

New Data on Geochemistry of the Lower Jurassic (Sinemurian) Shallow Marine Successions in British Columbia and Nevada

Sarah J. Porter^{1,2}, Paul L. Smith¹, Andrew H. Caruthers¹, Pengfei Hou¹, Darren R. Gröcke², and David Selby²

¹Department of Earth, Ocean and Atmospheric Sciences, University of British Columbia, Vancouver, BC, Canada (sarahporter@originanalytical.com)

²Department of Earth Sciences, University of Durham, Sciences Laboratories, Durham, United Kingdom

Abstract

Carbon and osmium isotope samples were collected from Five Card Draw, Nevada, USA and Last Creek, British Columbia, Canada. The studied interval spans from the Involutum Zone to the Harbledownense Zone of the Sinemurian Stage (Lower Jurassic). The positive carbon isotope excursion recorded in Last Creek suggests a possible global event. The osmium isotope analysis reveals the difference of the depositional environments of the two study areas: Five Card Draw is more restricted and affected by continental influx and weathering, while Last Creek is an open ocean setting. This study is the first report on the geochemistry of the Sinemurian of western North America.

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