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# Tar sands: tearing the flesh from the Earth

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18th August, 2009

A landscape created by a love of oil

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As the price of oil increases again, Canada's tar sands once more look like a giant cash cow to the industry. Now, the only thing standing between the 400 ton bulldozers and rampant environmental destruction may be a small group of First Nations' people...

'Albertans call that the smell of money!' says the helicopter pilot as we fly over Alberta's tar sands. Even 2,000 feet above open-cast mines, man-made lakes of mining waste and refineries belching fumes and flames, there is the acrid stench of burning oil. It stinks.

Until the 1960s, this Canadian landscape was unspoiled boreal forest, home to moose and caribou and the Clearwater people who hunted them. Today, this First Nations' people go shopping for processed food in an industrial wasteland. Flocks of migratory birds die as they land on toxic lakes, that cover over 50 square kilometres. Downriver, further north, in the remote First Nations' settlement of Fort Chipewyan, on the shore of Lake Athabasca, the incidence of bile duct cancer is significantly higher than expected.

The Alberta government rebuffs such claims of environmental and medical impacts. 'We do not proceed with development at the expense of the environment,' says the website of Alberta Environment.

The government prefers to highlight that the Athabasca tar sands is the second largest known deposit of oil in the world, after the Middle East, and, geopolitically, represents a secure source of oil for North America.

An estimated 173 billion barrels is considered to be recoverable. No wonder every major oil company – and many minor ones - has rushed to get a piece of the action. \$215 billion worth of projects have been proposed and billions of dollars have been paid to the government of Alberta in mineral rights and royalties. (Meanwhile, billions more have been given to the oil companies in tax breaks.)

The process of extracting the oil from the sands is expensive and energy intensive, so when oil prices dropped from their high last year, the rush of investment and exploration slowed and projects were cancelled. Now, with prices reaching over US\$70 a barrel once more, the tar sands (called 'oil sands' by the industry) are looking attractive again. The first new project since the recession has just been approved - a US\$6.3 billion dollar venture by Imperial Oil, forecast to extract 110,000 barrels of oil a day by 2012.

### Ancient wealth

For centuries, the indigenous people have dug up handfuls of this bitumen-rich sand to burn for light and heat and to caulk their canoes. For the last few decades, oil companies have been chopping down the forest and gouging out the land around the remote oil-boom town of Fort McMurray.

Canada's tar sands yield around 1.7 million barrels of oil per day, with projections to reach as high as 6.2 million bpd by 2020. Excavators scrape at the black sand and load it into waiting dumper trucks, as large as houses. These 400-ton dumper trucks can flatten a 4WD without noticing. They rumble over the scarred landscape, driven by school leavers earning \$100,000 a year. The tarry loads are heated to release the thick oil. The process uses as much natural gas in a day as could heat three million homes. There are even proposals to use nuclear power in the processing. (A scheme to explode nuclear bombs below ground, thus melting the oil in the sands whilst at the same time creating caverns, into which it would flow, was shelved.)

All this demonstrates that it is not the energy per se that is so vital: rather energy in the form of liquid hydrocarbons, to which our species has become addicted for everything from transport to clothing. This addiction is killing us: producing one barrel of synthetic crude oil from tar sands emits up to five times as much greenhouse gases as extracting one barrel of conventional oil. On top of this, tar sand mining necessitates that large swathes of one of the world's most important carbon-sinks - the boreal forest - are destroyed. The government of Alberta boasts that it is investing \$2 billion in carbon capture and storage in ambitious plans for reducing its heavy CO2 emissions but environmental groups dismiss this as being unworkable.

### Pockets of resistance

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While other nations have been reducing carbon emissions since the Kyoto agreement was signed, Canada's have increased 26 per cent. No wonder the First Nations' people, who call this land their home, describe the tar sands development as 'Mother Earth bleeding to death'.

Now, one small First Nations community is determined to make sure its hunting and fishing grounds – and perhaps the planet - do not become irreparably damaged by expansion of this industry.

The story is unfolding further south, away from the ugly epicentre of Fort McMurray. Here, the tar sands are in seams deep below the forest of spruce, birch and poplar. Surface mining is not viable, so a different, even more expensive, energy intensive method is used to extract the oil. Steam Assisted Gravity Drainage (SAGD) is, visually, less obtrusive as much happens below ground, melting the oil from the sand in situ. However, pipelines criss-cross the forest above ground, leading to and from industrial plants where steam is made and bitumen collected. Look on Google Earth and it shows the pipelines like fine wires on a circuit board.

'The moose and the caribou, they can't get over the pipes,' says Len Benson, of the Beaver Lake Cree, the small 'band' of indigenous people at the forefront of the fight against the expansion of tar sands mining happening on the doorstep of their small reserve. As we tour a network of roads carved in the forest, where Shell and Imperial Oil have SAGD projects, Benson, who works in the band's new 'office of intergovernmental affairs and industry relations', explains the impact.

'These pipes prevent the animals from migrating, from reaching their calving grounds and escaping from wolves.' The oil companies put in occasional wildlife crossing points – steps up and over the pipes - but Benson says this is of little help.

'\*The animals don't cross at the same point all the time. They get confused and panic,' he says. 'You see there?' he says, pointing to a big dent in one of the pipes, 'that must be where a moose tried to jump across.'

Suddenly, an oil tanker stops on the gravel road and the driver leans out the window, his engine still ticking over. 'You shouldn't be taking pictures,' he warns, even though this is public land. 'Magnetism from the camera can cause an explosion.'

Pipelines and industrial developments – with their spurious 'health and safety' prohibitions - also restrict access by the people to traditional hunting grounds and to pick medicinal plants.

As for pollution – there is much less waste water from in situ mining than there is from open-cast mining and no toxic lakes. However, the waste is pumped below ground into 'salt cavities'.

'The problem is, animals go to their natural salt licks and they're getting poisoned,' says Benson. 'People are scared to eat the moose now.'

The Cree themselves are afraid to drink the water because of possible contamination of the water table. 'When I was a kid, I used to dip a mug in the muskeg [wetlands] and drink. We don't do that now.'

#### **Quiet please: we're consulting...**

Benson's office documents breaches of environmental law by oil companies – the damming of a river, important for spawning fish, to lay a pipeline and the filling in of wetlands. His office also has to deal with literally tonnes of paperwork from oil companies.

'They deliver these,' he says, in his office, standing next to a pile of folders measuring over a metre in height, 'and our office - just two people - is supposed to respond to them in a few weeks,' he laughs. 'They call that "community consultation".'

In the forest, elders talk of animals being sickly, thin and unfit to eat. So far, these claims remain uncorroborated by science but what needs no proof is the disturbance to their habitat by industrial development, including lines, several kilometres long, where forest has been razed for seismic exploration. Other parts are filled with the noise of building works and trucks.

The Beaver Lake Cree number just 920 worldwide. Less than 400 live on their small reserve, in the Lakeland area of Alberta, 260km south of Fort McMurray. Yet, in a story that is shaping up into a Hollywood film script, the Beaver Lake Cree are preparing to take the governments of Alberta and Canada to court for violating their treaty rights.

The constitutionally enshrined treaty that the Cree signed in 1876 promises that they can have access to the land of their 'core territory' to hunt, fish and collect plants. Lawyers acting for the Beaver Lake Cree argue that some 17,000 approved mining projects within this 195,000 square kilometres (almost the same size as England and Scotland) will result in habitat loss and environmental degradation that renders the treaty meaningless. 'It has to be a meaningful right to hunt and fish,' says Jack Woodward, a leading authority on aboriginal law with a history of winning such cases. 'It's all about habitat – you don't preserve animals, you preserve the habitat.'

In preparation for a trial that looks set to last several years, battle lines are being drawn up in what is being (predictably) billed as a 'David and Goliath' encounter. The adversaries are still thrashing out pre-trial motions but the struggle looks set to cost millions.

UK-based Co-operative Financial Services' has donated C\$100,000 to get the wheels in motion for the challenge's first injunction, with more to follow for a wildlife impact assessment. A charitable trust has also been set up to raise a fighting fund.

'Supporting First Nations' legal challenges is possibly the best chance we have of averting new tar sands development,' says Colin Baines, ethics adviser to Co-operative Financial Services. 'This inspiring community deserves our support and we are confident that they will win, but it's going to take money. If you care about climate change, this is a key cause to support.' As part of its [Toxic Fuels](#) campaign, The Co-operative has mobilised investors, representing US\$3 trillion, to pressurise the tar sands industry and, in the UK, is campaigning for a financial reporting standard that would hugely penalise carbon intensive oil reserves such as tar sands.

#### **Preserving the past; looking to the future**

For the Beaver Lake Cree, it's not about any money that may come their way in the form of compensation. 'It's about preserving the land, the water and the animals for future generations,' says their Chief, Al Lameman. 'We know how to survive.'

Supplementing their diet with wild meat, fish and berries is still important to the Cree. Even those with the latest mobile phones and shiniest 4WDs have a moose in the freezer, which they shot and butchered themselves.

It is about respect too. The indigenous people of North America share a similar story with other indigenous people worldwide. Over generations, their land, their names and even their children have been stolen from them. Land is key to their identity.

Jackie Gladue, a fashionable Beaver Lake Cree woman in designer sunglasses, doesn't, at first glance, look like the kind of person who could survive in the wild but she talks passionately of ice-fishing, canoe trips and hunting moose. Her 21st century appearance belies an age-old connection with nature.

'I hate the thought of oil workers stepping on our medicine plants,' she says. She talks of 'court medicine' - a root that, when chewed in court, leads to a trial's success. 'When we win this case, I will feel so proud.'

*Paul Miles is a freelance journalist and photographer*

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Anyone wishing to contribute to the Beaver Lake Cree's legal fund can do so by [visiting the website here](#).

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