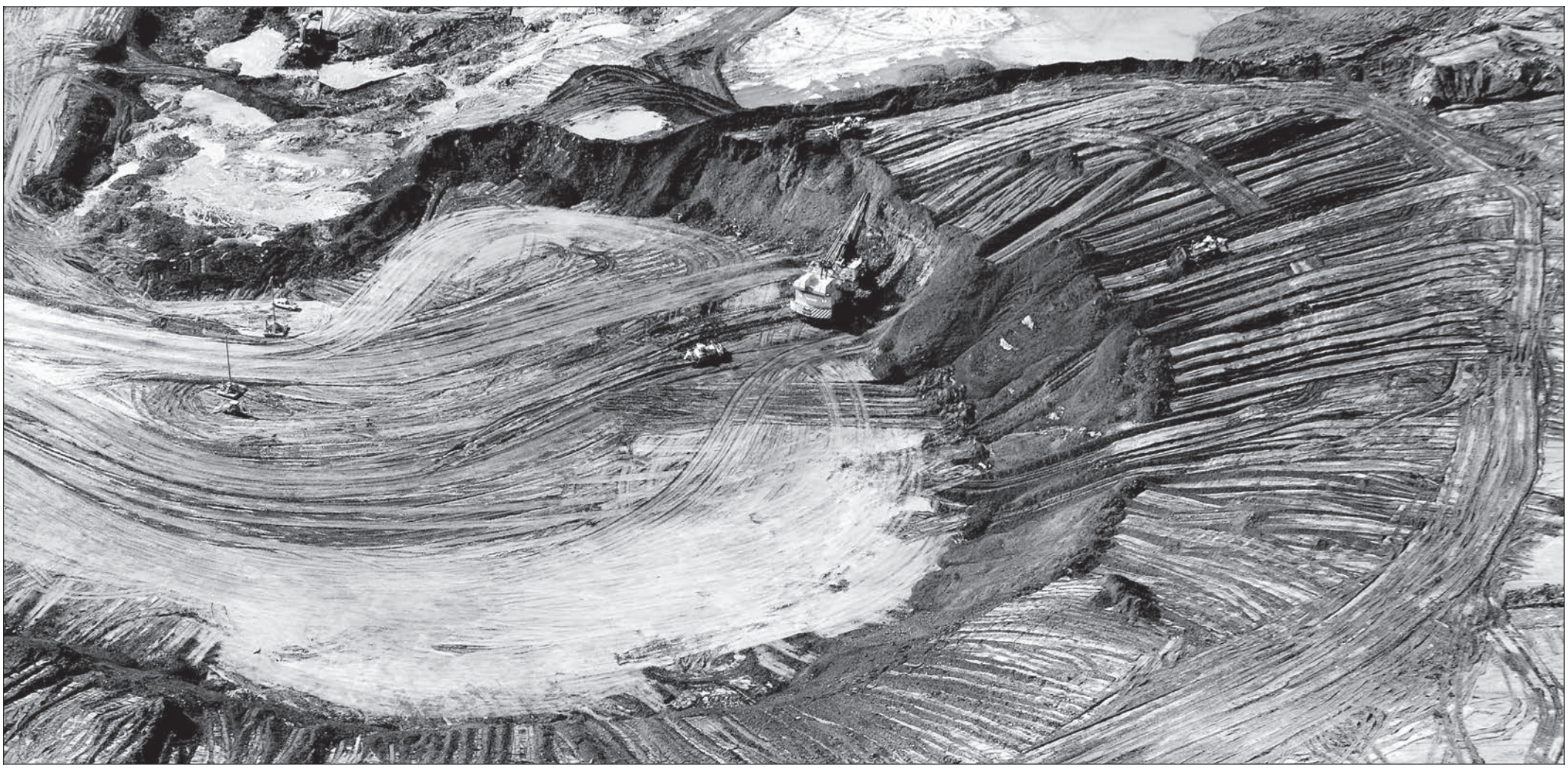
NEWS FOCUS Canada's dirty oil



Oil sands like these in Alberta, Canada, contain the world's second-largest proven oil reserves—but extracting the petroleum causes widespread ecological damage. JIRI REZAC/WWF UK PHOTOS

Cheap oil, but at what cost?

Canada's sands bounty holds promise for U.S., but the environmental toll could be extreme

By Howard Witt
TRIBUNE CORRESPONDENT

FT. MCMURRAY, Canada—From here in the far north of Canada through a web of transcontinental pipelines down to a network of refineries ringing the Chicago area, a new supply of precious oil has begun flowing into the gas tanks of more Americans, tapped from a source so vast it could one day furnish close to half of U.S. oil needs for 50 years or more.

This Canadian oil is stable and reliable. It promises to substantially reduce America's future dependence on volatile Middle Eastern sources of oil. And much of it is profitable to produce even with oil prices hovering around $50 per barrel, which explains why some of the world's largest oil conglomerates have invested tens of billions of dollars here despite wild short-term swings in international oil prices.

But what few American consumers know as they routinely fill up their tanks is that this new petroleum bonanza, drawn from dense, tarry deposits known as oil sands, ranks as what environmentalists call the dirtiest oil on the planet. Extracting it causes widespread ecological damage—and could accelerate global warming.

In Canada, where pitched debate over expanded oil sands development is well under way, critics assert that this abundant source of oil is not worth the environmental costs of extracting it. Oil company officials, joined by Canadian government leaders, counter that they are investing in new technologies to reduce the ecological risks.

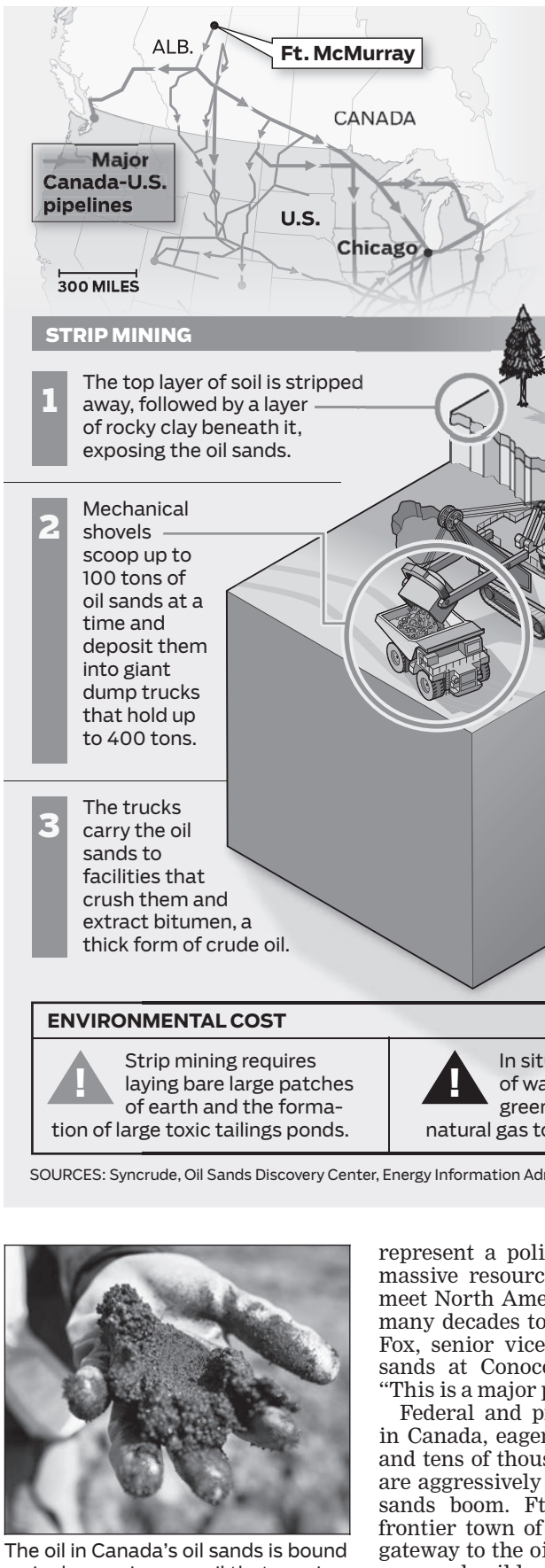
Already, about 9 percent of all the oil the U.S. imports comes from Canada's oil sands. Now, as new pipelines are being planned to carry even more of this heavy crude oil to Midwestern refineries, such as BP's expanding facility in Whiting, Ind., the oil sands debate is coming to the United States.

"The rush to develop these oil sands flies in the face of the international image of Canada as a steward of the environment," said Gary Stewart, senior adviser to the Seattle-based International Boreal Conservation Campaign. "Yes, the world can use this oil, but at what cost? I don't think Americans would want it if they knew how dirty it is."

The controversies arise because this oil does not gush freely when tapped with a traditional well. Instead, it's bound up in subterranean sand, as black and dense as a hockey puck and less viscous than peanut butter. It must either be clawed out of surface mines or steamed from deep underground.

To access these lucrative oil-sand deposits from strip mines requires churning up huge tracts of ancient boreal forest and polluting so much clean water with poisonous chemicals that the resulting waste ponds can be seen from outer space. Last spring, a flock of 500 migratory ducks perished after landing in one of the waste ponds.

Getting at the deeper underground deposits, in a process known as "in situ" mining, necessitates the generation of huge amounts of steam to liquefy the oil so it can be pumped to the surface.



The oil in Canada's oil sands is bound up in dense, viscous soil that requires mining or deep steaming to free it.

Producing the steam requires burning enough natural gas each day to heat 3 million North American homes.

That intensive burning of natural gas is particularly alarming to climatologists, because it sends three times more climate-changing greenhouse gases into the atmosphere than drilling for conventional oil.

By any measure, the oil sands deposits are massive. Some 173 billion barrels of oil lie beneath the province of Alberta across an area roughly the size of New York state, making up the second-largest proven oil reserve in the world behind Saudi Arabia.And even though falling world oil prices are causing oil companies to postpone some planned oil sands developments, most experts predict that's only a temporary delay given predictions that prices will rise again once the global economic recession ends.

"It's difficult to come up with new sources of supply, and the oil sands represent a politically stable and massive resource that could help meet North America's demand for many decades to come," said Matt Fox, senior vice president for oil sands at ConocoPhillips Canada. "This is a major part of the future."

Federal and provincial officials in Canada, eager to reap royalties and tens of thousands of new jobs, are aggressively promoting the oil sands boom. Ft. McMurray, the frontier town of 80,000 that is the gateway to the oil sands fields, has seen such wild growth—and resulting housing shortages—that the average single-family home here now sells for nearly $600,000. Workers are so scarce that oil companies build airstrips next to new oil sands mines so they can fly them in on chartered 737s.

"A carbon-based economy is still going to be a very good business for a very long time," said Alberta Deputy Premier Ron Stevens.

Officials from government and the oil industry say they are working to mitigate the environmental effects of oil sands development.

They note, for example, that new regulations require all industries in Alberta to immediately reduce their greenhouse gas emissions by 12 percent. And they say that the oil sands strip mines and wastewater ponds are required to be cleaned up and reclaimed, although Stevens acknowledged that because the mines are active for up to 50 years, "it does take a long time and it's a work in progress as we speak."

hwitt@tribune.com

Congress fires 'warning shot'

Industry officials say that while the extraction of oil from Canada's oil sands produces three times more carbon dioxide than conventional oil, other types of heavy crude result in greater emissions further down the production cycle, in the refining or transportation process.

By the time it winds up in a consumer's gas tank, they contend, oil-sands oil has produced only about 15 percent more emissions.

Democrats in the U.S. Congress are not convinced, however.

Late last year, they proposed legislation to block the federal government from purchasing any foreign oil that results in higher greenhouse gas emissions than conventional oil—a definition squarely aimed at Canada's oil sands.

The rule is currently under dispute by the oil industry.

"It's a warning shot," said Susan Casey-Lefkowitz, director of the Canada program at the Natural Resources Defense Council. "This is a sign that the U.S. is starting to move toward caring about not spending taxpayer dollars on fuels that exacerbate global warming."

—Howard Witt

Cancer fears rise with the fish

Downriver from the oil sands mines, the runoff includes suspicions about links to cancer, not to mention dead fish.

In one native Canadian village, doctors say they have noticed an alarming cluster of a rare form of bile duct cancer that's occurring at more than 400 times its usual frequency in the general population.

Alberta provincial health officials say their studies do not substantiate any increased cancer risk, but they have initiated a comprehensive scientific review to make sure.

Their official response has not reassured local residents.

"When you see the fish sick, you know there's something wrong with the water," said John Rigney, a spokesman for the Athabasca Chipewyan First Nation, a community of about 1,200 people who draw their water and much of their food from the Athabasca River. "More than a quarter of the fish have lesions and some white fish are completely red. We have always eaten those fish. And now cancer has become very common here."

—Howard Witt

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