

A B C D E F G H I J K L M N O

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89

# Coal extraction data

**Richard Heede**  
*Climate Mitigation Services*  
 File started: 19 June 2019  
 Last modified: June 2020

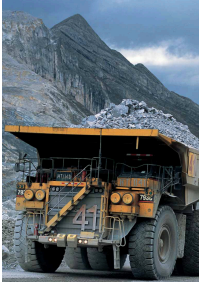
## Teck Resources, Ltd.

yellow column indicates original reported units

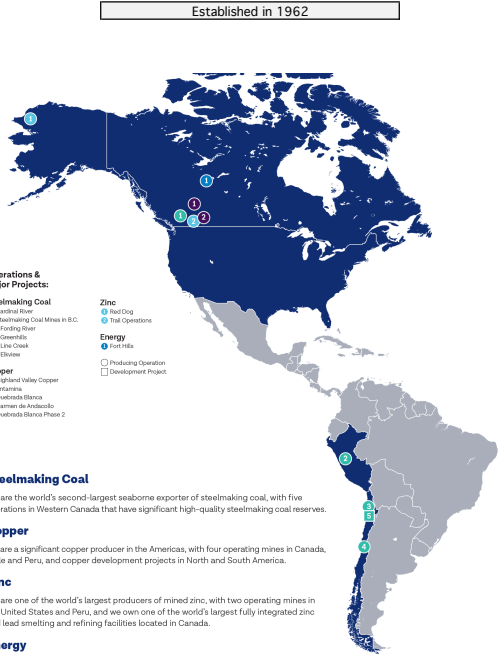
[www.teck.com](http://www.teck.com) Vancouver

### Production / Extraction data

Year	Coal		Metallurgical		Total Coal	
	Gross production	Gross production	Gross production	Gross production	Gross production	Gross production
	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr



**Teck**



Teck Annual Rpt 2006, p. 26. Elk Valley Coal's North Line Creek Pit.

**Steelmaking Coal**  
 We are the world's second-largest seaborne exporter of steelmaking coal, with five operations in Western Canada that have significant high-quality steelmaking coal reserves.

**Copper**  
 We are a significant copper producer in the Americas, with four operating mines in Canada, Chile and Peru, and copper development projects in North and South America.

**Zinc**  
 We are one of the world's largest producers of mined zinc, with two operating mines in the United States and Peru, and we own one of the world's largest fully integrated zinc and lead smelting and refining facilities located in Canada.

**Energy**  
 We have an interest in a large producing oil sands mine in Alberta, as well as oil sands exploration assets.

Teck Resources Annual Report 2019, page 2

**Metallurgical Coal**

Year	Metallurgical Coal (Mt)	Total Coal (Mt)
1950	-	-
1951	5.0	5
1952	3.8	4
1953	5.5	5
1954	7.7	8
1955	6.6	7
1956	10.0	10
1957	10.7	11
1958	10.7	11
1959	9.8	10
1960	10.6	11
1961	13.6	14
1962	18.9	19
1963	23.1	23
1964	22.8	23
1965	24.7	25
1966	25.6	26
1967	26.7	27
1968	25.3	25
1969	27.6	28
1970	26.6	27
1971	26.2	26

44.3% share

**Bitumen**

Year	Bitumen (Mb)
2016	6.8
2017	12.3

<b>Total</b>	-	-	-	<b>342</b>	-	<b>342</b>
--------------	---	---	---	------------	---	------------

Metallurgical coal 100%

P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
---	---	---	---	---	---	---	---	---	---	---	----	----	----	----

Elkview Mine, B.C., Canada					
100%	1998	1999	2000	2001	2002
Waste mined (000's tonnes)	73,725	51,733	74,310	100,672	110,970
Raw coal mined (000's tonnes)	4,586	3,800	5,700	8,127	8,319
Waste to coal ratio	23.0	19.2	18.3	18.2	20.0
Plant yield (%)	70.5	71.6	70.7	70.0	69.8
Coal production (000's tonnes)	3,212	2,693	4,063	5,517	5,547
Capital expenditures (\$ millions)	8	1	21	14	11
Operating profit (\$ millions)	25	2	12	70	92

Teck Cominco Annual Report 2002, p. 13.

Bullmoose Mine, B.C., Canada					
100%	1998	1999	2000	2001	2002
Waste mined (000's tonnes)	29,579	22,560	20,813	22,815	20,896
Raw coal mined (000's tonnes)	2,697	1,954	2,196	2,621	2,782
Waste to coal ratio	16.5	18.4	14.7	12.0	9.5
Plant yield (%)	68.3	66.1	69.5	78.9	85.2
Coal production (000's tonnes)	1,787	1,225	1,416	1,894	2,203
Company's share (61%) of operating profit (\$ millions)	7	(6)	4	17	24

Teck Cominco Annual Report 2002, p. 13.

**Coal Operations, B.C. and Alberta, Canada**

(100%)	2002	2003	2004
Coal production (000's tonnes)			
Elk Valley Coal (Note)	–	18,406	24,889
Elkview	5,547	824	–
Bullmoose	2,203	479	–
Coal sales – company's effective share (000's tonne)	6,617	9,997	10,706

Teck Cominco Annual Report 2004, p. 15.

Note: CAI lists "sales," at ~43.2% of production

Coal production from the Elk Valley Coal Partnership includes the company's 35% direct interest plus its 6% indirect interest through its investment in the Fording Canadian Coal Trust for 2003. On April 1, 2004, the direct interest was increased to 38% and the indirect interest decreased to 5.4% for a total of 43.4%.

**Coal Mines, Alberta and British Columbia, Canada**

100%	2006	2005	2004
Coal production (000's tonnes) (Note 1)	21,790	25,679	24,889
Coal sales (000's tonnes)	22,614	24,124	25,004
Average sale price (US\$/tonne)	113	99	52

Teck Annual Rpt 2006, p. 26.

Fort Hills oil Sands Project



<https://www.teck.com/about/our-history/>

Principal Products	(000's)	Units				
		2006	2007	2008	2009	2010
Copper (Notes 1 and 2)						
Contained in concentrate	tonnes	258	218	209	203	216
Cathodes	tonnes	–	37	107	105	97
		258	255	316	308	313
Coal (Note 3)						
Direct share	tonnes	8,657	9,024	11,282	18,930	23,109
Indirect share	tonnes	1,147	1,552	2,345	–	–
		9,804	10,576	13,627	18,930	23,109

Teck Resources Annual Report 2010, page 21.



TeckCominco Annual Rpt 2004, cover.

**Five-Year Production Record and Our Expected Share of Production in 2016**

Principal Products	Units	Units				
		(000's)	2011	2012	2013	2014
Steelmaking coal	tonnes	22,785	24,652	25,622	26,691	25,274

Teck Resources Annual Report 2015, page 9.

**Five-Year Production Record and Our Estimated Production in 2020**

Principal Products		Units					2020 estimate <sup>(3)</sup>
		2015	2016	2017	2018	2019	
Steelmaking coal	million tonnes	25.3	27.6	26.6	26.2	25.7	24.0
Copper <sup>(1)</sup>	thousand tonnes	358	324	287	294	297	293
Zinc							
Contained in concentrate <sup>(1)</sup>	thousand tonnes	658	662	659	705	640	620
Refined	thousand tonnes	307	312	310	303	287	310
Bitumen <sup>(1)(2)</sup>	million barrels	–	–	–	6.8	12.3	13.0

Teck Resources Annual Report 2019, page 10.



Elkview coal mine: ~7 Mt per annum

<https://www.teck.com/operations/canada/operations/elk-view/>

**Cell:** H9**Comment:** Rick Heede:

Teck Resources Limited, known as Teck Cominco until late 2008, is a diversified natural resources company headquartered in Vancouver, British Columbia, that is engaged in mining and mineral development, including steelmaking coal, copper, zinc and energy. Secondary products include lead, silver, gold, molybdenum, germanium, indium and cadmium. Teck Resources was formed from the amalgamation of Teck and Cominco in 2001. In 2018, Teck Resources opened the C\$17 billion Fort Hills oil sands project. In 2020, Teck abandoned plans for a second, larger C\$20 billion open-pit petroleum-mine proposal—Frontier Mine—25 km (16 mi) south of Wood Buffalo National Park and north of Fort McMurray in northeast Alberta.

Coal: In 2018, Teck produced 26.2 million tonnes of coal from six mines in southeastern British Columbia and western Alberta, with most of it exported to countries in the Asia-Pacific region. The coal is transported to ports and destinations in Eastern Canada through rail lines owned by Canadian Pacific. There is one in Alberta—Cardinal River Mine in Hinton, Alberta, and four steelmaking coal operations in British Columbia: Fording River coal mine in Elkford, Elkview Mine in Sparwood, Greenhills Mine in Elkford and Line Creek Mine in Sparwood.

Oil Sands:

Fort Hills: In 2018, Teck Resources opened the C\$17-billion Fort Hills oilsands project, which will produce 194,000 barrels per day (bbl/day). Teck Resources has a 21.3 per cent stake. "Suncor Energy Inc. and Paris-based Total SA have a 54.1 per cent and 24.6 per cent ownership of the project, respectively.

At the September opening of Fort Hills, Calgary-based Suncor Energy's CEO Steve Williams said that, "It's unlikely there will be projects of this type of scale again...What Fort Hills gives us is a strategic anchor in a vast reserve up here." Williams was optimistic about the future of the oil sands for years to come, but at a different scale.

Frontier Mine: In 2009, for the first time since the 1980s, what is now known as the Alberta Energy Regulator (AER) changed the oil sands mining boundaries in the Athabasca oil sands in northeastern Alberta, Canada, partly in response to successful exploratory work that Teck and others had launched "north of the known limits"—on the west and east sides of the Athabasca River. When they "discovered a sizable resource", the AER extended the "boundaries" of the "surface mineable oilsands area" to include 14.5 townships. Teck and UTS, who had done the exploratory work together, initiated the regulatory process for Frontier in March 2008.

Frontier Mine is considered to be one of the largest oil sands mines ever proposed in Alberta. The "292 km2 (113 sq mi) open-pit petroleum-mining operation" was to be located about 120 km (75 mi) north of Fort McMurray, Alberta. The estimated cost of developing the Frontier operation was C\$20 billion. According to Financial Post, this was more than "Teck's own market capitalization of C\$18 billion."

[https://en.wikipedia.org/wiki/Teck\\_Resources](https://en.wikipedia.org/wiki/Teck_Resources)

**Cell:** D11**Comment:** Rick Heede:

Coal production by coal mining companies and state-owned enterprises, including subsidiaries of oil and gas companies.

Coal types produced are not ordinarily reported by coal operators (except for metallurgical coal). We distinguish, where possible and reasonably well known, between hard (bituminous and subbituminous) and soft (lignite or peat) coals, especially for the larger companies operating in regions such as Australia and India where soft coals are predominant. Soft coals have lower carbon content per tonne than do hard coals.

**Cell:** B28**Comment:** Rick Heede:

Teck history 1962: Teck-Hughes, Lamaque and Canadian Devonian Petroleum merge to form Teck Corporation.

**Cell:** U34**Comment:** Rick Heede:

In September 2005, we entered into an agreement to subscribe for a 15% interest in the Fort Hills Energy Limited Partnership, which is developing the Fort Hills oil sands project in northern Alberta. The subscription price will be satisfied by contributing \$850 million (34%) of the first \$2.5 billion of project expenditures and our 15% share thereafter. Following our earn-in, the project will be owned by Petro-Canada (55%), UTS Energy Corporation (30%), and Teck Cominco Limited (15%). Petro-Canada became a partner in the project in March 2005 and is the project operator as well as having responsibility for marketing.

Teck Annual Rpt 2006, p. 26.

**Cell:** B52**Comment:** Rick Heede:

Teck history 1986: Teck acquires initial interest in Cominco from CP Ltd., eventually acquiring 100% in 2001.

**Cell:** H64**Comment:** Rick Heede:

Teck Cominco Annual Report 2002, p. 13.

**Cell:** B69**Comment:** Rick Heede:

Teck history 2003: Teck and Fording Coal combine six coal mines into Elk Valley Coal Partnership, operated by Teck.

**Cell:** I71**Comment:** Rick Heede:

Teck Cominco Annual Report 2005, page 20. "Elk Valley Coal operates five metallurgical coal mines in southeastern British Columbia and one in west central Alberta. Elk Valley Coal is the second largest seaborne exporter of metallurgical coal in the world. Expansion initiatives were completed in 2005 to increase the combined annual production capacity of the six operations to 28 million tonnes. Teck Cominco holds a 39% (40% on April 1, 2006) partnership interest in Elk Valley Coal and a 5.3% indirect interest through its investment in Fording Canadian Coal Trust.

**Cell:** H73**Comment:** Rick Heede:

Teck Resources Annual Report 2010, page 21.

**Cell:** B74**Comment:** Rick Heede:

Teck history 2008: Teck purchases the remainder of the Elk Valley Partnership from Fording Trust.

**Cell:** H77**Comment:** Rick Heede:

Teck Resources Annual Report 2015, page 9.

**Cell:** B79**Comment:** Rick Heede:

Teck history: 2013: Teck announces, along with its partners Suncor and Total, that it is proceeding with the construction of the Fort Hills oil sands project in Alberta.

Teck is named the top-ranked Canadian company and top mining company worldwide on the Global 100 Most Sustainable Corporations list by Corporate Knights.

<https://www.teck.com/about/our-history/>

**Cell:** H81**Comment:** Rick Heede:

Teck Resources Annual Report 2019, page 10. Also shows (but CAI does not list) 2019 production of 25.7 Mt.

**Cell:** AB86**Comment:** Rick Heede:

Intentionally left blank.