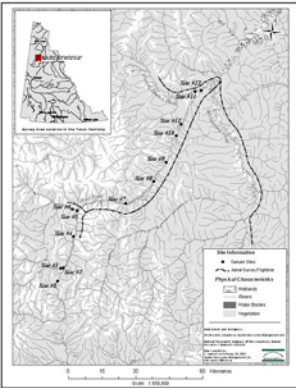


# Salmon Research Training and Chinook /Coho Habitat Assessment

Yukon River Panel Project CRE-15-02

Final Report



Prepared on behalf of the North Yukon Renewable Resources Council  
(RRC) and the Vuntut Gwitchin First Nation

by  
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## ABSTRACT:

Four members of the Vuntut Gwitchin First Nation (Old Crow, Yukon) as well as a project coordinator, received training and experience related to conducting fish research in the field. The Miner River, a major tributary of the Porcupine River was sampled for juvenile chinook and coho salmon. An aerial survey was also conducted on the Miner Rivers as well as portions of the Whitestone and Fishing Branch Rivers to locate chinook spawning redds/adult salmon, and, to track via radio telemetry chinook salmon fitted with radio transmitters from Alaska. The results of the project indicate that the much of the Miner River (from mouth of the Fishing Branch River upstream to Fishing Creek) is a major spawning ground for Porcupine River chinook salmon.

## OBJECTIVES:

- a. Provide training, employment and experience to a number of interested community members who will become a pool of trained and experienced community habitat researchers, as well as habitat conservation and stewardship advocates. In order to carry out needed research and to ensure long-term salmon habitat stewardship, the human capacity must be developed within the community of Old Crow.
- b. Provide information regarding the presence or absence of juvenile chinook and coho in the Whitestone and Miner tributaries, and possibly the Porcupine mainstem: Preliminary work done in 2001 (RE 24-01) established that chinook salmon do spawn in the Whitestone and Miner Rivers. It was recommended that further data be collected to establish the presence and extent of utilization of these rivers by juvenile chinook and possibly coho salmon. To address the current lack of understanding of chinook and coho stocks, a comprehensive and community-based research project is needed.
- c. Provide information regarding the upstream extent of spawning and rearing habitat for chinook salmon in the Whitestone and Miner rivers: Preliminary work done in 2001 (RE 24-01) established that chinook salmon do spawn in the Whitestone and Miner Rivers. It was recommended that further data be collected to establish the presence and extent of utilization of these rivers by juvenile chinook and possibly coho salmon.

# TABLE OF CONTENTS:

<b>1</b>	<b>INTRODUCTION:</b> .....	<b>2</b>
<b>2</b>	<b>METHODS</b> .....	<b>3</b>
2.1	FIELD SURVEY .....	4
2.2	AERIAL SURVEY .....	5
<b>3</b>	<b>RESULTS</b> .....	<b>6</b>
3.1	FIELD SURVEY .....	6
3.1.1	<i>Summary of Juvenile Chinook Data</i> .....	6
3.1.2	<i>Summary of Water Temperature Data</i> .....	7
3.1.3	<i>Observations of Adult Chinook Salmon &amp; Spawning Redds</i> .....	8
3.2	AERIAL SURVEY .....	9
3.2.1	<i>Miner River/Fishing Creek</i> .....	9
3.2.2	<i>Fishing Branch River</i> .....	11
3.2.3	<i>Whitestone River/Unnamed Tributary</i> .....	11
3.3	COMMUNITY CAPACITY BUILDING .....	12
3.3.1	<i>Training</i> .....	12
3.3.2	<i>Experience</i> .....	12
<b>4</b>	<b>CONCLUSIONS/RECOMMENDATIONS</b> .....	<b>13</b>
4.1	PRESENCE/ABSENCE OF CHINOOK SALMON .....	13
4.2	PRESENCE/ABSENCE OF COHO SALMON .....	14
4.3	BUILDING COMMUNITY CAPACITY .....	15
4.4	RECOMMENDATIONS .....	15
4.4.1	<i>Chinook Salmon</i> .....	15
4.4.2	<i>Coho Salmon</i> .....	16
4.4.3	<i>Building Community Capacity</i> .....	16
<b>5</b>	<b>REFERENCES</b> .....	<b>17</b>
<b>6</b>	<b>FIELD DATA/DOCUMENTATION</b> .....	<b>17</b>
<b>7</b>	<b>FIGURES</b> .....	<b>18</b>
7.1	SITE LOCATIONS AND AERIAL SURVEY COVERAGE .....	18
7.2	LOCATIONS OF JUVENILE CHINOOK, SPAWNING REDDS, AND RADIO TAG SIGNALS .....	19
<b>8</b>	<b>APPENDICES</b> .....	<b>20</b>
8.1	MINNOW TRAPPING/BEACH SEINING DATA .....	20

# 1 INTRODUCTION:

The Porcupine River is one of the largest tributaries in the Yukon River system. It extends from its mouth at Fort Yukon, Alaska, across the Canada/U.S. border, where it drains a large portion of the north Yukon and most of the Vuntut Gwitchin First Nation's Traditional Territory. The Porcupine has a number of significant tributaries in Canada, including three significant rivers that form its headwaters. These are the Whitestone, Miner, and Fishing Branch Rivers. The only settlement within the Porcupine River watershed is the village of Old Crow, located approximately 80 kilometres east of the Canada/U.S. border at the mouth of the Crow River. Old Crow has a population of roughly three hundred, mainly Vuntut Gwitchin First Nation members.

Three species of salmon migrate up the Porcupine River. They include a chinook run, that passes Old Crow mainly during the month of July, a chum run, that passes Old Crow mainly in September, and a coho run, that passes Old Crow beginning in early October until late January. The coho and chinook salmon runs in the Porcupine River system are an important food fish to the Vuntut Gwitchin; the preferred chinook being a large summer salmon, while the more abundant coho being a salmon that can be caught during the late fall/winter. Vuntut Gwitchin members fish both runs in the vicinity of Old Crow. The coho run is unique in two ways: it is one of the most northern runs of coho and it is the only known coho run in the Canadian portion of the Yukon River drainage basin. The Vuntut Gwitchin also depend on the chum run for a substantial subsistence fishery. There have also been limited reports of summer chum in the vicinity of Old Crow.

A significant lack of information regarding chinook and coho salmon stocks in the Porcupine River system has been identified as an issue that needs to be addressed. Filling such information gaps has been identified as a priority to ensure the future success of stock and habitat management.

In 2001, the first chinook/coho habitat assessment took place on the Whitestone and Miner Rivers (RE 24-01). The current project follows up on recommendations resulting from that work. Previously, little scientific/technical information was known about the unique stocks of chinook and coho salmon that migrate up the Porcupine River, including where they spawn and in what numbers (Seigel, 1986). The 2001 research confirmed preliminary information that chinook salmon do spawn in the Miner River (Timpany, 1997). Said project also established that chinook spawn in the Whitestone River (Anderton, 2001). However, due to the constraints of the project and an apparent Yukon-wide "spawning failure" the previous year, it was not possible to determine the upstream extent of spawning habitat, or to identify rearing habitat (von Finster, 2001). The results for coho salmon were inconclusive and require more research to establish the presence/absence of coho in these tributaries (Anderton, 2001). It is known that an unidentified number of coho utilize the Fishing Branch River system, a tributary of the Porcupine well known for its large runs of chum salmon (Boyce, 2002)(Timpany, 1997). No other scientific/technical information is known about where the coho migrate to, or in what numbers (Seigel, 1986). Until 2001, only slightly more information had been gathered in regard to Porcupine River chinook.

Beyond the utilization identified during 2001 in the Miner and Whitestone Rivers, there is some information that chinook have been found in the Crow River system (Pipeline Assessment,

1971). Small numbers of chinook have been recorded at the enumeration weir (for chum) on the Fishing Branch River (Boyce, 2002) (Boyce & Vust, 2002). In 1997 a chinook enumeration project was conducted on the Fishing Branch River, with the enumeration weir operating from July 15<sup>th</sup> on, however, none were recorded (Doehle, 1999). That year, chinook returns throughout the Yukon River system crashed. Therefore, the extent of the Fishing Branch chinook run has not yet been established.

The aerial survey conducted in 2001 noted that visual conditions in the upper portion of the Whitestone make it impossible to identify chinook salmon spawning redds from the air. This is due to the brightness of the cobble substrate and the clarity of the water. Some adult chinook salmon and spawning redds were identified farther downstream in the Whitestone River. Therefore, although no adult chinook salmon were identified in the upper Whitestone, the presence/absence of spawning in that region of the river remains inconclusive (Anderton, 2001).

To fill existing knowledge gaps and ensure long-term co-management of Porcupine River salmon stocks, on-going community engagement and capacity building must be undertaken. This project represents the second year in this process. A primary necessity for the long-term success of this work is the development of human capacity within the community of Old Crow. Trained and experienced community members can be drawn upon for future projects or for fisheries related jobs throughout the Porcupine River watershed. As well, they will act as long-term conservation and stewardship advocates for fish and fish habitat.

This project builds on and confirms some finding of the work completed in 2001, as well as raising some further questions. It is a significant contribution to the knowledge base on Porcupine River chinook salmon stocks.

## **2 METHODS**

The portion of the sampling expedition scheduled for the upper Whitestone River was cancelled due to illness among some of the crew, including the coordinator. This illness struck a few days into the expedition, particularly incapacitating the coordinator for a couple of days. It resulted in the crew spending two extra nights at camp #4, the cancellation of the Whitestone portion of the trip, and returning to Old Crow a day earlier than scheduled. It did not significantly affect sampling on the Miner River portion of the expedition.

From July 16-30<sup>th</sup>, 13 sites along the Miner River and several significant tributaries were sampled for juvenile chinook and/or coho salmon.

Each site had 6-7 stations. An effort was made to sample all major habitat types present, including: main-stem of the river, backwaters and side channels, tributaries, slow water areas, fast water areas, shallow waters, deeper waters, areas with cover, areas without cover, etc. Each station was comprised of 4 minnow traps, set overnight (minimum of 12 hours), to allow sampling from a variety of microhabitats. In conducting the minnow trapping, the DFO "Protocol for the baiting of G-type minnow traps for the capture of juvenile chinook salmon in the Yukon River drainage basin, Dec. 4, 1999" was followed. Beach seining was also conducted at some sites, using a 1/8" mesh, 10' net with 1,1/2", 30' guide-net attached.

Stations were geo-referenced using Garmin GeoTrex GPS units.

All sampling conducted for this project was carried out under fish collection license # 02-42 issued by DFO on July 8<sup>th</sup>, 2002. All fish captured were identified, all salmon were measured and weighed, and representative samples of other species were measured. Fish observed but not captured were noted. Data and observations were recorded on standardised sheets.

Water temperatures were taken at each station & sampling site using Oakton Model 91300-00 waterproof digital thermometers. Water clarity and river stage were also noted.

A fixed wing aerial survey was conducted on the Miner, Fishing Branch, and Whitestone Rivers on August 10<sup>th</sup>, 2002 with the purpose of locating adult chinook salmon and/or spawning redds. Although more extensive aerial surveying was planned, weather conditions permitted only the one-day of flying.

As the project progressed, an opportunity arose to participate in a Yukon River basin-wide chinook radio tagging/telemetry-tracking program initiated in Alaska by ADF&G. Radio telemetry to track chinook salmon was conducted in conjunction with other aerial survey observations. Participation in this telemetry/tracking project represented an excellent opportunity to compliment visual survey observations. This was particularly the case considering that the survey was conducted so late in the season, as radio tags continue to transmit signals, regardless of whether the host fish is alive, dead, or the tag is no longer in the salmon.

## **2.1 Field Survey**

Site locations are shown on Figure 7.1, and were located at:

1. Upper Miner River main stem, approximately 33km upstream from Fishing Creek. Sampling conducted upstream and downstream from camp (July 16-17<sup>th</sup>, 2002).
2. Miner River main stem, at mouth of unnamed tributary entering the Miner River from the west approximately 27km upstream from Fishing Creek. (July 17-18<sup>th</sup>, 2002).
3. Unnamed tributary, entering the Miner River from the west, approximately 27km upstream from Fishing Creek (accessed from camp at site #2). Sampling conducted approximately 2-3km upstream from confluence with Miner River. (July 17-18<sup>th</sup>, 2002)
4. Miner River main stem, approximately 8km upstream from the mouth of Fishing Creek. Sampling conducted upstream and downstream from camp. (July 18-19<sup>th</sup>, 2002)
5. Miner River main stem, 300m downstream from the mouth of Fishing Creek. Sampling conducted upstream and downstream from camp. (July 19-20<sup>th</sup>, 2002)

6. Fishing Creek (accessed from camp at site #4). Sampling conducted 1-3km upstream from mouth. (July 20-22<sup>nd</sup>, 2002)
7. Miner River main stem, approximately 21km downstream from Fishing Creek. Sampling conducted upstream and downstream from camp. (July 23-25<sup>th</sup>, 2002)
8. Miner River main stem, approximately 10km upstream from Cathedral Rocks. Sampling conducted upstream and downstream from camp. (July 25-26<sup>th</sup>, 2002)
9. Miner River main stem, just above downstream end of Cathedral Rocks, and roughly 2km downstream from a large unnamed tributary entering from the west. Sampling conducted upstream and downstream from camp, as well as approximately 1km up unnamed tributary. (July 26-27, 2002)
10. Miner River main stem, approximately 14km downstream from Cathedral Rocks. Sampling conducted upstream and downstream from camp. (July 27-28, 2002)
11. At mouth of large unnamed tributary entering from the west, approximately 17km upstream from the mouth of the Fishing Branch River. Sampling conducted upstream and downstream from camp, and approximately 1km up unnamed tributary. (July 28-29, 2002)
12. Miner River main stem, at confluence with Fishing Branch River. Sampling conducted upstream from camp. (July 29-30<sup>th</sup>, 2002)
13. Fishing Branch River, sampling conducted 150m-1.25km upstream from confluence with Miner River. (July 29-30<sup>th</sup>, 2002)

\*\*Distances are “as the crow flies,” along the river.

## **2.2 Aerial Survey**

An aerial survey of portions of the Miner, Fishing Branch, and Whitestone Rivers was conducted from a Piper Cub aircraft, at an elevation of approximately 6-700 meters, on August 10<sup>th</sup>, 2002. A visual survey to locate and count adult chinook salmon and spawning redds was conducted when possible. Longitude and latitude locations were recorded by GPS. Figure 7.1 illustrates the portions of each river flown.

A radio telemetry survey for radio tagged adult chinook salmon was conducted in conjunction with the visual survey. An Advance Telemetry Systems (ATS) R4500 (prototype model) radio receiver was used for this purpose. Tags were located and their identity and location fixed when possible. The radio tags sought were placed in chinook salmon on the lower Yukon River main-stem in Alaska by the U.S. National Marine Fisheries Service. Each of these tags transmits a coded signal identifying the particular tag. The radio telemetry receivers record signals that are fixed and the GPS location of the airplane at the time.

### 3 RESULTS

#### 3.1 Field Survey

##### 3.1.1 Summary of Juvenile Chinook Data

106 juvenile chinook caught at 4 out of 13 sites sampled:						
	Site #8:	Site #9:	Site #10:	Site #11:	Total Mean Length:	68mm
	Traps: 24	Traps: 27	Traps: 24	Traps: 26	Total Mean Mass:	3.2g
	n=16	n=35	n=37	n=18		
Mean Length:	67mm	67mm	67mm	72mm		
Mean Weight:	2.9g	3.1g	3.1g	3.8g		

Sites #8-11 represent the only section of the Miner River where juvenile chinook were caught, and are illustrated on Figure 7.2.

In comparison with results from other locations in the upper Yukon River system, juvenile trapping in the Miner River resulted quite a low catch per unit effort.

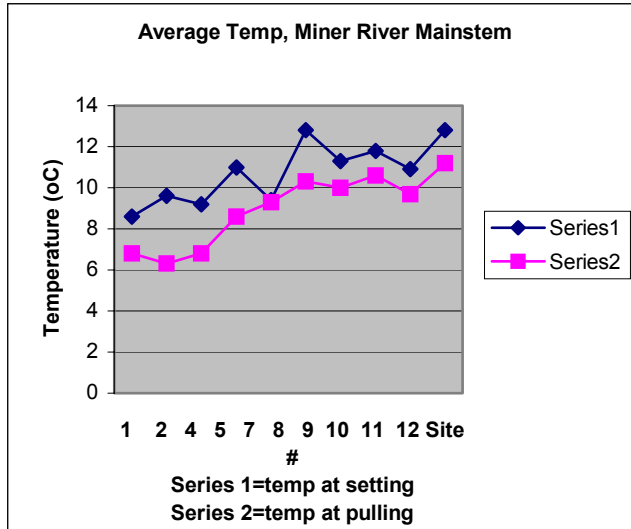
To place these results in context with other areas in the upper Yukon River, juvenile trapping in the Chanindu River (a natal stream in the Dawson area) resulted in average catches of approximately 17 juvenile chinook per trap during the months of July and August (Duncan, 1999). In Croucher Creek (a non-natal stream in the Whitehorse area), juvenile trapping resulted in average catches of approximately 11 juveniles per trap during the months of July and August (Moodie, Grout, & von Finster, 1993). In comparison, the average catch of per trap in the Miner River for Sites #8-11 was 1 juvenile chinook. It is not uncommon for as many as 40-50 juveniles to be caught in a single trap at other locations in the upper Yukon River system (Moodie, Grout, & von Finster, 1993) (Duncan, 1999). As well, it is rare in such locations for a trap to yield no juvenile chinook. At sites #8-11 on the Miner River, the highest number of juveniles caught in a single trap was 21, with many traps yielding no chinook at all.



### 3.1.2 Summary of Water Temperature Data

Temperatures at trap settings were generally measured during late afternoon or evenings, while temperatures at trap pullings were generally measured during late morning.

#### 3.1.2.1 Miner River Main-stem



Miner River Temperature Summary			
Average Temperature for All Sites (oC)			
Location/Source/Site #		at setting	at pulling
Miner/ 1		8.6	6.8
Miner/ 2		9.6	6.3
Miner/ 4		9.2	6.8
Miner/ 5		11.0	8.6
Miner/ 7		9.4	9.3
Miner/ 8		12.8	10.3
Miner/ 9		11.3	10.0
Miner/ 10		11.8	10.6
Miner/ 11		10.9	9.7
Miner/ 12		12.8	11.2

The Miner River main-stem showed a general warming trend as the sampling moved downstream from Fishing Creek. All stations at Site #5 were located downstream of Fishing Creek, except one large groundwater fed stream, of which the temperature was not included in the average for the Miner main-stem. One particularly noticeable anomaly to this warming trend was the average temperature at setting of the traps around Site #7. The average temperature at pulling the traps maintained the warming trend, but the “setting” temperature dropped down again. However, once again below Site #7, the trend continued for both “setting” and “pulling” temperatures. Above Fishing Creek, the Miner River main-stem temperature did not show a trend, but was approximately 2°C colder than the temperature measured at Site #5, immediately below Fishing Creek. In total, the Miner River warmed approximately 4°C between Sites #1 and #12.

### 3.1.2.2 Tributary/Groundwater Sources of Miner River

Temperature Summary for Tributaries & Groundwater Sources of the Miner River		
Average Temperature for All Sites (oC)		
Location/Source/Site #	at setting	at pulling
Groundwater stream/ 1	9.2	6.9
Unnamed Large Trib./ 3	8.9	6.3
Groundwater stream/ 3	6.7	3.5
Small stream/ 4	4.9	5.7
Groundwater stream/ 5	6.2	6.1
Small Stream/ 5	5.6	6.9
Fishing Creek/ 6	10.8	8.6
Small stream/ 7	2.9	4.1
Unnamed Large Trib./ 9	11.8	10.3
Unnamed Large Trib./ 11	10.7	9.5
Fishing Branch/ 13	11.7	9.7

Tributaries and groundwater sources of the Miner River showed a variety of temperature patterns.

In general, the larger tributaries showed very similar temperatures to the Miner main-stem in their vicinity, with the exception of Fishing Creek. The Miner River above Fishing Creek showed an average temperature of 9.1°C at trap setting, however the average temperature of Fishing Creek at trap setting was 10.8°C, and the Miner main-stem immediately below Fishing Creek showed an average temperature of 11.0°C at trap setting.

2 out of 3 Streams with noticeable groundwater sources near to the Miner River main-stem had colder temperatures than that of the River, however, the groundwater fed stream at Site #1 showed temperatures roughly the same as the River.

Small streams that were not fed by an obvious source of groundwater and appeared to travel from mountainous origins, were quite cold. They also generally showed a higher temperature at trap setting than at trap pulling, which is opposite to the trend of other waters tested. The location/placement of these streams indicate that their sources may be aufeis or melting snow patches.

### 3.1.3 Observations of Adult Chinook Salmon & Spawning Redds

Observations of adult chinook were made while travelling down the Miner River. Adult chinook salmon were first observed on July 23<sup>rd</sup>, approximately 2km downstream from the mouth of Fishing Creek (N65° 57.136' W139° 36.755'), and over the course of the day, 19 fish were observed between Fishing Creek and the camp at site #5 (a distance of approximately 23km). The crew travelled downstream on the Miner River from site #5 on July 25<sup>th</sup>, continuing daily through July 30<sup>th</sup>. Salmon were observed every day from the boats, with 14 observed on July 25<sup>th</sup>, and on subsequent days, more adult salmon were observed than could be counted, with estimates ranging from 45-80 in a given day. Also, beginning on July 26<sup>th</sup>, areas with spawning redds were also observed. It should be noted that while no spawning redds were observed prior to July 26<sup>th</sup>, river and light conditions were not conducive to being able to make such

observations (flat light & glare on water due to heavy cloud cover). Spawning redds were observed in small to large groups from a single redd to conglomerations of multiple redds to numerous to count from the boats. Observations of large numbers of redds and adult chinook salmon continued as the crew travelled down river until July 29<sup>th</sup>, when the crew travelled from site #11 to sites #12 & 13 at the Fishing Branch River. Below site #11, the number of salmon observed dropped dramatically. Below sites #12 & 13, only a couple of adult salmon were observed above the mouth of the Whitestone River.

## **3.2 Aerial Survey**

The aerial survey was scheduled for August 5-11<sup>th</sup>, 2002. However due to weather conditions, it was not possible to fly until August 10<sup>th</sup>, and then only for one day. This did allow significant portions of the Miner, Fishing Branch, and Whitestone Rivers to be flown, however, not to the extent that was originally planned for.

The locations of radio tag signals and chinook spawning redds are illustrated in Figure 7.2.

### **3.2.1 Miner River/Fishing Creek**

The Miner River was flown beginning just below site #5 from the ground-based expedition, heading upstream past Fishing Creek approximately 10-15km. Then, a return trip was flown downstream to Fishing Creek, which was also flown up and down approximately 7km. From Fishing Creek, the Miner River was flown downstream, past the beginning of the Miner River survey, and downstream to the Fishing Branch River.

#### **3.2.1.1 Location of radio tag signals**

Radio tag signals were received above Fishing Creek and the Miner River.

The signal on Fishing Creek was not confirmed, and a fix could not be made. It was heard briefly and then lost, approximately 4-5km upstream from the confluence with the Miner River.

The signal encountered on the Miner River was confirmed and a fix was made to identify the tag and record the aircraft location, approximately 16km upstream from the Fishing Branch River, as follows:

Frequency: 922

Fish #: 1041

Code: 47

Location: N66° 20.867' W138° 42.738' \*\*

\*\*note long/lat location is average of all locations recorded for the particular tag.

#### **3.2.1.2 Observations of adult chinook salmon/spawning redds**

No redds were observed in Fishing Creek, or the Miner River above Fishing Creek, or the Miner River below the Fishing Branch River. It should be noted, however, that above Fishing Creek, the riverbed was clean and bright, with little to no algae or silt build-up. Such conditions made it difficult to observe spawning redds from the air.

Spawning redds were observed in the Miner River main stem, from approximately 2km downstream of Fishing Creek to approximately 4km upstream from the

Fishing Branch River. 1 adult chinook salmon was also observed in this portion of the river.

In the above noted portion of the Miner River (approximately 75-80km), 42 locations of spawning redds were observed from the aircraft, in groupings of 1 to approximately 15 redds (often amalgamated in large clusters). The following are the coordinates for the aircraft location at each redd sighting along the Miner River (upstream to downstream):

N65° 55.831' W139° 39.971'  
N65° 56.372' W139° 38.618'  
N65° 56.940' W139° 37.262'  
N65° 57.781' W139° 33.511'  
N65° 58.000' W139° 32.055'  
N65° 58.623' W139° 28.333'  
N65° 58.699' W139° 24.320'  
N65° 59.148' W139° 22.019'  
N65° 58.527' W139° 18.991'  
N65° 58.309' W139° 13.743'  
N65° 58.303' W139° 11.753'  
N65° 58.333' W139° 10.692'  
N65° 58.406' W139° 10.323'  
N65° 58.505' W139° 10.134'  
N65° 59.820' W139° 06.151'  
N66° 00.026' W139° 05.533'  
N66° 00.683' W139° 04.214'  
N66° 03.029' W138° 58.865'  
N66° 03.845' W138° 57.906'  
N66° 04.009' W138° 57.797'  
N66° 04.819' W138° 56.551'  
N66° 05.837' W138° 56.133'  
N66° 05.924' W138° 56.066'  
N66° 06.307' W138° 55.724'  
N66° 06.793' W138° 55.612'  
N66° 06.955' W138° 55.464'  
N66° 07.945' W138° 53.225'  
N66° 08.058' W138° 52.950'  
N66° 08.389' W138° 52.090'  
N66° 08.774' W138° 51.317'  
N66° 09.259' W138° 50.360'  
N66° 09.449' W138° 50.327'  
N66° 10.168' W138° 49.973'  
N66° 11.202' W138° 48.975'  
N66° 11.999' W138° 48.160'  
N66° 13.437' W138° 48.798'  
N66° 13.718' W138° 48.867'  
N66° 16.009' W138° 46.370'  
N66° 16.153' W138° 46.207'

N66° 22.815' W138° 41.496'  
N66° 25.183' W138° 38.049'

### **3.2.2 Fishing Branch River**

The Fishing Branch River was flown from its confluence with the Miner River upstream approximately 25km, to just below the confluence of the North Fork of the river.

#### **3.2.2.1 Location of Radio Tag Signals**

Approximately 10km upstream from the confluence with the Miner River a radio tag signal was detected but not confirmed or fixed on. It was heard briefly and then lost.

Approximately 22km upstream from the confluence with the Miner River, a radio tag signal was detected, confirmed, and a fix was made to identify the tag and record the aircraft location as follows:

Frequency: 842

Fish #: 170

Code: 82

Location: N 66° 27.013' W139° 00.198' \*\*

\*\*note long/lat location is average of all locations recorded for the particular tag.

#### **3.2.2.2 Observations of adult chinook salmon/spawning redds**

No adult chinook salmon were observed in the Fishing Branch River.

3 spawning redds were observed in the Fishing Branch River, approximately 1-3km downstream from the confluence of the North Fork of the river. Their locations were as follows:

N66° 28.856' W139° 04.916'—1 redds

N66° 27.069' W139° 00.667'—2 redds

### **3.2.3 Whitestone River/Unnamed Tributary**

The Whitestone River was flown from its' mouth to the point where the river turns from flowing in an eastern direction to a northern direction, and, where a significant unnamed tributary enters from a southerly direction (approximately the lower 60km of the Whitestone). The unnamed tributary was then flown upstream for approximately 22km before the airplane turned away overland to base at the Dempster Highway Mile 150 Airport.

#### **3.2.3.1 Location of Radio Tag Signals**

At the mouth of the Whitestone River, a radio tag signal was detected, confirmed, and a fix was made to identify the tag and record the aircraft location. It was not possible to determine if the tag was located in the Whitestone River, or in the Miner/Fishing Branch River. Details as follows:

Frequency: 881

Fish #: 95

Code: 42

Location: N 66° 29.608' W138° 27.396' \*\*

\*\*note long/lat location is average of all locations recorded for the particular tag.

### **3.2.3.2 Location of adult chinook salmon/spawning redds**

No adult chinook salmon were observed in the Whitestone River or the unnamed tributary flow.

3 spawning redds were observed approximately 11km above mouth of McPharlon Creek (long/lat not recorded), and 2 spawning redds were observed in mouth (up approximately 50-100m) of unnamed tributary entering the Whitestone from a southerly direction at:

N66° 02.439' W137° 55.392'

## **3.3 Community Capacity Building**

A total of 4 Old Crow residents were hired to carry out the project research and receive associated training under the supervision of the local Habitat Steward acting as project coordinator. This included 3 field technicians and 1 cook/camp maintenance coordinator. The cook/camp maintenance coordinator worked a total of 32.5 days, including training. The 3 field technicians worked a total of 32.5, 30, and 25.5 days, respectively, including training. The project coordinator worked a total of 32 days.

### **3.3.1 Training**

Training for employees included courses in swift water rescue and wilderness first aid, as well as, basic technical training in the field. 1 field technician completed the swift water rescue course, 2 field technicians completed the wilderness first aid course, and all 3 technicians completed the basic technical training. The cook/camp maintenance coordinator completed the wilderness first aid course, but not the swift water rescue course, and also participated in the safety portion of the basic technical training. The project coordinator completed both the swift water rescue course, the wilderness first aid course, and was instructor for the basic technical training.

1 of the technician positions was initially filled with an individual who was relieved of his position at the beginning of the swift water rescue course. The position was subsequently filled with an individual who completed the first aid course and the basic technical training, but because of the later hiring circumstances, did not have the opportunity to complete the swift water rescue course. Another of the technicians did not participate in the swift water rescue or wilderness first aid courses as they had participated in the 2001 training and research project, and therefore was already certified in these courses.

### **3.3.2 Experience**

The 3 field technicians gained the valuable experience of conducting basic field research that included extensive minnow trapping, some beach seining, habitat identification, information management, as well as working in extremely isolated and mobile circumstances. The cook/camp maintenance coordinator gained experience with the logistics of planning for and carrying out food preparation/coordination in an extremely mobile remote wilderness setting. The project coordinator gained valuable experience with managing personnel and logistics in a remote and highly mobile work environment.

## **4 CONCLUSIONS/RECOMMENDATIONS**

This project built on research begun last year and has provided important information regarding Porcupine River chinook salmon stocks. This project also continued to build interest and capacity in the community of Old Crow to carry out future work. It has also contributed significantly to local and regional management objectives.

### **4.1 Presence/Absence of Chinook Salmon**

The results of the juvenile sampling portion of the project demonstrate that juvenile chinook salmon do rear in a portion of the Miner River and the lower reaches of some of its tributaries. The aerial survey also demonstrated that significant numbers of chinook salmon do spawn in a large portion of the Miner River main stem (approx. 80km), as well, that smaller numbers of chinook salmon spawn in the Fishing Branch and Whitestone Rivers.

The numbers of juvenile chinook salmon captured in 2002 were significantly higher than in 2001. This supports the theory put forward in the 2001 Project Report that a “spawning failure” of some sort did take place in the Miner River the previous year, as was the case throughout much of the Yukon (Anderton, 2001) (von Finster, 2001).

Considering the numbers of adults and spawning redds observed in 2001, the numbers of juvenile chinook salmon captured in 2002 are extremely low (Anderton, 2001) (von Finster, 2002). As noted in 3.1.1, other natal and non-natal streams in the upper Yukon River system show catches of juvenile chinook per unit effort 10-20 times greater than those found in the Miner River (Duncan, 1999) (Moodie, Grout, & von Finster, 1993). This raises further questions about the behaviour or life cycle of Porcupine River chinook stocks. It is possible that their behaviour/life cycle is not consistent with the standard Yukon River model. Observations from each sampling station on the Miner River indicate that most juvenile chinook were caught in locations providing cover, such as under logs or in eddy shear zones. This may indicate a response to a high rate of predation, which is consistent with the significant numbers of young mergansers observed on the Miner. Another possibility is that juvenile chinook move downstream earlier in a completely different life cycle than in the upper Yukon River, and/or, that they are displaced downstream during heavy freshets in the spring.

Although juvenile chinook were found in two larger unnamed tributaries of the Miner River, the extent of utilization in said tributaries is inconclusive as sampling took place only within the lower few kilometres of the streams. The significance of the observation of a single adult chinook salmon in the lower 1km of the unnamed tributary at Site #9 is of interest, but also inconclusive.

It should be noted that observation of the highest concentrations of spawning redds (from air & boat) and adult salmon (from boat) were made in the region of the Miner River where juvenile chinook salmon were also found. However, locations of spawning redds and adult salmon extended almost twice as far upstream as did the presence of juvenile salmon. Locations of adult salmon and spawning redds observed in 2001 were made over the same portion of the river. Above the upstream extent of juvenile presence, the spawning redd/adult salmon density was noticeably lower than in the portion of the river where juveniles were found. It is also worth noting that at the confluence of the Miner and Fishing Branch rivers, no juveniles were caught,

and that the lower reaches of the river (below tributary at Site #9) showed a decreasing density of spawning redds/adult salmon. The fact that juveniles were caught only in a certain “central” portion of the river, while evidence of spawning was observed in a portion of the river almost twice the length of that with juvenile salmon is of interest. As well, the results of this study show no indication of adult or juvenile chinook salmon presence upstream from Fishing Creek.

A further point of interest is that juvenile chinook were caught only in Sites #8-11, all downstream of where the water temperatures remained almost consistently above 10°C, as shown in 3.1.2.1. However, insufficient data was obtained to determine the presence/absence of a significant relationship.

As well, the change in river/water characteristics of the Miner River that takes place when Fishing Creek joins the River is notable. Not only does the temperature change, with what appears to be significantly warmer water coming from Fishing Creek, but also large amounts of algae in the River is present in and below Fishing Creek, but not above it. As mentioned in 3.2.1.2, above Fishing Creek the bottom of the Miner is clean and bright, whereas below Fishing Creek, it has a thick coating of algae, as does the bottom of Fishing Creek itself. The presence of these algae indicates that waters of Fishing Creek are nutrient rich, particularly in comparison with those of the Miner River above Fishing Creek.

The presence of a chinook radio tag (fish# 170, code 82) in the Fishing Branch river, together with the observation of 3 spawning redds in the vicinity is also a significant finding. A fixed receiver station is installed near the Fishing Branch enumeration weir site, however, no tags were recorded as having past this location. The tag and redds recorded/observed in this study were located downstream of this site. Considering these findings, as well as small numbers of chinook found late in the season at the enumeration weir, it can be concluded that chinook salmon do spawn in the Fishing Branch River (Boyce, 2002) (Boyce & Vust, 2002). However, the extent of such spawning remains inconclusive at this time.

The observations of 5 spawning redds in the Whitestone River and in the mouth of a significant tributary are consistent with similar observations made last year near the same locations. However, the result of the limited aerial survey and the cancellation of the ground survey/juvenile sampling program in the upper Whitestone River is that the extent of chinook spawning and juvenile utilization remains inconclusive at this time.

## **4.2 Presence/Absence of Coho Salmon**

The results of the juvenile trapping program for coho salmon were inconclusive. No juvenile coho salmon were caught in the Miner river system. Considering the current lack of information regarding Porcupine River coho stocks, there is little that can be extrapolated in these circumstances (Seigel, 1986). It should be noted that the Miner River system is dynamic and laced with clear flowing side channels and backwaters, and these habitats were sampled at most sites. This translates into high amounts of what in other rivers would be excellent coho spawning and rearing habitats. While the results of the juvenile sampling in 2001 & 2002 appear to indicate that juvenile coho salmon are not present in the Miner River, until more information is collected, the presence/absence of coho salmon in the Miner River system is not definitive (Anderton, 2001).



### **4.3 Building Community Capacity**

Through the training and employment of community members for a second year, the profile of salmon and fish related research and conservation in the community has been further increased. Interest on the part of the Vuntut Gwitchin First Nation and the North Yukon Renewable Resources Council in continuing to build the information base available about Porcupine River salmon stocks remains strong. There is considerable interest in related future work. Individuals who participated in this project have expressed interest in future opportunities.

There are certain strengths and challenges in the community associated with the development of long-term human capacity for the conservation and stewardship of fish and fish habitat. Among the strengths is the fact that a strong conservation ethic already exists among the majority of community members. This can be somewhat attributed to the active subsistence lifestyle still practised to various degrees by the entire community. The same can be said for the understanding of ecology and ecological relationships; however, such understanding is conceptually independent of scientific thought. Challenges include a lack of certain skills, such as knowledge of scientific concepts and process, as well as management and leadership skills. Bridging the gap to connect local understandings of fish and aquatic ecology with a scientific understanding is important for future community stewardship efforts. It should also be noted that social factors within the community could also impact the desire and ability of individuals to become interested in such scientific endeavours.

It can be reasonably concluded that tremendous potential exists in Old Crow for the development of a strong local capacity to sustainably manage renewable resources (including fish) and carry out related scientific research. It should also be noted, however, that realising this potential is not a short-term process; rather, something to be pursued over a good many years. To achieve this, individuals with a strong interest in ecology, leadership, and teaching skills are needed to mentor interested community members over the long term.

### **4.4 Recommendations**

#### **4.4.1 Chinook Salmon**

With the information provided by the past two years of research on the Miner River, a preliminary understanding of the chinook salmon habitat usage of the river has been established. Considering the indications that the life cycle of juvenile chinook in the Miner River may differ from that in the upper Yukon River, further investigation is required in this regard. It would be valuable to build on the results of this project and to further study the distribution of juvenile and adult chinook salmon/habitat usage in other tributaries of the Porcupine River system, as well as strength, and behaviour of Porcupine River chinook runs.

- a. It is recommended that as a priority in the future, further juvenile sampling for chinook salmon be conducted in tributaries of the Porcupine river which are indicated in this report or through traditional/local knowledge as possibly being chinook salmon habitat;
- b. It is recommended that, as a priority in the future, more detailed visual aerial surveys be conducted on tributaries indicated in this report or through traditional/local knowledge as possibly being chinook salmon habitat;

- c. It is recommended that future juvenile sampling for chinook salmon be conducted in large and small tributaries of the Porcupine River during spring and summer months to assess the presence/absence of rearing juvenile chinook salmon;
- d. It is recommended that full advantage be taken of any future opportunities to track radio tagged chinook throughout the Porcupine River watershed. Should a tagging program similar to the Alaskan one conducted in 2002, as much of the Porcupine River watershed should be flown as possible;
- e. It is recommended that future research be conducted to determine the significance of Fishing Creek and groundwater sources to the habitat conditions favoured by spawning chinook salmon in the Miner River.
- f. It is recommended that in the medium to longer term, methods of estimating the size of the Porcupine River chinook run be investigated and subsequently conducted.

#### ***4.4.2 Coho Salmon***

The Porcupine River coho stocks remain a mystery. They are some of the most northern coho stocks and the only confirmed stocks in the Canadian portion of the Yukon River system. Due to this, as well as the need to effectively manage the stock, more information should be gathered on the distribution, the size of the run, and their life history. It should be noted that as Porcupine River chum stocks decline, local fishing pressure on coho stocks is increasing;

- a. It is recommended that as a priority in the future, further juvenile sampling for coho salmon be conducted in tributaries of the Porcupine river which are indicated in this report or through traditional/local knowledge as possibly being coho habitat;
- b. It is recommended that as a priority in the future a project to track the migration of returning adult coho be conducted;
- c. It is recommended that methods of estimating the size of the coho run be investigated and conducted.

#### ***4.4.3 Building Community Capacity***

Activities to build community capacity for the stewardship of fish and fish habitat can take place in a number of ways. First and foremost, an interest in both the natural world and science must be cultivated. It should be noted that this cultivation should not take place removed from or exclusive to traditional/local knowledge, but rather should allow for the integration of both world-views and knowledge systems. Focussing on the recruitment of older youth/young adults in this regard is key. Youth are best in the position to become interested in fish ecology and opportunities that fisheries research may provide. As well, they are in more of a position to be positively influenced in directions.

- a. It is recommended that local research, restoration and enhancement projects with regard to salmon and other fish, and their habitat, be continued into the future. The nature and

- management of these projects must focus on much more than simply training and employing local people as workers. It must build on existing conservation ethics to foster motivation and interest in the science of nature.
- b. It is recommended that individuals with not only management and leadership skills, but also with a passion for fish and their habitat, be employed to coordinate, manage, and lead future salmon/fish related projects.
  - c. It is recommended that science, with a focus on the natural environment of the Vuntut Gwitchin Traditional Territory, be an integral part of high school curriculum undertaken by VGFN students.

## **5 REFERENCES**

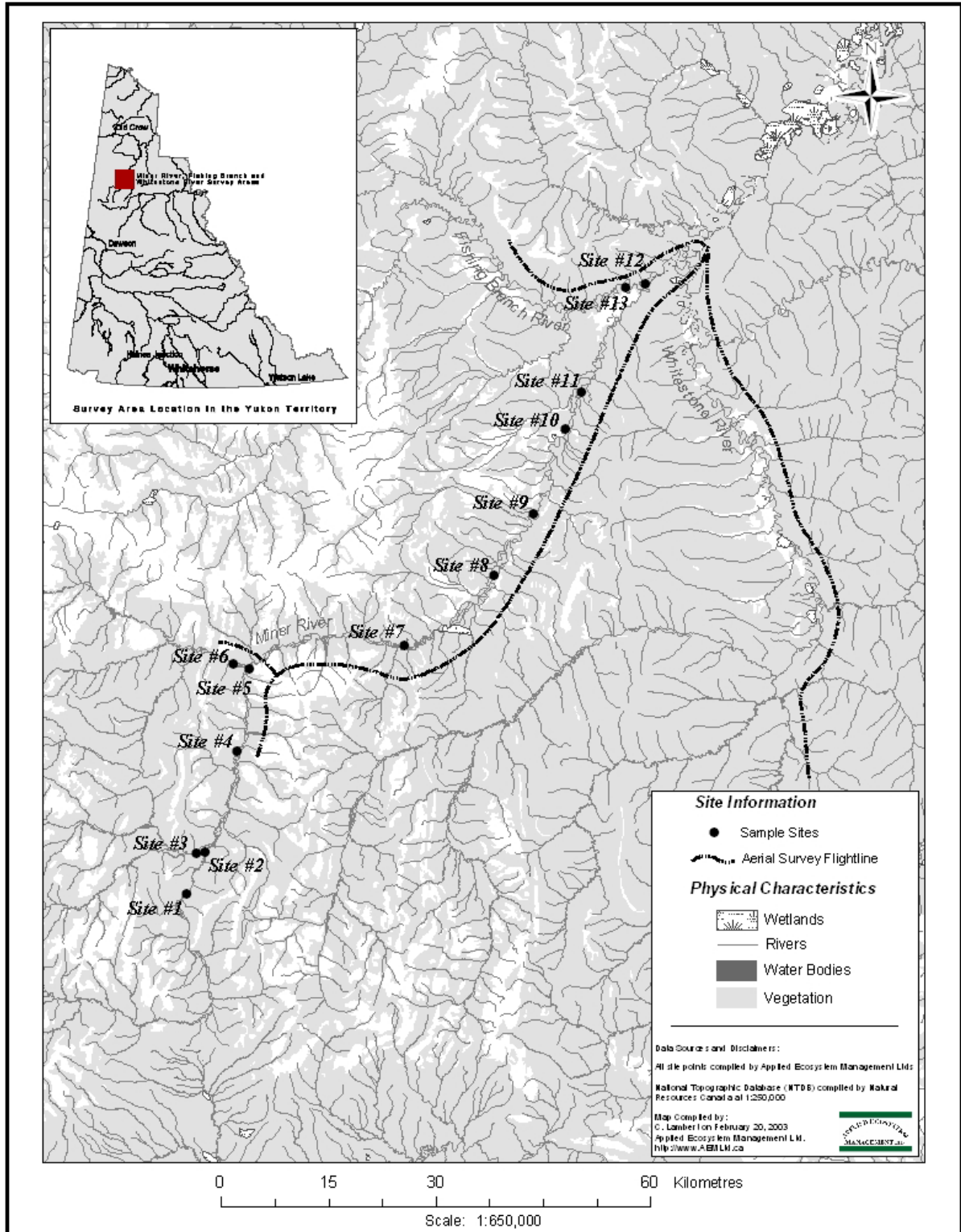
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## **6 FIELD DATA/DOCUMENTATION**

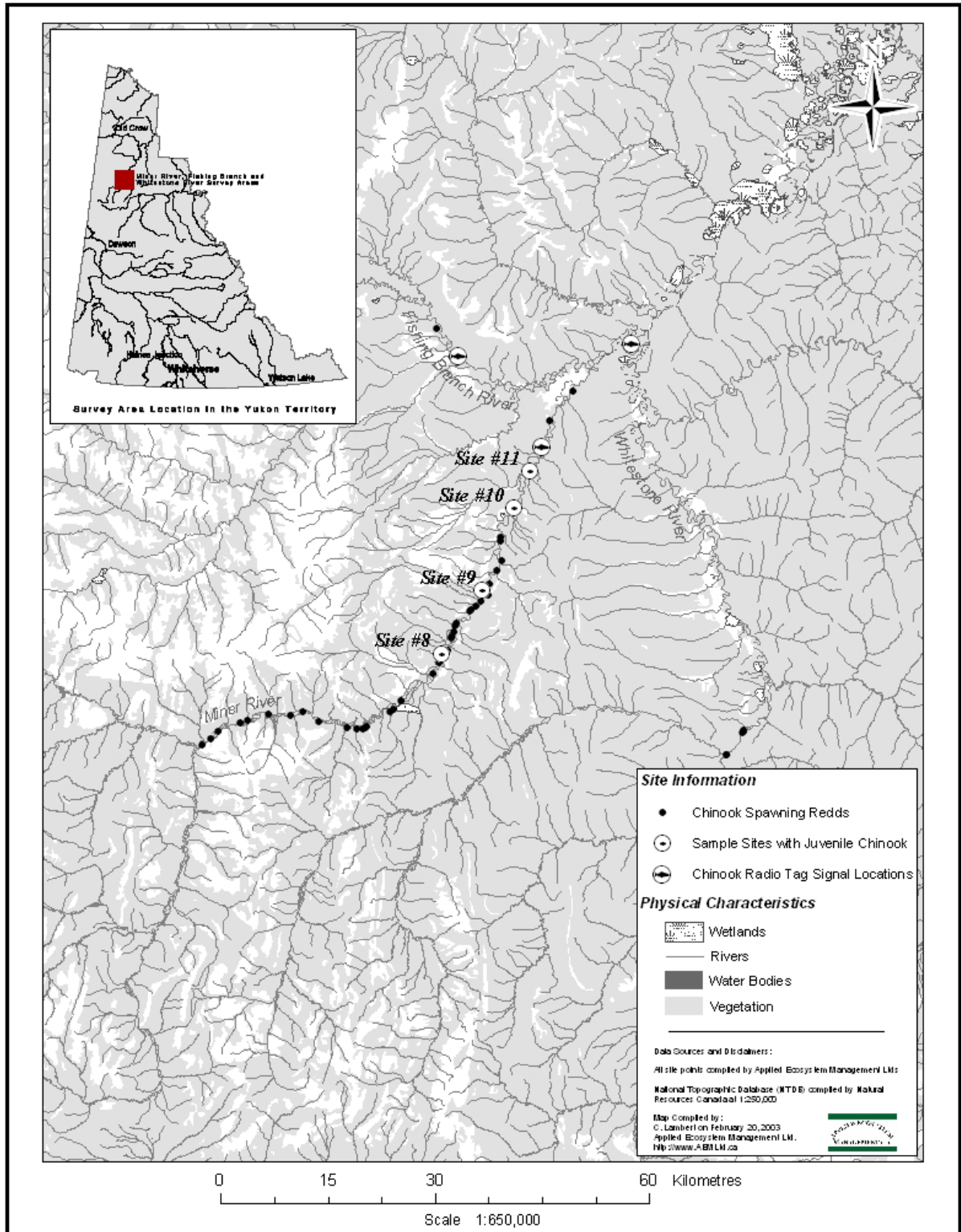
Original and copies of raw data remains on file with the North Yukon RRC. These materials include data sheets and field notes.

# 7 FIGURES

## 7.1 Site Locations and Aerial Survey Coverage



## 7.2 Locations of Juvenile Chinook, Spawning Redds, and Radio Tag Signals



## 8 APPENDICES

### 8.1 Minnow Trapping/Beach Seining Data

Site # 1	Miner River		
<b>Description:</b>	<i>6 stations of 4 traps each were set, 5 stations in the Miner main-stem and 1 station backwater channels/creek mouths, all approximately 6-7km upstream from significant unnamed tributary entering the Miner from the west. Some stations included traps set in side channel &amp; the main-stem. Weather is variable, with clouds, sun, and occasional showers.</i>		
	<b>Station 1, Miner River, 100m upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 5:30pm, July 16 <sup>th</sup> /02	<b>pulled:</b> 10:05am, July 17 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 31.151'	W 139° 47.621' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 9.1°C		<b>at pulling:</b> 6.7°C
	<b>Air Temperature, at setting:</b> 20.2°C		<b>at pulling:</b> 15.4°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 6 slimy sculpins		
	<b>Other Observations:</b> 3 traps set in shallow side channels immediately adjacent to main-stem. 1 trap in main-stem below side channel. All sculpins caught in one trap in side channel.		
	<b>Station 2, Miner River main-stem, 200m upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 5:47pm, July 16 <sup>th</sup> /02	<b>pulled:</b> 10:35am, July 17 <sup>th</sup> /02
	<b>Coordinates:</b>		<b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 9.0°C		<b>at pulling:</b> 6.9°C
	<b>Air Temperature, at setting:</b> 22.2°C		<b>at pulling:</b> 17.8°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 5 slimy sculpins		
	<b>Other Observations:</b> All 4 traps set along cut bank w/overhanging willow & swift, deeper water.		
	<b>Station 3, Miner River, 500m upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 6:04pm, July 16 <sup>th</sup> /02	<b>pulled:</b> 10:54am, July 17 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 38.071'	W 139° 47.917' <b>Elevation:</b> 733m
	<b>Water Temperature, at setting:</b> 9.2°C		<b>at pulling:</b> 6.9°C
	<b>Air Temperature, at setting:</b> 19.4°C		<b>at pulling:</b> 17.9°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 5 slimy sculpins		
	<b>Other Observations:</b> 3 traps set in side channel, & 1 trap at entrance of small, shallow, stream fed by groundwater. Walked 100m up small stream to find that its source was groundwater up-welling in various locations, seeping out of a large gravel bar located in the middle of two large channels of the Miner main-stem (Creek is very short & is in middle of main river bed, floods over every few years). Stream has lots of algae on the bottom and floating.		
	<b>Station 4, Miner River main-stem, across river from camp.</b>		

	<b># Of Traps:</b> 4	<b>set:</b> 6:30pm, July 16 <sup>th</sup> /02	<b>pulled:</b> 10:00am, July 17 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 38.243'	W 139° 47.241' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 8.9°C		<b>at pulling:</b>
	<b>Air Temperature, at setting:</b> 19.6°C		<b>at pulling</b>
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 9 slimy sculpins		
	<b>Other Observations:</b> 2 traps in main-stem (1 in swift water, 1 in small eddy, & 2 traps in shallow side channel. All 9 sculpins caught in main-stem trap in small eddy.		
<b>Station 5, Miner River, 100m downstream from camp.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 6:45pm, July 16 <sup>th</sup> /02	<b>pulled:</b> 10:10am, July 17 <sup>th</sup> /02
	<b>Coordinates:</b>		<b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 7.1°C		<b>at pulling:</b>
	<b>Air Temperature, at setting:</b> 17.6°C		<b>at pulling</b>
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 3 slimy sculpins		
	<b>Other Observations:</b> 2 traps in backwater entrance to small creek, entering the Miner from the west. 1 trap in small eddy, and 1 trap in swift water. 2 sculpins caught in swift water, 1 caught in the backwater. Creek extends 1km or more to base of mountain, with considerable flow(2m wide x 0.5-1m deep). Appears to be groundwater fed, but did not observe actual up welling.		
<b>Station 6, Miner River main-stem, 200m downstream from camp.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> July 16 <sup>th</sup> /02	<b>pulled:</b> July 17 <sup>th</sup> /02
	<b>Coordinates:</b>		<b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 8.9°C		<b>at pulling:</b>
	<b>Air Temperature, at setting:</b> 19.9°C		<b>at pulling</b>
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 7 slimy sculpins		
	<b>Other Observations:</b> 3 traps in small eddies, 1 in swift water, all in main-stem. Sculpins caught in all traps. River splits into three channels at this location.		
<b>Beach Seine</b>			
		<b>set:</b> 2:55pm July 16 <sup>th</sup> /02	<b>pulled:</b> July 16 <sup>th</sup> /02
	<b>Coordinates:</b>		<b>Elevation:</b>
	Set #1:	N 65o 38.267'	W 139o 47.201' 706m
	Set #2:	"	"
	Set #3:	N 65o 38.399'	W 139o 46.731' 705m
	Set #4:	N 65o 38.560'	W 139o 46.682'
	Set #5:	"	"
	<b>Water Temperature, at setting:</b> 8.2°C		<b>at pulling:</b>
	<b>Air Temperature, at setting:</b> 18.4°C		<b>at pulling</b>
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear

	<b>Fish Caught:</b> Set#1: 0 Set#2: 0 Set#3: 1 slimy sculpin Set#4: 0 Set#5: 0
	<b>Other Observations:</b> Sets were conducted approximately 100m upstream from camp, and downstream from camp approximately 100m, 400m, & 1km. River conditions made effective beach seining difficult, ie: swift water, steep gradient, and no larger eddies. River conditions were not suitable for effective beach seining (small, swift stream, with few pools, eddies, or side channels).

<b>Site # 2</b>	<b>Miner River</b>
<b>Description:</b>	3 stations of 4 traps each were set in the Miner River near the mouth of unnamed tributary entering the Miner River from the west, approximately 27km upstream from Fishing Creek. 4 stations of 4 traps each were set upstream in the tributary.
	<b>Station 1, Miner River, 100m downstream from camp.</b>
	# Of Traps: 4    set: 4:20pm, July 17 <sup>th</sup> /02    pulled: 9:30am, July 18 <sup>th</sup> /02
	Coordinates:    N 65° 41.560'    W 139° 44.521'    Elevation: 675m
	Water Temperature, at setting: 9.6°C    at pulling: 6.4°C
	Air Temperature, at setting: 20.4°C    at pulling: 18.2°C
	Water Flows: medium-low    Water Quality: clear
	Fish Caught: 12 slimy sculpins
	<b>Other Observations:</b>
	<b>Station 2, Miner River main-stem, 50m upstream from camp.</b>
	# Of Traps: 4    set: 4:40pm, July 17 <sup>th</sup> /02    pulled: 10:00am, July 18 <sup>th</sup> /02
	Coordinates:    N 65° 41.517'    W 139° 44.863'    Elevation:
	Water Temperature, at setting: 9.8°C    at pulling: 6.6°C
	Air Temperature, at setting: 20.5°C    at pulling: 18.6°C
	Water Flows: medium-low    Water Quality: clear
	Fish Caught: 0
	<b>Other Observations:</b> Hot day, few clouds, dry.
	<b>Station 3, Miner River, across from camp, in and near mouth of unnamed tributary.</b>
	# Of Traps: 4    set: 4:55pm, July 17 <sup>th</sup> /02    pulled: 10:05am, July 18 <sup>th</sup> /02
	Coordinates:    N 65° 41.549'    W 139° 44.889'    Elevation: 678m
	Water Temperature, at setting: 9.4°C    at pulling: 5.8°C
	Air Temperature, at setting: 20.4°C    at pulling: 19.9°C
	Water Flows: medium-low    Water Quality: clear
	Fish Caught: 2 slimy sculpins
	<b>Other Observations:</b> water level dropped approximately 15cm overnight.



<b>Site # 3</b>	<b>Unnamed Tributary</b>		
<b>Description:</b>	<i>4 stations of 4 traps each were set 2-3km up an unnamed tributary that enters the Miner River from the west, approximately 27km upstream from Fishing Creek.</i>		
	<b>Station 1, Unnamed tributary, approximately 2.5-3.0 km upstream from mouth.</b>		
	<b># Of Traps: 4</b>	<b>set: 5:25pm, July 17<sup>th</sup>/02</b>	<b>pulled: 10:12am, July 18<sup>th</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 41.338'</i>	<i>W 139° 45.960'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting: 9.9°C</b>		<b>at pulling:</b>
	<b>Air Temperature, at setting: 20.4°C</b>		<b>at pulling: 19.8°C</b>
	<b>Water Flows: medium-low</b>		<b>Water Quality: clear</b>
	<b>Fish Caught: 15 slimy sculpins</b>		
	<b>Other Observations:</b> <i>All traps set in small, shallow side channel/backwater, with 2 in still water &amp; 2 in moving water. Sculpins in 3 out of 4 traps.</i>		
	<b>Station 2, Unnamed tributary, approximately 2.5-3.0 km upstream from mouth.</b>		
	<b># Of Traps: 4</b>	<b>set: 5:50pm, July 17<sup>th</sup>/02</b>	<b>pulled: 10:20am, July 18<sup>th</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 41.338'</i>	<i>W 139° 45.960'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting: 8.4°C</b>		<b>at pulling: 5.7°C</b>
	<b>Air Temperature, at setting: 20.4°C</b>		<b>at pulling: 19.8°C</b>
	<b>Water Flows: medium-low</b>		<b>Water Quality: clear</b>
	<b>Fish Caught: 2 slimy sculpins</b>		
	<b>Other Observations:</b> <i>all 4 traps along cut bank in main channel, some in shallow, some in deeper water. Small fish (5-8cm) observed jumping along cut bank.</i>		
	<b>Station 3, Unnamed tributary, approximately 3.0 km upstream from mouth.</b>		
	<b># Of Traps: 4</b>	<b>set: 6:10pm, July 17<sup>th</sup>/02</b>	<b>pulled: 12:41pm July 18<sup>th</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 41.298'</i>	<i>W 139° 46.157'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting: 8.3°C</b>		<b>at pulling: 6.8°C</b>
	<b>Air Temperature, at setting: 19.9°C</b>		<b>at pulling: 20.3°C</b>
	<b>Water Flows: medium-low</b>		<b>Water Quality: clear</b>
	<b>Fish Caught: 6 slimy sculpins</b>		
	<b>Other Observations:</b> <i>1 trap in shallow water with swift current, 1 trap in shallow in small eddy, 1 trap in deep water below cut bank with willow cover, and 1 trap in deeper water behind boulder.</i>		
	<b>Station 4, Unnamed tributary, approximately 2.0 km upstream from mouth.</b>		
	<b># Of Traps: 4</b>	<b>set: 6:45pm, July 17<sup>th</sup>/02</b>	<b>pulled: 9:50am, July 18<sup>th</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 41.311'</i>	<i>W 139° 45.502'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting: 6.7°C</b>		<b>at pulling: 3.5°C</b>
	<b>Air Temperature, at setting: 22.8°C</b>		<b>at pulling: 20.8°C</b>
	<b>Water Flows: medium-low</b>		<b>Water Quality: clear with slight stain</b>
	<b>Fish Caught: 11 slimy sculpins</b>		

	<p><b>Other Observations:</b> <i>All traps set in backwater slough at mouth of small creeks. Some shallow, some deeper water sets. Mud bottom w/ lots of organic litter, beaver dams in creek(s). Fresh beaver sign prevalent. Traps set above and below beaver damn, but no sculpins caught above dam. 1 creek feeding the slough emerges from the ground 2-300m upstream from slough/junction w/main creek. Water is quite cold, and clear with very slight stain.</i></p>
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<b>Site # 4</b>	<b>Miner River</b>		
<b>Description:</b>	<i>6 stations of 4 traps each were set in the Miner River approximately 8km upstream from mouth of Fishing Creek.</i>		
	<b>Station 1, Miner River, in mouth of a small tributary that enters small side channel behind camp.</b>		
	<b># Of Traps: 4</b>	<b>set: 9:39pm, July 18<sup>th</sup>/02</b>	<b>pulled: 10:07am, July 19<sup>th</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 49.321'</i>	<i>W 139° 40.859'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> <i>4.2°C</i>		<b>at pulling:</b> <i>5.1°C</i>
	<b>Air Temperature, at setting:</b> <i>14.5°C</i>		<b>at pulling:</b> <i>13.6°C</i>
	<b>Water Flows:</b> <i>medium-low</i>		<b>Water Quality:</b> <i>clear</i>
	<b>Fish Caught:</b> <i>0</i>		
	<b>Other Observations:</b> <i>All 4 traps set in mouth of creek, 3-10m upstream, in calm and swift water. Tiny fish were seen, but could not be identified and were too small to be caught in minnow traps. Possibly grayling fry.</i>		
	<b>Station 2, Miner River, small side channel behind camp.</b>		
	<b># Of Traps: 4</b>	<b>set: 9:52pm, July 18<sup>th</sup>/02</b>	<b>pulled: 10:16am, July 19<sup>th</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 49.304'</i>	<i>W 139° 41.025'</i> <b>Elevation:</b> <i>620m</i>
	<b>Water Temperature, at setting:</b> <i>9.5°C</i>		<b>at pulling:</b> <i>6.9°C</i>
	<b>Air Temperature, at setting:</b> <i>15.8°C</i>		<b>at pulling:</b> <i>13.6°C</i>
	<b>Water Flows:</b> <i>medium-low</i>		<b>Water Quality:</b> <i>clear</i>
	<b>Fish Caught:</b> <i>11</i>		
	<b>Other Observations:</b> <i>All 4 traps set 20-25m apart along cut bank and gravel bar, along each side of channel. All sculpins were caught in one trap at the very start of the side channel.</i>		
	<b>Station 3, Miner River, near beaver dam in 2 small backwater sloughs approximately 200m upstream from camp.</b>		
	<b># Of Traps: 4</b>	<b>set: 10:23pm, July 8<sup>th</sup>/02</b>	<b>pulled: July 19<sup>th</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 49.310'</i>	<i>W 139° 41.109'</i> <b>Elevation:</b> <i>611m</i>
	<b>Water Temperature, at setting:</b> <i>10.1°C</i>		<b>at pulling:</b> <i>7.2°C</i>
	<b>Air Temperature, at setting:</b> <i>12.8°C</i>		<b>at pulling:</b> <i>13.9°C</i>
	<b>Water Flows:</b> <i>medium-low</i>		<b>Water Quality:</b> <i>clear</i>
	<b>Fish Caught:</b> <i>3 slimy sculpins</i>		

	<b>Other Observations:</b> 3 traps set in first backwater, in calm water, 3 traps set in second backwater, below beaver dam.		
<b>Station 4, Miner River, in main stem approximately 400m downstream from camp.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 9:21pm, July 18 <sup>th</sup> /02	<b>pulled:</b> 10:10am, July 19 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 49.434'	W 139° 40.746' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 9.0°C		<b>at pulling:</b> 6.4°C
	<b>Air Temperature, at setting:</b> 14.4°C		<b>at pulling:</b> 12.8°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 2 slimy sculpins		
	<b>Other Observations:</b> All traps set on edge of swift water along eroding cut bank.		
<b>Station 5, Miner River, in main stem across from camp.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 9:30pm, July 18 <sup>th</sup> /02	<b>pulled:</b> 10:20am, July 19 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 49.369'	W 139° 40.874' <b>Elevation:</b> 624m
	<b>Water Temperature, at setting:</b> 5.6°C		<b>at pulling:</b> 6.2°C
	<b>Air Temperature, at setting:</b> 14.1°C		<b>at pulling:</b> 15.2°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 1 slimy sculpin		
	<b>Other Observations:</b> 3 traps set at mouth of small creek, 1 trap just above creek in shallow, swift water.		
<b>Station 6, Miner River, in main stem approximately 100m below camp.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 9:45pm, July 18 <sup>th</sup> /02	<b>pulled:</b> 10:30am, July 19 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 49.361'	W 139° 46.157' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 8.3°C		<b>at pulling:</b> 6.8°C
	<b>Air Temperature, at setting:</b> 19.9°C		<b>at pulling:</b> 20.3°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 6 slimy sculpins		
	<b>Other Observations:</b> 1 trap in shallow water with swift current, 1 trap in shallow in small eddy, 1 trap in deep water below cut bank with willow cover, and 1 trap in deeper water behind boulder.		

<b>Site # 5</b>	<b>Miner River</b>
<b>Description:</b>	5 stations of 4 traps each and 1 station of 3 traps were set in the Miner River near the mouth of Fishing Creek, with the camp located approximately 300m downstream from the mouth. A beach seine set was also conducted in the Miner River.
<b>Station 1, Miner River, at mouth of Fishing Creek.</b>	
	<b># Of Traps:</b> 3 <b>set:</b> 6:39pm, July 19 <sup>th</sup> /02 <b>pulled:</b> 11:38am, July 20 <sup>th</sup> /02
	<b>Coordinates:</b> N 65° 55.614' W 139° 41.040' <b>Elevation:</b> 573m
	<b>Water Temperature, at setting:</b> 11.8°C <b>at pulling:</b> 9.1°C
	<b>Air Temperature, at setting:</b> 23.4°C <b>at pulling:</b> 17.5°C

		<b>Water Flows:</b> <i>medium-low</i>	<b>Water Quality:</b> <i>clear</i>
		<b>Fish Caught:</b> <i>0</i>	
		<b>Other Observations:</b> <i>2 traps set in deep, fast water, and 1 trap set in shallow, slow water, just below Fishing Creek in mixing zone. Note very slight stain to water coming from Fishing Creek, as well as large amounts of algae on the bottom. Above Fishing Creek, the Miner River bottom is clean and bright, below Fishing Creek, it is dark, covered in thick algae.</i>	
<b>Station 2, Miner River, backwater slough/small creek mouth 50m above mouth of Fishing Creek.</b>			
	<b># Of Traps:</b> <i>4</i>	<b>set:</b> <i>6:55pm, July 19<sup>th</sup>/02</i>	<b>pulled:</b> <i>11:51am, July 20<sup>th</sup>/02</i>
	<b>Coordinates:</b>	<i>N 65o55.534'</i>	<i>W 139o 41.166'</i> <b>Elevation:</b> <i>578m</i>
	<b>Water Temperature, at setting:</b> <i>6.2°C</i>		<b>at pulling:</b> <i>6.1°C</i>
	<b>Air Temperature, at setting:</b> <i>20.9°C</i>		<b>at pulling:</b> <i>19.0°C</i>
		<b>Water Flows:</b> <i>medium-low</i>	<b>Water Quality:</b> <i>clear</i>
		<b>Fish Caught:</b> <i>Islimy sculpin</i>	
		<b>Other Observations:</b> <i>2 traps set just above mouth of slough and 2 traps set 20m up slough (1 trap in middle with no cover, and 1 trap by bank with willow cover). Slough is shallow, 0.5 m at the deepest. Water running in 70m up slough, and lots of algae covering the bottom. Grayling observed in slough. It was originally thought that this water was a side channel from Fishing Creek entering the Miner River 50m upstream, however, significantly lower temperatures indicate probable groundwater source for slough/creek.</i>	
<b>Station 3, Miner River, main stem, approximately 250m below mouth of Fishing Creek.</b>			
	<b># Of Traps:</b> <i>4</i>	<b>set:</b> <i>7:15pm, July 19<sup>th</sup>/02</i>	<b>pulled:</b> <i>12:07pm, July 20<sup>th</sup>/02</i>
	<b>Coordinates:</b>	<i>N 65o 55.603'</i>	<i>W 139o 40.623'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> <i>10.6°C</i>		<b>at pulling:</b> <i>8.3°C</i>
	<b>Air Temperature, at setting:</b>		<b>at pulling:</b>
		<b>Water Flows:</b> <i>medium-low</i>	<b>Water Quality:</b> <i>clear</i>
		<b>Fish Caught:</b> <i>6 slimy sculpins</i>	
		<b>Other Observations:</b> <i>All traps set along shallow grassy bank in slower, but steadily moving water.</i>	
<b>Station 4, Miner River, backwater slough/creek entering large side channel behind camp.</b>			
	<b># Of Traps:</b> <i>4</i>	<b>set:</b> <i>6:20pm, July 19<sup>th</sup>/02</i>	<b>pulled:</b> <i>12:30pm, July 20<sup>th</sup>/02</i>
	<b>Coordinates:</b>	<i>N 65° 55.566'</i>	<i>W 139° 40.579'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> <i>5.6°C</i>		<b>at pulling:</b> <i>6.9°C</i>
	<b>Air Temperature, at setting:</b> <i>17.4°C</i>		<b>at pulling:</b> <i>19.1°C</i>
		<b>Water Flows:</b> <i>medium-low</i>	<b>Water Quality:</b> <i>clear</i>
		<b>Fish Caught:</b> <i>4 slimy sculpins</i>	

	<b>Other Observations:</b> <i>All traps set in backwater slough/creek, from its mouth up to approximately 60m from confluence with Miner side channel. Slough is shallow, with deep mud bottom.</i>		
	<b>Station 5, Miner River, in large side channel behind camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 6:50pm, July 19 <sup>th</sup> /02	<b>pulled:</b> 12:15pm, July 20 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 55.762'	W 139° 40.172' <b>Elevation:</b> 572m
	<b>Water Temperature, at setting:</b> 10.5°C		<b>at pulling:</b> 8.6°C
	<b>Air Temperature, at setting:</b> 22.5°C		<b>at pulling:</b> 20.1°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 6 slimy sculpins		
	<b>Other Observations:</b>		
	<b>Station 6, Miner River, in main stem approximately 100m below camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> July 19 <sup>th</sup> /02	<b>pulled:</b> July 20 <sup>th</sup> /02
	<b>Coordinates:</b>		<b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 10.9°C		<b>at pulling:</b> 8.4°C
	<b>Air Temperature, at setting:</b> 22.5°C		<b>at pulling:</b> 17.8°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 5 slimy sculpins		
	<b>Other Observations:</b> <i>All traps set along cut bank, edge of swift water. Fresh grizzly bear tracks and fur seen.</i>		
	<b>Beach Seine, Miner River, 5 sets conducted between mouth of Fishing Creek and camp, as well as in side-channel &amp; slough behind camp.</b>		
		<b>set:</b> July 20 <sup>th</sup> /02	<b>pulled:</b> July 20 <sup>th</sup> /02
	<b>Coordinates:</b>		<b>Location:</b>
	Set #1:	N 65o 55.598'	W 139o 40.577'
	Set #2:	"	"
	Set #3:		
	Set #4:		
	Set #5:		
			<i>In slough behind camp</i>
			<i>In channel behind camp</i>
			<i>100m above camp</i>
			<i>"</i>
			<i>Just below F. Creek</i>
	<b>Water Temperature, at setting:</b> 7.6-8.4°C		<b>at pulling:</b>
	<b>Air Temperature, at setting:</b> 16.4-20.8°C		<b>at pulling:</b>
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b>		
	Set#1: 14 slimy sculpins 17 unknown very small fry (possibly grayling)		
	Set#2: 8 slimy sculpins Many, many unknown very small fry (possibly grayling)		
	Set#3: 0		
	Set#4: 0		
	Set#5: 4 slimy sculpins		
	<b>Other Observations:</b> <i>waterborne insects caught in set #1</i>		

<b>Site # 6</b>	<b>Fishing Creek</b>		
<b>Description:</b>	<i>12 stations of 6 traps were set in Fishing creek from the mouth to approximately 3km upstream from its' confluence with the Miner River. Beach seine sets were also conducted in Fishing Creek.</i>		
	<b>Station 1, Fishing Creek, just above confluence with Miner River.</b>		
	<b># Of Traps: 4</b>	<b>set: 8:18pm, July 20<sup>th</sup>/02</b>	<b>pulled: 12:43pm, July 21<sup>st</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 55.615'</i>	<i>W 139° 41.071'</i> <b>Elevation: 582m</b>
	<b>Water Temperature, at setting:</b> <i>11.4°C</i>		<b>at pulling:</b> <i>8.6°C</i>
	<b>Air Temperature, at setting:</b> <i>16.1°C</i>		<b>at pulling:</b> <i>19.2°C</i>
	<b>Water Flows:</b> <i>medium-low</i>		<b>Water Quality:</b> <i>clear</i>
	<b>Fish Caught:</b> <i>3 slimy sculpins</i>		
	<b>Other Observations:</b> <i>2 traps set on each side of Fishing Creek, approximately 25m apart. Water level dropped approximately 5cm overnight.</i>		
	<b>Station 2, Fishing Creek, approximately 100m upstream from confluence with Miner River.</b>		
	<b># Of Traps: 4</b>	<b>set: 8:34pm, July 20<sup>th</sup>/02</b>	<b>pulled: 12:47pm, July 21<sup>st</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 55.670'</i>	<i>W 139° 41.086'</i> <b>Elevation: 587m</b>
	<b>Water Temperature, at setting:</b> <i>11.2°C</i>		<b>at pulling:</b> <i>8.7°C</i>
	<b>Air Temperature, at setting:</b> <i>15.3°C</i>		<b>at pulling:</b> <i>20.4°C</i>
	<b>Water Flows:</b> <i>medium-low</i>		<b>Water Quality:</b> <i>clear</i>
	<b>Fish Caught:</b> <i>3 slimy sculpins</i>		
	<b>Other Observations:</b> <i>3 traps set in small eddy, 1 trap set in swift water.</i>		
	<b>Station 3, Fishing Creek, approximately 500m upstream from confluence with Miner River.</b>		
	<b># Of Traps: 4</b>	<b>set: 8:51pm, July 20<sup>th</sup>/02</b>	<b>pulled: 1:07pm, July 21<sup>st</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 55.724'</i>	<i>W 139° 40.955'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> <i>11.2°C</i>		<b>at pulling:</b> <i>8.9°C</i>
	<b>Air Temperature, at setting:</b> <i>14.4°C</i>		<b>at pulling:</b> <i>20.3°C</i>
	<b>Water Flows:</b> <i>medium-low</i>		<b>Water Quality:</b> <i>clear</i>
	<b>Fish Caught:</b> <i>4 slimy sculpins (1 dead)</i>		
	<b>Other Observations:</b> <i>2 traps set along cut bank and 2 traps set along gravel bar, in deep section of creek (1-2m). Grizzly bear tracks seen.</i>		
	<b>Station 4, Fishing Creek, approximately 750m upstream from confluence with Miner River.</b>		
	<b># Of Traps: 4</b>	<b>set: 9:03pm, July 20<sup>th</sup>/02</b>	<b>pulled: 1:14pm, July 21<sup>st</sup>/02</b>
	<b>Coordinates:</b>	<i>N 65° 55.788'</i>	<i>W 139° 41.218'</i> <b>Elevation: 563m</b>
	<b>Water Temperature, at setting:</b> <i>11.0°C</i>		<b>at pulling:</b>
	<b>Air Temperature, at setting:</b> <i>13.3°C</i>		<b>at pulling:</b> <i>15.8°C</i>
	<b>Water Flows:</b> <i>medium-low</i>		<b>Water Quality:</b> <i>clear</i>
	<b>Fish Caught:</b> <i>2 slimy sculpins</i>		
	<b>Other Observations:</b> <i>All traps set in small eddies in main stem of creek.</i>		
	<b>Station 5, Fishing Creek, approximately 1km upstream from confluence with Miner River.</b>		

	<b># Of Traps:</b> 4	<b>set:</b> 9:15pm, July 20 <sup>th</sup> /02	<b>pulled:</b> 1:40pm, July 21 <sup>st</sup> /02
	<b>Coordinates:</b>	N 65° 55.781'	W 139° 41.353' <b>Elevation:</b> 570m
	<b>Water Temperature, at setting:</b> 11.1°C		<b>at pulling:</b> 9.1°C
	<b>Air Temperature, at setting:</b> 15.1°C		<b>at pulling:</b> 19.3°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 3 slimy sculpins		
	<b>Other Observations:</b> All traps set in slow, but moving water. Lots of algae present.		
<b>Station 6, Fishing Creek, approximately 1km upstream from confluence with Miner River.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 9:18pm, July 20 <sup>th</sup> /02	<b>pulled:</b> 1:46pm, July 21 <sup>st</sup> /02
	<b>Coordinates:</b>	N 65° 55.779'	W 139° 41.359' <b>Elevation:</b> 571m
	<b>Water Temperature, at setting:</b> 12.4°C		<b>at pulling:</b> 9.3°C
	<b>Air Temperature, at setting:</b> 14.6°C		<b>at pulling:</b> 20.4°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 15 slimy sculpins		
	<b>Other Observations:</b> All traps set in small side channel, in 2 deep pools		
<b>Station 7, Fishing Creek, approximately 2-3km upstream from confluence with Miner River.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 1:47pm, July 22 <sup>nd</sup> /02	<b>pulled:</b> 11:45am, July 23 <sup>rd</sup> /02
	<b>Coordinates:</b>	N 65° 55.821'	W 139° 42.845' <b>Elevation:</b> 589m
	<b>Water Temperature, at setting:</b> 10.0°C		<b>at pulling:</b> 8.8°C
	<b>Air Temperature, at setting:</b> 24.0°C		<b>at pulling:</b> 19.4°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 6 slimy sculpins		
	<b>Other Observations:</b>		
<b>Station 8, Fishing Creek, approximately 3km upstream from confluence with Miner River.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 2:02pm, July 22 <sup>nd</sup> /02	<b>pulled:</b> 11:45am, July 23 <sup>rd</sup> /02
	<b>Coordinates:</b>	N 65° 55.805'	W 139° 42.794' <b>Elevation:</b> 583m
	<b>Water Temperature, at setting:</b> 10.1°C		<b>at pulling:</b> 9.6°C
	<b>Air Temperature, at setting:</b> 24.6°C		<b>at pulling:</b> 18.3°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 14 slimy sculpins		
	<b>Other Observations:</b> All traps set in backwater slough, each trap 25m apart.		
<b>Station 9, Fishing Creek, approximately 1.5-2km upstream from confluence with Miner River.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 2:19pm, July 22 <sup>nd</sup> /02	<b>pulled:</b> 12:00pm, July 23 <sup>rd</sup> /02
	<b>Coordinates:</b>	N 65° 55.803'	W 139° 42.431' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 10.5°C		<b>at pulling:</b> 9.1°C
	<b>Air Temperature, at setting:</b> 25.4°C		<b>at pulling:</b> 20.0°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 2 slimy sculpins		
	<b>Other Observations:</b> 2 traps set along shallow, slow side of stream, 2 traps set along deeper, swift side of stream. Sculpins caught in 1 trap in deeper side of stream.		

<b>Station 10, Fishing Creek, approximately 1.5-2km upstream from confluence with Miner River, 150m downstream from station 15.</b>			
<b># Of Traps:</b> 4	<b>set:</b> 2:37pm, July 22 <sup>nd</sup> /02	<b>pulled:</b> 12:45pm, July 23 <sup>rd</sup> /02	
<b>Coordinates:</b>	N 65° 55.662'	W 139° 42.156'	<b>Elevation:</b> 586m
<b>Water Temperature, at setting:</b> 10.7°C		<b>at pulling:</b> 9.1°C	
<b>Air Temperature, at setting:</b> 22.1°C		<b>at pulling:</b> 19.5°C	
<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear	
<b>Fish Caught:</b> 4 slimy sculpins			
<b>Other Observations:</b> 2 traps set in calm water along gravel bar, 2 traps set in swift water along mud/gravel bank.			
<b>Station 11, Fishing Creek, approximately 1-2km upstream from confluence with Miner River.</b>			
<b># Of Traps:</b> 4	<b>set:</b> 2:49pm, July 22 <sup>nd</sup> /02	<b>pulled:</b> 1:00pm, July 23 <sup>rd</sup> /02	
<b>Coordinates:</b>	N 65° 55.778'	W 139° 41.754'	<b>Elevation:</b>
<b>Water Temperature, at setting:</b> 8.3°C		<b>at pulling:</b> 4.9°C	
<b>Air Temperature, at setting:</b> 19.3°C		<b>at pulling:</b> 14.4°C	
<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear	
<b>Fish Caught:</b> 7 slimy sculpins			
<b>Other Observations:</b> All traps set in shallow backwater slough/creek, 2 set near mouth and 2 set 50m up slough. Beaver dams further up slough.			
<b>Station 12, Fishing Creek, approximately 1km upstream from confluence with Miner River.</b>			
<b># Of Traps:</b> 4	<b>set:</b> 3:23pm, July 22 <sup>nd</sup> /02	<b>pulled:</b> 1:04pm, July 23 <sup>rd</sup> /02	
<b>Coordinates:</b>	N 65° 55.772'	W 139° 41.151'	<b>Elevation:</b> 581m
<b>Water Temperature, at setting:</b> 12.0°C		<b>at pulling:</b>	
<b>Air Temperature, at setting:</b> 23.4°C		<b>at pulling:</b>	
<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear	
<b>Fish Caught:</b> 1 slimy sculpin			
<b>Other Observations:</b> 4 traps set in a deep pool, all in eddies. Grayling observed.			
<b>Beach Seine, Fishing Creek, 1 set conducted approximately 500m upstream from confluence with Miner River.</b>			
	<b>set:</b> 1:54pm, July 21 <sup>st</sup> /02	<b>pulled:</b> July 21 <sup>st</sup> /02	
<b>Coordinates:</b>		<b>Elevation:</b>	
Set #1:	N 65° 55.784'	W 139° 41.542'	564m
<b>Water Temperature, at setting:</b> 9.3°C		<b>at pulling:</b>	
<b>Air Temperature, at setting:</b> 19.6°C		<b>at pulling:</b>	
<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear	
<b>Fish Caught:</b>			
Set#1: 7 slimy sculpins 3 grayling			
<b>Other Observations:</b>			
<b>Beach Seine, Fishing Creek, 1 set conducted approximately 3-4km upstream from confluence with Miner River.</b>			
	<b>set:</b> 1:20pm, July 22 <sup>nd</sup> /02	<b>pulled:</b> July 22 <sup>nd</sup> /02	



	<b>Coordinates:</b> <i>Set #1: N 65o 55.708' W 139o 43.169'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 10.8°C	
	<b>Air Temperature, at setting:</b> 18.9°C	
	<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear
	<b>Fish Caught:</b> <i>Set#1: 1 slimy sculpin</i>	
	<b>Other Observations:</b>	

<b>Site # 7</b>	<b>Miner River</b>		
<b>Description:</b>	<i>6 stations of 4 traps each were set in the Miner River approximately 23km downstream from mouth of Fishing Creek, below prominent mountain, and near only significant lake in the Miner River valley. Beach seine sets were conducted in the Miner main stem in the vicinity of camp.</i>		
	<b>Station 1, Miner River, in slough and creek mouth approximately 1km upstream from camp. Creek/slough enters Miner River at deep pool in sharp turn in river, below 10m high limestone cliffs.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 11:09pm, July 23 <sup>rd</sup> /02	<b>pulled:</b> 11:25am, July 24 <sup>th</sup> /02
	<b>Coordinates:</b>	<i>N 65° 58.497'</i>	<i>W 139° 15.282'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 2.9°C	<b>at pulling:</b> 4.1°C	
	<b>Air Temperature, at setting:</b> 15.1°C	<b>at pulling:</b> 20.8°C	
	<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear	
	<b>Fish Caught:</b> 4 slimy sculpins		
	<b>Other Observations:</b> <i>All traps set in shallow water, mud bottom with rock/boulder mix. Slough/creek is at base of rock cliff.</i>		
	<b>Station 2, Miner River, main stem, in pool under cliff, below small creek/slough mouth, approximately 1km upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 11:09pm, July 23 <sup>rd</sup> /02	<b>pulled:</b> 11:25am, July 24 <sup>th</sup> /02
	<b>Coordinates:</b>	<i>N 65o58.505'</i>	<i>W 139o 15.041'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 10.4°C	<b>at pulling:</b> 9.9°C	
	<b>Air Temperature, at setting:</b> 14.4°C	<b>at pulling:</b> 21.3°C	
	<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear	
	<b>Fish Caught:</b> 5 slimy sculpins		
	<b>Other Observations:</b> <i>2 traps set under cliff, on large boulders, and 2 traps set along gravel bar on other side of river. Dark patches of algae on bottom of pool. Adult chinook salmon observed in pool. Cliff/boulders appear to be of some kind of limestone related formation.</i>		
	<b>Station 3, Miner River, main stem, approximately 700m upstream from camp, and 300m downstream from cliffs at station 2.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 10:23pm, July 23 <sup>rd</sup> /02	<b>pulled:</b> 12:57pm, July 24 <sup>th</sup> /02
	<b>Coordinates:</b>	<i>N 65o 58.435'</i>	<i>W 139° 14.727'</i> <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 10.4°C	<b>at pulling:</b> 10.4°C	

		<b>Air Temperature, at setting:</b> 14.4°C	<b>at pulling:</b> 22.4°C
		<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear
		<b>Fish Caught:</b> 1 slimy sculpin	
		<b>Other Observations:</b> 2 traps set in shallow water along grassy bank with gravel/cobble bottom, and 1 trap set with angular boulders on bottom/shore. 1 trap set along opposite shore under fallen tree with cobble bottom.	
	<b>Station 4, Miner River, main stem, approximately 6-700m downstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 9:30pm, July 23 <sup>rd</sup> /02	<b>pulled:</b> 11:14am, July 24 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 58.306'	W 139° 13.139' <b>Elevation:</b> 496m
		<b>Water Temperature, at setting:</b> 8.7°C	<b>at pulling:</b> 8.1°C
		<b>Air Temperature, at setting:</b> 17.6°C	<b>at pulling:</b> 19.1°C
		<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear
		<b>Fish Caught:</b> 4 slimy sculpins	
		<b>Other Observations:</b> All traps set in deep water in eddy at small backwater slough.	
	<b>Station 5, Miner River, main stem, approximately 500m downstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 9:45pm, July 23 <sup>rd</sup> /02	<b>pulled:</b> 11:18am, July 24 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 58.395'	W 139° 13.458' <b>Elevation:</b>
		<b>Water Temperature, at setting:</b> 8.9°C	<b>at pulling:</b> 9.8°C
		<b>Air Temperature, at setting:</b> 16.4°C	<b>at pulling:</b> 20.3°C
		<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear
		<b>Fish Caught:</b> 14 slimy sculpins	
		<b>Other Observations:</b> 2 traps set in swift water, 2 traps set in slow slough.	
	<b>Station 6, Miner River, main stem, approximately 100m downstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 10:00pm, July 23 <sup>rd</sup> /02	<b>pulled:</b> 11:35pm, July 24 <sup>th</sup> /02
	<b>Coordinates:</b>	N 65° 58.425'	W 139° 13.729' <b>Elevation:</b> 505m
		<b>Water Temperature, at setting:</b> 8.4°C	<b>at pulling:</b> 8.4°C
		<b>Air Temperature, at setting:</b> 10.0°C	<b>at pulling:</b> 21.9°C
		<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear
		<b>Fish Caught:</b> 5 slimy sculpins	
		<b>Other Observations:</b> 3 traps in deep water along cut bank, and 1 trap in a deep eddy.	
	<b>Beach Seine, Miner River, sets conducted from gravel bar at camp 5.</b>		
		<b>set:</b> 10:45am, July 25 <sup>th</sup> /02	<b>pulled:</b> July 25 <sup>th</sup> /02
	<b>Coordinates:</b>		<b>Elevation:</b>
	Set #1:	N 65° 55.708'	W 139° 43.169' 521m
	Set #2:	"	"
	Set #3:	"	"
		<b>Water Temperature, at setting:</b> 11.0°C	
		<b>Air Temperature, at setting:</b> 19.1°C	
		<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear
		<b>Fish Caught:</b>	
		Set#1: 3 slimy sculpins	
		Set#2: 3 slimy sculpins	
		Set#3: 1 slimy sculpin	

	<b>Other Observations:</b>
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<b>Site # 8</b>	<b>Miner River</b>
<b>Description:</b>	6 stations of 4 traps were set in the Miner River at a site located approximately 7-8km upstream from Cathedral Rocks. Beach seine sets were conducted from gravel bar above and at camp.
	<b>Station 1, Miner River, main stem, approximately 400m upstream from camp on both sides of river below large riffle.</b>
	<b># Of Traps: 4</b>   <b>set:</b> 5:12pm, July 25 <sup>th</sup> /02   <b>pulled:</b> 12:37pm, July 26 <sup>th</sup> /02
	<b>Coordinates:</b> N 66° 03.915'   W 138° 58.215'   <b>Elevation:</b> 448m
	<b>Water Temperature, at setting:</b> 12.8°C   <b>at pulling:</b> 10.6°C
	<b>Air Temperature, at setting:</b> 19.3°C   <b>at pulling:</b> 14.8°C
	<b>Water Flows:</b> medium-low   <b>Water Quality:</b> clear
	<b>Fish Caught:</b> 5 in total 2 slimy sculpins 1 burbot (length=150mm) (mass=22g) 1 chinook salmon (length=58mm) (mass=1.9g) 1 chinook salmon (length=58mm) (mass=1.7g) 2 chinook salmon
	<b>Other Observations:</b> 3 traps set along gravel bank, 1 trap set along gravel bar. Juvenile salmon caught in trap set along gravel bank on the edge of swift water and under the cover of a log.
	<b>Station 2, Miner River, main stem, approximately 100m upstream from camp on opposite side of river.</b>
	<b># Of Traps: 4</b>   <b>set:</b> 5:15pm, July 25 <sup>th</sup> /02   <b>pulled:</b> 1:15pm, July 26 <sup>th</sup> /02
	<b>Coordinates:</b> N 66° 04.073'   W 138° 58.027'   <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 12.8°C   <b>at pulling:</b> 11.1°C
	<b>Air Temperature, at setting:</b> 19.4°C   <b>at pulling:</b> 17.6°C
	<b>Water Flows:</b> medium-low   <b>Water Quality:</b> clear
	<b>Fish Caught:</b> 7 in total 1 burbot (length=150mm) (mass=16.4g) 1 chinook salmon (length=68mm) (mass=2.8g) 1 chinook salmon (length=64mm) (mass=2.4g) 1 chinook salmon (length=62mm) (mass=2.7g) 1 chinook salmon (length=59mm) (mass=2.9g) 1 chinook salmon (length=70mm) (mass=4.7g) 1 chinook salmon (length=67mm) (mass=2.5g) 6 chinook salmon
	<b>Other Observations:</b> All 4 traps were set along gravel cut bank on the edge of swift water.
	<b>Station 3, Miner River, main stem, in front of camp.</b>
	<b># Of Traps: 4</b>   <b>set:</b> 5:25pm, July 25 <sup>th</sup> /02   <b>pulled:</b> 10:50am, July 26 <sup>th</sup> /02

	<b>Coordinates:</b>	<i>N 66° 04.073'</i>	<i>W 138° 58.027'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>12.8°C</i>	<b>at pulling:</b>	<i>10.7°C</i>
	<b>Air Temperature, at setting:</b>	<i>19.4°C</i>	<b>at pulling:</b>	<i>16.0°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>1 chinook salmon (length=70mm) (mass=3.0g)</i>		
	<b>Other Observations:</b>	<i>all 4 traps set in shallow water along gravel bar, some in swift water, some in slow, back eddy. Salmon was caught in slower water.</i>		
<b>Station 4, Miner River, main stem, approximately 100m downstream from camp.</b>				
	<b># Of Traps:</b>	<i>4</i>	<b>set:</b>	<i>5:00pm, July 25<sup>th</sup>/02</i>
	<b>pulled:</b>	<i>11:15am, July 26<sup>th</sup>/02</i>		
	<b>Coordinates:</b>	<i>N 66° 04.151'</i>	<i>W 138° 57.708'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>12.9°C</i>	<b>at pulling:</b>	<i>10.4°C</i>
	<b>Air Temperature, at setting:</b>	<i>17.7°C</i>	<b>at pulling:</b>	<i>14.8°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>10 in total</i>		
		<i>5 slimy sculpins</i>		
		<i>1 chinook salmon (length=70mm) (mass=3.4g)</i>		
		<i>1 chinook salmon (length=71mm) (mass=3.2g)</i>		
		<i>1 chinook salmon (length=75mm) (mass=3.4g)</i>		
		<i>1 chinook salmon (length=65mm) (mass=2.9g)</i>		
		<i>1 chinook salmon (length=71mm) (mass=3.2g)</i>		
		<i>5 chinook salmon</i>		
	<b>Other Observations:</b>	<i>2 traps set in swift water, 2 traps on the edge of swift water.</i>		
<b>Station 5, Miner River, backwater slough/creek, approximately 300m downstream from camp.</b>				
	<b># Of Traps:</b>	<i>4</i>	<b>set:</b>	<i>5:05pm, July 25<sup>th</sup>/02</i>
	<b>pulled:</b>	<i>11:40am, July 26<sup>th</sup>/02</i>		
	<b>Coordinates:</b>	<i>N 66° 04.126'</i>	<i>W 138° 57.552'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>11.9°C</i>	<b>at pulling:</b>	<i>7.8°C</i>
	<b>Air Temperature, at setting:</b>	<i>17.7°C</i>	<b>at pulling:</b>	<i>15.6°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>5 slimy sculpins</i>		
	<b>Other Observations:</b>	<i>2 traps set at mouth of large slough, 2 traps 70m upstream in slough. Lower end of slough is quite deep, and has a mud bottom, with lots of algae present. Fresh wolf and moose tracks present.</i>		
<b>Station 6, Miner River, backwater slough, approximately 400m downstream from camp.</b>				
	<b># Of Traps:</b>	<i>4</i>	<b>set:</b>	<i>5:15pm, July 25<sup>th</sup>/02</i>
	<b>pulled:</b>	<i>11:54am, July 26<sup>th</sup>/02</i>		
	<b>Coordinates:</b>	<i>N 66° 04.287'</i>	<i>W 138° 57.518'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>13.8°C</i>	<b>at pulling:</b>	<i>11.4°C</i>
	<b>Air Temperature, at setting:</b>	<i>19.6°C</i>	<b>at pulling:</b>	<i>14.8°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>

		<b>Fish Caught: 6 in total</b> 4 slimy sculpins 1 chinook salmon (length=74mm) (mass=3.1g) <u>1 chinook salmon (length=66mm) (mass=2.4g)</u> 2 chinook salmon	
		<b>Other Observations:</b> 1 trap set in deep water at mouth of slough, 1 trap set in deep water under woody debris 30m up slough, and 2 traps set in shallow water approximately 100m up slough. Salmon caught in shallow traps furthest up slough, with rocky bottom.	
<b>Beach Seine, Miner River, sets conducted from gravel bar approximately 400m upstream from camp.</b>			
		<b>set:</b> 10:07am, July 26 <sup>th</sup> /02	<b>pulled:</b>
	<b>Coordinates:</b>		<b>Elevation:</b>
	Set #1:	N 66o 03.917'	W 138o 58.203'
	Set #2:	"	"
	Set #3:	"	"
	<b>Water Temperature, at setting:</b> 10.4°C		
	<b>Air Temperature, at setting:</b> 15.2°C		
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught: 2 in total</b> Set#1: 0 Set#2: 1 slimy sculpin 1 grayling Set#3: 0		
	<b>Other Observations:</b> All sets conducted in eddy below large riffle.		
<b>Beach Seine, Miner River, sets conducted from gravel bar above camp.</b>			
		<b>set:</b> 10:07am, July 26 <sup>th</sup> /02	<b>pulled:</b>
	<b>Coordinates:</b>		<b>Location:</b>
	Set #1:	N 66o 03.917'	W 138o 58.203'
	Set #2:		
	<b>Water Temperature, at setting:</b> 10.4°C		
	<b>Air Temperature, at setting:</b> 15.5°C		
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught: 313 in total</b> Set#1: approx. 20 tiny slimy sculpins (10mm or less in length) Set#2: 8 slimy sculpins 1 lake chub 284 grayling: 6 sampled for length • 40mm, 34mm, 32mm, 25mm, 27mm, & 23mm.		
	<b>Other Observations:</b>		

<b>Site # 9</b>	<b>Miner River/Unnamed Tributary</b>		
<b>Description:</b>	<i>6 stations of 4 traps were set in the Miner River, located around a site at Cathedral Rocks, 1 station of 4 traps were set in an unnamed tributary entering the Miner River from the west, and located approximately 3km upstream from camp.</i>		
	<b>Station 1, Unnamed Tributary, approximately 1 km upstream from confluence with Miner River.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 9:15pm, July 26 <sup>th</sup> /02	<b>pulled:</b> 11:26am, July 27 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 08.436'	W 138° 52.721' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 11.8°C		<b>at pulling:</b> 10.3°C
	<b>Air Temperature, at setting:</b> 12.4°C		<b>at pulling:</b> 13.2°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 11 in total 6 slimy sculpins 1 chinook salmon (length=67mm) (mass=2.9g) 1 chinook salmon (length=80mm) (mass=6.0g) 1 chinook salmon (length=74mm) (mass=4.5g) 1 chinook salmon (length=73mm) (mass=3.4g) <u>1 chinook salmon (length=75mm) (mass=4.5g)</u> 5 chinook salmon		
	<b>Other Observations:</b> <i>Creek has small cobble/gravel bottom, semi-rounded. Good sized creek, mud bottom near mouth only. 2 traps set on edge of swift water along shallow cut bank with rocky bottom, 1 trap in shallow side channel, &amp; 1 trap in deeper back eddy. All 5 salmon were caught in one trap along shallow cut bank under cover of fallen log.</i>		
	<b>Station 2, Miner River, mouth/mouth of unnamed tributary, approximately 3km upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 9:39pm, July 26 <sup>th</sup> /02	<b>pulled:</b> 12:09pm, July 27 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 08.515'	W 138° 52.016' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 11.7°C		<b>at pulling:</b> 10.3°C
	<b>Air Temperature, at setting:</b> 11.3°C		<b>at pulling:</b> 17.3°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 4 in total 1 slimy sculpin 1 chinook salmon (length=69mm) (mass=2.8g) 1 chinook salmon (length=70mm) (mass=3.8g) <u>1 chinook salmon (length=74mm) (mass=3.3g)</u> 3 chinook salmon		
	<b>Other Observations:</b> <i>2 traps actually in mouth of creek in shallow water, 10 &amp; 25 m up creek from mouth, 1 trap in small eddy right at confluence, &amp; 1 trap across from mouth of creek at end of gravel bar. All salmon caught in one trap under log, 10m up creek from mouth. One trap failed, resulting in the loss of half of the trap.</i>		
	<b>Station 3, Miner River, main stem, approximately 2.5-3km upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 9:53pm, July 26 <sup>th</sup> /02	<b>pulled:</b> 12:36pm, July 27 <sup>th</sup> /02

	<b>Coordinates:</b>	<i>N 66° 08.525'</i>	<i>W 138o 51.700'</i>	<b>Elevation:</b> 473m
	<b>Water Temperature, at setting:</b>	<i>9.8°C</i>	<b>at pulling:</b>	<i>8.8°C</i>
	<b>Air Temperature, at setting:</b>	<i>11.7°C</i>	<b>at pulling:</b>	<i>12.9°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>4 in total 3 slimy sculpins 1 chinook salmon (length=79mm) (mass=4.3g)</i>		
	<b>Other Observations:</b>	<i>All 4 traps set along gravel/cobble bank, 1 trap set at edge of fast water, 3 in slower water. Salmon was caught in trap with fast water.</i>		
<b>Station 4, Miner River, main stem, approximately 2km upstream from camp.</b>				
	<b># Of Traps:</b> 4	<b>set:</b> <i>10:07pm, July 26<sup>th</sup>/02</i>	<b>pulled:</b>	<i>1:03pm, July 27<sup>th</sup>/02</i>
	<b>Coordinates:</b>	<i>N 66° 08.716'</i>	<i>W 138o 51.411'</i>	<b>Elevation:</b> 432m
	<b>Water Temperature, at setting:</b>	<i>11.1°C</i>	<b>at pulling:</b>	<i>10.3°C</i>
	<b>Air Temperature, at setting:</b>	<i>11.1°C</i>	<b>at pulling:</b>	<i>15.0°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>3 in total 1 slimy sculpin 1 chinook salmon (length=68mm) (mass=2.7g) 1 chinook salmon (length=61mm) (mass=1.8g) 2 chinook salmon</i>		
	<b>Other Observations:</b>	<i>All 4 traps set along edge of swift water along gravel/cobble bank.</i>		
<b>Station 5, Miner River, main stem, across river from camp.</b>				
	<b># Of Traps:</b> 4	<b>set:</b> <i>July 26<sup>th</sup>/02</i>	<b>pulled:</b>	<i>July 27<sup>th</sup>/02</i>
	<b>Coordinates:</b>	<i>N 66° 09.297'</i>	<i>W 138o 51.677'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>11.7°C</i>	<b>at pulling:</b>	<i>9.9°C</i>
	<b>Air Temperature, at setting:</b>	<i>14.7°C</i>	<b>at pulling:</b>	<i>12.6°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>6 in total 1 chinook salmon (length=60mm) (mass=2.1g) 1 chinook salmon (length=55mm) (mass=1.9g) 1 chinook salmon (length=65mm) (mass=2.6g) 1 chinook salmon (length=68mm) (mass=3.0g) 1 chinook salmon (length=65mm) (mass=2.6g) 1 chinook salmon (lost before measurements could be taken) 6 chinook salmon in total</i>		
	<b>Other Observations:</b>	<i>All 4 traps set along the edge of swift water along mud cut bank, with woody debris cover.</i>		
<b>Station 6, Miner River, main stem, approximately 100m downstream from camp.</b>				
	<b># Of Traps:</b> 4	<b>set:</b> <i>6:45pm, July 26<sup>th</sup>/02</i>	<b>pulled:</b>	<i>10:00am, July 27<sup>th</sup>/02</i>
	<b>Coordinates:</b>	<i>N 66° 09.226'</i>	<i>W 138o 51.623'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>11.7°C</i>	<b>at pulling:</b>	<i>10.9°C</i>
	<b>Air Temperature, at setting:</b>	<i>17.7°C</i>	<b>at pulling:</b>	<i>12.5°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>

	<p><b>Fish Caught:</b> <i>18 in total</i></p> <p><i>2 slimy sculpins</i></p> <p><i>1 Burbot (length=160mm) (mass=38g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=4.2g)</i></p> <p><i>1 chinook salmon (length=56mm) (mass=3.4g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=3.5g)</i></p> <p><i>1 chinook salmon (length=61mm) (mass=2.5g)</i></p> <p><i>1 chinook salmon (length=50mm) (mass=1.4g)</i></p> <p><i>1 chinook salmon (length=60mm) (mass=1.6g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=3.3g)</i></p> <p><i>1 chinook salmon (length=65mm) (mass=2.6g)</i></p> <p><i>1 chinook salmon (length=60mm) (mass=2.0g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=4.0g)</i></p> <p><i>1 chinook salmon (length=80mm) (mass=4.8g)</i></p> <p><i>1 chinook salmon (length=60mm) (mass=3.0g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=3.5g)</i></p> <p><i>1 chinook salmon (length=59mm) (mass=2.8g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=4.0g)</i></p> <p><i>15 chinook salmon in total</i></p>
	<p><b>Other Observations:</b> <i>2 traps set in swift water along bank &amp; 2 traps set in small backwater slough. Burbot was dissected and was found to have 2 chinook salmon (69mm &amp; 60mm in length), 1 was partly digested, and 1 was fresher. 3 salmon were dead in trap, sores were observed on 1 salmon.</i></p>
<p><b>Station 7, Miner River, main stem, approximately 300m downstream from camp.</b></p>	
	<p><b># Of Traps:</b> 4   <b>set:</b> 7:00pm, July 26<sup>th</sup>/02   <b>pulled:</b> 10:15am, July 27<sup>th</sup>/02</p>
	<p><b>Coordinates:</b> N 66° 09.115'   W 138° 51.299'   <b>Elevation:</b></p>
	<p><b>Water Temperature, at setting:</b> 11.7°C   <b>at pulling:</b> 10.8°C</p>
	<p><b>Air Temperature, at setting:</b> 17.6°C   <b>at pulling:</b> 12.5°C</p>
	<p><b>Water Flows:</b> medium-low   <b>Water Quality:</b> clear</p>
	<p><b>Fish Caught:</b> <i>5 in total</i></p> <p><i>2 slimy sculpins</i></p> <p><i>1 chinook salmon (length=61mm) (mass=2.2g)</i></p> <p><i>1 chinook salmon (length=67mm) (mass=2.5g)</i></p> <p><i>1 chinook salmon (length=65mm) (mass=2.5g)</i></p> <p><i>3 chinook salmon</i></p>
	<p><b>Other Observations:</b> <i>2 traps set along each side of river, along gravel bars. 1 salmon dead in trap.</i></p>

<b>Site # 10</b>	<b>Miner River</b>
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<b>Description:</b>	<i>6 stations of 4 traps were set in the Miner River at a site located approximately 16km downstream from Cathedral Rocks, and approximately 4km upstream from mouth of significant unnamed tributary enter the Miner River from the west. Beach seine sets were conducted from end of gravel bar below camp approximately 200m.</i>		
	<b>Station 1, Miner River, main stem, approximately 300m upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 10:00pm, July 27 <sup>th</sup> /02	<b>pulled:</b> 2:35pm, July 28 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 16.520'	W 138° 46.288' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 11.1°C		<b>at pulling:</b> 10.3°C
	<b>Air Temperature, at setting:</b> 13.2°C		<b>at pulling:</b> 14.1°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 7 in total 1 chinook salmon (length=59mm) (mass=3.1g) 1 chinook salmon (length=59mm) (mass=2.5g) 1 chinook salmon (length=59mm) (mass=2.1g) 1 chinook salmon (length=75mm) (mass=4.6g) 1 chinook salmon (length=61mm) (mass=3.2g) 1 chinook salmon (length=64mm) (mass=2.5g) <u>1 chinook salmon (length=76mm) (mass=4.6g)</u> 7 chinook salmon in total		
	<b>Other Observations:</b> 2 traps set in small eddies, 2 traps set along cut bank amongst fallen woody debris. All salmon caught under cover of woody debris.		
	<b>Station 2, Miner River, main stem, approximately 500m upstream from camp.</b>		
	<b># Of Traps:</b> 5	<b>set:</b> 10:38pm, July 27 <sup>th</sup> /02	<b>pulled:</b> 2:20pm, July 28 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 16.453'	W 138° 46.610' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 12.0°C		<b>at pulling:</b>
	<b>Air Temperature, at setting:</b> 11.8°C		<b>at pulling:</b>
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear

	<p><b>Fish Caught:</b> <i>21 in total</i></p> <p><i>1 chinook salmon (length=60mm) (mass=2.8g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=4.1g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=3.1g)</i></p> <p><i>1 chinook salmon (length=69mm) (mass=2.8g)</i></p> <p><i>1 chinook salmon (length=67mm) (mass=2.4g)</i></p> <p><i>1 chinook salmon (length=74mm) (mass=3.8g)</i></p> <p><i>1 chinook salmon (length=66mm) (mass=2.5g)</i></p> <p><i>1 chinook salmon (length=63mm) (mass=2.4g)</i></p> <p><i>1 chinook salmon (length=64mm) (mass=2.6g)</i></p> <p><i>1 chinook salmon (length=61mm) (mass=2.5g)</i></p> <p><i>1 chinook salmon (length=75mm) (mass=3.8g)</i></p> <p><i>1 chinook salmon (length=71mm) (mass=3.5g)</i></p> <p><i>1 chinook salmon (length=77mm) (mass=3.6g)</i></p> <p><i>1 chinook salmon (length=74mm) (mass=3.4g)</i></p> <p><i>1 chinook salmon (length=75mm) (mass=4.0g)</i></p> <p><i>1 chinook salmon (length=70mm) (mass=3.1g)</i></p> <p><i>1 chinook salmon (length=64mm) (mass=2.4g)</i></p> <p><i>1 chinook salmon (length=72mm) (mass=3.3g)</i></p> <p><i>1 chinook salmon (length=65mm) (mass=2.5g)</i></p> <p><i>1 chinook salmon (length=61mm) (mass=2.6g)</i></p> <p><i>1 chinook salmon (length=60mm) (mass=2.0g)</i></p> <p><i>21 chinook salmon in total</i></p>
	<p><b>Other Observations:</b> <i>2 traps set along gravel/cobble bar, shallow w/swift water. 3 traps set along mud/gravel cut bank with some cover. All salmon caught in 2 traps along cut bank.</i></p>
<p><b>Station 3, Miner River, main stem, approximately 800m upstream from camp.</b></p>	
	<p><b># Of Traps:</b> 4   <b>set:</b> 10:20pm, July 27<sup>th</sup>/02   <b>pulled:</b> 2:00pm, July 28<sup>th</sup>/02</p>
	<p><b>Coordinates:</b> N 66° 16.371'   W 138° 46.694'   <b>Elevation:</b></p>
	<p><b>Water Temperature, at setting:</b> 10.1°C   <b>at pulling:</b> 10.1°C</p>
	<p><b>Air Temperature, at setting:</b> 13.5°C   <b>at pulling:</b> 11.4°C</p>
	<p><b>Water Flows:</b> medium-low   <b>Water Quality:</b> clear</p>
	<p><b>Fish Caught:</b> <i>2 in total</i></p> <p><i>1 slimy sculpin</i></p> <p><i>1 chinook salmon (length=62mm) (mass=2.6g)</i></p>
	<p><b>Other Observations:</b> <i>3 traps set along cobble bank, on edge of swift water. 1 trap set in shallow but swift water at the end of gravel bar below riffle. Salmon was caught in trap along cobble bank.</i></p>
<p><b>Station 4, Miner River, main stem, approximately 100m downstream from camp.</b></p>	
	<p><b># Of Traps:</b> 4   <b>set:</b> 9:40pm, July 27<sup>th</sup>/02   <b>pulled:</b> 12:55pm, July 28<sup>th</sup>/02</p>
	<p><b>Coordinates:</b> N 66° 16.831'   W 138° 46.194'   <b>Elevation:</b> 386m</p>
	<p><b>Water Temperature, at setting:</b> 12.4°C   <b>at pulling:</b> 10.6°C</p>
	<p><b>Air Temperature, at setting:</b> 15.1°C   <b>at pulling:</b> 11.1°C</p>
	<p><b>Water Flows:</b> medium-low   <b>Water Quality:</b> clear</p>

	<b>Fish Caught: 3 in total</b> 1 slimy sculpins 1 chinook salmon (length=67mm) (mass=3.0g) 1 chinook salmon (length=64mm) (mass=2.6g) 2 chinook salmon		
	<b>Other Observations:</b> 2 traps set in eddy with slow water, 2 traps set in fast water.		
	<b>Station 5, Miner River, backwater slough, approximately 200m downstream from camp.</b>		
	<b># Of Traps: 4</b>	<b>set: 9:58pm, July 27<sup>th</sup>/02</b>	<b>pulled: 1:00pm, July 28<sup>th</sup>/02</b>
	<b>Coordinates:</b>	N 66° 16.870'	W 138° 46.297' <b>Elevation: 385m</b>
	<b>Water Temperature, at setting: 12.9°C</b>		<b>at pulling: 11.8°C</b>
	<b>Air Temperature, at setting: 12.5°C</b>		<b>at pulling 10.6°C</b>
	<b>Water Flows: medium-low</b>		<b>Water Quality: clear</b>
	<b>Fish Caught: 0</b>		
	<b>Other Observations:</b> All 4 traps set in backwater slough. Fresh beaver sign present. 2 grayling observed.		
	<b>Station 6, Miner River, main stem, approximately 1km downstream from camp.</b>		
	<b># Of Traps: 4</b>	<b>set: 10:35pm, July 27<sup>th</sup>/02</b>	<b>pulled: 1:11pm, July 28<sup>th</sup>/02</b>
	<b>Coordinates:</b>	N 66° 16.935'	W 138° 46.090' <b>Elevation: 378m</b>
	<b>Water Temperature, at setting: 12.3°C</b>		<b>at pulling: 10.3°C</b>
	<b>Air Temperature, at setting: 13.1°C</b>		<b>at pulling 11.3°C</b>
	<b>Water Flows: medium-low</b>		<b>Water Quality: clear</b>
	<b>Fish Caught: 7 in total</b> 2 slimy sculpins 1 chinook salmon (length=70mm) (mass=3.4g) 1 chinook salmon (length=74mm) (mass=3.7g) 1 chinook salmon (length=70mm) (mass=3.0g) 1 chinook salmon (length=78mm) (mass=4.5g) 1 chinook salmon (length=69mm) (mass=3.0g) 5 chinook salmon		
	<b>Other Observations:</b> All 4 traps set in swift water along gravel & mud banks. 1 salmon was dead in trap.		
	<b>Beach Seine, Miner River, sets conducted 100m downstream from camp at end of gravel bar in mouth to large backwater slough.</b>		
		<b>set: 3:30pm, July 28<sup>th</sup>/02</b>	<b>pulled:</b>
	<b>Coordinates:</b> Set #1: Set #2:		<b>Location:</b> Approx. 100m downstream “
	<b>Water Temperature, at setting: 11.3°C</b>		
	<b>Air Temperature, at setting: 10.1°C</b>		
	<b>Water Flows: medium-low</b>		<b>Water Quality: clear</b>

	<p><b>Fish Caught:</b> 14 in total  Set#1: 1 slimy sculpin  Set#2: 13 in total  3 slimy sculpins  1 whitefish (broad or round)  1 chinook salmon (length=68mm) (mass=3.0g)  1 grayling (length=109mm) (mass=10.2g)  1 grayling (length=114mm) (mass=11.2g)  1 grayling (length=116mm) (mass=15.5g)  1 grayling (length=113mm) (mass=13.9g)  1 grayling (length=107mm) (mass=10.7g)  1 grayling (length=112mm) (mass=15.5g)  1 grayling (length=109mm) (mass=7.9g)  1 grayling (length=105mm) (mass=8.6g)  8 grayling</p>
	<b>Other Observations:</b>

<b>Site # 11</b>	<b>Miner River/Unnamed Tributary</b>		
<b>Description:</b>	6 stations of 4 traps were set in the Miner River at a site located approximately 16km upstream from the Fishing Branch River, and at mouth of significant unnamed tributary enter the Miner river from the west. 1 station of 4 traps was set in unnamed tributary approximately 1km upstream from confluence with Miner River.		
	<b>Station 1, Miner River, main stem, approximately 50m upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 7:37pm, July 28 <sup>th</sup> /02	<b>pulled:</b> 10:51am, July 29 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 18.782'	W 138° 46.137' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 10.9°C		<b>at pulling:</b> 9.3°C
	<b>Air Temperature, at setting:</b> 10.9°C		<b>at pulling:</b> 15.6°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 0		
	<b>Other Observations:</b> All 4 traps set along cut bank in debris, with cover of willow & poplar. 1 trap failure, resulting in loss of 1/2 a trap in swift water.		
	<b>Station 2, Miner River, main stem, approximately 200m upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 7:43pm, July 28 <sup>th</sup> /02	<b>pulled:</b> July 29 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 18.738'	W 138° 46.169' <b>Elevation:</b> 378m
	<b>Water Temperature, at setting:</b> 10.9°C		<b>at pulling:</b> 9.3°C
	<b>Air Temperature, at setting:</b> 11.9°C		<b>at pulling:</b> 14.1°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 0		
	<b>Other Observations:</b> All 4 traps set along gravel bank, on the edge of swift water.		
	<b>Station 3, Miner River, main stem, approximately 600m upstream from camp.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 8:06pm, July 28 <sup>th</sup> /02	<b>pulled:</b> July 29 <sup>th</sup> /02

	<b>Coordinates:</b>	<i>N 66° 18.632'</i>	<i>W 138o 46.235'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>10.9°C</i>	<b>at pulling:</b>	<i>9.6°C</i>
	<b>Air Temperature, at setting:</b>	<i>11.8°C</i>	<b>at pulling:</b>	<i>14.1°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>3 in total</i> <i>1 slimy sculpin</i> <i>1 chinook salmon (length=70mm) (mass=3.0g)</i> <i>1 chinook salmon (length=71mm) (mass=4.1g)</i> <i>2 chinook salmon</i>		
	<b>Other Observations:</b>	<i>all 4 traps set in slow/medium water, along gravel bank.</i>		
<b>Station 4, Miner River, main stem, approximately 100m downstream from camp.</b>				
	<b># Of Traps:</b>	<i>4</i>	<b>set:</b>	<i>8:00pm, July 28<sup>th</sup>/02</i>
	<b>pulled:</b>	<i>12:15pm July 29<sup>th</sup>/02</i>		
	<b>Coordinates:</b>	<i>N 66° 18.919'</i>	<i>W 138o 46.235'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>10.7°C</i>	<b>at pulling:</b>	<i>9.9°C</i>
	<b>Air Temperature, at setting:</b>	<i>12.8°C</i>	<b>at pulling:</b>	<i>13.6°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>3 in total</i> <i>1 slimy sculpin</i> <i>1 chinook salmon (length=70mm) (mass=3.5g)</i> <i>1 chinook salmon (length=68mm) (mass=3.4g)</i> <i>2 chinook salmon</i>		
	<b>Other Observations:</b>	<i>All 4 traps set along mud bank on the edge of swift water.</i>		
<b>Station 5, Miner River, mainstream, approximately 150m downstream from camp.</b>				
	<b># Of Traps:</b>	<i>4</i>	<b>set:</b>	<i>8:15pm, July 28<sup>th</sup>/02</i>
	<b>pulled:</b>	<i>12:00pm July 29<sup>th</sup>/02</i>		
	<b>Coordinates:</b>	<i>N 66° 18.935'</i>	<i>W 138o 46.170'</i>	<b>Elevation:</b>
	<b>Water Temperature, at setting:</b>	<i>10.8°C</i>	<b>at pulling:</b>	<i>9.9°C</i>
	<b>Air Temperature, at setting:</b>	<i>12.4°C</i>	<b>at pulling:</b>	<i>12.1°C</i>
	<b>Water Flows:</b>	<i>medium-low</i>	<b>Water Quality:</b>	<i>clear</i>
	<b>Fish Caught:</b>	<i>9 in total</i> <i>1 chinook salmon (length=75mm) (mass=4.3g)</i> <i>1 chinook salmon (length=72mm) (mass=4.3g)</i> <i>1 chinook salmon (length=79mm) (mass=5.1g)</i> <i>1 chinook salmon (length=65mm) (mass=3.1g)</i> <i>1 chinook salmon (length=73mm) (mass=3.8g)</i> <i>1 chinook salmon (length=75mm) (mass=4.1g)</i> <i>1 chinook salmon (length=70mm) (mass=3.4g)</i> <i>1 chinook salmon (length=77mm) (mass=4.5g)</i> <i>1 chinook salmon (length=72mm) (mass=3.4g)</i> <i>9 chinook salmon in total</i>		
	<b>Other Observations:</b>	<i>All 4 traps set in deep water along the edge of a mud cut bank, on edge of swift water. Very small fish observed.</i>		
<b>Station 6, unnamed tributary, approximately 1km upstream from confluence with Miner River.</b>				
	<b># Of Traps:</b>	<i>4</i>	<b>set:</b>	<i>8:45pm, July 28<sup>th</sup>/02</i>
	<b>pulled:</b>	<i>11:12am July 29<sup>th</sup>/02</i>		
	<b>Coordinates:</b>	<i>N 66° 18.413'</i>	<i>W 138o 46.880'</i>	<b>Elevation:</b>
				<i>373m</i>

	<b>Water Temperature, at setting:</b> 10.7°C	<b>at pulling:</b> 9.5°C
	<b>Air Temperature, at setting:</b> 12.7°C	<b>at pulling:</b> 12.7°C
	<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear, very slight stain
	<b>Fish Caught:</b> 6 in total 1 slimy sculpin 1 chinook salmon (length=65mm) (mass=2.5g) 1 chinook salmon (length=78mm) (mass=4.5g) 1 chinook salmon (length=67mm) (mass=3.5g) 1 chinook salmon (length=78mm) (mass=4.3g) 1 chinook salmon (length=65mm) (mass=2.9g) 5 chinook salmon	
	<b>Other Observations:</b> 3 traps set in swift, shallow water, 1 trap set in deep, slower water. Salmon caught in traps in swift water. 1 Adult chinook salmon observed in creek, approximately 800m upstream from confluence with Miner River. Was not moving upstream in a quick way, but rather seemed to be "hanging around."	
	<b>Station 7, Miner River, mouth/mouth of unnamed tributary, across from camp.</b>	
	<b># Of Traps:</b> 3	<b>set:</b> 9:21pm, July 28 <sup>th</sup> /02
		<b>pulled:</b> 11:45am July 29 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 18.754'    W 138° 46.318' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 10.9°C	<b>at pulling:</b> 10.3°C
	<b>Air Temperature, at setting:</b> 13.0°C	<b>at pulling:</b> 13.8°C
	<b>Water Flows:</b> medium-low	<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 0	
	<b>Other Observations:</b> 1 trap set right at creek mouth under log, 1 trap set in side channel w/gravel/sand bottom, just above mouth, 1 trap 50m up tributary.	

<b>Site # 12</b>	<b>Miner River</b>
<b>Description:</b>	3 stations of 4 traps each were set in the Miner River, 3-600m upstream from confluence with the Fishing Branch River.
	<b>Station 1, Miner River, approximately 300m upstream from Fishing Branch River.</b>
	<b># Of Traps:</b> 4
	<b>set:</b> 7:49pm, July 29 <sup>th</sup> /02
	<b>pulled:</b> 12:44pm, July 30 <sup>th</sup> /02
	<b>Coordinates:</b> N 66° 26.870'    W 138° 35.747' <b>Elevation:</b> 338m
	<b>Water Temperature, at setting:</b> 12.9°C
	<b>at pulling:</b> 11.3°C
	<b>Air Temperature, at setting:</b> 15.9°C
	<b>at pulling:</b> 15.3°C
	<b>Water Flows:</b> medium-low
	<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 1 slimy sculpin
	<b>Other Observations:</b> 2 traps set in fast water along gravel bank, 1 trap set in still water along mud/gravel bank, & 1 trap set in slow eddy in side channel.
	<b>Station 2, Miner River, main stem, approximately 500m upstream from Fishing Branch River.</b>

	<b># Of Traps:</b> 4	<b>set:</b> 7:45pm, July 29 <sup>th</sup> /02	<b>pulled:</b> 12:50pm, July 30 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 26.795'	W 138° 35.601' <b>Elevation:</b> 341m
	<b>Water Temperature, at setting:</b> 12.9°C		<b>at pulling:</b> 11.3°C
	<b>Air Temperature, at setting:</b> 15.9°C		<b>at pulling:</b> 15.3°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 0		
	<b>Other Observations:</b> 1 trap in small side channel, sand/gravel bottom w/lots of algae, medium flow. 3 traps set in main channel along gravel/cobble cut bank on edge of swift water.		
<b>Station 3, Miner River, side channel, approximately 600m upstream from Fishing Branch River.</b>			
	<b># Of Traps:</b> 4	<b>set:</b> 9:04pm, July 29 <sup>th</sup> /02	<b>pulled:</b> 12:54pm, July 30 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 26.697'	W 138° 35.567' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 12.7°C		<b>at pulling:</b> 11.1°C
	<b>Air Temperature, at setting:</b> 17.5°C		<b>at pulling:</b> 18.4°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 0		
	<b>Other Observations:</b> All 4 traps set in small side channel w/moving water. Cobble bottom, traps set in moving and calm water.		

<b>Site # 13</b>	<b>Fishing Branch River</b>		
<b>Description:</b>	3 stations of 4 traps each were set in the Fishing Branch River, 150m-1.25km upstream from Miner River.		
	<b>Station 1, Fishing Branch River, main stem, approximately 150m upstream from Miner River.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 8:00pm, July 29 <sup>th</sup> /02	<b>pulled:</b> 11:05am, July 30 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 27.067'	W 138° 35.479' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 12.0°C		<b>at pulling:</b> 9.7°C
	<b>Air Temperature, at setting:</b> 13.4°C		<b>at pulling:</b> 13.1°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 1 slimy sculpin		
	<b>Other Observations:</b> Shallow water, slow moving, small gravel bottom. Water level dropped 5-10cm overnight. Eagle observed.		
	<b>Station 2, Fishing Branch River, main stem, approximately 300m upstream from Miner River.</b>		
	<b># Of Traps:</b> 4	<b>set:</b> 8:15pm, July 29 <sup>th</sup> /02	<b>pulled:</b> 11:10am, July 30 <sup>th</sup> /02
	<b>Coordinates:</b>	N 66° 27.072'	W 138° 35.947' <b>Elevation:</b>
	<b>Water Temperature, at setting:</b> 11.4°C		<b>at pulling:</b> 9.8°C
	<b>Air Temperature, at setting:</b> 13.4°C		<b>at pulling:</b> 11.8°C
	<b>Water Flows:</b> medium-low		<b>Water Quality:</b> clear
	<b>Fish Caught:</b> 2 slimy sculpins		
	<b>Other Observations:</b>		

	<b>Station 3, Fishing Branch River, main stem, approximately 1.25km upstream from Miner River.</b>		
	<b># Of Traps: 4</b>	<b>set: 8:30pm, July 29<sup>th</sup>/02</b>	<b>pulled: 11:20am, July 30<sup>th</sup>/02</b>
	<b>Coordinates:</b>	<i>N 66° 27.322'</i>	<i>W 138° 36.139'</i> <b>Elevation: 348m</b>
	<b>Water Temperature, at setting: 11.6°C</b>		<b>at pulling: 9.6°C</b>
	<b>Air Temperature, at setting: 15.1°C</b>		<b>at pulling 12.6°C</b>
	<b>Water Flows: medium-low</b>		<b>Water Quality: clear</b>
	<b>Fish Caught: 0</b>		
	<b>Other Observations:</b> <i>All 4 traps on the edge of swift water, along cut bank, with cover from lots of woody debris. 1 trap was lost overnight.</i>		