

November 20, 1898

Dear Uncle Edwin,

I trust this letter finds you in good health and spirits. I am writing to you from Dawson City, where the mercury has been plummeting to  $-30^{\circ}\text{F}$  ( $-34^{\circ}\text{C}$ ) lately. I've been keeping busy as a telegraph operator for the White Pass & Yukon Route Railway, and have been documenting the mining activities in the area.

Last week, I had the chance to photograph a group of prospectors at the Bonanza Creek camp. They were using a combination of panning and sluicing methods to extract gold from the gravel. I was impressed by their diligence and the efficiency of their operations. The average yield from their claims is around 1-2 grams of gold per hour, with some reports of up to 10 grams in exceptional cases.

I've been analyzing the data from the claims I've been photographing, and I've noticed a correlation between the presence of quartz veins and the concentration of gold. It appears that the quartz acts as a natural concentrator, allowing the gold to accumulate in specific areas. I've also observed that the gold is often found in the form of nuggets or flakes, rather than flakes or dust.

In terms of equipment, the prospectors are using a mix of hand tools and machinery. The most common tools are pickaxes, shovels, and pans, but I've also seen some using hydraulic pumps and dredges to extract gold from deeper deposits. The most efficient method I've seen is the use of a combination of panning and sluicing, which allows for a high throughput of gravel while maintaining a high level of gold recovery.

I've been keeping track of the weather conditions, and I've noticed that the average temperature in Dawson City is around  $10^{\circ}\text{F}$  ( $-12^{\circ}\text{C}$ ) in November, with an average precipitation of around 2 inches (5 cm). The sunlight hours are also decreasing, with an average of around 4 hours of direct sunlight per day. I've been documenting the effects of the weather on the mining operations, and I've noticed that the prospectors are often forced to work in challenging conditions, with temperatures often dropping below  $-20^{\circ}\text{F}$  ( $-29^{\circ}\text{C}$ ) and precipitation making it difficult to work safely.

I've also been analyzing the data on the claims themselves, and I've noticed that the average claim size is around 500 feet (152 meters) in length, with an average width of around 100 feet (30 meters). The claims are often divided into smaller sections, with each section representing a separate area of gold-bearing gravel. I've been documenting the layout of the claims, and I've noticed that the most productive claims are often those that are located in areas with a high concentration of quartz veins.

I've included some of my photographs of the mining operations, as well as some of the data I've collected on the claims. I hope this information is helpful to you, and I look forward to hearing from you soon.

Best regards,

E.A. Hegg

Photographer & Telegraph Operator

Dawson City, Yukon Territory

Attachments:

- Photographs of prospectors at Bonanza Creek camp
- Data on mining operations, including yield, equipment used, and weather conditions
- Maps of claims, including location, size, and layout
- Graphs showing correlation between quartz veins and gold concentration