

# Oil and natural gas extraction data

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## Canadian Natural Resources, Canada

www.cnrl.com Calgary

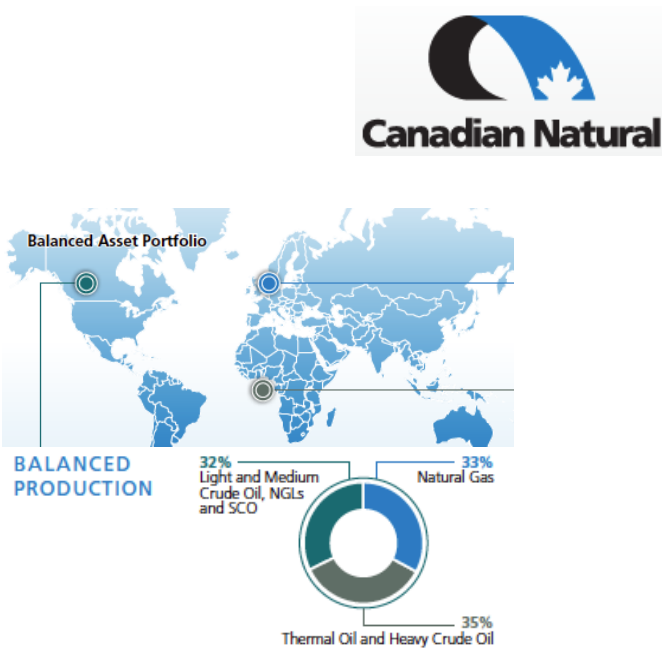
yellow column indicates original reported units Investor-owned

## Production / Extraction data

Year

Crude Oil & NGL			Natural Gas		
Net production	Net production	Net production	Net production	Net production	Net production
Thousand bbl /d	Million bbl /yr		Million cf/d		Billion cf/yr

- 15 1950
- 16 1951
- 17 1952
- 18 1953
- 19 1954
- 20 1955
- 21 1956
- 22 1957
- 23 1958
- 24 1959
- 25 1960
- 26 1961
- 27 1962
- 28 1963
- 29 1964
- 30 1965
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- 34 1969
- 35 1970
- 36 1971
- 37 1972
- 38 1973
- 39 1974
- 40 1975
- 41 1976
- 42 1977
- 43 1978
- 44 1979
- 45 1980
- 46 1981
- 47 1982
- 48 1983
- 49 1984
- 50 1985
- 51 1986
- 52 1987
- 53 1988
- 54 1989
- 55 1990
- 56 1991
- 57 1992
- 58 1993
- 59 1994
- 60 1995
- 61 1996
- 62 1997
- 63 1998
- 64 1999
- 65 2000
- 66 2001
- 67 2002
- 68 2003
- 69 2004
- 70 2005
- 71 2006
- 72 2007
- 73 2008
- 74 2009
- 75 2010



Canadian Natural Resources Annual Report 2010, page 3.

Years ended December 31	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
<b>OPERATING INFORMATION</b>										
<b>Crude oil and NGLs (mboe) <sup>(a)</sup></b>										
Company net proved reserves (after royalties)										
North America	2,763	2,664	948	920	887	694	648	588	571	583
North Sea	252	240	256	310	299	290	303	222	202	78
Offshore West Africa	101	123	142	128	130	134	115	85	75	60
	<b>3,116</b>	<b>3,027</b>	<b>1,346</b>	<b>1,358</b>	<b>1,316</b>	<b>1,118</b>	<b>1,066</b>	<b>895</b>	<b>848</b>	<b>721</b>
Horizon SCO	-	-	1,946	1,761	1,596	1,626	-	-	-	-
Company net proved plus probable reserves (after royalties)										
North America	4,293	4,172	1,599	1,545	1,502	1,035	926	857	636	670
North Sea	376	387	399	405	422	417	415	317	277	100
Offshore West Africa	149	179	191	186	195	206	196	133	121	103
	<b>4,818</b>	<b>4,738</b>	<b>2,189</b>	<b>2,136</b>	<b>2,119</b>	<b>1,658</b>	<b>1,537</b>	<b>1,307</b>	<b>1,034</b>	<b>873</b>
Horizon SCO	-	-	2,944	2,680	2,542	2,566	-	-	-	-
<b>Natural gas (bcf) <sup>(a)</sup></b>										
Company net proved reserves (after royalties)										
North America	3,638	3,027	3,523	3,521	3,705	2,741	2,591	2,426	2,446	2,064
North Sea	78	67	67	81	37	29	27	62	71	94
Offshore West Africa	76	85	94	64	56	72	72	64	71	67
	<b>3,792</b>	<b>3,119</b>	<b>3,684</b>	<b>3,666</b>	<b>3,798</b>	<b>2,842</b>	<b>2,690</b>	<b>2,552</b>	<b>2,588</b>	<b>2,225</b>
Company net proved plus probable reserves (after royalties)										
North America	4,870	3,592	4,619	4,602	4,857	3,548	3,319	2,919	2,765	2,344
North Sea	107	94	94	113	93	69	57	102	89	118
Offshore West Africa	113	124	131	88	88	99	110	90	72	90
	<b>5,090</b>	<b>4,210</b>	<b>4,844</b>	<b>4,803</b>	<b>5,049</b>	<b>3,727</b>	<b>3,466</b>	<b>3,093</b>	<b>2,944</b>	<b>2,550</b>
Horizon SCO	-	-	2,944	2,680	2,542	2,566	-	-	-	-
<b>Total proved reserves (after royalties) (mboe) <sup>(a)</sup></b>										
	<b>3,748</b>	<b>3,557</b>	<b>1,960</b>	<b>1,969</b>	<b>1,949</b>	<b>1,592</b>	<b>1,514</b>	<b>1,320</b>	<b>1,279</b>	<b>1,092</b>
<b>Total proved plus probable reserves (after royalties) (mboe) <sup>(a)</sup></b>										
	<b>5,666</b>	<b>5,440</b>	<b>2,996</b>	<b>2,937</b>	<b>2,961</b>	<b>2,279</b>	<b>2,115</b>	<b>1,823</b>	<b>1,525</b>	<b>1,298</b>
<b>Daily production (before royalties)</b>										
<b>Crude oil and NGLs (mboe/d)</b>										
North America - Exploration and Production										
North America - Oil Sands Mining and Upgrading	271	234	244	247	235	222	206	175	169	167
North Sea	91	90	-	-	-	-	-	-	-	-
Offshore West Africa	33	38	45	56	60	68	65	57	39	36
	<b>30</b>	<b>33</b>	<b>27</b>	<b>28</b>	<b>37</b>	<b>23</b>	<b>12</b>	<b>10</b>	<b>7</b>	<b>3</b>
	<b>425</b>	<b>355</b>	<b>316</b>	<b>331</b>	<b>332</b>	<b>313</b>	<b>283</b>	<b>242</b>	<b>215</b>	<b>206</b>
<b>Natural gas (bcf/d)</b>										
North America	1,217	1,287	1,472	1,643	1,468	1,416	1,330	1,245	1,204	906
North Sea	10	10	10	13	15	19	50	46	27	12
Offshore West Africa	16	18	13	12	9	4	8	8	1	-
	<b>1,243</b>	<b>1,315</b>	<b>1,495</b>	<b>1,668</b>	<b>1,492</b>	<b>1,439</b>	<b>1,388</b>	<b>1,299</b>	<b>1,232</b>	<b>918</b>
<b>Total production (before royalties) (mboe/d)</b>										
	<b>632</b>	<b>575</b>	<b>565</b>	<b>609</b>	<b>581</b>	<b>553</b>	<b>514</b>	<b>459</b>	<b>421</b>	<b>359</b>
<b>Product pricing</b>										
<b>Average crude oil and NGLs price (us\$/bbl)</b>										
North America	65.81	57.68	82.41	55.45	53.65	46.86	37.99	32.66	31.22	23.45
North Sea	4.08	4.53	8.39	6.85	6.72	8.57	6.50	6.21	3.77	5.45
Offshore West Africa	77.89	70.83	-	-	-	-	-	-	-	-

(a) 2010 company net reserves were prepared using forecast prices and costs; prior to 2010, company net reserves were prepared using constant price and costs. Prior to December 31, 2010, the Company's horizon SCO reserves were reported separately in accordance with the SEC's Industry Guide 7. With the SEC's Final Rule in effect January 1, 2010, the synthetic crude oil is now included in the Company's crude oil and natural gas reserves totals.

Canadian Natural Resources Annual Report 2010, page 95.

1.4	0.3	0.281	3.780	3.8
	1.2	interpolate	interpolate	20.4
	2.0	interpolate	interpolate	36.9
	2.9	interpolate	interpolate	53.5
	3.8	interpolate	interpolate	70.1
	4.7			86.7
OGJ100	6.2		OGJ100	111.2
	13.7			182.7
	25.8			228.3
gross prod'n	27.7			245.5
	31.7			263.2
174	63.5	794		289.8
206	75.2	918		335.1
215	78.5	1,232		449.7
242	88.3	1,299		474.1
283	103.3	1,388		506.6
313	114.2	1,439		525.2
332	121.2	1,492		544.6
331	120.8	1,668		608.8
316	115.3	1,495		545.7
355	129.6	1,315		480.0
425	155.1	1,243		453.7

<b>Total</b>	na	1,285	0	na	na	6,516	na	na
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**Comment:** Rick Heede:

Canadian Natural is one of the largest independent crude oil and natural gas producers in the world. The Company continually targets cost effective alternatives to develop our portfolio of projects and to deliver our defined growth plan, thereby creating value for shareholders. We have an effective and efficient, diversified combination of assets in North America, the North Sea and Offshore Africa, which enables us to generate significant value, even in challenging economic environments. Our balanced mix of natural gas, light oil, heavy oil, in situ oil sands production, oil sands mining and associated upgrading facilities, represents one of the strongest and most diverse asset portfolios of any energy producer in the world. [www.cnrl.com/about-cnq/corporate-profile.html](http://www.cnrl.com/about-cnq/corporate-profile.html)  
In 1989, Canadian Natural was an oil and natural gas company operating only in Alberta which employed 9 people, produced about 1,400 barrels (220 m<sup>3</sup>) of oil equivalent per day and had a market capitalization of about \$1 million. Through growth and acquisitions, it has grown to approximately 5000 employees, production of over 565,000 barrels (89,800 m<sup>3</sup>) of oil equivalent per day and a market capitalization of approximately \$40 billion. wikipedia.

**Cell:** D55

**Comment:** Rick Heede:

"In 1989, Canadian Natural was an oil and natural gas company operating only in Alberta which employed 9 people, and produced about 1,400 barrels of oil equivalent per day." ([www.cnrl.com, history](http://www.cnrl.com/history)). Assuming 55 percent of total production was crude oil & NGLs (as it is in 2004), and 45 percent is natural gas (at 6,000 cf per bbl), we estimate production in 1989, and interpolate between 1989 and 1994.

**Cell:** E60

**Comment:** Rick Heede (Dec09):

Oil & Gas Journal, various years, OGJ100. Includes NGL; after royalty production.

**Cell:** J60

**Comment:** Rick Heede (Dec09):

Oil & Gas Journal, various years, OGJ100.

**Cell:** D66

**Comment:** Rick Heede:

Oil and gas production data from Energy Intelligence (2003) Top 100: Ranking the World's Oil Companies, p. 118.

**Cell:** D67

**Comment:** Rick Heede:

CNR Annual Report for 2004, p. 8. Includes crude and NGLs, heavy tar sand bitumen production (139k bbl per day), and crude from North Sea and offshore West Africa. Gas production in units of oil equivalent: 217 k bbl per day in 2003 and 231 k bbl per day in 2004. Conversion of 6kcf per bbl.

Lists 2001-2004 gas production before royalties in million cf per day (listed at right) and crude oil and NGL production before royalties in thousand bbl per day (listed below).

**Cell:** H67

**Comment:** Rick Heede:

CNR Annual Report for 2004, p. 8.

**Cell:** D76

**Comment:** Rick Heede:

Canadian Natural Annual report 2010, page 95, shows crude oil and NGL "Daily Production (before royalties)" in thousand bbl per day for 2001 through 2010. For 2010 (425 k bbl per day), conventional production in North America totaled 271 k bbl per day, North America oil sands 91 k bbl per day, North Sea 33 k bbl per day, and offshore west Africa 30 k bbl per day.

**Cell:** H76

**Comment:** Rick Heede:

Canadian Natural Annual report 2010, page 95, shows natural gas "Daily Production (before royalties)" in million cf per day for 2001 through 2010. Of 2010, North America accounted for 1,217 MMcf, North Sea 10, and offshore west Africa 16 million cf per day.