

Assessment of Methane Occurrences and Sources in Groundwater in Alberta: A Progress Report

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Abstract

With the rapid expansion of natural gas exploitation from unconventional reservoirs including coalbed methane and shale gas plays, there is some public concern about potential future contamination of shallow potable groundwater. In order to enable a scientifically sound assessment of potential future deterioration of freshwater resources in shallow aquifers, it is essential to first establish and understand the current baseline of groundwater quality including dissolved or free gases. In collaboration with Alberta Environment and Sustainable Resource Development (AESRD), we have been provided with groundwater and free gas samples from the Alberta groundwater observation well network (GOWN) and provide here a preliminary assessment of methane occurrences and methane sources emerging from this ongoing program. Such baseline groundwater characterization efforts are of great value for assessing potential future impacts on shallow groundwater or for demonstrating the lack thereof.

References Cited

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