

For more information, visit:

[www.oilsandsdevelopers.ca](http://www.oilsandsdevelopers.ca)

[www.capp.ca](http://www.capp.ca)

[www.centreforenergy.ca](http://www.centreforenergy.ca)

[www.canadasoilsands.ca](http://www.canadasoilsands.ca)

[www.acr-alberta.com](http://www.acr-alberta.com)

[www.wbea.org](http://www.wbea.org)

[www.ramp-alberta.org](http://www.ramp-alberta.org)

[www.oilsands.alberta.ca](http://www.oilsands.alberta.ca)

# Oil Sands

FACTS

To order additional copies:

[info@oilsandsdevelopers.ca](mailto:info@oilsandsdevelopers.ca)

U.S. Edition

February 2010



THE OIL SANDS  
DEVELOPERS GROUP  
Energy From Athabasca

## OVERVIEW

- ▶ **Canada is the top supplier of oil to the United States supplying a total of more than 2.4 million barrels per day; of this, more than 1.2 million barrels of crude oil comes from Canada's oil sands.**
- ▶ **Canadian oil reserves are the second largest in the world, behind only Saudi Arabia.**
- ▶ **Canada's reserves contain 178 billion barrels and 97 per cent (more than 170 billion barrels) are located in the oil sands.**
- ▶ **This is enough to supply every drop of oil the U.S. needs for the next 23 years.**

## ▶ Economics

- Over the next five years, oil sands production could create an estimated 343,000 new jobs in the United States.
- Oil sands demand for American companies' goods and services could contribute \$34-billion to the U.S. GDP in 2015 and up to \$42-billion by 2025.
- In 2008, 20 per cent of the oil and petroleum products imported by the U.S. were supplied by Canada - totaling almost \$112-billion.

## CONCERNS, CHALLENGES AND RESPONSES

## ISSUE: AIR

### ▶ EMISSIONS

- The oil sands currently account for less than five per cent of Canada's greenhouse gas (GHG) emissions. This is less than 0.1 per cent of total global emissions.
- The oil sands industry has reduced its emissions intensity (a measure of greenhouse gas emissions per barrel of oil produced) by more than 30 per cent since 1990. So far, companies have reduced emissions by 2.6 million tonnes – the equivalent of taking 550,000 cars off the road.
- On a “wells-to-wheels” basis, life cycle emissions from oil sands crude are comparable to the average imported crude oil consumed in the United States.
- Alberta was the first jurisdiction in North America to legislate industrial GHG emission reductions.

### ► AIR QUALITY

- Air quality around oil sands operations is monitored regularly and consistently ranks better than all North American cities including Los Angeles, New York and Dallas.
- The province of Alberta has committed \$4 billion toward climate change initiatives, including \$2 billion for public transit and \$2 billion for carbon capture and storage (CCS).
- This is the largest CCS investment in the world and is the per capita equivalent of a \$340-billion investment in the United States.

### ► DISTURBANCE

- Canada's oil sands are found below the surface of 54,054 square miles of land, an area smaller than the State of Illinois.
- The oil sands are located in the Canadian boreal forest. The Canadian boreal forest is as large as 88 per cent of the entire United States land area. Mineable oil sands exist under only 0.1 per cent of this total.
- More than 80 per cent of oil sands reserves will be developed using in-situ technologies (advanced drilling technologies). In-situ projects resemble conventional oil development and do not require tailings ponds or mine pits.
- While disturbance is occurring daily, in more than 40 years oil sands mining has disturbed about one hundredth of one per cent of the Canadian boreal forest – some 193 square miles, or a total land area approximately the size of Kennedy Space Center in Florida.

## ISSUE: LAND

### ▶ LAND RECLAMATION

- As required by law, and included in all project approvals, reclamation work is ongoing and continuous in the oil sands. All lands disturbed by oil sands development will be reclaimed.
- Of the 193 square miles of land that are under disturbance by oil sands activities, 25 square miles are currently under active reclamation.

### ▶ TAILINGS POND RECLAMATION

- Tailings ponds contain the water, residual bitumen, sands and clay that are left over when the bitumen is separated from the oil sand.
- During and after mining, the tailings ponds are reclaimed. No tailings water is released into rivers or any other watercourse.
- In 2010, the first tailings pond will be completely reclaimed.

## ISSUE: WATER

### ▶ WATER USE

- Oil sands producers are regulated by provincial legislation and are subject to the same conditions as any other licensed water user.
- More than 80 per cent of fresh water drawn by industry is recycled and water allocations are strictly controlled during low-flow periods.
- Today, oil sands mining projects use less than one per cent of the water that flows in the Athabasca River (the only major river near to oil sands operations).
- That figure is projected to grow to two per cent of the river's flow if all the oil sands mining projects that are currently planned go ahead.
- In-situ oil sands production uses non-potable water that is unsuitable for drinking, livestock or irrigation. Up to 90 per cent of this water is recycled.

## ISSUE: WATER

### ► WATER QUALITY

- It is illegal to release any water into the Athabasca River that does not meet strict water quality requirements.
- A multi-stakeholder body, made up of local and aboriginal communities, government agencies, industry, and other independent stakeholders, conducts ongoing monitoring of water quality and the health of fish species and other aquatic organisms in the Athabasca River.
- Water quality and ecosystem health in the oil sands have been monitored by this stakeholder group for 13 years and reports are available at: [www.ramp-alberta.org](http://www.ramp-alberta.org).
- Monitoring has concluded that water quality remains the same as it was 100 years ago when the river flowed through naturally occurring oil sands deposits that eroded into the river. These bitumen seeps were how the oil sands were originally discovered.