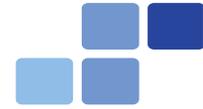




SPOG

SUNDRE PETROLEUM OPERATORS GROUP



SPOG Office - 403-638-5117

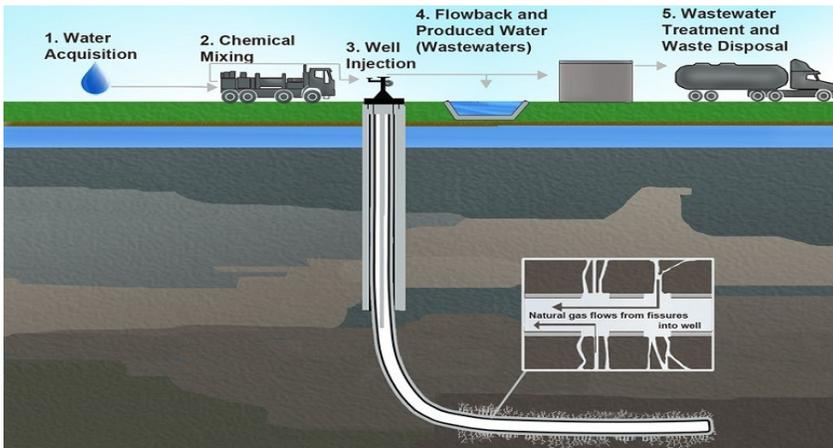
November 2015

www.spog.ab.ca

Hydraulic Fracturing

Most of the wells in the SPOG area over the past several years have been hydraulically fractured. Fracturing is used to simplify the extraction of oil and natural gas in porous and permeable rock by stimulating the flow of the fluid.^[3]

cause fracking is a process used for wells that have already been drilled, it can be used from right after the well has been drilled, or to revitalize an old well. Generally, these wells are drilled directionally or horizontally to further increase



Since unconventional oil and natural gas is often trapped inside porous rocks with low permeability, such as shale, pathways must be manually created for the fluids to flow through the rock and into the well.^[3] Before the widespread use of hydraulic fracturing, drilling companies would drill several wells into the rock in an attempt to free the oil and gas trapped within it. However, this method is not efficient as the wells are still not able to cover a large volume of the rock. Hydraulic fracturing is a solution to this problem, and is done after the drilling process.

To fracture the well, a fluid known as fracking fluid is pumped into a wellbore, creating enough pressure to fracture the rock. Be-

cause the surface area of the rock containing the oil or gas that the wellbore touches. This fluid is mostly water containing chemicals and sand, although the specific type and quantity of these chemicals can vary.^[5] The sand in the fluid is known as a "proppant" that holds the cracks that are formed open so the oil or gas can escape.^[3]

The injection of this fluid breaks a small amount of the rock that surrounds each well. This then increases the volume of rock that gas or oil can be extracted from by increasing the number of small fissures in the rock.

For more information about hydraulic fracturing go to www.energyeducation.ca or www.csug.ca

What does the Land Stewardship Centre do?



Picture people coming together to work on common priorities for achieving sustainability on the landscape. Imagine a society that demonstrates a stewardship ethic and an understanding of healthy ecosystems in all its land-use practices. Now envision an organization that helps bring this all to life – Land Stewardship Centre.

The Land Stewardship Centre work with people to help improve their understanding of healthy ecosystems, support grass-roots community stewardship efforts, and encourage the development of practices and policies that support sustainable resource use. Enabling people and organizations to become better stewards. That's what they are here to do.

LSC presented at the SPOG November Community Affairs meeting about their core programs which reinforce that commitment to engaging, informing and enabling stewards and include:

- Alberta Stewardship Network
- Conservation Easement Registry
- Conservation Land Registry
- Green Acreages Guide
- Green Communities Guide
- Watershed Stewardship Grant Program
- Septic Sense: Solutions for Rural Living

www.landstewardship.org

IMPACT

Industry, Municipal, Public Action on Communication and Trust

The first place people go to learn about the science behind the energy sector

The energy education team is made up of Prof. Jason Donev from the University of Calgary and several students. This team works hard to present comprehensive and easy-to-understand information about the science of energy for the public.

This resource discusses how much energy is used in different areas of the world and how it's produced. The entire team strives to remain unbiased in giving a broad perspective on energy issues. The website has grown to be an expansive resource, filled with useful and understandable information

on energy, covering a wide range of topics. Jason Donev is tenured at the University of Calgary, and has received awards for teaching and outreach. Dr. Donev teaches nuclear power, electricity and thermodynamics, the senior project class for energy and a course that introduces issues related to energy to a non-technical audience, affectionately called 'energy for everyone.' Dr. Donev regularly talks with advocates and interested parties all over the political spectrum about various energy issues, especially - but not limited to - nuclear power and climate

change. Energyeducation.ca is a major project of Dr. Donev's, and he hopes to continually improve and adapt the site.

A quick review of the site shows information for over 800 topics from AC Adaptors to the Yukon Electrical Grid, from Algea Biofuel to Wind Turbines. Dr. Donev and his team recently presented his Energy Education Encyclopedia at the November Synergy Alberta Conference. In 2015 Dr. Donev also made a presentation to SPOG and other synergy groups called Energy 101.

SPOG AGM

November 12 was the SPOG Annual General Meeting and Year End Gala at the Arts Center in Sundre. The evening was to not only elect the new board for 2016, approve the budget and funding for the coming year, but also to celebrate the many accomplishments of SPOG and its volunteers over the past year.

Pictured below is SPOG's 2015 Board of Directors.



IMPACT

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