



UNIVERSITY OF LEEDS

This is a repository copy of *Characterization of gold mineralization in the northern Cariboo Gold District, British Columbia, Canada, through integration of compositional studies of lode and detrital gold with historical placer production: a template for evaluation of orogenic gold districts.*

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/99588/>

Version: Accepted Version

Article:

Chapman, RJ and Mortensen, JK (2016) Characterization of gold mineralization in the northern Cariboo Gold District, British Columbia, Canada, through integration of compositional studies of lode and detrital gold with historical placer production: a template for evaluation of orogenic gold districts. *Economic Geology*, 111 (6). pp. 1321-1345. ISSN 0361-0128

<https://doi.org/10.2113/econgeo.111.6.1321>

(c) 2016, Society of Economic Geologists, Inc. This is an author produced version of a paper published in *Economic Geology*. Uploaded in accordance with the publisher's self-archiving policy.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

TABLE 2. Signatures of place gold, grouped according to location

Area/Drainage	Fig.	Ranges of Ag (%)		Inclusions observed		Localities	Comments
				Multiple	Present		
Wells	7A	i.	3-9	Py, Co, Asp	Ge	Lowhee Ck, Burns Ck, Mosquito Ck	Williams Ck sample shows bimodal alloy composition: 6-11% Ag and 16-25% Ag. The Low Ag gold does not contain Co-bearing inclusions which distinguishes it from the gold from Lowhee Ck
		ii.	10-30	Py,	Asp, G	Maude Ck, Ballarat St George's Mine	A wide range of Ag. The Ballarat St George's Mine contains gravel from a variety of sources, but Maude Ck is a small drainage.
Slough Ck	7B	i.	5-10			Slough Ck, Nelson Ck, Montgomery Ck, Coulter Ck	All sample populations, generate Ag plots of similar shape, but contain different proportions of Au containing >10% Ag. High Ag gold is differentiated from gold from Dragon Ck by the absence of Hg.
		ii.	10-30				
		iii.	15-25	Cpy		Dragon Ck	High Hg in Dragon Ck sample (Fig 8).
Stanley	7C		5-25	Py		Chisholm Ck ¹ , Perkins Gulch, Amador Ck	Ag plots for Perkins Gulch and Amador Ck very similar.
Antler Ck	7D	i.	5-10	Py	Cpy, Sph	Antler Ck (both sites), California Ck	Shape of Ag plots suggests gold from multiple sources.
		ii.	13-25		Py, Ge	Beggs Gulch	Predominantly high-Ag gold
Keithley/Cunningham cks	7E	i.	5-30	Py	G	Cunningham Ck, Snowshoe Ck, Peter Ck	Ag plots all very similar
		ii.	5-15	Py	G, Sph	Keithley Ck	

iv. ¹ Chisholm Ck sample refers to the 'rough grains' as defined in Fig 5A. Mineral abbreviations as in Table 1.
