

# Coal – 2012 Annual Review

*Author: Kevin Stone, Senior Advisor*

*Minerals and Metals Sector, Natural Resources Canada*

*Telephone: 613-992-5199, e-mail: kevin.stone@nrcan-rncan.gc.ca*

*Note to Readers: The intent of this document is to provide general information and to elicit discussion. It is not intended as a reference, guide or suggestion to be used in trading, investment, or other commercial activities. The author and Natural Resources Canada make no warranty of any kind with respect to the content and accept no liability, either incidental, consequential, financial or otherwise, arising from the use of this document.*

## **CANADIAN PRODUCTION**

Preliminary figures indicate that Canada produced close to 67 million tonnes (Mt) of coal in 2012, of which 46.4% was coking coal. The production of coking coal increased by 5.5% from 29.5 Mt in 2011 to 31.1 Mt in 2012. The increase was driven by global demand for coking coal, which is directly tied to the production of steel. Almost all of Canada's coking coal production was exported with only a very small volume shipped to domestic users. Most of the output in the coking coal category was hard coking coal and only a small portion was pulverized coal injection (PCI) coal. Approximately 4.3 Mt of bituminous thermal coal were produced in 2012, most of which was exported. About 21.7 Mt of subbituminous coal and 9.5 Mt of lignite coal were produced in 2012. Both types of coal were used for domestic coal-fired power generation. In 2012, Alberta produced 28.3 Mt of coal while British Columbia (B.C.) produced 28.8 Mt and Saskatchewan produced 9.5 Mt (Table 1).

There were 21 operating coal mines in Canada in 2012. Most large-scale coal mines are located in western Canada. British Columbia has 10 operating mines: Brule, Coal Mountain, Elkview, Fording River, Greenhills, Line Creek, Quinsam, Trend, Perry Creek (Wolverine), and Willow Creek. Alberta has 8 operating coal mines: Cheviot, Coal Valley, Genesee, Grande Cache, Highvale, Obed Mountain, Paintearth, and Sheerness. Saskatchewan has 3: Bienfait, Boundary Dam, and Poplar River (Table 3).

Four companies produce coking coal or PCI coal for export: Teck Resources Ltd. (Teck); Walter Energy, Inc.'s (Walter Energy) Canadian Operations; Winsway Coking Coal Holdings Ltd.'s (Winsway) and Marubeni Corp.'s (Marubeni) jointly owned Grande Cache Coal Corp. (GCC); and Anglo American Plc's Peace River Coal Inc. Two companies produce bituminous thermal coal for export: Sherritt International Corp. (Sherritt) and Vitol Group's Hillsborough Resources Ltd. Sherritt produces subbituminous and lignite coal for domestic coal-fired power generation. TransAlta Corp. (TransAlta) produces subbituminous coal for its own power generation plants.

## CANADIAN DEVELOPMENTS

In January 2013, Sherritt terminated the Highvale mine's mining contract and the owner of the mine, TransAlta, assumed the coal mining operations.

In December 2012, the Roman coal mine project received environmental assessment approval from the B.C. Environmental Assessment Office. The project is owned by Anglo American Plc through its subsidiary, Peace River Coal Inc. The company is now developing the site, located 30 kilometres (km) south of Tumbler Ridge, as an expansion to the existing Trend mine. The new open-pit site would add between 2 and 4 million tonnes per year (Mt/y) of production capacity to the existing mine and extend its life by 10 years.

There was a boom in coal projects development in 2012 with five new projects applying for environmental assessments: Carbon Creek, Murray River, Echo Hill, Bingay, and Sukunka. All five projects are located in B.C. Four of them plan to produce coking coal for export and one plans to produce bituminous thermal coal for export.

Cardero Resources Corp. proposes to develop a mine with surface and underground operations that would have a combined annual production capacity of 2.9 Mt of coking coal for export. The proposed Carbon Creek mine site is located approximately 40 km west of Hudson's Hope in northeastern B.C.

HD Mining International Ltd. proposes to develop the Murray River underground coal mine with an annual production capacity of 6 Mt of coking coal for export over 31 years. The proposed mine site is located about 12.5 km southwest of Tumbler Ridge in northeastern B.C.

Hillsborough Resources Ltd. proposes to develop an open-pit mine with an annual production capacity of 1-1.5 Mt of bituminous-grade thermal coal for export over a mine life of 10-14 years. The proposed Echo Hill mine site is located approximately 44 km north of Tumbler Ridge.

Centermount Coal Ltd. proposes to develop a mine with surface and underground operations that would have a combined annual production capacity of 2 Mt for export. The proposed Bingay Main mine site is located approximately 21 km north of Elkford in southeastern B.C.

Xstrata Coal Canada proposed to develop a mine with surface and underground operations that would have a combined annual production capacity of 1.5-2.5 Mt of coking coal for export that would increase to 6 Mt/y over 20 years. The proposed Sukunka coal mine site is located approximately 55 km south of Chetwynd and 40 km west of Tumbler Ridge.

On September 5, 2012, the Government of Canada published the final *Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations* after one year of public consultation. The proposed Regulations were published in August 2011 for public comments. The final Regulations apply a performance standard to new coal-fired electricity generation units and to units that have reached the end of their useful life; they will come into force on July 1, 2015. The performance standard is set at 420 tonnes (t) per gigawatt-hour, which is the emission intensity level of Natural Gas Combined Cycle technology. The "end of useful life" is generally described as 50 years from the unit's commissioning date. Units that were commissioned before 1975 will reach their end of useful life after 50 years of operation or at the end of 2019, whichever comes first. Units commissioned in or after 1975, but before 1986, will reach their end of useful life after 50 years of operation or at the end of 2029, whichever comes first. New and end-of-useful-life units that incorporate technology for carbon capture and storage may

apply for an exemption from the performance standard until 2025. (For more details, please refer to *Canada Gazette*, Official Regulations, Vol. 146, No. 19 – September 12, 2012.) The Regulations are expected to result in a cumulative reduction in greenhouse gas (GHG) emissions of 214 Mt, which is equivalent to removing some 2.6 million personal vehicles per year from the road in the first 21 years. Coal-fired electricity generation is responsible for 11% of Canada's total GHG emissions. The Regulations are an important step towards meeting Canada's GHG reduction target of 17% from the 2005 level by 2020.

In April 2012, Xstrata plc announced it would sell its 75% interest in the Donkin coking coal project in Cape Breton, Nova Scotia. Xstrata had not reported that it had secured a buyer at the time of writing.

Chinese company Winsway and Japanese company Marubeni formed a 60%-40% partnership under the name 1629835 Alberta Ltd., which completed the acquisition of GCC on March 1, 2012. Following the transaction, GCC's stock was delisted from the Toronto Stock Exchange.

## **Project Updates**

In April 2013, the Canadian Environmental Assessment Agency (CEAA) released its comprehensive environmental assessment study for the proposed Donkin coal project for public consultation. The CEAA found that the project is not likely to cause significant adverse environmental effects. The project proponent proposes to construct and operate an underground coal mine at the site of the existing Donkin mine located on the Donkin Peninsula in Cape Breton. It would produce 3.6 Mt/y of run-of-mine coal and 2.75 Mt/y of coking coal for export. Pending regulatory approval, mine development is planned to begin in 2013. It will likely take 1.5 years to construct the coal processing plant and another year or so to construct the barge load-out facility. Production is projected to begin by the end of 2017. The mine life is expected to range between 20 and 30 years. Xstrata owns 75% of the Donkin coal project and Erdene Resource Development Corp. owns the remaining 25%.

Fortune Minerals Ltd. (Fortune) resubmitted its application for an environmental assessment for its Arctors anthracite project in April 2013. Fortune changed the name of its Mount Klappan project to Arctors in August 2012. The proposed project is located 160 km northeast of Stewart in northern B.C. The company plans to produce anthracite coal for export at a production rate of 3 Mt/y.

In June 2012, the B.C. Environmental Assessment Office and the CEAA issued the Application Information Requirements/Environmental Impact Statement Guidelines for the Raven underground coal project proposed by Compliance Energy Corp. (CEC). As of March 31, 2013, the project was still at the pre-application stage. It is a joint venture between CEC (60%), Itochu Corp. of Japan (20%), and LG International Corp. of Korea (20%). The proposed project, located in the Comox Basin on Vancouver Island, B.C., would produce coking coal for export at a rate of 1.5 Mt/y with a mine life of 20 years.

Coalspur Mines Ltd. (Coalspur) expects to receive approval of the environmental assessment for its Vista project from the Alberta government in mid-2013. The final environmental impact assessment was submitted in April 2012. The project is located approximately 4 km east of the town of Hinton and 60 km southwest of the town of Edson. The company proposes a two-phase development: Phase 1 entails commencing production at a level of 6 Mt/y of bituminous-grade thermal coal and Phase 2 would increase output to 12 Mt/y by 2019. In 2012, Coalspur completed a feasibility study of the Vista project that identified a marketable reserve of over 313 Mt from a recoverable reserve of 566 Mt. The company further defined, in a follow-up study, two stages of development for Phase 1: Stage 1 would have a

production capacity of 3 Mt/y with production beginning in mid-2015 and Stage 2 would add an additional capacity of 3 Mt/y by 2017. The mine life is projected to be approximately 30 years.

## **TRADE**

In 2012, Canada exported 34.8 Mt of coal, up 3.2% compared to 33.7 Mt in 2011 (Table 2).

Canada is the world's third largest coking coal exporter (Table 4). Canadian coking coal exports increased by 11% to 30.7 Mt in 2012 from 27.7 Mt in 2011 due to increased global demand.

Canada imported 9.8 Mt of coal in 2012. Coking coal accounted for 45% of its total coal imports and the rest was thermal coal destined for coal-fired power generation and industrial uses.

## **PRICES**

In 2012, the benchmark price for hard coking coal averaged US\$210 per tonne (t). It started the year at US\$235/t in the first quarter, went down to US\$210/t in the second quarter, reached US\$223/t in the third quarter, and dropped to US\$168/t in the fourth quarter.

Based on Canadian customs records, the average achieved unit value in 2012, on a free on board (f.o.b.) basis, was \$193/t for coking coal exports and \$98/t for thermal coal exports. The average unit value in 2012 for Canadian imported coking coal was \$149/t and for imported thermal coal was \$65/t.

The majority of domestically sourced coal was from so-called “mine-mouth” operations, which involve extracting coal from a mine site and then trucking it to adjacent coal-fired power generation plants to produce electricity. The majority of mining and power generation operators are engaged in long-term contracts. Sherritt, the largest thermal coal producer in Canada, reported an average realized price of \$17.48/t in 2012. However, this price is merely a reflection of the cost of mining coal and cannot be regarded as the prevailing market price.

## **WORLD PRODUCTION**

The world's total coal production was estimated at 7,865 Mt in 2012, of which close to half (46%) was produced in China.

*Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to the document entitled “Definitions and Valuation: Mineral Production, Shipments, and Trade.”*

*(2) Information in this review was current as of April 30, 2013. (3) This and other reviews, including previous editions, are available on the Internet at [www.nrcan.gc.ca/mining-materials/markets/commodity-reviews/8360](http://www.nrcan.gc.ca/mining-materials/markets/commodity-reviews/8360).*

# Coal - Other Information

## GENERAL INFORMATION

Coal is an organically derived material. It is formed from the remains of decayed plant material compacted into a solid through millions of years of chemical changes under pressure and heat. As the organic maturity process continues, the buried plant material is transformed into different types of coal. In general, the longer the coal is subjected to heat and pressure, the higher its grade and contained heat will be per unit of weight. Bituminous coal and anthracite are high-ranked coals, also known as hard coal. Bituminous coal is consumed for both metallurgical and thermal purposes. Premium-grade bituminous coal, often referred to as metallurgical coal or coking coal, is used to produce coke, which is a key ingredient in iron and steelmaking. Anthracite, the highest ranked coal, is often called “smokeless” and can be consumed by households as a fuel for heating and cooking, and by various industries. Lignite and subbituminous coal are low-ranked coals, also known as brown coals, consumed only for the generation of electricity.

Coal is the world’s most abundant and widely distributed fossil fuel. According to *Coal Information*, the annual publication of the International Energy Agency, the world’s total proven recoverable coal reserves are 1,000 billion tonnes (t) spread over more than 70 countries. At its current production rate, coal offers approximately 150 years of supply, which is significantly longer than known reserves of oil and gas. Coal is also an economical energy source when compared to oil and gas.

Coal has been consumed as an energy source for hundreds of years. It provided the energy that boosted the industrial revolution of the 19th century and launched the electric era in the following century. It was the world’s most important source of primary energy until the late 1960s when it was overtaken by oil. Today, close to 90% of the world’s total coal production is consumed as thermal coal. The majority of thermal coal is used to generate electricity and a small portion is used as a fuel for heat or steam, such as for residential building heating; for the cement, pulp and paper, and other industries; and for the agriculture and transportation sectors. Coal-fired power generation currently provides more than 40% of the world’s total electricity. About 10% of global coal production is transformed into coke and used in iron and steelmaking. Almost all primary steel production worldwide is based on pig iron from blast furnaces fed with iron ore and coke made from coking coal.

Canada holds 8.7 billion t of proven coal reserves, including 6.6 billion t of proven recoverable coal reserves that will provide more than 100 years of production at current production rates. In addition, about 193 billion t of coal resources have been identified.

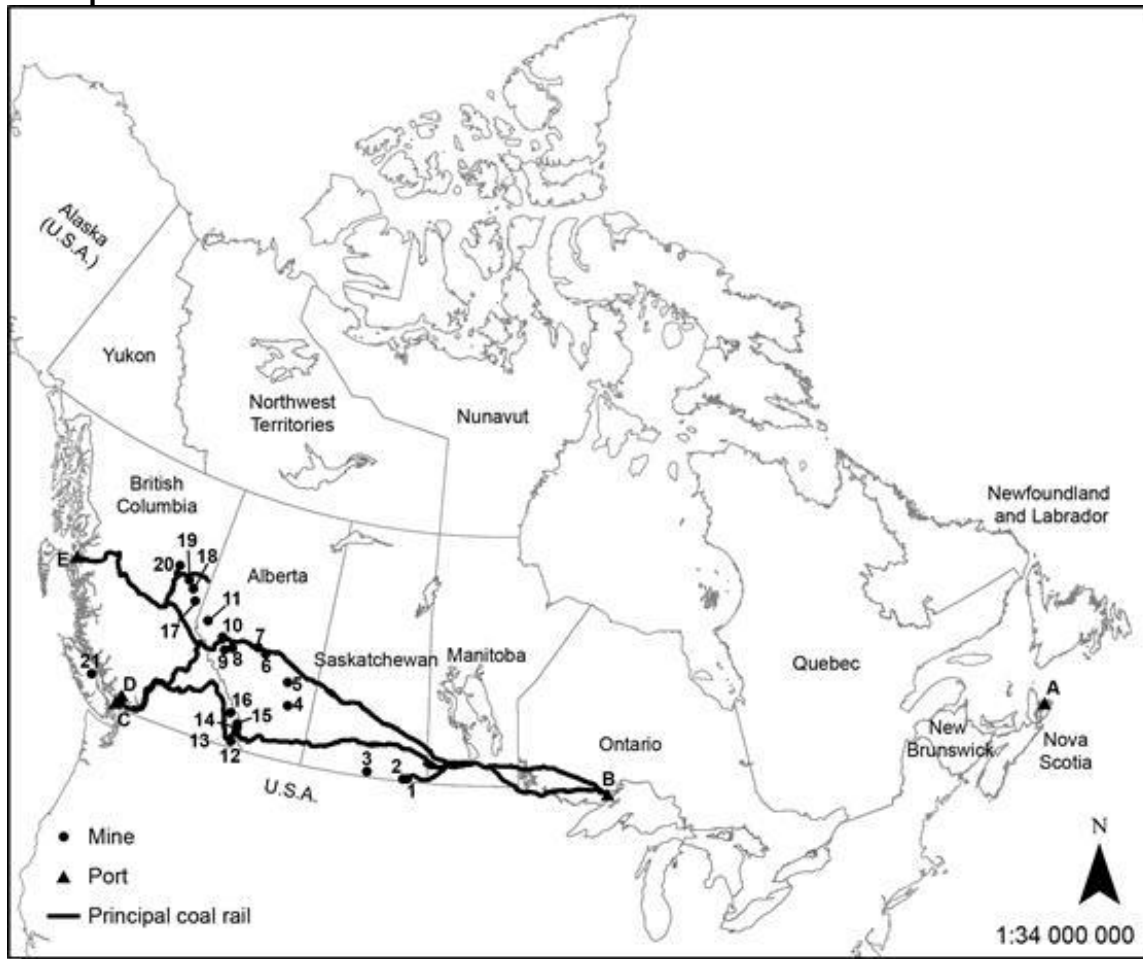
## LINKS TO OTHER WEB SITES

Coal Association of Canada  
Teck Resources Ltd.  
Sheritt International Corp.  
Walter Energy, Inc.  
Grande Cache Coal Corp.

[www.coal.ca](http://www.coal.ca)  
[www.teck.com](http://www.teck.com)  
[www.sheritt.com](http://www.sheritt.com)  
[www.walterenergy.com](http://www.walterenergy.com)  
[www.gccoal.com](http://www.gccoal.com)

© Her Majesty the Queen in Right of Canada, 2014

**Figure 1**  
**Principal Canadian Coal Mines and Ports**



*Numbers and letters refer to locations on the map above.*

## **COAL MINES**

### **Saskatchewan**

1. Bienfait
2. Boundary Dam
3. Poplar River

**Alberta**

4. Sheerness
5. Paintearth
6. Genesee
7. Highvale
8. Coal Valley
9. Cardinal River
10. Obed Mountain
11. Grande Cache

**British Columbia**

12. Coal Mountain
13. Line Creek
14. Elkview
15. Greenhills
16. Fording River
17. Trend
18. Wolverine
19. Brule
20. Willow Creek
21. Quinsam

**PORTS****Nova Scotia**

- A. Sydney

**Ontario**

- B. Thunder Bay

**British Columbia**

- C. Neptune
- D. Westshore
- E. Ridley

**TARIFFS**

Item No.	Description	Most Favoured Nation (MFN)				Preferential Applied Tariff (PAT)			
		Canada	European Union	Japan	United States	Canada	European Union	Japan	United States
	Year	2013	2013	2012	2012	2013	2013	2012	2012
27.01	Coal; briquettes, ovoids and similar solid fuels manufactured from coal	Free	Free	1.0%	Free	Free	..	..	..
2701.11	Coal, whether or not pulverized, but not agglomerated: anthracite	Free	Free	Free	Free	Free	..	..	..

2701.12	Coal, whether or not pulverized, but not agglomerated: bituminous coal	Free	Free	Free	Free	Free	..	..	..
2701.19	Coal, whether or not pulverized, but not agglomerated: other coal	Free	Free	Free	Free	Free	..	..	..
2701.20	Briquettes, ovoids and similar solid fuels manufactured from coal	Free	Free	3.9%	Free	Free	..	4.6%	..
27.02	Lignite, whether or not agglomerated, excluding jet	Free	Free	Free	Free	Free	..	..	..
2702.10	Lignite, whether or not pulverized, but not agglomerated	Free	Free	Free	Free	Free	..	..	..
2702.20	Agglomerated lignite	Free	Free	Free	Free	Free	..	..	..
27.04	Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon	Free	Free	1.6%	Free	Free	..	Free	..

Sources: Canadian *Customs Tariff*, effective January 2013, Canada Border Services Agency; World Trade Organization tariffs database.

.. Not available.

**TABLE 1. CANADA, COAL PRODUCTION, BY TYPE, 2010-12**

Province	Coal Type		2010	2011	2012 (p)
			(000 tonnes)		
Alberta	Bituminous	Metallurgical	3,147	2,507	2,682
		Thermal	4,518	4,685	3,914
	Subbituminous		23,927	22,762	21,694
	Total		31,591	29,951	28,289
British Columbia	Bituminous	Metallurgical	25,008	26,946	28,404
		Thermal	1,033	488	374
	Total		26,040	27,431	28,777
Saskatchewan	Lignite		10,264	9,731	9,496
	Total		10,264	9,731	9,496
Total Canada			67,896	67,114	66,563

Sources: Natural Resources Canada; Statistics Canada.

(p) Preliminary.

Note: Numbers may not add to totals due to rounding.



**TABLE 2. CANADA, COAL TRADE, 2010-12**

		2010		2011		2012	
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
<b>EXPORTS</b>							
2701.11	Anthracite						
	<b>Total</b>	<b>1</b>	<b>...</b>	<b>282</b>	<b>23</b>	<b>391</b>	<b>79</b>
2701.12.10	Bituminous coal, metallurgical						
	Japan	8,610,475	1,673,927	7,271,050	1,958,698	7,481,958	1,623,940
	China	4,269,377	843,476	3,073,987	672,709	9,565,193	1,505,619
	South Korea	5,296,195	970,368	6,513,564	1,691,761	5,050,855	1,006,955
	Brazil	1,638,130	377,107	2,281,341	666,848	1,812,776	393,836
	Netherlands	706,598	148,241	1,264,462	375,971	1,458,374	307,144
	Taiwan	636,741	140,770	1,068,958	305,472	1,003,878	208,284
	United States	1,412,360	296,678	1,357,414	415,829	874,867	195,460
	India	—	—	279,602	72,468	827,718	160,680
	Italy	1,014,827	197,614	999,519	273,868	766,776	149,932
	Turkey	838,928	183,941	848,526	235,662	499,561	103,125
	Germany	1,250,214	262,232	639,723	166,894	470,622	93,383
	Finland	416,157	90,088	422,471	126,255	303,349	64,627
	Chile	214,862	45,715	216,252	66,624	253,392	53,206
	United Kingdom	283,517	60,411	429,901	126,067	98,525	22,969
	Mexico	302,480	59,714	192,691	45,615	87,237	15,427
	Sweden	—	—	—	—	60,291	14,983
	France	165,532	29,287	207,698	49,233	55,009	11,430
	Pakistan	108,791	21,520	110,000	31,880	55,000	10,761
	Other countries	235,439	45,847	452,887	111,141	—	—
	<b>Total</b>	<b>27,400,623</b>	<b>5,446,936</b>	<b>27,630,046</b>	<b>7,392,995</b>	<b>30,725,381</b>	<b>5,941,761</b>
2701.12.90	Bituminous coal, other						
	Japan	2,004,430	169,394	2,040,054	219,108	2,043,839	217,906
	South Korea	1,527,359	142,333	2,097,677	213,852	1,420,319	125,186
	China	1,492,729	153,793	1,306,021	147,842	311,791	27,037
	Mexico	394,596	30,278	207,130	17,659	126,500	10,120
	United States	82,629	6,416	43,531	4,624	20,519	2,402
	Other countries	99,586	18,201	60,162	2,982	60	23
	<b>Total</b>	<b>5,601,329</b>	<b>520,415</b>	<b>5,754,575</b>	<b>606,067</b>	<b>3,923,028</b>	<b>382,674</b>
2701.19	Other coal						
	United States	2,592	251	2,644	710	2,409	692
	Japan	572	81	147	144	42,162	148
	Spain	612	227	1,945	112	787	132
	Taiwan	731	71	870	131	1,353	117
	Other countries	2,194	475	41,599	2,228	958	208
	<b>Total</b>	<b>6,701</b>	<b>1,105</b>	<b>47,205</b>	<b>3,325</b>	<b>47,669</b>	<b>1,297</b>
2701.20	Briquettes, ovoids and similar solid fuels manufactured from coal						
	<b>Total</b>	<b>55</b>	<b>5</b>	<b>9</b>	<b>1</b>	<b>6</b>	<b>...</b>
2702.10	Lignite whether or not pulverized, but not agglomerated						
	United States	131,606	15,723	120,284	14,728	106,742	15,581
	Other countries	76	5	8,548	590	2,701	188

	<b>Total</b>	<b>131,682</b>	<b>15,728</b>	<b>128,832</b>	<b>15,318</b>	<b>109,443</b>	<b>15,769</b>
2702.20	Agglomerated lignite						
	United States	391	82	367	67	327	63
<b>Total exports</b>		<b>33,140,782</b>	<b>5,984,271</b>	<b>33,561,316</b>	<b>8,017,796</b>	<b>34,806,245</b>	<b>6,341,643</b>
<b>IMPORTS</b>							
2701.11	Anthracite						
	Ukraine	137,555	20,166	107,843	17,121	220,111	39,053
	United States	155,432	17,772	223,615	20,824	203,642	28,591
	Russia	27,112	4,098	144,971	21,377	82,808	12,076
	United Kingdom	1,066	455	2,905	852	1,558	357
	Other countries	1,755	201	3,594	452	3	–
	<b>Total</b>	<b>322,920</b>	<b>42,692</b>	<b>482,928</b>	<b>60,626</b>	<b>508,122</b>	<b>80,077</b>
2701.12.00.11, 2701.12.00.12	Bituminous coal, metallurgical						
	United States	3,092,422	383,362	3,770,007	528,492	4,381,612	652,591
	Other countries	–	–	64	13	–	–
	<b>Total</b>	<b>3,092,422</b>	<b>383,362</b>	<b>3,770,071</b>	<b>528,505</b>	<b>4,381,612</b>	<b>652,591</b>
2701.12.00.91	Bituminous coal, other, high volatile						
	United States	3,723,293	338,495	1,353,620	111,240	1,091,246	94,509
	Colombia	1,586,972	132,338	1,258,446	113,695	868,009	68,334
	Other countries	49,512	4,494	359,800	34,603	–	–
	<b>Total</b>	<b>5,359,777</b>	<b>475,327</b>	<b>2,971,866</b>	<b>259,538</b>	<b>1,959,255</b>	<b>162,843</b>
2701.12.00.92	Bituminous coal, other, low volatile						
	United States	7,342	3,041	874,380	16,268	1,972,946	29,123
	Colombia	31,413	7,354	35,911	8,165	40,250	9,519
	Other countries	8,019	1,624	7,157	1,509	470	6
	<b>Total</b>	<b>46,774</b>	<b>12,019</b>	<b>917,448</b>	<b>25,942</b>	<b>2,013,666</b>	<b>38,648</b>
2701.19	Other coal						
	Colombia	430,597	37,574	508,668	46,545	436,192	37,696
	United States	3,358,608	123,307	813,404	40,748	506,071	34,179
	Other countries	2,496	271	90	3	97	4
	<b>Total</b>	<b>3,791,701</b>	<b>161,152</b>	<b>1,322,162</b>	<b>87,296</b>	<b>942,360</b>	<b>71,879</b>
2701.20	Briquettes, ovoids and similar solid fuels manufactured from coal						
	<b>Total</b>	<b>475</b>	<b>53</b>	<b>396</b>	<b>44</b>	<b>407</b>	<b>45</b>
2702.10	Lignite whether or not pulverized, but not agglomerated						
	United States	3,618	359	6,904	446	9,955	421
	Other countries	–	–	–	–	1	...
	<b>Total</b>	<b>3,618</b>	<b>359</b>	<b>6,904</b>	<b>446</b>	<b>9,956</b>	<b>421</b>
2702.20	Agglomerated lignite						
	United States	464	150	550	179	1,383	449
<b>Total imports</b>		<b>12,618,151</b>	<b>1,075,114</b>	<b>9,472,325</b>	<b>962,576</b>	<b>9,816,761</b>	<b>1,006,953</b>

Sources: Natural Resources Canada; Statistics Canada.

– Nil; ... Amount too small to be expressed.

Notes: Numbers may not add to totals due to rounding. Harmonized System (HS) code descriptions in this table may have been abbreviated. For detailed HS code descriptions related to this commodity, please refer to the corresponding tariffs table.

**TABLE 3. CANADIAN COAL MINES, 2012**

Mine Name	Capacity (Mt/y)		Type of Coal Produced	Location	Owner
	Mine	Plant			
COKING COAL					
Fording River	8.7	9.5	Bituminous coking	Elkford, B.C.	Teck Resources Ltd.
Elkview	6.0	6.5	Bituminous coking	Sparwood, B.C.	Teck Resources Ltd.
Greenhills	5.0	5.0	Bituminous coking	Elkford, B.C.	Teck Resources Ltd.
Coal Mountain	2.5	3.5	Bituminous coking	Sparwood, B.C.	Teck Resources Ltd.
Line Creek	3.2	3.5	Bituminous coking	Sparwood, B.C.	Teck Resources Ltd.
Cheviot (Cardinal River)	1.7	3.0	Bituminous coking	Hinton, Alta.	Teck Resources Ltd.
Perry Creek (Wolverine)	2.0	3.0	Bituminous coking	Tumbler Ridge, B.C.	Walter Energy, Inc.
Brule	1.5	2.0	Bituminous PCI	Chetwynd, B.C.	Walter Energy, Inc.
Willow Creek	1.7	2.0	Bituminous coking, PCI	Chetwynd, B.C.	Walter Energy, Inc.
Grand Cache	2.0	2.5	Bituminous coking	Grande Cache, Alta.	Winsway Coking Coal Holdings Ltd. and Marubeni Corp.
Trend	1.0	2.0	Bituminous coking	Tumbler Ridge, B.C.	Anglo American plc
THERMAL COAL					
Coal Valley	4.0	4.0	Bituminous thermal	Edson, Alta.	Sherritt International Corp.
Obed Mountain	1.2	1.2	Bituminous thermal	Hinton, Alta.	Sherritt International Corp.
Quinsam	0.5	0.5	Bituminous thermal	Campbell River, B.C.	Vitol Group
Paintearth	3.5	n.a.	Subbituminous	Forestburg, Alta.	Sherritt International Corp.
Sheerness	4.0	n.a.	Subbituminous	Hanna, Alta.	Sherritt International Corp.
Genesee	5.6	n.a.	Subbituminous	Warburg, Alta.	Sherritt International Corp. (50%) and Capital Power Corp. (50%)
Highvale	13.0	n.a.	Subbituminous	Seba Beach, Alta.	TransAlta Corp.
Boundry Dam	6.5	n.a.	Lignite	Estevan, Sask.	Sherritt International Corp.
Poplar River	4.0	n.a.	Lignite	Coronach, Sask.	Sherritt International Corp.
Bienfait	2.8	n.a.	Lignite	Bienfait, Sask.	Sherritt International Corp.

Source: Natural Resources Canada.

Mt/y Million tonnes per year; n.a. Not applicable; PCI Pulverized Coal Injection.

Note: Only mines with a production capacity over 100,000 t/y are listed.

**TABLE 4. MAJOR COKING COAL EXPORTING COUNTRIES, 2008-12**

Country	2008	2009	2010	2011	2012 (p)
	(000 tonnes)				
Australia	136,921	125,238	157,265	140,455	142,363
United States	38,599	33,803	50,906	63,078	63,392
Canada	26,643	21,531	27,528	27,666	30,725
Mongolia	3,891	4,800	15,222	21,077	19,100
Russia	13,614	13,276	18,030	14,182	18,251
Czech Republic	4,138	3,960	3,499	2,972	2,946
Indonesia	1,922	2,049	2,201	2,826	2,826
Mozambique	–	–	–	275	2,689
New Zealand	2,561	2,034	2,301	2,113	2,210
China	3,457	636	1,139	3,594	1,723
Poland	1,683	1,725	1,815	1,670	1,587
South Africa	1,266	616	834	456	746
Colombia	762	764	1,216	1,421	518
Kazakhstan	329	283	294	301	301
Ukraine	197	453	261	286	192
Others	147	448	–	553	565
<b>Total world</b>	<b>236,130</b>	<b>211,616</b>	<b>282,007</b>	<b>282,925</b>	<b>290,134</b>

Sources: Natural Resources Canada; International Energy Agency.

– Nil; (p) Preliminary.

Note: Numbers may not add to totals due to rounding.