushes, dead paper birch trees, some wheatgrass and moss. Ground cover was 25% and no canopy was present at this location.

NG6: UTM 0637381 6933699. Location was in a wooded area 20 metres away from the tailings pond. The traps were situated beside and under a stand of 3 metre high spruce and alder trees. Surface vegetation consisted of bearberry, juniper and rose bushes, moss and lichen. Ground cover was 75% and canopy was partial at this location.

NG7: UTM 0637285 6933932. Location was on the northwest side of the tailings pond, beside burrow holes in the bank of the dam. Exposed soil was prevalent at this location and appeared to be mine tailings material. Minimal vegetation of grasses and sedges were present at this site. Ground cover was minimal and no canopy was present at this location.

3.2.2.2 Central Giant Tailings (CG prefix)

Photograph 14. Central Giant Tailings (Trapping Area)

Traps were laid at three locations in a re-vegetated area between the Giant mine's central (to the south) and southern tailings ponds (to the north). This open area was heavily vegetated with grasses at the time of trapping. The traps were placed in an east-west line at roughly fifteen metre intervals. Two traps were initially laid at each location within three metres of each other. The following sections describe the habitat at each trapping location.

CG1: UTM 0636674 6932960. Location was in an open field of wheatgrass, foxtail, sedges and lichen. Some small brown mushrooms were present in the vicinity. Ground cover was 75% and no canopy was present at this location.

CG2: UTM 0636658 6932953. Location was similar to CG1 with traps placed in a low depression. Surface vegetation was similar to CG1 as well. Ground cover was 75% and no canopy was present at this location.

CG3: UTM 0636647 6932937. Location was in a clearing of exposed soil, surrounded by sporadic tufts of foxtail, wheatgrass and aster. Lichen and moss were also present at surface. Exposed soil did not appear to be tailings material, but was an organic-looking fill. Ground cover was 50% and no canopy was present at this location.

3.2.2.3 South Giant Tailings (SG prefix)

Photograph 15. South Giant Tailings (Trapping Area)

Traps were laid at nine locations along a road that is situated to the south of the Giant mine's southern tailings pond. This open area supported a wide range of vegetation at the time of trapping. The traps were placed in a rough south-north line at fifteen to twenty-five metre intervals. Two traps were initially laid at each location within three metres of each other. The following sections describe the habitat at each trapping location.

SG1: UTM 0636816 6932187. Location was near beach area of Back Bay, in a highly vegetated copse of 2 metre high willow and alder trees. Surface vegetation consisted of horsetail, black currant and gooseberry bushes, aster, grasses, sedges, fireweed and foxtail. Ground cover was 100% and no canopy was present at this location.

SG2: UTM 0636790 6932188. Location was beside the road (west side), under a 3 metre high willow tree. Other vegetation at this location consisted of red currant and dogwood bushes, small spruce saplings, horsetail, grasses, sedges, and aster. Significant ground litter (leaves) was also present at this location. Ground cover was 100% and a total canopy was present at this location.

SG3: UTM 0636749 6932186. Location was beside a pile of exposed earth 10 metres to the west of the road with a 0.5 metre high willow bush adjacent to the traps. This area was highly vegetated at surface with fireweed, grasses, sedges, horsetail, aster and rose. Ground cover was 100% and no canopy was present at this location.

SG4: UTM 0636728 6932257. Location was to the east of the road on a large hummock of earth. Traps were set beside a 1 metre high willow bush in an otherwise grassy open area. Surface vegetation consisted of fireweed, horsetail and foxtail. Ground cover was 50% and no canopy was present at this location.

SG5: UTM 0636644 6932267. Location was to the west of the road, beside a log used as a home by a small mammal. This area was very open and was also adjacent to a bedrock outcropping. Vegetation at this location consisted of a 2.5 metre high willow tree, wheatgrass and rose. Ground cover was 75% and no canopy was present at this location.

SG6: UTM 0636657 6932273. Location was to the west of the road, under two 3.5 metre high willow trees, which give a partial canopy. Surface vegetation resulted in 100% ground cover, consisting of fireweed, horsetail and grasses.

SG7: UTM 0636717 6932304. Location was to the east of the road, down from a bedrock outcropping and beside a 1.5 metre high willow. 50% of the ground surface was exposed organic soil at the time of trapping, with the remainder vegetated with small spruce saplings, grasses, sedges, rose and moss. No canopy was present at this location.

SG8: UTM 0636682 6932323. Location was to the east of the road, down from a bedrock outcropping and beside spruce and willow bushes. Surface vegetation consisted of wheatgrass, foxtail, aster, moss and rose. Ground cover was 75% and no canopy was present at this location.

SG9: UTM 0636648 6932329. Location was to the east of the road, beside and under a 2.5 metre high willow tree. Other vegetation at surface was horsetail, foxtail and fireweed. Ground cover was 100% and canopy was partial at this location.

3.2.2.4 Northwest Giant Tailings (NWG prefix)

Photograph 16. Northwest Giant Tailings (Trapping Area)

Traps were laid at ten locations to the north of the Giant mine's northwestern tailings pond, along the ridge of the northern tailings pond dam. This area consisted of a mixture of barren earth and highly vegetated patches, and was bordered to the north by a wooded area. The traps were placed in a rough northeast-southwest line at fifteen to twenty metre intervals. Two traps were initially laid at each location within three metres of each other, with the exception of NWG6, 8 and 9 having three traps and NWG10 having four traps. The following sections describe the habitat at each trapping location.

NWG1: UTM 0636306 6935403. Location was beside several 1 to 1.5 metre high alder trees. Several fill piles were also in close proximity. Exposed earth is predominant at this location, with 25% ground cover given by surface vegetation consisting of aster, grasses and fireweed. No canopy was present at this location.

NWG2: UTM 0636306 6935388. Location was on a pile of dead wood, beside several 1 metre high alder bushes. Several willow bushes are also nearby, which create a partial canopy at this site. Surface vegetation was minimal at the time of trapping and consisted of moss, grasses, foxtail and fireweed. Ground cover was 25% at this location.

NWG3: UTM 0636302 6935378. Location was on the downslope of the dam ridge in an open area. This area was vegetated at surface with fireweed, grasses, horsetail and foxtail. Ground cover was 75% and no canopy was present at this location.

NWG4: UTM 0636291 6935375. Location was beside a large rock in a highly vegetated area. Surface vegetation consisted of long grasses, fireweed, small willow bushes and dandelion. Ground cover was 100% and no canopy was present at this location.

NWG5: UTM 0636273 6935378. Location was in tall grass, next to a large population of mushrooms. Other vegetation at this location was fireweed, foxtail, raspberry and wheatgrass. Ground cover was 100% and no canopy was present at this location.

NWG6: UTM 0636269 6935357. Location was near a large hole on the bank of the dam. Surface vegetation resulted in 100% ground cover, consisting of fireweed, raspberry, foxtail, wheatgrass and rose. No canopy was present at this location.

NWG7: UTM 0636257 6935378. Location was towards the surrounding wooded area, in a copse of willow trees. Most of the ground surface was exposed gravelly mud at the time of trapping, with the remainder vegetated with grasses and some fireweed. No canopy was present at this location.

NWG8: UTM 0636238 6935368. Location was beside several willow trees, which created a partial canopy. Surface vegetation consisted of rose, fireweed, horsetail, grasses and small spruce saplings. Ground cover was 75% at this location.

NWG9: UTM 0636247 6935349. Location was on an open area of the dam bank, beside a willow tree. This location has minimal ground cover and is predominately exposed earth at the surface. Vegetation consisted of sparse horsetail, fireweed, long grasses and rose. No canopy was present at this location.

NWG10: UTM 0636227 6935341. Location was in an open area between several willow trees. The area is sparsely vegetated with 25% ground cover consisting of horsetail, long grasses, fireweed and foxtail. The remainder of the surface at this location is exposed earth. No canopy was present at this location.

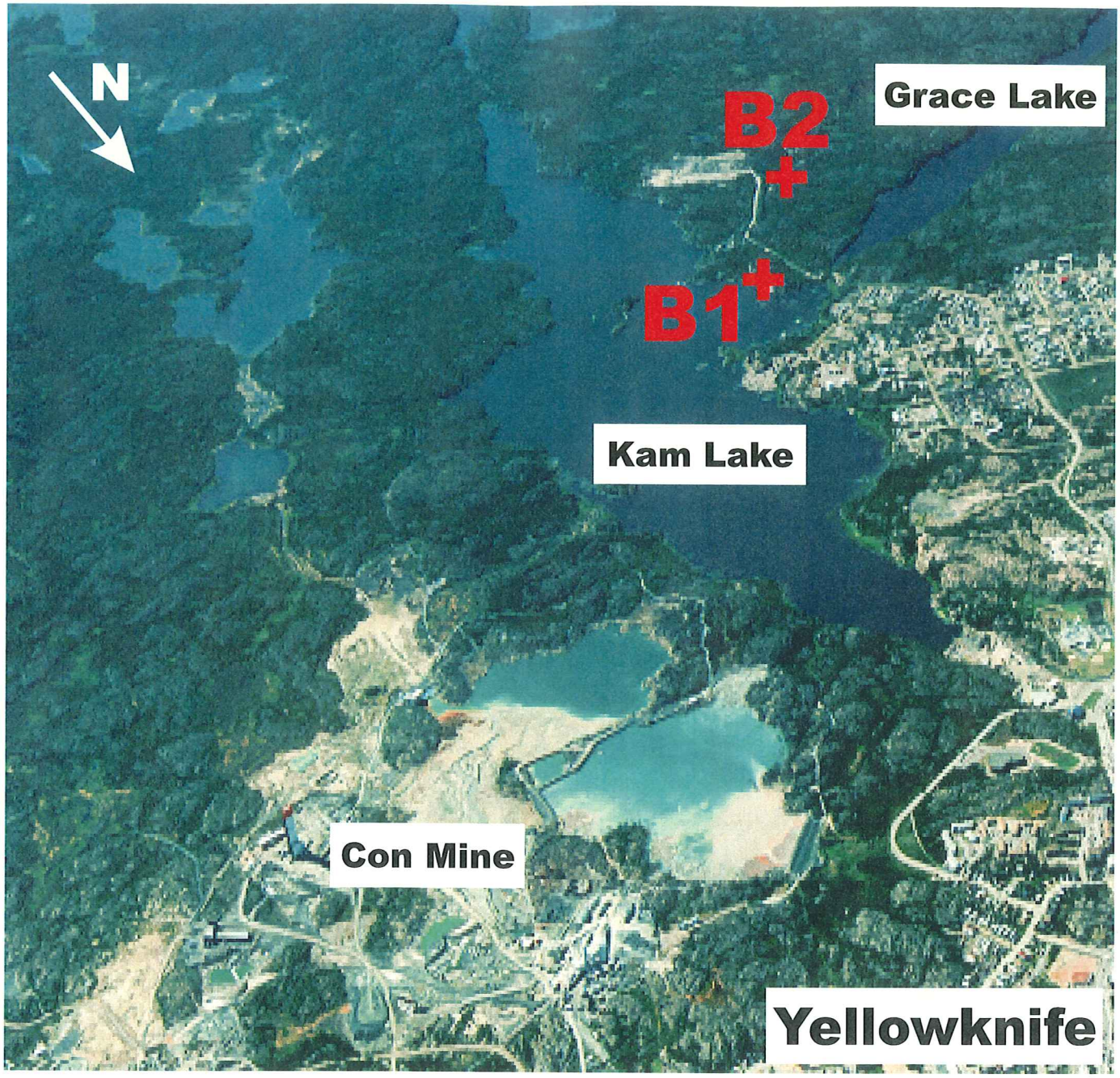
3.2.3 BACKGROUND TRAPPING LOCATIONS

One background area (B1), outside of the area of influence of the mines, was selected to provide specimens for comparative purposes. This area's habitat was consistent with that considered to be required for small mammal survival. Trapping was conducted in a manner consistent with section 3.0 in this area. Unfortunately, only one specimen (a red squirrel) was collected at this area throughout the trapping program. GNWT RWED helped to facilitate our study by providing background deer mice and bycatches from a second background area (B2). Map 4 shows the locations of these two areas.

3.2.3.1 Background Area One (B1 prefix)

Photograph 17. Background Area One (Trapping Area)

Traps were laid at six locations to the south of the Kam Lake/Grace Lake junction. This area was selected as it is outside of the zone of influence of the mining properties with respect to contamination. The traps were placed in a southwest-northeast line at roughly fifteen metre intervals. Two traps were initially laid at each location within three metres of each other. The following sections describe the habitat at each trapping location.



Map 4. Small mammal background trapping locations south of the City of Yellowknife. Locations are indicated in red.

B1-1: UTM 0633448 6923323. Location was adjacent to a bedrock outcropping, under birch (3 metre high), spruce (2 metre high) and alder (4 metre high) trees. Surface vegetation consisted of fireweed, rose, bearberry bushes, moss and lichen. Ground cover was 75% and canopy was partial at this location.

B1-2: UTM 0633443 6923344. Location was in a bearberry patch, adjacent to a bedrock outcropping. Surface vegetation consisted of sparse 1.5 metre high birch, spruce, bearberry bushes, lichen and moss. Ground cover was 75% and no canopy was present at this location.

B1-3: UTM 0633446 6923358. Location was under a 4 metre high birch tree, on a bearberry patch. An exposed soil patch was present in close proximity. The remainder of vegetation consisted of small willow, spruce, grasses, sedges, and foxtail. Ground cover was 50% and canopy was partial at this location.

B1-4: UTM 0633453 6923374. Location was in a clearing, just off the road. This location was vegetated with rose, fireweed, foxtail, grasses and moss. There was also a significant amount of dead vegetation in the area. Ground cover was 50% and no canopy was present at this location.

B1-5: UTM 0633461 6923384. Location was adjacent to the fringe of a stand of spruce, willow and birch trees. Surface vegetation consisted of cranberry, bearberry, lichen and moss. A large exposed soil patch was present to the south of this location. Ground cover was 50% and canopy was partial at this location.

B1-6: UTM 0635471 6923394. Location was between small spruce trees and beside a bedrock outcropping. Surface vegetation consisted of small birch and willow trees, moss, lichen, grasses, sedges, bearberry and northern comandra. Ground cover was 25% and no canopy was present at this location.

3.2.3.2 Background Area Two (B2 prefix)

Photograph 18. Background Area Two (Trapping Area) with red fox in foreground

Traps were laid by GNWT RWED staff in an area at the end of the Kam Lake Road in late summer 2000. GNWT RWED contributed three deer mice and two birds collected from this area to our study to act as background controls. This was possible because this area is outside of the area of influence of the mining properties with respect to contamination. Trapping was conducted in a manner consistent with approved protocols[7]. The following sections describe the habitat from three locations in this area.

B2-1: 100 metres east of the Kam Lake Road, in a bedrock depression. Vegetation consisted of bearberry, rose and labrador tea bushes, and willow, alder, birch and spruce trees. Ground cover was 25% and canopy was partial in this area.

B2-2: West of the Kam Lake Road, close to B2-1. Area was vegetated with grasses, horsetail, and cranberry and rose bushes. Ground cover was 25% and no canopy was present in this area.

B2-3: South of the Kam Lake Road, in a grass, bush and rocky area. Other vegetation present at the time of trapping consisted of paper birch, foxtail, fireweed and common plantain. Ground cover was 25% and canopy was partial in this location.

3.2.4 SNARING/TRAPPING LOCATIONS (ST prefix)

Photographs 19 and 20. Snaring and Trapping [Trapping Areas – Giant mine (19) and near Dettah (20)]

Wire snares and "Connebaire" traps were laid at six locations that indicated larger mammal activity. These locations are shown on Map 3. Four of these locations were on the Giant mine property and two were near the community of Dettah. The following sections describe the habitat at each trapping location and the number of traps and snares placed at each.

ST1: One "Connenbaire" trap and three snares were placed at UTM 0637371 6933909. Location was on and to the west of the Giant mine's northern tailings pond. Two snares were placed outside of an apparent red fox den. Surface vegetation was minimal as the locations were either on the pond or just off of it, but consisted of tufts of grasses, and the occasional willow bush. Ground cover was minimal and no canopy was present at this location.

ST2: One "Connenbaire" trap and three snares were placed at UTM 0637047 6934058. Location was a wooded (willow) area to the north of the Giant mine's water treatment plant. Other vegetation at this location consisted of the occasional alder and spruce tree, and gooseberry, northern comandra and rose bushes. Significant ground litter (leaves) was also present at this location. Ground cover was 100% and canopy was partial to total at this location.

ST3: Five snares were placed at UTM 0636202 6935384. Location was to the west of the Giant mine's northwestern tailings pond. Vegetation in this area was varied, consisting of spruce, willow, alder and tamarack trees, rose bushes and several different types of mushrooms. Ground cover was 100% and canopy was partial at this location.

ST4: Four snares were placed at UTM 0641150 6932962. Location was to the east of Dettah, north of the Ingraham Trail. This location was a highly wooded area, with vegetation consisting of willow, spruce and paper birch trees, fireweed, rose bushes, grasses and moss. Ground cover was 100% and canopy was partial to total at this location.

ST5: One "Connenbaire" trap and five snares were placed at UTM 0635652 6934136. Location was in a partially wooded area to the west of the tank farm on Vee Lake Road. Vegetation at this location at the time of trapping was willow, spruce and alder trees, foxtail, grasses and moss. Ground cover was 75% and canopy varied from partial to none at this location.

ST6: Three snares were placed at UTM 0640128 6933103. Location was to the west of Dettah, near a large radio tower. This wooded area supported willow and alder trees, rose bushes, grasses and moss. Ground cover was 75% and canopy varied from partial to total at this location.

4.0 RESULTS AND DISCUSSION

Throughout the trapping program, daily trapping results were tabulated. These results are presented by trapping area in Annex A (Tables 2 to 13). Table 14 in Annex A also summarizes the overall trapping results by area. This table provides all pertinent information related to the trapping conducted. A capture index was calculated from this information for each area, based on the number of trapped specimens per 100 trapnights. A trapnight is defined as "the number of traps set multiplied by the number of nights deployed, minus the number of misfires, lost traps and non-target species (bycatches) collected"[7]. Red squirrels were considered as a bycatch for the purposes of calculating small mammal capture indices. These calculations were not made for larger mammal trapping and snaring.

Tables 15 to 17 presented in Annex B contain specific details related to each animal trapped or snared during the trapping program, including exact trapping location, date collected, species, sex, length and weight of the specimen. Overall highlights of the trapping data per area were as follows:

4.1 NEGUS (N prefix)

Four deer mice were collected from the Negus trapping area during an eleven-day trapping program. Considering that this area had the most trapnights, the overall success of trapping was not very high, with a capture index of 1.235 (fourth lowest). This could be partially accounted for due to the high number of trap misfires in this area.

4.2 TAYLOR DAM (TD prefix)

One deer mouse and three bycatches (all gray jays) were collected from the Taylor Dam trapping area over an eleven-day period. The resulting capture index of 0.990 was the third lowest of the eleven small mammal trapping areas. This area also experienced a high number of trap misfires, which significantly reduced trapping success.

4.3 NORTH MIDDLE PUD (NM prefix)

This area proved to be a satisfactory one for trapping, and resulted in the collection of six deer mice and three bycatches [one dark-eyed junco (*Junco hyemalis*) and two american tree sparrows (*Spizella arborea*)]. With a capture index of 4.545, the North Middle Pud area was moderately successful in comparison with other areas.

4.4 UPPER WEST PUD (UW prefix)

This area had a relatively small number of trapnights due to a high incidence of trap misfires. Five deer mice were collected nonetheless during the trapping program. This area had a capture index of 5.376 for the eleven-day period.

4.5 MIDDLE WEST PUD (MW prefix)

This was the most successful trapping area on the Miramar Con mine property, with fifteen deer mice and two red squirrels collected during trapping. Although 23 trap misfires occurred at this area, a capture index of 8.235 was still calculated.

4.6 WATER DISCHARGE (WD prefix)

This area was not very successful for trapping until the last several days of the trapping period. It was during this time that three deer mice were collected. This area received a moderate capture index of 1.754.

4.7 NORTH GIANT (NG prefix)

This was a very successful trapping area with sixteen deer mice collected over the Giant mine's five-day trapping program. This area had the second highest capture index of 17.391 with very few trap misfires occurring.

4.8 CENTRAL GIANT (CG prefix)

Considering the relatively small number of trapnights (33), this was the best trapping area for small mammals on all mine properties. Six deer mice were collected in the five-day period, which gave a capture index of 18.182.

4.9 SOUTH GIANT (SG prefix)

Seven deer mice were collected in this area during the trapping program. Very few misfires occurred in this area, which led to a 7.778 capture index.

4.10 NORTHWEST GIANT (NWG prefix)

This area had the second lowest score for capture index (0.806). One deer mouse and one bycatch (gray jay) were collected over five days. This area also had the highest number of trapnights for the Giant mine property, which further emphasizes the lack of trapping success.

4.11 BACKGROUND AREA ONE (B1 prefix)

This area was fairly unsuccessful, providing one bycatch (red squirrel) over seven days. Due to the lack of success in trapping background specimens for control purposes, GNWT RWED contributed three deer mice and two bycatches [one yellow rumped warbler (*Dendroica coronata*) and one gray jay] that were previously collected at a second background area (B2).

4.12 OVERALL SMALL MAMMAL TRAPPING

A total of 64 deer mice, three red squirrels, and seven bycatches were collected during the eleven-day small mammal trapping period. There were 1377 cumulative effective trapnights during this time, which translated to an overall capture index of 4.648.

4.13 SNARING/TRAPPING LOCATIONS (ST prefix)

Two snowshoe hare and one spruce grouse were collected over the two-day trapping and snaring program. Considering the relatively small number of traps and snares placed (26) for a short period of time, the resultant trapping was satisfactory.

5.0 FUTURE WORK

Work presently being carried out by ESG for this project includes the following:

1. Determination of the levels of arsenic (total) in soils/tailings sampled from trapping locations;
2. Determination of the levels of arsenic (total and species) in plants sampled from trapping locations, with focus on plants edible by deer mice;
3. Determination of the levels of arsenic (total and species) in deer mouse tissues from trapping locations, including several of the following:
   a. liver;
   b. lungs;
   c. kidneys;
   d. heart;
   e. spleen;
   f. intestines;
   g. stomach and stomach contents;
   h. skin; and
   i. total carcass; and
4. Calculation of arsenic bioavailability and whether bioconcentration and/or biomagnification of this element is occurring in the deer mouse food chain.
5. Determination of the levels of arsenic (total and species) in the game collected and further research into human health aspects of these findings.

New information and results from this work will be disseminated as it is received and interpreted. An initial report on arsenic in the terrestrial food chain of deer mice and on arsenic present in game will be completed by the end of March 2001 to fulfill Toxic Substances Research Initiative (TSRI) objectives. This initial report will focus on one trapping area, addressing issues 1-4 of the previous list, as well as issue 5 (for game). All small mammal trapping areas will be examined similarly following this, with this work culminating in a Master's of Science Thesis to be completed in summer 2001.

6.0 REFERENCES

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APPENDIX A - TRAPPING RESULTS BY AREA

Table 2. Daily trapping results for Negus (N) trapping area

DATE / LOCATION	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
N1	U	M	M	U	U	U	U	U	U	M	U
	M	U	M	U	U	U	U	U	U	U	U
N2	U	U	M	U	U	U	U	U	U	U	U
	M	U	U	U	U	U	U	U	U	U	U
N3	U	U	U	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
N4	U	U	U	U	U	U	U	U	M	U	U
	M	U	U	U	U	U	U	U	U	M	M
N5	U	M	U	U	U	U	U	U	**D**	U	U
	U	U	U	U	U	U	U	U	U	U	U
N6	U	M	U	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
N7	U	U	U	U	M	U	U	U	U	U	U
	U	U	U	U	M	U	U	U	U	U	U
N8	U	U	U	U	U	U	U	M	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
N9	M	U	U	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
N10	U	U	U	U	U	U	U	U	U	U	U
	L	U	U	U	U	U	U	U	U	U	U
N11	U	U	U	U	M	U	U	**D**	U	U	U
	U	U	U	U	M	U	U	U	U	U	U
N12	U	U	U	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
N13	**D**	U	M	U	M	U	U	M	M*	U	U
	U	**D**	U	U	M	M	M	U	U	U	U
										U	U
N14	U	U	U	U	U	U	U	U	U	U	M
	U	U	U	U	U	U	U	U	U	U	U
N15	U	U	M	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
N16	U	U	U	U	U	U	U	U	U	M	M
	U	U	U	U	U	U	U	M	U	U	U

KEY

U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

* placed additional trap

Table 3. Daily trapping results for Taylor Dam (TD) trapping area

DATE / LOCATION	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
TD1	M	U	U	U	U	U	U	U	U	U	U
	M	U	U	U	U	U	U	U	U	U	U
TD2	U	U	U	U	U	U	M	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
TD3	U	U	U	U	U	U	M	U	U	U	U
	M	U	U	U	U	M	U	U	U	U	U
TD4	U	U	M	U	M	**B**	U	M	M	U	U
	U	U	M	U	U	U	U	U	U	U	U
TD5	M	M	M	M*	U	M	U	M	M	M	U
	D	M	U	U	U	U	U	U	M**	M	U
										B	U
TD6	M	M	M	M	U	U	**B**	M	U	U	U
	U	U	U	U	U	M	U	U	M	M	U

KEY	
U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

* bird caught by leg and released
** placed additional trap

Table 4. Daily trapping results for North Middle Pud (NM) trapping area

DATE / LOCATION	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
NM1	**D**	U	U	U	U	U	U	U	**B**	**D**	U
	U	U	U	U	U	U	U	U	U	U	U
NM2	U	U	U	U	U	U	U	U	U	U	U
	U	M	M	U	U	U	U	U	U	U	U
NM3	U	**D**	U	U	U	**D**	M	U	U	M	U
	U	**B**	U	M	**D**	U	U	**D**	U	U	U
NM4	U	U	U	U	U	U	U	U	U	U	U
	U	U	U	M	U	U	U	U	U	U	U
NM5	U	U	U	U	U	U	U	U	U	U	**B**
	M	U	U	U	U	M	U	U	U	U	U
NM6	U	U	U	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U

KEY

U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

Table 5. Daily trapping results for Upper West Pud (UW) trapping area

DATE / LOCATION	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
UW1	M	M	U	U	U	U	M	U	U	M	U
	U	M	U	U	U	**D**	U	U	U	U	U
UW2	U	U	M	U	U	U	U	U	U	U	U
	U	U	U	M	U	U	U	M	U	U	U
UW3	U	M	M	L	U	U	U	U	U	U	U
	M	U	M	L	U	U	U	U	U	U	U
UW4	M*	U	M	U	U	**D**	**D**	U	U	U	M
	U	U	U	U	U	U	U	M	U	**D**	M
		D	U	U**							
UW5	M	U	U	U	U	M	U	U	U	U	M
	M	U	U	U	U	U	U	M	U	U	M

KEY	
U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

* placed additional trap

** trap moved to UW3

Table 6. Daily trapping results for Middle West Pud (MW) trapping area

DATE / LOCATION	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
MW1	**D**	U	U	U	U	**D**	U	U	U	U	U
	U	**D**	U	U	U	U	U	U	U	U	U
MW2	**D**	**D**	M	U	U	U	U	U	U	U	U
	U	**D**	U	U	M	U	U	U	U	U	U
MW3	U	U	U	U	U	U	U	U	U	U	U
	M	U	U	U	U	U	U	U	U	U	U
MW4	U	U	U	U	U	U	U	U	U	M	U
	U	U	U	U	U	U	U	M	U	U	U
MW5	**D**	U	U	U	U	U	**D**	U	**D**	M	U
	U	U	U	U	M	U	M	U	U	M	M
MW6	U	U	U	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	L	U	U	U	U
MW7	M	M	M*	U	**D**	**S**	**D**	M	M	U	M
	D	**D**	M	U	U	M	M	**D**	**S**	**D**	M
				U	M	M**					
MW8	U	U	U	U	M	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U

KEY

U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

* placed additional trap

** trap destroyed, not replaced

Table 7. Daily trapping results for Water Discharge (WD) trapping area

DATE / LOCATION	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
WD1	U	U	U	U	U	U	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
WD2	U	U	U	U	U	M	U	M	U	**D**	U
	U	U	U	U	U	U	U	**D**	U	M	U
WD3	U	U	U	U	U	U	M	U	U	M	U
	U	U	U	U	U	U	U	M	U	U	U
WD4	U	U	U	U	U	U	M	U	U	**D**	U
	M	U	U	U	U	M	U	M	U	M	M
WD5	U	U	U	U	U	M	U	U	U	U	U
	U	U	U	U	U	U	U	U	U	U	M
WD6	U	U	U	U	U	U	U	M	U	U	U
	U	U	U	U	U	U	U	U	U	U	U
WD7	U	U	U	U	U	U	U	U	U	U	M
	U	U	U	U	U	U	U	U	U	U	U
WD8	U	U	U	U	M	U	U	U	U	U	U
	M	U	U	U	U	U	U	U	U	U	U
	U	U	U	U	L	U	U	U	U	U	U

KEY

U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

Table 8. Daily trapping results for North Giant (NG) trapping area

DATE / LOCATION	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
NG1	**D**	**D**	U	**D**	U
	D	U	U	**D**	U
NG2	**D**	**D**	U	**D**	U
	D	U	U	**D**	U
	U	U	U	U	**D**
NG3	M	M	U	U	U
	U	U	U	**D**	U
NG4	U	U	U	U	U
	U	U	U	U	U
NG5	U	U	U	U	U
	U	U	U	**D**	U
NG6	U	M	U	U	**D**
	M	U	U	U	U
NG7	M	U	U	U	U
	M	U	U	U	U
	U	M	M	**D**	U
	U	U	M	**D**	U

KEY

U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

Table 9. Daily trapping results for Central Giant (CG) trapping area

DATE / LOCATION	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
CG1	**D**	U	**D**	U	U
	D	U	U	**D**	**D**
CG2	M	U	U	U	U
	U	U	U	U	U
CG3	M	**D**	U	U	M
	U	U	U	U	U

KEY

U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

Table 10. Daily trapping results for South Giant (SG) trapping area

DATE / LOCATION	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
SG1	U	M	U	U	U
	U	U	U	M	U
SG2	U	**D**	M	U	U
	M	**D**	**D**	**D**	**D**
SG3	U	U	U	U	U
	M	U	U	U	U
SG4	U	U	U	U	U
	U	U	U	U	U
SG5	U	U	U	U	U
	U	U	U	U	U
SG6	U	U	U	U	U
	U	U	U	U	U
SG7	U	U	U	M	U
	U	U	U	M	**D**
SG8	U	U	**D**	U	U
	U	U	U	U	U
SG9	U	U	U	U	U
	U	U	U	U	U

KEY

U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

Table 11. Daily trapping results for Northwest Giant (NWG) trapping area

DATE / LOCATION	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
NWG1	U	U	U	U	U
	M	U	U	U	U
NWG2	M	U	U	U	U
	U	U	U	U	U
NWG3	U	U	U	U	U
	U	U	U	U	U
NWG4	M	U	U	U	U
	U	U	U	U	U
NWG5	U	U	U	U	U
	U	U	U	U	U
NWG6	U	U	U	U	U
	U	U	U	U	U
	U	U	U	U	U
NWG7	U	U	M	U	**D**
	U	U	U	U	U
NWG8	U	U	U	U	U
	U	U	U	U	**B**
	U	U	U	U	U
NWG9	U	U	M	U	U
	U	U	U	U	U
	U	U	U	U	U
NWG10	M	U	M	U	U
	U	U	U	U	U
	U	U	U	U	U
	U	U	U	U	U
	U	U	U	U	U

KEY

U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

Table 12. Daily trapping results for Background (B1) trapping area

DATE / LOCATION	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
B1-1	M	U	U	M	U	U	U
	L	U	U	**S**	U	U	U
B1-2	M	M	U	U	U	U	U
	M	U	U	U	U	U	U
B1-3	U	U	M	U	U	U	U
	M	L	L	U	U	U	U
B1-4	M	L*					
	U	L*					
B1-5	M	M	U	U	U	U	U
	M	M	L	U	M	U	U
B1-6	M	M	U	U	U	M	M
	M	M	U	M	U	M	U

KEY	
U	unsprung
M	misfire
D	deer mouse collected
S	red squirrel collected
B	bycatch collected
L	trap lost (replaced)

* traps not replaced

Table 13. Daily trapping results for Snaring/Trapping (ST) locations

DATE / LOCATION	21-Sep	22-Sep
ST1	U	U
	U	U
	U	U
	U	U
ST2	U	U
	U	U
	U	U
	U	U
ST3	U	U
	U	U
	U	U
	U	U
	U	U
ST4	U	**H**
	U	**G**
	U	U
	U	U
ST5	U	U
	U	U
	U	U
	U	U
	U	U
	U	U
ST6	U	**H**
	U	U
	U	U

KEY

U	unsprung
M	misfire
H	snowshoe hare collected
G	grouse collected
L	trap lost (replaced)

Table 14. Summary of overall trapping results by area

LOCATION	TRAP UNSPRUNG	TRAP SPRUNG (Small Mammal Collected)	TRAP SPRUNG (Bycatch Collected)	EFFECTIVE TRAPNIGHTS	TRAP MISFIRE	TRAP LOST	CAPTURE INDEX
NEGUS (N)	320	4 D	0	324	31	1	1.235
TAYLOR DAM (TD)	100	1 D	3 B	101	30	0	0.990
NORTH MIDDLE (NM)	126	6 D	3 B	132	8	0	4.545
UPPER WEST (UW)	88	5 D	0	93	23	2	5.376
MIDDLE WEST (MW)	155	15 D 2 S	0	170	23	1	8.235
WATER DISCHARGE (WD)	168	3 D	0	171	18	1	1.754
NORTH GIANT (NG)	76	16 D	0	92	9	0	17.391
CENTRAL GIANT (CG)	27	6 D	0	33	3	0	18.182
SOUTH GIANT (SG)	83	7 D	0	90	7	0	7.778
NORTHWEST GIANT (NWG)	123	1 D	1 B	124	7	0	0.806
BACKGROUND (B1)	47	1 S	0	47	21	6	0.000
SNARING/TRAPPING (ST)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OVERALL	**1313**	64 D 3 S	7 B	**1377**	**180**	**11**	**4.648**

KEY	
D	deer mouse collected
S	red squirrel collected
B	bycatch collected

APPENDIX B - SPECIMEN DESCRIPTIONS

Table 15. Description of animals collected during Con Mine trapping

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
N13.1	Negus tailings, N13	Con Mine	0636320	6924742	10-Sep	Deer Mouse	*Peromyscus maniculatus*	female	7	6.5	13.5	19.070
N13.2	Negus tailings, N13	Con Mine	0636320	6924742	11-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6.2	14.7	21.440
N11.1	Negus tailings, N11	Con Mine	0636342	6924732	17-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	5.5	14	19.431
N5.1	Negus tailings, N5	Con Mine	0636401	6924769	18-Sep	Deer Mouse	*Peromyscus maniculatus*	male	7.5	6	13.5	15.586

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
TD5.1	Taylor Dam, TD5	Con Mine	0635310	6925811	10-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9	7	16	23.450
TD4.1	Taylor Dam, TD4	Con Mine	0635300	6925814	15-Sep	Gray Jay (bird-bycatch)	*Perisoreus canadensis*				25	66.650
TD6.1	Taylor Dam, TD6	Con Mine	0635320	6925822	16-Sep	Gray Jay (bird-bycatch)	*Perisoreus canadensis*				27	73.770
TD5.2	Taylor Dam, TD5	Con Mine	0635310	6925811	19-Sep	Gray Jay (bird-bycatch)	*Perisoreus canadensis*				27	75.770

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
NM1.1	North Middle Pud, NM1	Con Mine	0635475	6924995	10-Sep	Deer Mouse	*Peromyscus maniculatus*	female	7	6	13	15.008
NM3.1	North Middle Pud, NM3	Con Mine	0635487	6924975	11-Sep	Deer Mouse	*Peromyscus maniculatus*	female	7.8	6	13.8	16.356
NM3.2	North Middle Pud, NM3	Con Mine	0635487	6924975	11-Sep	Dark-eyed Junco (bird-bycatch)	*Junco hyemalis*				13	20.420
NM3.3	North Middle Pud, NM3	Con Mine	0635487	6924975	14-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	5	13	16.988
NM3.4	North Middle Pud, NM3	Con Mine	0635487	6924975	15-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	5	13	16.761
NM3.5	North Middle Pud, NM3	Con Mine	0635487	6924975	17-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8.5	6.5	15	15.942
NM1.2	North Middle Pud, NM1	Con Mine	0635475	6924995	18-Sep	American Tree Sparrow (bird-bycatch)	*Spizella arborea*				13	16.680
NM1.3	North Middle Pud, NM1	Con Mine	0635475	6924995	19-Sep	Deer Mouse	*Peromyscus maniculatus*	female	10	6	16	23.350
NM5.1	North Middle Pud, NM5	Con Mine	0635516	6924990	20-Sep	American Tree Sparrow (bird-bycatch)	*Spizella arborea*				14	16.450

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
MW1.1	Middle West Pud, MW1	Con Mine	0634858	6924727	10-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8.7	6.5	15.3	17.699
MW2.1	Middle West Pud, MW2	Con Mine	0634864	6924747	10-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9	7	16	23.840
MW5.1	Middle West Pud, MW5	Con Mine	0634853	6924803	10-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8	6	14	17.794
MW7.1	Middle West Pud, MW7	Con Mine	0634848	6924866	10-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6.5	14.5	17.935
MW1.2	Middle West Pud, MW1	Con Mine	0634858	6924727	11-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6	14	13.726
MW2.2	Middle West Pud, MW2	Con Mine	0634864	6924747	11-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8	6	14	18.459
MW2.3	Middle West Pud, MW2	Con Mine	0634864	6924747	11-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6	14	16.096
MW7.2	Middle West Pud, MW7	Con Mine	0634848	6924866	11-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	5.5	13.5	14.500
MW7.3	Middle West Pud, MW7	Con Mine	0634848	6924866	14-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6	14	20.052
MW1.3	Middle West Pud, MW1	Con Mine	0634858	6924727	15-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6	14.5	18.191
MW7.4	Middle West Pud, MW7	Con Mine	0634848	6924866	15-Sep	Red Squirrel	*Tamiasciurus hudsonicus*	female	20	16	36	244.500
MW5.2	Middle West Pud, MW5	Con Mine	0634853	6924803	16-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9	6.5	15.5	19.045
MW7.4	Middle West Pud, MW7	Con Mine	0634848	6924866	16-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8.5	6.5	15	18.262
MW7.5	Middle West Pud, MW7	Con Mine	0634848	6924866	17-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8	6	14	18.666
MW5.3	Middle West Pud, MW5	Con Mine	0634853	6924803	18-Sep	Deer Mouse	*Peromyscus maniculatus*	male	7	4	11	10.285*
MW7.6	Middle West Pud, MW7	Con Mine	0634848	6924866	18-Sep	Red Squirrel	*Tamiasciurus hudsonicus*	male	21	17	38	213.900
MW7.7	Middle West Pud, MW7	Con Mine	0634848	6924866	19-Sep	Deer Mouse	*Peromyscus maniculatus*	female	7	4	11	10.050

* abdomen was crushed during trapping, stomach was ripped open and only one kidney was removed

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
UW4.1	Upper West Pud, UW4	Con Mine	0634879	6925031	11-Sep	Deer Mouse	*Peromyscus maniculatus*	female	9.5	7	16.5	21.770
UW1.1	Upper West Pud, UW1	Con Mine	0634905	6925082	15-Sep	Deer Mouse	*Peromyscus maniculatus*	female	9	6	15	19.589
UW4.2	Upper West Pud, UW4	Con Mine	0634879	6925031	15-Sep	Deer Mouse	*Peromyscus maniculatus*	female	9.5	6.5	17	19.896
UW4.3	Upper West Pud, UW4	Con Mine	0634879	6925031	16-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6	14	15.604
UW4.4	Upper West Pud, UW4	Con Mine	0634879	6925031	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9.3	5.8	15.1	22.060

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
WD2.1	Water Discharge, WD2	Con Mine	0635368	6923892	17-Sep	Deer Mouse	*Peromyscus maniculatus*	female*	9.5	6	15.5	30.310
WD2.2	Water Discharge, WD2	Con Mine	0635368	6923892	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9.5	6.5	16	20.890
WD4.1	Water Discharge, WD4	Con Mine	0635389	6923850	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6	14.5	17.137

*extra fat tissue on haunches, large nipples - possibly rearing young

Table 16. Description of animals collected during Giant Mine trapping

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
NG1.1	North Giant, NG1	Giant Mine	0637428	6933741	16-Sep	Deer Mouse	*Peromyscus maniculatus*	female	10	8	18	22.380
NG1.2	North Giant, NG1	Giant Mine	0637428	6933741	16-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6	14.5	17.952
NG2.1	North Giant, NG2	Giant Mine	0637418	6933721	16-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	5	13	12.841
NG2.2	North Giant, NG2	Giant Mine	0637418	6933721	16-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9	7	16	23.970
NG1.3	North Giant, NG1	Giant Mine	0637428	6933741	17-Sep	Deer Mouse	*Peromyscus maniculatus*	male	10	6.5	16.5	16.723
NG2.3	North Giant, NG2	Giant Mine	0637418	6933721	17-Sep	Deer Mouse	*Peromyscus maniculatus*	female	7	6	13	15.212
NG1.4	North Giant, NG1	Giant Mine	0637428	6933741	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6	14.5	19.995
NG1.5	North Giant, NG1	Giant Mine	0637428	6933741	19-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6	14	14.942
NG2.4	North Giant, NG2	Giant Mine	0637418	6933721	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6	14.5	22.850
NG2.5	North Giant, NG2	Giant Mine	0637418	6933721	19-Sep	Deer Mouse	*Peromyscus maniculatus*	female	9	6	15	17.297
NG3.1	North Giant, NG3	Giant Mine	0637399	6933722	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8	7	15	20.111
NG5.1	North Giant, NG5	Giant Mine	0637373	6933713	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9	7	16	17.375
NG7.1	North Giant, NG7	Giant Mine	0637285	6933932	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6	14.5	17.795
NG7.2	North Giant, NG7	Giant Mine	0637285	6933932	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9	6.5	15.5	21.840
NG2.6	North Giant, NG2	Giant Mine	0637418	6933721	20-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9.5	6.5	16	19.288
NG6.1	North Giant, NG6	Giant Mine	0637381	6933699	20-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6.5	15	18.308

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
CG1.1	Central Giant, CG1	Giant Mine	0636674	6932960	16-Sep	Deer Mouse	*Peromyscus maniculatus*	male	9	5.5	14.5	17.388
CG1.2	Central Giant, CG1	Giant Mine	0636674	6932960	16-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6	14	13.688
CG3.1	Central Giant, CG3	Giant Mine	0636647	6932937	17-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8	6.5	14.5	17.288
CG1.3	Central Giant, CG1	Giant Mine	0636674	6932960	18-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6.5	14.5	20.920
CG1.4	Central Giant, CG1	Giant Mine	0636674	6932960	19-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	5.5	13.5	13.827
CG1.5	Central Giant, CG1	Giant Mine	0636674	6932960	20-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8	6	14	14.859

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
SG2.1	South Giant, SG2	Giant Mine	0636790	6932188	17-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8	6.5	14.5	19.608
SG2.2	South Giant, SG2	Giant Mine	0636790	6932188	17-Sep	Deer Mouse	*Peromyscus maniculatus*	female	9	6	15	18.892
SG2.3	South Giant, SG2	Giant Mine	0636790	6932188	18-Sep	Deer Mouse	*Peromyscus maniculatus*	female	9	6	15	18.766
SG8.1	South Giant, SG8	Giant Mine	0636682	6932323	18-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6	14	18.638
SG2.4	South Giant, SG2	Giant Mine	0636790	6932188	19-Sep	Deer Mouse	*Peromyscus maniculatus*	male	7.5	6	13.5	14.708
SG2.5	South Giant, SG2	Giant Mine	0636790	6932188	20-Sep	Deer Mouse	*Peromyscus maniculatus*	female	8	6.5	15.5	15.500
SG7.1	South Giant, SG7	Giant Mine	0636717	6932304	20-Sep	Deer Mouse	*Peromyscus maniculatus*	male	8.5	6.5	15	19.159

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
NWG7.1	North West Giant, NWG7	Giant Mine	0636257	6935378	20-Sep	Deer Mouse	*Peromyscus maniculatus*	female	10	6.5	16.5	18.277
NWG8.1	North West Giant, NWG8	Giant Mine	0636238	6935368	20-Sep	Gray Jay (bird-bycatch)	*Perisoreus canadensis*				25.5	80.720

Table 17. Description of animals collected during background trapping and larger mammal snaring and trapping

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)	Notes
B1.1	Background 1-1	Background	0633446	6923323	17-Sep	Red Squirrel	*Tamiasciurus hudsonicus*	female	18	14	32	170.800	
B2.1	Background 2-1	S of Grace Lake			21-Sep	Deer Mouse	*Peromyscus maniculatus*	female	7.5	5	12.5	18.450	1
B2.2	Background 2-2	S of Grace Lake			21-Sep	Deer Mouse	*Peromyscus maniculatus*	female	7.5	5	12.5	16.590	2
B2.3	Background 2-3	S of Grace Lake			21-Sep	Deer Mouse	*Peromyscus maniculatus*	female	7.5	5.5	13	16.580	1
B2.4	Background 2-1	S of Grace Lake			21-Sep	Yellow-rumped warbler (bird-bycatch)	*Dendroica coronata*				13	9.830	1
B2.5	Background 2-2	S of Grace Lake			21-Sep	Gray Jay (bird-bycatch)	*Perisoreus canadensis*				25	63.500	1

1 supplied by GNWT RWED
2 supplied by GNWT RWED, head, rear legs and haunches partially eaten

Sample Number	Location On Site	Area	GIS X	GIS Y	Date collected	Description	Latin Name	Sex	Body (cm)	Tail (cm)	Total Length (cm)	Total Weight (g)
ST4.1	Background (area 4)	East of Dettah	0641150	6932962	22-Sep	Snowshoe Hare	*Lepus americanus*	female	n/a	n/a	48	1538.000
ST4.2	Background (area 4)	East of Dettah	0641150	6932962	22-Sep	Spruce Grouse	*Dendragapus canadensis*		n/a	n/a	40	657.500
ST6.1	Radio tower (area 6)	East of Dettah	0640128	6933103	22-Sep	Snowshoe Hare	*Lepus americanus*	female	n/a	n/a	33	1259.000