



TAR SANDS



OCCUCARD #18



EXPOSING AND OPPOSING THE CORPORATE STATE

Tar Sands, also known as oil sands, are a type of petroleum deposit consisting of a mixture of 85% sand and clay, 5% water, and 10% bitumen, a thick, tar-like form of hydrocarbons. The largest known bitumen reserves in the world exist in Alberta, Canada underneath approximately 54,000 square miles of pristine boreal forest, an area the size of England. While Canada's tar sands were discovered many decades ago, their large-scale exploitation by energy companies has only been profitable since 2003, after conventional oil production could no longer keep pace with growing demand, causing global oil prices to rise.

Extracting and processing tar sands into usable fuel is an expensive and energy-intensive process so devastating to the environment it is difficult to fathom. First, forests are clear-cut, wetlands are drained and all the subsoil (mostly peat) is bulldozed away to create gigantic pit-mines often encompassing 50 square miles or more. The exposed tar sands are then excavated with heavy machinery down to about 100 yards and washed with steam and organic solvents to separate out the bitumen. (Deeper deposits in other locations are pumped out with pressurized steam injections and then similarly washed.) These processes utilize each day more fresh water than the entire city of Houston, Texas, and enough natural gas to heat 3 million homes. Over 90% of the water ends up as toxic wastewater that is left in unlined reservoirs (called "tailings ponds") where it seeps into and contaminates the groundwater. First Nations communities living downstream from these reservoirs have higher than normal cancer rates and deformed fish have begun to appear in nearby lake Athabasca. The thick bitumen itself must then be diluted with more toxic chemicals in order to be able to flow through pipelines to specialized refineries capable of handling this type of synthetic crude. The entire process is so energy intensive, resource consuming and damaging to the environment that the Canadian organization, Environmental Defense, has called the Alberta tar sands "the most destructive project on earth."

The destructive nature of tar sands development is not confined only to the local environment. Diluted bitumen is highly corrosive to pipelines and even more hazardous to the environment and public health than conventional crude oil. A 2010 pipeline rupture in Marshall, Michigan spilled over 1 million gallons into the Kalamazoo river, poisoning the groundwater, sickening hundreds and resulting in 150 families being permanently relocated. Also, producing a barrel of synthetic tar sands oil releases three times more greenhouse gases into the atmosphere than conventional oil, not counting the destruction of forests and peat bogs, two of the planet's largest terrestrial carbon sinks. With over 170 billion barrels of tar sands oil considered recoverable (on par with the reserves of Saudi Arabia), it is no wonder that NASA scientist James Hansen says tar sands development is "game over" for the climate.

Based on the dire, global implications of expanding Canada's tar sands development, a world-wide movement has formed in opposition to various proposed pipeline projects, particularly the "Keystone XL" pipeline, which would carry tar sands oil through the US heartland to refineries on the Gulf coast. Led by a coalition of Texas and Oklahoma residents, the *Tar Sands Blockade* has been utilizing nonviolent direct action and civil disobedience to physically stop the pipeline's construction, which has started despite the full project having not yet been officially approved by the U.S. (as of March, 2013). The organization, *350.org*, has held mass rallies involving tens of thousands of people to demand that President Obama not approve Keystone XL. And other organizations, including the indigenous sovereignty movement, *Idle No More*, have raised public awareness through local actions around the world. This combination of **education, mass protest and civil disobedience** can succeed in ending the criminal collusion between corporations and government that seeks profit even at the expense of survival.

GET INVOLVED!

tarsandsblockade.org • 350.org • idlenomore.ca

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