

# SCIENTIFIC EVALUATION AND INTERPRETATION OF BASELINE GROUNDWATER WELL TESTING DATA AVAILABLE FOR ALBERTA

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16-WIPC-01 and 17-WIPC-01

Expansion of oil and gas activities into unconventional resource plays has been tied to concerns about the current and future state of Alberta's groundwater. A key step in addressing this concern is characterizing current baseline conditions in Alberta's aquifers in a scientifically sound manner. The effort must include developing methods that enable differentiation between natural variations in water and gas geochemistry from those caused by potential anthropogenic impacts. The objective of this project is to compile, evaluate and interpret all available baseline groundwater testing data on aqueous and gas geochemical compositions across Alberta.

## **Policy Issues**

Assessment of alternative sources and handling of

water for unconventional oil and gas development, considering the entire life cycle.

### **Knowledge Gap**

Compile and analyze baseline water well testing data from areas where hydrologic fracturing occurs.

Q3 2018 Technical Update

Q4 2017 Technical Update