



# Government Fiction VS. Tar Sands Facts

## Government Fiction

# VS.

## Tar Sands Facts

**There are no contaminants from tar sands production in Athabasca waters.**

“My scientists are telling me that the amount of compounds that can be detected in the Athabasca River at this point in time are not a concern and are of insignificant levels.

...The fact remains that there are naturally occurring substances in the water. And if we had never set foot in the region those kinds of results would still be there.”

– Rob Renner

**Source:** <http://www.edmontonjournal.com/business/Premier+mute+button+hours/3472439/story.html>

“Unlike most oil-producing regions, Alberta’s oil sands are concentrated near the Earth’s surface. This can put greater pressures on the environment, as contaminants are picked up naturally through waterways and enter the ecosystem. This is a natural process that cannot be reversed. ... We monitor water quality carefully in the oil sands region. To date, all our data has shown no long-term effects to water quality from oil sands development.”

– Ed Stelmach

**Source:** Washington D.C. speech on January 16 2008 [http://premier.alberta.ca/speeches/speeches-2008-Jan-16-AB\\_Enterprise.cfm](http://premier.alberta.ca/speeches/speeches-2008-Jan-16-AB_Enterprise.cfm)

**The tar sands industry causes toxic contamination of the Athabasca watershed.**

“Contrary to claims made by industry and government in the popular press, the oil sands industry substantially increases loadings of toxic PPE [priority pollutants] to the Athabasca River and its tributaries via air and water pathways. This increase confirms the serious defects of RAMP [Regional Aquatic Monitoring Program] (11–13), which has not detected such patterns in the Athabasca River watershed. Detailed long-term monitoring is essential to distinguish the sources of these contaminants and control their potential impacts on environmental and human health (13).”

**Source:** Kelly, Erin N, David W Schindler, Peter V Hodson, Jeffrey W Short, Roseanna Radmanovich, and Charlene C Nielsen. “Oil sands development contributes elements toxic at low concentrations to the Athabasca River and its tributaries.” Proceedings of the National Academy of Sciences of the United States of America (2010): 1-6. <http://www.ncbi.nlm.nih.gov/pubmed/20805486>.

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## Government is going to force an end to the tailings ponds within a few years.

“...[W]e’re going to have to force — when I say force, we’re going to get more aggressive — and work with companies presently in open pit mining to move to either dry tailings or develop that resource without wet tailings ponds. It’s going to take an investment, there’s no doubt about it. But we just can’t talk about it. We want to show progress. That’s what people see.”

- Ed Stelmach,

**Source:** Calgary Herald:

<http://www.calgaryherald.com/business/Stelmach+invites+Avatar+director+oilsands/2939983/story.html#ixzz0yOcaheA4>

“I know that within a matter of a few years we should be able to get there. I want to be realistic in the timeline, but yet I want to send a clear message that this is the direction we’re taking and let’s get it done.”

– Ed Stelmach

**Source:** <http://www.vancouversun.com/business/Stelmach+oilsands+more+tailings+ponds/2940347/story.html#ixzz0yOdeUPnd>

“There are currently more than 170 square kilometres of tailings ponds in Alberta.”

**Source:** Government of Alberta, <http://oilsands.alberta.ca/documents/FS-CES-Tailings.pdf>

## Existing tailings directives are not being adhered to

Nine tar sands operations have submitted tailings plans to the province. Of those, just two meet deadlines set out in directive 074.

**Source:** [pubs.pembina.org/reports/tailings-plan-review-report.pdf](http://pubs.pembina.org/reports/tailings-plan-review-report.pdf)

## New tailings ponds still being approved

Total is also applying to build another tailing pond that will result in the production of 12.5 billion litres of toxic tailings waste each year, which over the project’s life will amount to a volume large enough to fill over 100 sports stadiums.

**Source:** <http://www.ceaa.gc.ca/050/05/documents-eng.cfm?evaluation=37519&type=9>

## ERCB has approved the Fort Hills and Syncrude tailings pond plans.

**Source:** [http://www.ercb.ca/portal/server.pt/gateway/PTARGS\\_0\\_0\\_304\\_264\\_0\\_43/http://ercbContent/publishedcontent/publish/ercb\\_home/news/news\\_releases/2010/nr2010\\_05.aspx](http://www.ercb.ca/portal/server.pt/gateway/PTARGS_0_0_304_264_0_43/http://ercbContent/publishedcontent/publish/ercb_home/news/news_releases/2010/nr2010_05.aspx)

## ERCB has also approved a tailings plan for Imperial Kearl Project.

**Source:** [http://www.ercb.ca/portal/server.pt/gateway/PTARGS\\_0\\_0\\_309\\_0\\_0\\_43/http://ercbContent/publishedcontent/publish/ercb\\_home/news/news\\_releases/2010/nr2010\\_11.aspx](http://www.ercb.ca/portal/server.pt/gateway/PTARGS_0_0_309_0_0_43/http://ercbContent/publishedcontent/publish/ercb_home/news/news_releases/2010/nr2010_11.aspx)

Also see: <http://www.oilsandswatch.org/blog/81>

**Source:** Kelly, Erin N, David W Schindler, Peter V Hodson, Jeffrey W Short, Roseanna Radmanovich, and Charlene C Nielsen. “Oil sands development contributes elements toxic at low concentrations to the Athabasca River and its tributaries.” Proceedings of the National Academy of Sciences of the United States of America (2010): 1-6. <http://www.ncbi.nlm.nih.gov/pubmed/20805486>.

# Government Fiction VS. Tar Sands Facts

## We are reducing greenhouse gas emissions

“I am proud of our work to address challenges head on. For example, Alberta is the only jurisdiction in North America with mandatory greenhouse gas emission reduction targets for all large emitters. In fact since 1990, greenhouse gas emissions per barrel in the oil sands have been reduced by 39 per cent. We have committed \$2 billion to carbon capture and storage.”

—Ed Stelmach

**Source:** <http://www.alberta.ca/acn/201008/29028B4FD8D3F-B041-0484-081A44A0F5BBAC3E.html>

“Alberta is unique in meeting growing energy demand - but we do not use that as an excuse for inaction. We are making real reductions.”

-Rob Renner

**Source:** <http://www.alberta.ca/acn/201005/2828769B3F377-C6CA-67C5-3A4E14BA6B25EA72.html>

“We stand virtually alone in North America with respect to the regulation of greenhouse gas (GHG) emissions from large industrial facilities. Only in Alberta will you find mandatory GHG reporting requirements, legislation requiring mandatory GHG reductions, and a price on carbon emissions.”

— Ed Stelmach

**Source:** Washington Post Ad, available here: <http://www.scribd.com/doc/33842216/Alberta-s-Washington-Post-Ad>

“Technological developments continue to reduce the carbon-intensity of the oil sands, while “conventional” crudes are getting more carbon intensive.”

— Ed Stelmach

**Source:** Washington Post Ad, available here: <http://www.scribd.com/doc/33842216/Alberta-s-Washington-Post-Ad>

## Tar sands are the fastest growing source of GHGs in Canada.

“The oil sands are the fastest growing sector for domestic GHG emissions and so there are real opportunities for reductions.”

**Source:** The ecoENERGY Carbon Capture and Storage Task Force, Canada’s Fossil Energy Future (Natural Resources Canada, 2008). <http://www.nrcan-rncan.gc.ca/com/resoress/publications/fosfos/fosfos-eng.php>

Environment Canada has projected that tar sands operations could account for about 44 per cent of the increase in Canada’s greenhouse gas emissions from 2006 to 2020. In Environment Canada’s “reference case” projection, oil sands emissions would rise from 4 per cent of the national emissions in 2006 to 12 per cent in 2020.

**Source:** Environment Canada, Turning the Corner: Detailed Emissions and Economic Modelling (2008), 42. [http://www.ec.gc.ca/doc/virage-corner/2008-03/pdf/571\\_eng.pdf](http://www.ec.gc.ca/doc/virage-corner/2008-03/pdf/571_eng.pdf)  
For more information, see: Droitsch, Danielle, Marc Huot, and P J Partington. “Canadian Oil Sands and Greenhouse Gas Emissions: The Facts in Perspective (Briefing Note).” Pembina Institute, no. August (2010): 1-11. <http://www.oilsandswatch.org/pub/2057>

## Tar sands emissions are offloaded to the U.S.

“Increasingly, bitumen from the oil sands is being shipped to the United States where a much greater upgrading and refining capacity exists for heavier grades of oil (NEB 2006). This is supported by Statistics Canada data, which shows the ratio of bitumen to synthetic crude oil production in Canada rising by 93 per cent between 2002 and 2008 (CAPP 2009a). As a result of this growing quantity of bitumen in the production mix, it appears that emissions associated with the upgrading and refining of bitumen were increasingly avoided in Canada, which also contributed to reductions in overall oil production intensity.”

**Source:** Environment Canada, National Inventory Report: Greenhouse Gas Sources and Sinks in Canada 1990-2008, pp. 69 – 70.

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The Athabasca River is well managed.

“Furthermore, the Athabasca River has one of the most protective water management frameworks that exist on any river in the northern hemisphere.”

Ed Stelmach, quoted in:

<http://www.alberta.ca/acn/201008/29028B4FD8D3F-B041-0484-081A44A0F5BBAC3E.html>

“The Athabasca River, which is the main source of freshwater for oil sands operators, is one of the most protected waterways in North America. Strict limits are placed on industry’s water use.”

–Ed Stelmach, Speech

**Source:** Remarks at the Energy Security Forum  
[http://www.premier.alberta.ca/speeches/2010\\_EnergySecurityForum.cfm](http://www.premier.alberta.ca/speeches/2010_EnergySecurityForum.cfm)



The monitoring and management of the Athabasca River have serious defects.

“Our study confirms the serious defects of the RAMP. More than 10 years of inconsistent sampling design, inadequate statistical power, and monitoring-insensitive responses have missed major sources of PAC [polycyclic aromatic compounds] to the Athabasca watershed. Most importantly, RAMP claims that PAC concentrations are within baseline conditions and of natural origin have fostered the perception that high-intensity mining and processing have no serious environmental impacts. The existing RAMP must be redesigned with more scientific and technical oversight to better detect and track PAC discharges and effects.”

**Source:** Kelly, Erin N, Jeffrey W Short, David W Schindler, Peter V Hodson, Alvin K Kwan, and Barbra L Fortin.

“Oil sands development contributes polycyclic aromatic compounds to the Athabasca River and its tributaries.”

Beaver (2009): 1-6.

**Source:** <http://www.pnas.org/content/early/2009/12/04/0912050106.full.pdf+html>.

“...the reviewers raised significant concerns about the Program itself. They felt there was a serious problem related to scientific leadership, that individual components of the plan seemed to be designed, operated and analyzed independent of other components, that there was no overall regional plan, that clear questions were not being addressed in the monitoring and that there were significant shortfalls with respect to statistical design of the individual components.”

– Executive Summary

**Source:** Oil Sands Regional Aquatic Monitoring Program (RAMP) Scientific Peer Review of the Five Year Report (1997-2001). Submitted to: RAMP Steering Committee February 13, 2004. Prepared by: G. Burton Ayles, Winnipeg, Manitoba Monique Dubé, Saskatoon, Saskatchewan David Rosenberg, Winnipeg, Manitoba, 2004. Available at: [http://www.andrewnikiforuk.com/Dirty\\_Oil\\_PDFs/RAMP%20Peer%20review.pdf](http://www.andrewnikiforuk.com/Dirty_Oil_PDFs/RAMP%20Peer%20review.pdf)

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**All disturbed land is being reclaimed.**

“Industry is also required by law to reclaim all disturbed lands to a productive state.”

– Ed Stelmach

**Source:** <http://www.alberta.ca/acn/201008/29028B4FD8D3F-B041-0484-081A44A0F5BBAC3E.html>

“In Alberta, we know that what we put back into the Earth is just as important as what we take out of it. That’s why we place such a high emphasis on ensuring that land that has been disturbed is properly reclaimed. Under Alberta’s strict reclamation standards, companies must remediate and reclaim Alberta’s land so it can be productive again. To date, there are currently 131,000 acres [530 square kms] of disturbed land in the area and over 16,000 acres [65 square kms] are undergoing reclamation.”

– Ed Stelmach speech, Washington D.C.,  
January 16 2008

**Source:** [http://premier.alberta.ca/speeches/speeches-2008-Jan-16-AB\\_Enterprise.cfm](http://premier.alberta.ca/speeches/speeches-2008-Jan-16-AB_Enterprise.cfm)

**Only 0.2% of the area disturbed has been reclaimed.**

Of the 602 square kms of land disturbed by oil sands mining operations, only 1.04 square kms (104 hectares) is certified by the government as reclaimed.

**Source:** Government of Alberta, “Alberta’s Oil Sands: Facts and Stats” (accessed September 2, 2010). <http://www.oilsands.alberta.ca/519.cfm>

In Alberta, reclamation is defined simply as the “stabilization, contouring, maintenance, conditioning or reconstruction of the surface of land,”

**Source:** “Conservation and Reclamation Regulation, Alberta Regulation 115/1993.”

Reclamation is a very different goal to restoration, which is an intentional activity that initiates or accelerates the recovery of an ecosystem with respect to its health, integrity and sustainability.

Source: Society for Ecological Restoration International, The SER International Primer on Ecological Restoration. SER has identified nine attributes as a basis for determining when restoration has been accomplished. [www.ser.org/pdf/primer3.pdf](http://www.ser.org/pdf/primer3.pdf)



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We're greening the tar sands with In situ.

“...environmental improvements we're working on, such as clean coal technology, in-situ oil recovery, and carbon capture and storage...”

—Ed Stelmach , Speech on June 11, 2008.

**Source:** [http://www.premier.alberta.ca/speeches/speeches-2008-June-11-Tech\\_Comm.cfm](http://www.premier.alberta.ca/speeches/speeches-2008-June-11-Tech_Comm.cfm)



In situ has higher greenhouse gas emissions than mining.

“...in situ operations generate two and half times as much greenhouse gas per barrel of bitumen as oil sands mines (91 kg/barrel vs. 36 kg/ barrel, excluding the emissions associated with bitumen upgrading).”

**Source:** Huot, Marc, and Simon Dyer. “Mining vs In Situ Factsheet.” Pembina Institute (2010): 0-3. <http://www.oilsandswatch.org/pub/2017>

Other reports showing that in situ has higher emissions than mining include: Charpentier, Alex D, Joule A Bergerson, and Heather L Maclean.

“Understanding the Canadian oil sands industry’s greenhouse gas emissions” 4 (2009).

**Source:** <http://iopscience.iop.org/1748-9326/4/1/014005>

And JACOBS Consultancy Life Cycle Associates. “Life Cycle Assessment Comparison of North American and Imported Crudes.” Prepared For: Alberta Energy Research Institute, no. July (2009).

**Source:** <http://www.albertainnovates.ca/media/15753/life%20cycle%20analysis%20jacobs%20final%20report.pdf>

# Government Fiction VS. Tar Sands Facts

## We're greening the tar sands with Carbon Capture and Storage (CCS).

"I am proud of our work to address challenges head on. For example, Alberta is the only jurisdiction in North America with mandatory greenhouse gas emission reduction targets for all large emitters. In fact since 1990, greenhouse gas emissions per barrel in the oil sands have been reduced by 39 per cent. We have committed \$2 billion to carbon capture and storage."

—Ed Stelmach

**Source:** <http://www.alberta.ca/acn/201008/29028B4FD8D3F-B041-0484-081A44A0F5BBAC3E.html>

"One thing I'm especially excited about is the progress Alberta is making in regard to carbon capture and storage from large industrial emitters. In fact, Alberta is well on the way to becoming the first jurisdiction in North America with an extensive carbon capture and storage network."

— Ed Stelmach speech on January 16, 2008

**Source:** [http://premier.alberta.ca/speeches/speeches-2008-Jan-16-AB\\_Enterprise.cfm](http://premier.alberta.ca/speeches/speeches-2008-Jan-16-AB_Enterprise.cfm)

## There is no CCS operating in the tar sands, and even the much touted \$2 billion program is undersubscribed.

"CCS is unlikely to make a significant contribution to reducing the GHG intensity of oil sands products sufficiently to meet emerging international low carbon fuel standards, at least until 2050."

**Source:** Pg. 47 World Wildlife Fund (WWF). "Carbon Capture and Storage in the Alberta Oil Sands - A Dangerous Myth," 2009. [www.co-operative.coop/Corporate/PDFs/Tar%20Sands%20CCS.pdf](http://www.co-operative.coop/Corporate/PDFs/Tar%20Sands%20CCS.pdf)

Also see: International Energy Agency (IEA). "IEA/CSLF Report to the Muskoka 2010 G8 Summit: Carbon Capture and Storage - Progress and Next Steps" (2010). [www.iea.org/papers/2010/ccs\\_g8.pdf](http://www.iea.org/papers/2010/ccs_g8.pdf)

"Other roles for CO<sub>2</sub> capture exist in oil and gas, but the case for oil sands comes with both opportunities and challenges. The oil sands are the fastest growing sector for domestic GHG emissions and so there are real opportunities for reductions. However, oil sands operations are very diverse (both geographically and technically) and only a small portion of the CO<sub>2</sub> streams are currently amenable for CCS due to both the size of emissions streams and the concentrations. The problem is that lower concentration or smaller emission streams are more costly to capture because of the additional unit capital and operating costs (including energy use) associated with the capture, separation, and purification processes."

**Source:** The ecoENERGY Carbon Capture and Storage Task Force, Canada's Fossil Energy Future: The Way Forward on Carbon Capture and Storage, Report to the Minister of Alberta Energy and the Minister of Natural Resources Canada (January 9, 2008) <http://www.nrcan-rncan.gc.ca/com/resoress/publications/fosfos/fosfos-eng.pdf>

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**We've never done anything wrong.....  
And we'll never do it again.**

"The bottom line is: in Alberta, we do not proceed with development at the expense of the environment...."

"Alberta is also pioneering a new environmental management approach that goes beyond individual projects to look at the cumulative effects of all proposed developments within a given area."

-Ed Stelmach, speech on January 16, 2008

**Source:** [http://premier.alberta.ca/speeches/speeches-2008-Jan-16-AB\\_Enterprise.cfm](http://premier.alberta.ca/speeches/speeches-2008-Jan-16-AB_Enterprise.cfm)

**Not even Alberta's Environment Ministry puts the environment first**

"These objectives are intended to provide protection of the environment and human health to an extent technically and economically feasible, as well as socially and politically acceptable."

**Source:** Alberta Environment, Edmonton, AB (viewed July 31, 2010) <http://environment.alberta.ca/0994.html>

**In Alberta, "Balance" means approving 100 per cent of tar sands projects**

**Source:** <http://prairie.sierraclub.ca/en/media/release/tar-sands-giant-total-falls-short-green-promises>



# GREENPEACE