Saskatchewan Geological Society Lecture

Wednesday, April 17th, 2019

Understanding the Environmental Impacts of Tight Oil and Shale Gas Development

Daniel J. Soeder

(abstract & bio below)

Bushwakker Brewing Company,
2206 Dewdney Avenue, Regina

Lunch: 11:45 am
Meeting Talk: 12:15 to ~1:00 pm
For lunch, the cost is:
S.G.S Members: $15.00
Student Members: $5.00
Non-members: $20.00

For those members not having lunch, the talk is free.
Please contact **Alec Pollard alexander.pollard@gov.sk.ca or 306-787-6116**
by 10:00 am, **Monday, April 15th** if you plan on having lunch.

Abstract

Over the past two decades, shale gas and tight oil development have opened up vast new reserves of fossil energy in North America. However, the drilling and hydraulic fracturing processes that are necessary for the production of these resources use significant volumes of water, sand, and chemicals, raising concerns about risks to air, water, landscapes, and ecosystems. Risks to air include releases of methane, carbon dioxide, volatile organic compounds, and particulate matter. Water-resource risks include excessive withdrawals, stray gas in drinking-water aquifers, and surface spills of fluids or chemicals. Landscapes can be altered by the infrastructure installed to support large drilling platforms and associated equipment. Potential risks to terrestrial and aquatic ecosystems and human health remain uncertain because exposure routes, fate and transport, and toxicology of the chemicals used in the hydraulic fracturing process are poorly understood. An adaptable and evolving industry that frequently changes methods and introduces new chemicals makes risk assessment all the more challenging.


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Daniel Soeder Biography:

Dan Soeder is the Director of the Energy Resources Initiative at the South Dakota School of Mines & Technology in Rapid City, SD. He entered this position in 2017 after nine years as a research scientist with the U.S. Department of Energy, 18 years as a hydrologist with the U.S. Geological Survey, and ten years researching shale gas and tight sandstone with the Gas Technology Institute in Chicago. He holds BS and MS degrees in geology.