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Multi-Disciplinary Geochemical Analysis and Quality Control for Large Datasets

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Summary

Large datasets of fluid composition data can be processed rapidly and with confidence when fluid equilibrium principles form chemical engineering and combined with modern programming techniques and software engineering principles. A key requirement is the ability to flag datapoints that need additional human oversite and incorporate updates into daily workflows. The result is a continuously updated dataset that geologists can use with confidence when mapping trends, determining the in-situ fluid properties, comparing maturation indices between resource plays and other projects that require analyzing thousands or even tens of thousands of wells. This paper describes the techniques employed and shares examples of the impact of this quality control process on geological applications in the Montney and other resource plays.

Please note that this is a placeholder. The corresponding author (Michael Morgan, mmorgan@mcdan.com) will be happy to share the paper, which is currently being formatted to fit the GeoConvention template, and discuss the worked geological examples we are obtaining permission to share.