### Production / Extraction data

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<tr>
<th>Year</th>
<th>Crude Oil &amp; NGL</th>
<th>Natural Gas</th>
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<tr>
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<tr>
<td></td>
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<td>Million bbl/yr</td>
<td>Million bbl/yr</td>
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#### Operating Summary

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<td>Production Volumes</td>
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<td>Oil Sands</td>
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<tr>
<td>Exploration and Production</td>
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</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
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</tr>
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**Suncor acquired Petro-Canada in August 2009**

---

**Suncor Energy**

 Calgary

www.suncor.com

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**Suncor AtnRpt 2013,**

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil Sands</th>
<th>Conventional</th>
<th>Oil Sands</th>
<th>Petro-Canada</th>
<th>Suncor</th>
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<tr>
<td>2005</td>
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<td>62.5</td>
<td>27.4</td>
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<tr>
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<td>65.0</td>
<td>268</td>
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**Oil Sands**

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<thead>
<tr>
<th>Year</th>
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<th>Suncor</th>
<th>Petro-Canada</th>
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**Oil Gas Journal 010**

<table>
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<th>Year</th>
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</table>
### ANNUAL OPERATING SUMMARY

<table>
<thead>
<tr>
<th>Oil Sands</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Production (mbld)</td>
<td>355.5</td>
<td>359.2</td>
<td>339.3</td>
<td>318.2</td>
<td>306.7</td>
</tr>
</tbody>
</table>

**Oil Sands Operations**

- **Production (mbld)**
  - Total: 355.5
  - Non-upgraded bitumen: 77.9
  - Light sweet crude oil: 91.5
- **Exploration and Production**
  - Total Production (mbld): 189.0
  - Total Average Sales Price (dollars per barrel): 79.76

### Oil Sands Operations

- **Production (mbld)**
  - Total: 355.5
  - Non-upgraded bitumen: 77.9
  - Light sweet crude oil: 91.5
- **Exploration and Production**
  - Total Production (mbld): 189.0
  - Total Average Sales Price (dollars per barrel): 79.76

### Exploration and Production Summary (continued)

- **Production (mbld)**
  - Natural gas (mbld): 102.1
  - Total production: 225.2
- **Average sales price per mcf**
  - Natural gas (mbld): 2.17
  - Natural gas liquids and crude oil (mbld): 3.6
- **Worldwide**
  - Total production: 225.2
- **North America Overall**
  - Total production: 189.0
  - Total Average Sales Price (dollars per barrel): 79.76

### Operations

- **Sales volumes, net of crude oil purchases**
  - Total (mbld): 189.0
  - Daily average (bbld): 651.8

---

**Canadian Oil Sands Average Daily Sales**

- **2014**: 102.4
- **2015**: 106.1
- **2016**: 112.9
- **2017**: 118.1
- **2018**: 128.6

---

**Oil Sands**

- **million bbl /yr**

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**Canadian Oil Sands Trust Annual Report 2008. Page 3**

---

**Oil Gas Sands & Yukos.xls**
Comment: Rick Heede:

Historical: "The skeptics said Canada's oil sands could never be developed commercially. In 1967, Suncor Energy proved them wrong. Our people — their perseverance, dedication and innovation — turned vision into reality. Today, Suncor is Canada's premier integrated energy company, the fifth largest North American energy company and has a place on the global stage as one of the largest independent energy companies in the world. We provide thousands of well-paid jobs, put millions of dollars into Canadian businesses every year, take action on environmental issues, and support our communities by funding local initiatives. Our track record as an oil sands pioneer is both cause for celebration and inspiration for the future. Look to Suncor to continue leading the way — expanding our oil sands operations to one of the world's largest positions, developing renewable energy and investing in new technologies to improve our environmental performance. We're still making history." [www.suncor.com/en/about/1918.aspx]

"Suncor was founded in 1919 in Montreal as Sun Company of Canada, a subsidiary of Sun Oil (now Sunoco). In 1979, Sun formed Suncor by merging its Canadian refining and retailing interests; Great Canadian Oil Sands (a majority-owned subsidiary, which constructed and operated the first commercial plant to develop Canada's Athabasca oil sands and went on production in 1967); and its conventional oil and gas interests. In 1981, the Government of Ontario purchased a 25% stake in the company; it divested in 1993. In 1993 Sun Oil also divested its interest in the company, although Suncor maintained the Sunoco retail brand in Canada. Suncor took advantage of these two divestitures to become an independent, widely-held public company. On March 23, 2009, Suncor announced the acquisition of Petro-Canada. This merger created a company with a combined market capitalization of CA$43.3 billion. On June 4, 2009, an 8% approval rate was reached by Suncor's shareholders for the acquisition of Petro-Canada and the competition bureau approved the merger on June 21, 2009. The merger with Canada's 11th largest company was completed on August 1, 2009 in a $21 billion deal to form the second-largest company in Canada." [Suncor (wikipedia: en.wikipedia.org/wiki/Suncor_Energy)]

In 2016 Suncor Energy purchased all of the shares of Canadian Oil Sands Limited.

---

**Cell:** D12 Comment: Rick Heede:

Total net worldwide crude oil plus natural gas liquids produced by each company or state-owned enterprise. Where data is available, we list net production. Crude production includes natural gas liquids (NGL) unless noted.

**Cell:** J12 Comment: Rick Heede:

Natural gas is typically reported as dry gas; natural gas liquids are reported under crude oil. Carbon dioxide is normally removed from the gas flow at the production site (see "Vented Carbon Dioxide").

"SCM/d" = standard cubic meters per day, "cf/d" = cubic feet per day.

Net production typically excludes a number of diverted gas streams. Quantities and fractions vary; ExxonMobil's exclusions are probably typical of the industry: "Net production available for sale quantities are the volumes withdrawn from ... natural gas reserves, excluding royalties and volumes due to others when produced, and excluding gas purchased from others, gas consumed in producing operations, field processing plant losses, volumes used for gas lift, gas injections and cycling operations, quantities flared, and volume shrinkage due to the removal of condensate or natural gas liquids production." [ExxonMobil Corporation (2004) 2003 Financial and Operating Review, www.exxonmobil.com, p. 55.]

---

**Cell:** N40 Comment: Rick Heede:

Suncor's (then Sun Oil Company Ltd) started construction of its Great Canadian Oil Sands plant in Fort McMurray in 1964. [Photo courtesy Suncor website: The Oil Sands Story (1960s, 1970s & 1980s).]

**Cell:** D54 Comment: Rick Heede:

OGJ data for 1987-2005, company data 2006-2008; see column "L".

**Cell:** E54 Comment: Rick Heede:

OGJ data for 1987-1998, company data 1999-2008; see column "M".

**Cell:** J54 Comment: Rick Heede:


**Cell:** K34 Comment: Rick Heede:


**Cell:** K38 Comment: Rick Heede:

OGJ100 reports 0.0 gas production in 1991. In view of bracketed by higher production in prior and subsequent years suggests erroneous data for 1991-1993.

**Cell:** E66 Comment: Rick Heede:

Suncor Annual Rpt 2003, page 3. Suncor oil sands production in 2003 of 216,600 bbl per day = 79.1 million bbl per year.

**Cell:** G70 Comment: Rick Heede:

Oil & Gas Journal OGJ100. Sept 2004. The company has been operating since 1995, but earlier production data has not been found.

**Cell:** E71 Comment: Rick Heede:

Suncor Annual Rpt 2007, page 34 confirms Oil & Gas Journal OGJ100 production estimates, e.g., Suncor oil sands production in 2007 of 235,600 bbl per day = 62.5 million bbl per year.

**Cell:** K71 Comment: Rick Heede:

Suncor 2008 Annual Rpt, page 1 shows natural gas production in BOE. CMS uses the conventional 6,000 cf per bbl of oil equivalent in Suncor's absence of definition. Thus 2008: 36.7 thousand BOE = 6,000 cf/BOE * 0.365 = 80.4 Bcf.

**Cell:** D73 Comment: Rick Heede:

Petro-Canada Annual Rpt 2008, page 33; oil sands production and bitumen production totaled 52,200 bbl per day in 2006, 56,900 bbl per day in 2007, and 59,900 bbl per day in 2008. CMS converts to million bbl per year.

Petro-Canada reports crude oil and oil sands production in three separate tables (pp. 33, 38, and 42, oil sands, other Canada, and international production, respectively). In 2008, production in these regions totaled, in thousand bbl per day: (59.9+90.5+157.2)/0.365 = 112.3 million bbl per year. Then, on page 48, total average daily production for 2008 is 266,000 bbl per day for crude oil, NGL, and bitumen ("net before royalties," and 222,900 bbl / day "net after royalties"). Plus 34,700 of synthetic crude oil (before royalties, or 29,700 bbl / day after royalties).

Thus CMS revises the previous calculation by reporting total petroleum (after royalties of 222,900 + 29,700 bbl per day = 92.20 million bbl in 2008.

---

**Cell:** J73 Comment: Rick Heede:


Suncor AnnRpt 2008, page 48: 2008 gas production "net before royalties" totaled 706 million cf/day (and 585 million cf/day "net after royalties"). And for 2007; gas production "net before royalties" totaled 728 million cf/day (and 594 million cf/day "net after royalties").


**Cell:** G74 Comment: Rick Heede:

Canadian Oil Sands Trust Annual Report 2008. Page 3 shows "sales volumes, net of crude oil purchases" for 2007 and 2008. 2008: 105,986 bbl per day (39 Mb). CAI also estimates daily production from chart (p. 3) of sales 2004 to 2008 (see below).

**Cell:** E75 Comment: Rick Heede:

AR 2010 pg 10; oil sands in 306.7 thousand boe/d in 2009 and 318.2 k bbl/day in 2010.

Suncor AR 2010 pg 10; nat gas continuing operations-discontinued operations; equals 2008 reported production. Units in BOE of gas production (at 6,000 cf per bbl).

Canadian Oil Sands production of oil bitumen and/or synthetic oil, in Mb. Oil&Gas Journal OGJ100 Sep 2013.

Canadain Oil Sands production of oil bitumen and/or synthetic oil, in Mb. Oil&Gas Journal OGJ100 Sep 2013.

Oil Sands production plus exploration and production (which in Suncor language means conventional oil and gas, offshore and onshore, Canada, United States, Syria, Libya, North Sea, etc), in thousands bbl per day converted to annual liquids production -- then subtract gas production (OGJ data, since Suncor provides none) at 6,000 cf per bbl. Whew.

Suncor 40-F for 2015. Inscrutable and unclear regarding annual production. I surmise that SCO (synthetic crude oil) and bitumen production is listed on page 14, and shows sum of sweet SCO and sour SCO (458.3 thousand bbl per day in 2015). Crude oil and NGLs are shown on page 17, totaling 106.1 thousand bbl per day.

E&P international includes UK North Sea and Norway, and Libya; Syria operations force majeure as of 2011. Intermittent production in Libya as of 2013.

Suncor natural gas production, in Bcf. Oil&Gas Journal OGJ100 Sep 2013.

E&P Canada 3.0 thousand boe per day; plus E&P international 1.5 kboepd. Conversion rate not stated, but assumed at 5,800 cf per boe.

Suncor 2017 Ann rpt, page 17: in 2017: 685.3 kboepd (100% liquids, of which 563.7 kboepd oil sands). In 2016: 622.8 kboepd total, of which 504.9 kboepd oil sands and 117.9 kboepd exploration and production (presumably crude oil), 2016 product mix: 99% liquids, 1% gas. Gas data from OGJ Sep 2017, OGJ100.

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Suncor Annual Report 2018, page 137, shows five year operating summary. Oil Sands. Total production as 628.6 thousand bbl per day for oil sands and bitumen (both mined and in situ). No table for conventional oil production of either oil or natural gas.

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