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Figure Captions

Figure 1. Regional geological setting of the Cariboo Gold District (white dashed outline) in east-central British Columbia, showing main tectonostratigraphic terranes and major lithological packages present (modified from Rhys et al., 2009). Areas of known lode gold occurrences are shown in yellow and significant placer gold producing drainages area shown by thick purple lines.

Figure 2. Detailed sample locations for placer and lode gold samples from i. McTaggart and Knight (1993) (placer samples indicated by red circles, lode localities indicated by green squares, both followed by the original sample reference number), ii. This study (placer samples indicated by yellow triangles, lode samples by green squares followed by a letter). UTM Zone 10, NAD 83

Figure 3. A: reproducibility of data for samples collected from the same sites collected during the present study and by McTaggart and Knight (1993); B: compositional data for samples from two localities 500 m apart on Chisholm Creek (this study) and a previous sample from a nearby locality by McTaggart and Knight (1993).

Figure 4. Silver contents of populations of lode gold samples from the study area characterized by different patterns of Ag contents. A and B: samples with a single narrow compositional range; C: samples exhibiting a continuum of Ag contents over a relatively wide compositional range; D: samples with multiple narrow ranges of Ag,

Figure 5. BSE images of lode samples. A: cosalite (gray) is coeval with gold (pale grey) in a sample from the Cariboo Gold Quartz mine occurrence; B: cosalite (white) postdates pyrite (gray) in a sample from the Mosquito Creek mine.

Figure 6. Variation in alloy composition with morphology for placer gold samples. A: grains from upper Chisholm Creek mounted according to morphology; B: compositions of gold from Lowhee Creek and Upper Lowhee Creek (located in the headwaters of Lowhee Creek); C: gold placer sample from Lowhee Gulch showing variation in size and morphology corresponding to the populations depicted in Figure 7B.

Figure 7. Ag content of placer gold samples from the study area. A: Wells; B: Slough Creek drainage; C: Stanley area; D: Antler Creek; E: Cunningham and Keithley creeks (see locations on Fig. 2).

Figure 8. Ag vs. Hg contents of placer gold from the study area. Gold from Dragon Creek forms a coherent distinct Hg rich compositional field.

Figure 9. Proportion of mineral inclusions according to pyrite, Bi-bearing minerals, Co and or Ni-bearing minerals and the sum of all Cu-Pb and Zn sulfides (excluding all Bi-bearing sulfides).

Figure 10. Gold compositional data illustrating specific placer-lode gold relationships in parts of the study area. A: Lowhee Creek drainage and possible sources. B: Two placer populations from the Wells area and their relationship to local lode sources. C: Burns Mountain lode locality AU502 (situated at the head of Perkins Gulch) and a placer sample from Perkins Gulch. D: Cunningham and Keithley creeks and local lode sources

Figure 11. Comparison of mean Ag contents of placer populations reported in the present study with fineness data from historical production on the same creek. Outlying points : green= Dragon Creek and yellow = Lowhee Gulch

Figure 12. Geographical distribution of gold types in lode and placers. ¹ Data from Schiarizza (2004).