



# BRITISH COLUMBIA COAL INDUSTRY OVERVIEW 2011



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## Ministry of Energy and Mines Ministry of Forests, Lands and Natural Resource Operations

### INTRODUCTION

Coal has been mined in British Columbia since the 19<sup>th</sup> century, and the future has never looked brighter. The province's export-based coal mining industry is expanding and proposed new mines are being evaluated. In addition, exploration is active on many fronts.

Coal is produced from ten mines in three regions (Figure 1). The five mines in southeast BC and four in northeast BC produce mainly metallurgical coal, while the single mine on Vancouver Island produces thermal coal. Forecast total output of the BC coal industry in 2011 is over 28 Mt of product coal.

Markets for British Columbia coal include Asian countries, especially Japan, China, South Korea and India, as well as countries in Europe and South and North America. Most of the coal produced in southeast BC is transported by rail to the Westshore Terminals export facility south of Vancouver. Coal from northeast BC mines is transported by rail to Ridley Terminals Inc's export facility at Prince Rupert. Approximately two-thirds of the 2011 production on Vancouver Island was destined for international markets and was shipped from facilities on Texada Island in Georgia Strait and Neptune Terminals in Vancouver.

This booklet is intended to provide a concise snapshot of the BC coal industry for the interested public, including those looking to invest. It includes sections on coal resources, mining, exploration, the tenure system, sources of information, and contacts. It is intended to complement "Exploration and Mining in British Columbia 2011" and "British Columbia Mines and Mineral Exploration Overview 2011" (see *INFORMATION SOURCES* to find website addresses for these publications).

### COAL RESOURCES

Coal seams of economic interest occur in sedimentary basins in various regions of British Columbia and range in age from Upper Jurassic to Tertiary. Distribution of coalfields generally follows the southeast-to-northwest tectonic and physiographic "grain" of the province (Figure 1). Coal in southeast and northeast BC, the dominant coal resource and mining regions of the province, occurs in the Rocky Mountains and Rocky Mountain Foothills, respectively. Further west are coalfields in the northwest and southern interior portions of British Columbia, while coalfields on Vancouver Island and Haida Gwaii are situated along the west coast.



The Westshore Terminals operation at Roberts Bank near Vancouver currently ships around 25 million tonnes of coal per year and has recently expanded to increased capacity. The province has deep water ports near Vancouver, mid-coast at Prince Rupert and toward the north at Stewart.

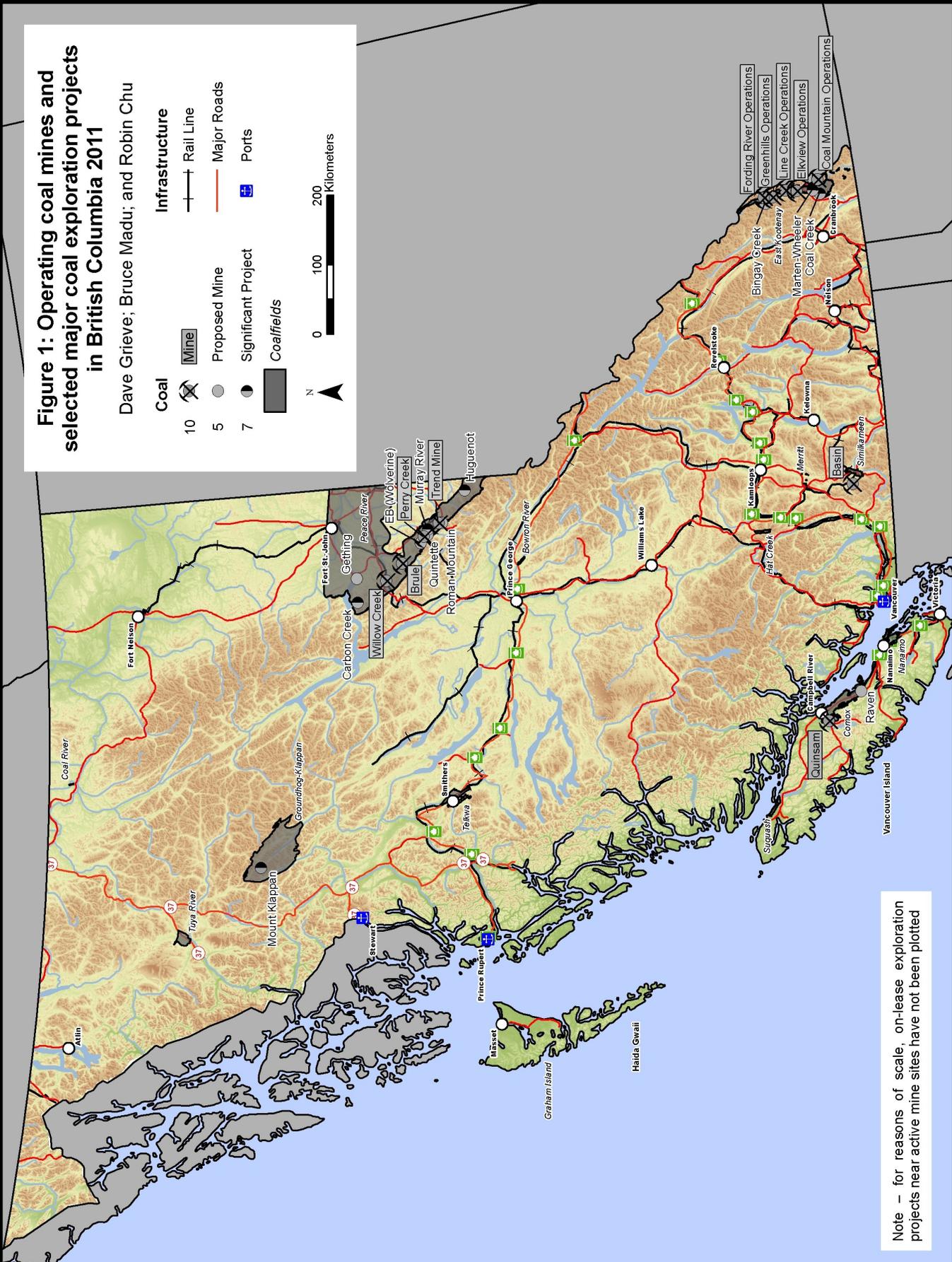
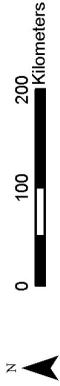
Coal deposits in **southeast BC** occur in the East Kootenay coalfields, which extend 175 km north from the International Boundary. Economic coal seams belong to the Mist Mountain Formation of the Jurassic-Cretaceous Kootenay Group. Coal rank mainly ranges from high-volatile A bituminous to low-volatile bituminous, and a very high proportion of the known resource is metallurgical coal. Southeast BC coals are characterized by low total sulphur contents and low ash base-acid ratios. Potentially mineable coal resources in southeast BC are estimated to be approximately 8.0 billion tonnes (data extracted from Northcote, 2010).

Coal deposits in **northeast BC** are contained in the Peace River Coalfield. The coalfield extends northwestwardly from the Alberta border for a distance of over 400 km. The coals occupy a stratigraphic interval of over 3000 m and are found in four different formations. Two of these, the Gething and Gates formations of the Lower Cretaceous Bullhead and Fort St John groups, respectively, contain the seams currently being mined and the bulk of the coal resources in the region. Rank of seams in the Gething and Gates formations mainly ranges from high-volatile A bituminous to low-volatile bituminous. Metallurgical coals dominate the known resources, and total sulphur contents are typically low. In addition, coal seams in the Upper Cretaceous Wapiti Formation, which occur east of the main Peace River Coalfield trend, are of lower rank and have thermal potential only. Potentially mineable coal resources in northeast BC are currently estimated to be on the order of 4.9 billion tonnes, with considerable potential for growth as exploration continues.

**Figure 1: Operating coal mines and selected major coal exploration projects in British Columbia 2011**

Dave Grieve; Bruce Madu; and Robin Chu

- Coal**
- 10 Mine
  - 5 Proposed Mine
  - 7 Significant Project
- Infrastructure**
- Rail Line
  - Major Roads
  - Ports
- Coalfields**
- Coalfields



Note – for reasons of scale, on-lease exploration projects near active mine sites have not been plotted



Coal mining operations continue throughout the year despite winter conditions such as here at the Willow Creek Mine located in northeast BC.

In **northwest BC**, the Groundhog-Klappan Coalfield covers approximately 2300 km<sup>2</sup> in an area referred to as the Bowser Basin Belt. The coal is contained in the Currier Formation of the Jurassic-Cretaceous Bowser Lake Group. Coals are predominantly anthracite in rank. Also in northwest BC, coal occurrences in the Lower Cretaceous Skeena Group include the Telkwa Deposit. Telkwa coal is generally high-volatile A bituminous in rank.

Coal deposits are contained in numerous separate, small Tertiary basins in **southern interior BC**, and include the Similkameen, Merritt and Hat Creek coalfields. Coal ranks range from lignite to high-volatile bituminous, and coals can generally be classed as low-sulphur thermal coals.

Coal deposits on **Vancouver Island** are contained in the Nanaimo and Comox coalfields, and are part of the Upper Cretaceous Nanaimo Group. Coal ranks are generally in the high-volatile A to B bituminous range, and sulphur contents are variable.



Most coal mines in British Columbia are open pit operations and here a shovel is in operation at the Wolverine (Perry Creek) Mine which currently produces around 1.8 million tonnes per year of hard coking coal.



A view looking north at Greenhills Operations in southeast BC. North of the visible highwall are the Cougar North Extension and Swift Project exploration areas where the mines are considering expanding.

## COAL MINING

Coal mining statistics for 2011, including production rates and reserves, are summarized in Table 1, and coal mine locations are shown in Figure 1.

Teck Coal Limited's five mine operations in the East Kootenay coalfields in **southeast BC** increased total production to a forecast 23.2 Mt of clean coal in 2011. Teck Coal is the world's second-largest supplier of seaborne metallurgical coal and five of its six metallurgical coal operations are in the Elk Valley (Cardinal River Operations is in Alberta). Four of the five southeast BC operations produce predominantly hard coking coal with medium-volatile bituminous rank. These are, from north to south, Fording River, Greenhills, Line Creek and Elkview. The exception is Coal Mountain Operations, which markets primarily PCI (pulverized coal injection) coal. All five are open-pit, truck and shovel mines. The total of the proven and probable reserves at the five mine sites, as of December 31, 2010, was 623 million tonnes.

The Peace River Coalfield in **northeast BC** is host to four coal mines. The producing companies are Western Coal Corp (a subsidiary of Walter Energy Inc) and Peace River

**TABLE 1: PRODUCTION AND RESERVE ESTIMATES FOR COAL PRODUCERS IN BRITISH COLUMBIA, 2011**

Mine	Operator	Deposit Type / Commodity	Forecast 2011 Production	Proven and Probable Reserves (on Dec 31, 2010/Jan 1, 2011 or as indicated)
<b>Brule</b>	Western Coal Corp	PCI coal	0.3 Mt	33.6 Mt measured and indicated resources, reserves under review (March 2010)
<b>Coal Mountain</b>	Teck Coal Limited	PCI and thermal coal	2.78 Mt	19.5 Mt
<b>Elkview</b>	Teck Coal Limited	HCC and PCI coal	4.19 Mt	220.6 Mt
<b>Fording River</b>	Teck Coal Limited	HCC and thermal coal	8.34 Mt	263.8 Mt
<b>Greenhills</b>	Teck Coal Limited	HCC, PCI and thermal coal	5.10 Mt	80.6 Mt
<b>Line Creek</b>	Teck Coal Limited	HCC, PCI and thermal coal	2.76 Mt	38.6 Mt
<b>Quinsam</b>	Quinsam Coal Corp (Hillsborough Resources Ltd)	Thermal coal	480 000 t	N/A (Developing 5,10,15 year plans)
<b>Trend</b>	Peace River Coal Inc	HCC	1.4 Mt	38.84 Mt measured resources, 8.0 Mt indicated resources (current Nov 2011)
<b>Willow Creek</b>	Western Coal Corp	HCC and PCI coal	0.9 Mt (0.8 PCI, 0.1 HCC)	Under review
<b>Wolverine (Perry Creek)</b>	Western Coal Corp	HCC	1.8 Mt	28 Mt measured and indicated resources, reserves under review (March 2010)

HCC = hard coking coal; PCI = pulverized coal injection; Mt = million tonnes

Coal (100% owned by Anglo Coal plc). All four mines are open-pit, truck and shovel operations producing seams from either or both of the Gates or Gething formations (see *COAL RESOURCES*, above). Products are medium and low-volatile bituminous in rank.

Western Coal operates the Perry Creek, Brule and Willow Creek mines. The projected 2011 total production of 3.0 Mt of clean coal from Western Coal's operations included hard coking coal and PCI coal products. The largest operation, Perry Creek, which is part of the Wolverine Project, produces predominantly hard coking coal, while Brule and Willow Creek produce predominantly PCI coal. Peace River Coal produces mainly hard coking coal at the Trend Mine, where 2011 production was forecast to be 1.4 Mt of clean coal.

On **Vancouver Island** Hillsborough Resource Limited produces thermal coal from the Quinsam Mine in the Comox Coalfield. Quinsam is an underground room-and-pillar operation. Forecast 2011 production is 480 000 t.

There are no active coal mines in the Tertiary Basins of **southern interior BC**. Coalmont Energy Corp is currently working toward reopening the Basin thermal coal mine in the Similkameen Coalfield near Princeton.

## COAL EXPLORATION AND DEVELOPMENT

There are a number of advanced projects throughout BC at the present time (see Table 2 and Figure 1). The current distribution of coal tenure and coal tenure applications is shown in Figure 2 (northeast BC) and Figure 3 (southeast BC).

In **southeast BC** all five Teck operations have potential expansion projects in the exploration, permitting, or development stage. These include the BR-2 Pit (Elkview Operations), Marten-Wheeler (Coal Mountain), Line Creek Phase II Expansion (Line Creek), Cougar North Extension (Greenhills) and the Swift Project (Fording River).

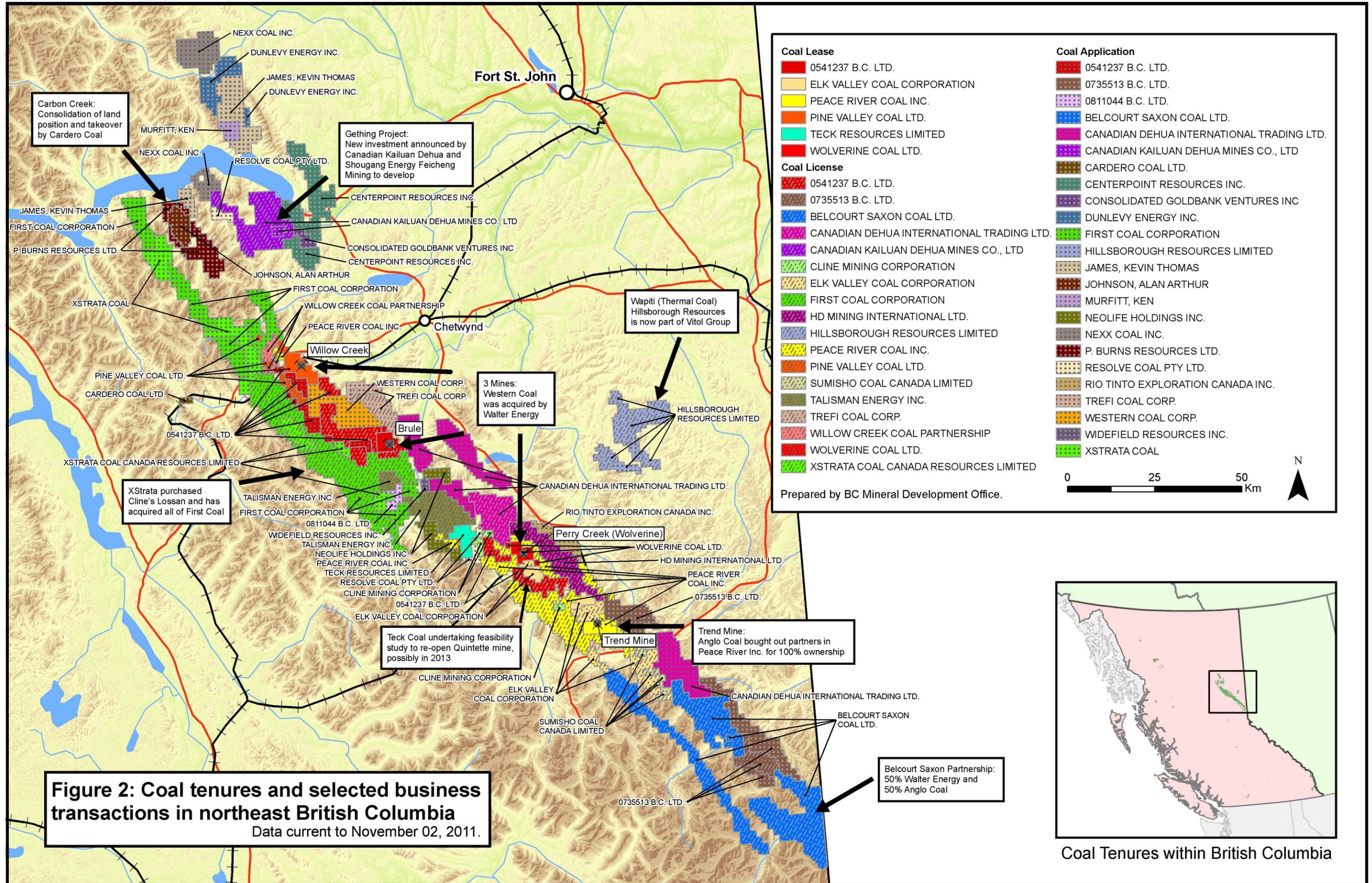
Other companies with active exploration projects in the East Kootenay coalfields include Centermount Coal Ltd (Bingay Creek Project) and Crowsnest Pass Coal Mining Ltd (Coal Creek Project).

In **northeast BC** proposed new mines within Western Coal Corp's Wolverine Project area (which includes the operating Perry Creek Mine) include the EB and Hermann deposits. The Willow Creek South and West projects, and the Mt Hudette/Brazion and Mink Creek projects, are also being evaluated by Western Coal in the vicinities of the

**TABLE 2: SELECTED EXPLORATION AND DEVELOPMENT PROJECTS IN  
BRITISH COLUMBIA, 2011**

Property name	Operator name	Status	Region
<b>7-South, 242, Quinsam North (Quinsam Mine)</b>	Hillsborough Resources Ltd	Application (sub-EA) and exploration	Vancouver Island
<b>Baldy Ridge BR-2 Pit (Elkview Operations)</b>	Teck Coal Limited	Approved (sub-EA)	Southeast
<b>Basin</b>	Coalmont Energy Corp	Resuming production in 2012	Southern Interior
<b>Belcourt-Saxon</b>	Peace River Coal Inc-Western Coal Corp JV	Exploration	Northeast
<b>Bingay Creek</b>	Centremount Coal Ltd	Exploration	Southeast
<b>Bullmoose River</b>	Canadian Kailuan Dehua Mines Co Ltd	Exploration	Northeast
<b>Carbon Creek</b>	Coalhunter Mining Corp	Mine evaluation	Northeast
<b>Coal Creek</b>	Crowsnest Pass Coal Mining Ltd	Exploration	Southeast
<b>Cougar North Extension (Greenhills Operations)</b>	Teck Coal Limited	Exploration	Southeast
<b>EB (Wolverine Project)</b>	Western Coal Corp	Approved (EA)	Northeast
<b>Elkview Operations (excluding BR-2 Pit)</b>	Teck Coal Limited	Exploration	Southeast
<b>Fording River Operations (excluding Swift Project)</b>	Teck Coal Limited	Exploration	Southeast
<b>Gething</b>	Canadian Kailuan Dehua Mines Co Ltd	Pre-application (EA)	Northeast
<b>Hermann (Wolverine Project)</b>	Western Coal Corp	Approved (EA)	Northeast
<b>Horizon</b>	Peace River Coal Inc	Exploration	Northeast
<b>Huguenot</b>	Colonial Coal International Corp	Exploration	Northeast
<b>Line Creek Phase 2 (Line Creek Operations)</b>	Teck Coal Limited	Application (EA)	Southeast
<b>Marten-Wheeler</b>	Teck Coal Limited	Exploration	Southeast
<b>Mink Creek</b>	Western Coal Corp	Exploration	Northeast
<b>Mt Hudette/Brazion</b>	Western Coal Corp	Exploration	Northeast
<b>Mount Klappan</b>	Fortune Minerals Ltd.	Pre-application (EA)	Northwest
<b>Murray River</b>	Canadian Kailuan Dehua Mines Co Ltd/ HD Mining International Corp	Mine evaluation	Northeast
<b>Quinsam East</b>	Hillsborough Resources Ltd	Exploration	Vancouver Island
<b>Quintette</b>	Teck Coal Limited	Mine evaluation	Northeast
<b>Raven</b>	Comox Joint Venture (Compliance Energy Corporation, Itochu Corporation, LG International Corp)	Pre-application (EA)	Vancouver Island
<b>Roman Mountain</b>	Peace River Coal Inc	Application (EA)	Northeast
<b>Swift Project (Fording River Operations)</b>	Teck Coal Limited	Pre-application (EA)	Southeast
<b>Wapiti</b>	Hillsborough Resources Ltd	Pre-application (EA)	Northeast
<b>Willow Creek South and West</b>	Western Coal Corp	Exploration	Northeast

*Mine evaluation* refers to the exploration stage during which various environmental and engineering studies are undertaken, and applications for production permits are prepared for government. EA = Environmental Assessment





British Columbia has a complex geological history as seen here where near vertical seams are mined at the Burnt Ridge South pit at Line Creek Operations in southeast BC.

Willow Creek and Brule mines, respectively. Peace River Coal is proposing to expand the Trend Mine operation to include the adjacent Roman Mountain deposit, and is also evaluating the Horizon Project and areas along strike from the Trend Mine itself.

Other active advanced exploration or development projects in northeast BC include the Quintette Project on the site of the former metallurgical coal producer which closed in 2000. Current owner Teck Coal Limited is studying the feasibility of reopening Quintette. In the same vicinity, Canadian Kailuan Dehua Mines Co Ltd, in joint venture with HD Mining International Corp, is evaluating the Murray River underground metallurgical coal project. Canadian Kailuan Dehua Mines is also assessing the Bullmoose River and Gething properties. Colonial Coal International Corp is active on the Huguenot property, while Coalhunter Mining Corp, now a subsidiary of Cardero Resource Corp, is evaluating the Carbon Creek Project. The Belcourt-Saxon Project is a joint venture of Peace River Coal and Western Coal Corp. Hillsborough



Coal seam exposure at the Carbon Creek metallurgical coal property (courtesy Coalhunter Mining).

Resources Ltd (owned by Vitol B.V.) holds the Wapiti thermal coal project.

In **northwest BC**, Fortune Minerals Ltd is evaluating the Mount Klappan anthracite deposit in the Groundhog-Klappan Coalfield.

On **Vancouver Island**, the 7-South area, approximately 3.5 km from the Quinsam mine, is slated as a replacement for reserves at the current mine area. Hillsborough has also been evaluating other sites, including the 242 and Quinsam North areas, and the more distant Quinsam East property.

Elsewhere on Vancouver Island, Comox Joint Venture partners Compliance Energy Corporation, Itochu Corporation, and LG International Corp, are evaluating the underground Raven Project, a potential source of semi-soft coking coal.



Drilling in mountainous terrain in all weather conditions is common in exploration in British Columbia as shown here at the Roman Mountain project in the northeast BC.

## COAL TENURE

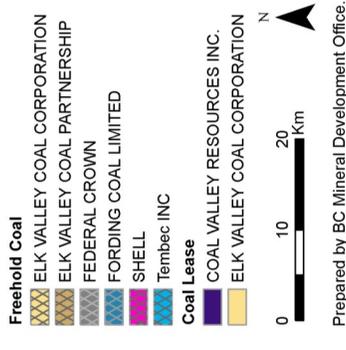
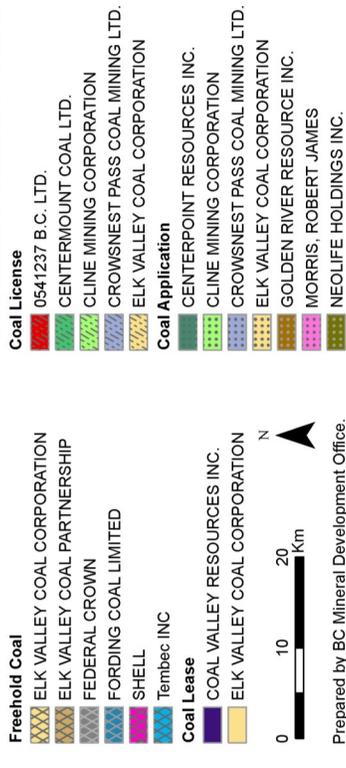
Coal title in BC is held under either one of two forms of tenure: coal licence or coal lease. The initial stage of coal tenure, the coal licence, is analogous to a mineral claim. However, a Free Miner Certificate is not required to acquire a licence. Acquisition is initiated by application; applicants are automatically registered as “coal clients.” Links for the coal licence application and other forms may be found at <http://www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Coal/Pages/Forms.aspx>

The website address for undertaking a search of existing coal tenures is <http://www.empr.gov.bc.ca/Titles/MineralTitles/Coal/Pages/Search.aspx>

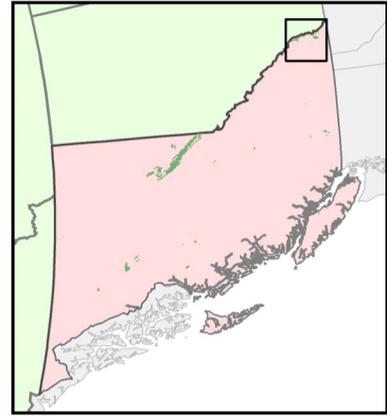
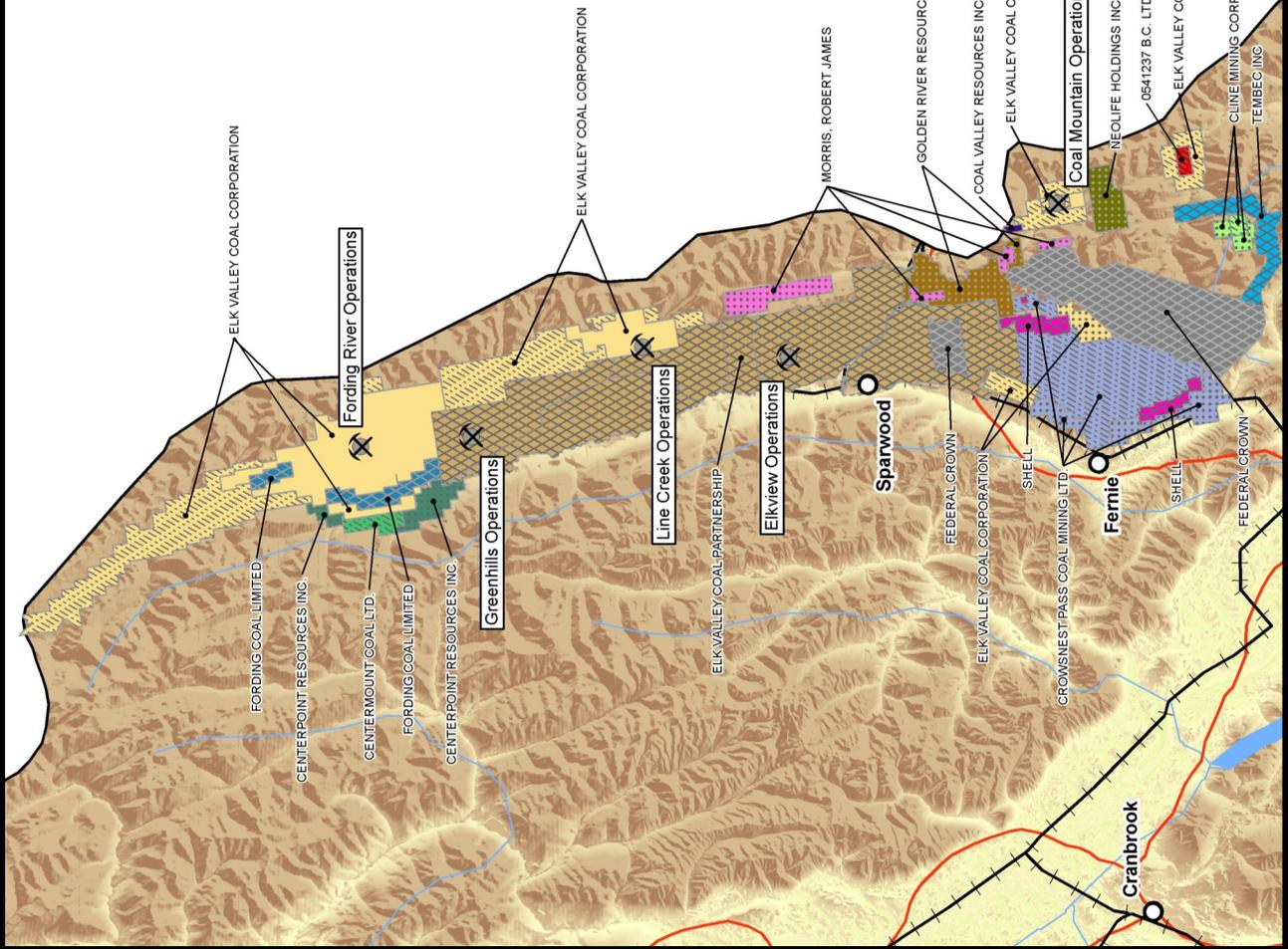
The **coal licence** is the appropriate tenure for exploration. Coal licence holders have the exclusive right to explore and develop Crown-owned coal resources as defined in the Coal Act. Production is limited to a 100 000-tonne sample for testing purposes.

**Figure 3: Coal tenures in southeast British Columbia**

Data current to November 02, 2011.



Prepared by BC Mineral Development Office.



Coal Tenures within British Columbia



Most coal mines in the province are open pit operations, but on Vancouver Island the Quinsam mine produces thermal coal from an underground operation. More underground mines are anticipated as resources are located deeper, technology improves and market conditions support the higher costs.

An application for a coal licence is made to the Minister and must be accompanied by:

- the prescribed application fee
- the prescribed rent in respect of location
- a plan and description of the location under Section 11 of the Coal Act

The boundaries of a licence must conform to the grid as established by the Petroleum and Natural Gas Act. A licence location must consist of adjoining units but cannot exceed more than 20 units per licence.

The application fee is \$25 per hectare plus \$7 per hectare first year rental. It is recommended that 75 hectares per unit be used as an estimate for calculating total hectares.

Before carrying out physical exploration activities which involve mechanized ground disturbance on a coal licence the licence holder must be in possession of a permit under the Mines Act. The application form for approval of exploration activities is termed a Notice of Work, and the form and information may be found at

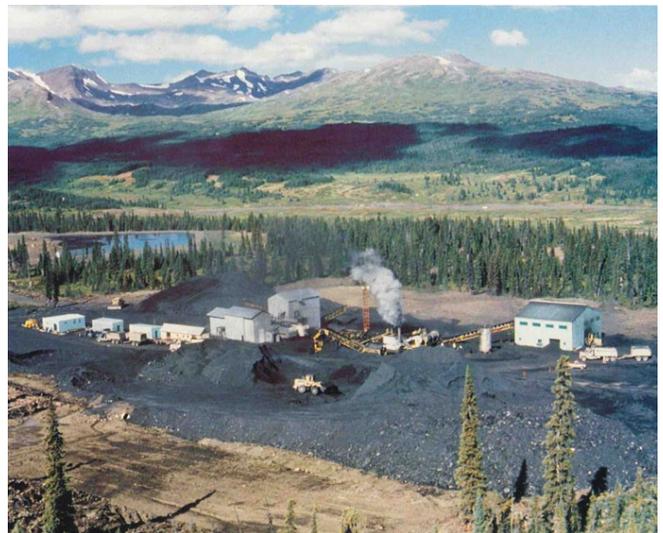
[http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX\\_NoW\(Jun21\\_2011\).pdf](http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ApplicationForms/Documents/MX_NoW(Jun21_2011).pdf)

A **coal lease** is the appropriate tenure for going into production. A coal lease gives the holder the exclusive right to explore for, develop and produce a coal resource on the lease location. The tenure holder must first have held a coal licence over the same location. The initial term for a coal lease is 30 years, followed by 15 years upon renewal.

All appropriate approvals and authorizations must be in place before commencing work on a coal lease. More information can be found at

<http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/Pages/default.aspx>

An environmental assessment is a key component of the approval of proposed major mine construction and expansion projects. Information, including links to the Environmental Assessment Process, can be found at <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/Pages/EA.aspx>



The province hosts a very large anthracite deposit at the Mt Klappan project located in northwest BC. This historical photo shows a bulk sample being collected in preparation for development plans that are currently being aggressively pursued.

## INFORMATION SOURCES (updated February 2012)

Table of British Columbia Coal Resources (Northcote, 2010)

BC Ministry of Energy and Mines, GeoFile 2010-11

<http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/GeoFiles/Pages/2010-11.aspx>

*A compilation of industry resource and reserve estimates.*

Coal in BC (Ryan, 2002)

<http://www.empr.gov.bc.ca/Mining/Geoscience/Coal/CoalBC/Pages/default.aspx>

*An online publication which describes geology and coal quality of BC coal basins.*

BC Geological Survey coal reference lists

<http://www.empr.gov.bc.ca/Mining/Geoscience/Coal/CoalBC/Pages/CoalReferences.aspx>

*Lists of coal-related articles published by the BC Geological Survey Branch, organized by coal basins.*



British Columbia Coal Quality Survey (Grieve, Holuszko and Goodarzi, 1996)

BC Ministry of Energy and Mines, Bulletin 96

<http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/BulletinInformation/BulletinsAfter1940/Pages/Bulletin96.aspx>

*Summary of BC coal quality.*

Exploration and Mining in British Columbia 2011

<http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/ExplorationinBC/Pages/2011.aspx>

*Annual detailed descriptions of exploration and mining projects in BC, organized by region and written by the Regional Geologists.*

British Columbia Mines and Mineral Exploration Overview 2011

BC Ministry of Energy and Mines, Information Circular 2012-1

<http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/InformationCirculars/Pages/IC2012-1.aspx>

*Annual condensed summary of exploration and mining in BC.*

British Columbia Coal Assessment Reports and COALFILE

<http://www.empr.gov.bc.ca/Mining/Geoscience/Coal/CoalBC/Pages/CoalDataReports.aspx>

*Assessment reports document exploration results. COALFILE is a database which summarizes exploration data from the coal assessment reports and provides an index to, and facilitates handling of, the data.*

MINFILE

<http://www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Pages/default.aspx>

*Database inventory of known mineral and coal occurrences, providing geological setting, technical descriptions of each occurrence, and, where applicable, exploration and production history.*

MapPlace

[www.mapplace.ca](http://www.mapplace.ca)

*Desktop mapping platform for BC topography, geology, mineralization, titles and other mining-related information. All spatial databases managed by the BC Geological Survey are accessible. Includes coal-themed map:*

<http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/thematicmaps/Pages/Coal.aspx>



Coal Titles website

<http://www.empr.gov.bc.ca/Titles/MineralTitles/Coal/Pages/default.aspx>

*Site maintained by the Mineral Titles Branch of the BC Ministry of Energy and Mines. Provides information concerning the regulations pertaining to coal title, as well as guidance for researching and acquiring coal tenures in BC.*

Coal Sector Statistics

<http://www.empr.gov.bc.ca/Mining/MineralStatistics/MineralSectors/Coal/Pages/default.aspx>

*Includes historical production and value tables and graphs, markets and process, employment data, and company links.*

Main Coal website

<http://www.empr.gov.bc.ca/Mining/Geoscience/Coal/Pages/default.aspx>

*Includes links to many of the pages above.*

## CONTACTS

Government of British Columbia	
BRUCE MADU Director, Mineral Development Office	604 660-3332 <a href="mailto:bruce.madu@gov.bc.ca">bruce.madu@gov.bc.ca</a>
JANET RIDDELL Coal Geologist BC Geological Survey Branch	250 952-0372 <a href="mailto:janet.riddell@gov.bc.ca">janet.riddell@gov.bc.ca</a>
KIM STONE Manager, Coal Title Administration Senior Advisor, Mineral Resource Development Mineral Titles and Policy Branch	250 952-0542 <a href="mailto:kim.stone@gov.bc.ca">kim.stone@gov.bc.ca</a>
DAVE GRIEVE Regional Geologist Kootenay-Boundary Natural Resource Region	250 426-1758 <a href="mailto:dave.grieve@gov.bc.ca">dave.grieve@gov.bc.ca</a>
PAUL JAGO Regional Geologist Northeast Natural Resource Area	250 565-4159 <a href="mailto:paul.jago@gov.bc.ca">paul.jago@gov.bc.ca</a>
BRUCE NORTHCOTE Regional Geologist Coast Natural Resource Area	604 660-2713 <a href="mailto:bruce.northcote@gov.bc.ca">bruce.northcote@gov.bc.ca</a>
JEFF KYBA Regional Geologist Northwest Natural Resource Area	250 847-7787 <a href="mailto:jeff.kyba@gov.bc.ca">jeff.kyba@gov.bc.ca</a>
JIM BRITTON Regional Geologist Thompson/Okanagan/Cariboo Natural Resource Region	250 371-3903 <a href="mailto:jim.britton@gov.bc.ca">jim.britton@gov.bc.ca</a>

## INDUSTRY

Coal industry website addresses are listed below. Contact information is normally readily available.

Coal Association of Canada	<a href="http://www.coal.ca">www.coal.ca</a>
Teck Coal Limited	<a href="http://www.teck.com">www.teck.com</a>
Western Coal Corp	<a href="http://www.walterenergy.com">www.walterenergy.com</a>
Hillsborough Resources Ltd	<a href="http://www.hillsboroughresources.com">www.hillsboroughresources.com</a>
Peace River Coal Inc	<a href="http://www.peacerivercoal.com">www.peacerivercoal.com</a>
Canadian Kailuan Dehua Mines Co Ltd	<a href="http://www.kailuandehua.com">www.kailuandehua.com</a>
Fortune Minerals Limited	<a href="http://www.fortuneminerals.com">www.fortuneminerals.com</a>
Compliance Energy Corporation	<a href="http://www.complicanceenergy.com">www.complicanceenergy.com</a>
Crowsnest Pass Coal Mining Ltd	<a href="http://www.gmrresources.com">www.gmrresources.com</a>
Coalhunter Mining Corporation	<a href="http://www.coalhunter.com">www.coalhunter.com</a>
Colonial Coal International Corp	<a href="http://www.ccoal.ca">www.ccoal.ca</a>
First Coal Corporation	<a href="http://www.xstrata.com">www.xstrata.com</a>

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**[www.empr.gov.bc.ca/geology](http://www.empr.gov.bc.ca/geology)**