# BELCOURT WEST COAL ASSESSMENT REPORT
# PEACE RIVER DISTRICT

**LOCATED AT UTM: 6050000 N, 655000 E**

**LICENSES: 416921, 416922, 416923, 416924, 416925, 416946, 416947, 416948, 416949, 416950, 416951, 416952, 416961, 416962, 416963, 417136, 417137, 417138, 417139, 417140, 417141, 417142, 417143, 417144, 417145, 417151, 417152, 417153, 417154.**

**Belcourt Saxon Coal LP**

**800 – 700 West Pender Street**

**Vancouver, British Columbia**

**V6C 1G8**

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**September 8, 2014**

Pages 21-23 and 30-32 and Appendix 14.2 of this report remain confidential under the terms of the Coal Act Regulation, and have been removed from the public version.

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/10_251_2004#section2

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# 1 Introduction

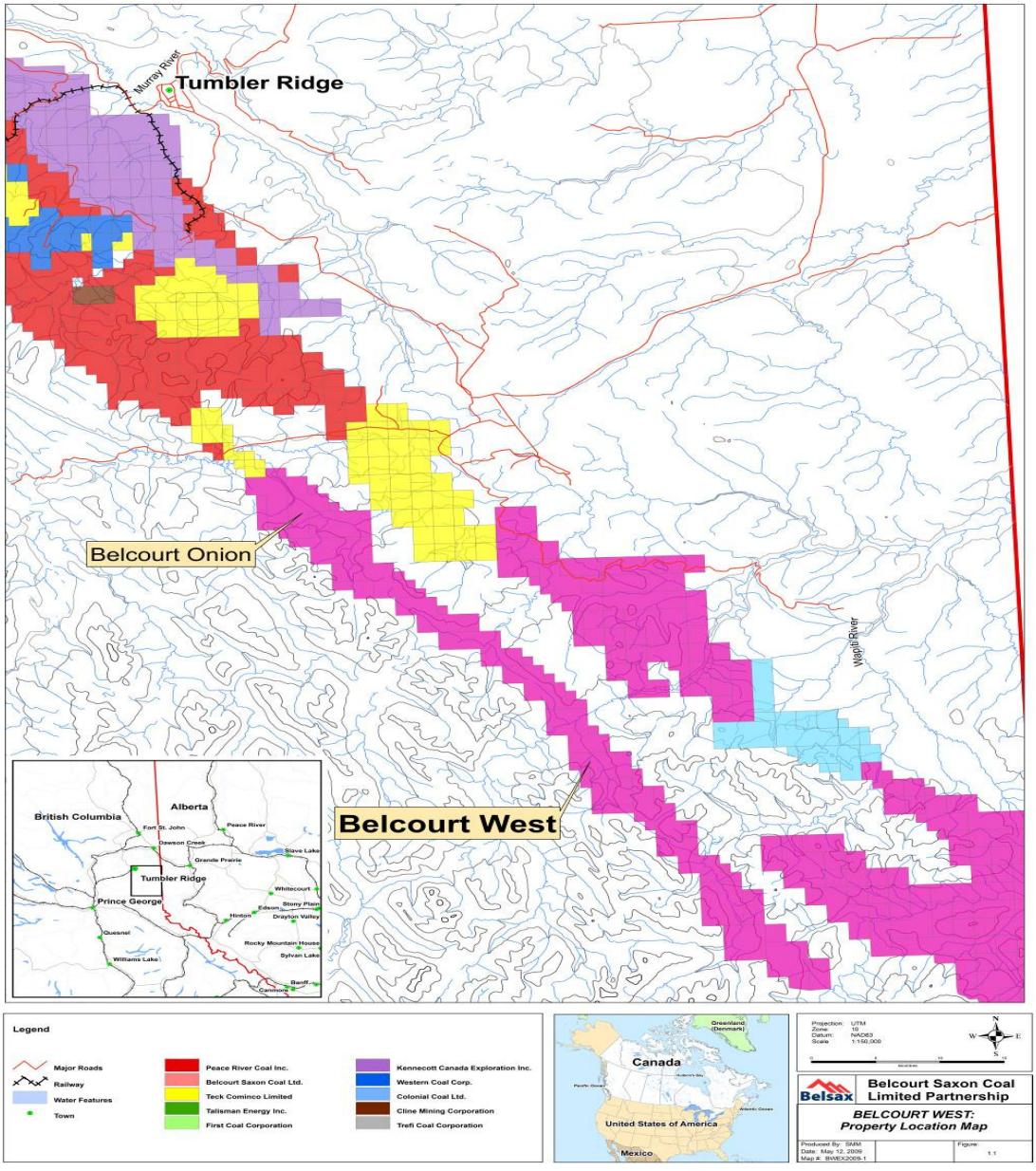
This report is based on an internal report titled “Interim Report, 2008 Belcourt West Exploration Program” authored by Bert Schalekamp, Torin Olver and Stephanie McRae. This report has been reviewed and revised to conform to the requirement of the Coal Act regarding the submission of Coal Assessment Reports.

From October 29th to November 26th, 2008 Peace River Coal Inc. completed an open-hole percussion and diamond drill (HQ) coring program on behalf of Belcourt Saxon Coal LP. The work was completed on the Belcourt West – Wapiti Dip Slope deposit, located approximately 45km south-southeast of Tumbler Ridge. (Figure 1.1)

Exploration access was established via existing dormant roads and trails. A total of 1,421 metres of drilling was completed, which included 875 metres of open-hole percussion drilling (3 boreholes) and 546 metres of diamond core drilling (HQ size, 2 boreholes). The program ended when weather conditions made access and equipment operation impractical. All of the drilling was completed under the direction and supervision of the authors.

Results of the 2008 work confirms and enhances the existing data on the location, structure and potential size of the deposit as reported by Pacific Petroleums Ltd. in 1976.

## Figure 1.1 Location Plan



# 2 Property and Location

## 2.1 Ownership

The Belcourt West property is composed of 29 coal licenses within the Peace River Coal field and is controlled by Belcourt Saxon Coal LP of which Peace River Coal Inc. and Walter Energy own 50% each.

## 2.2 Property Description

The Belcourt West Area has been subdivided into four sub properties.

- Wapiti North located on Coal Licenses: 416924, 416925, 417151, 417152, 417153, and 417154
- Wapiti South located on Coal Licenses: 416922, 416923, 417142, 417143 and 417144.
- Secus North located on Coal Licenses: 416921, 416950, 416951, 416952, 417136, 417137, 417138, 417139, 417140 and 417141.
- Secus South located on Coal Licenses: 416946, 416947, 416948, 416949, 416961, 416962, 416963 and 417145.

All of the exploration work in 2008 took place on the following licenses.

**Table 2.2.1** License Summary

| Coal License No. | PNG Description | | | | |
|---|---|---|---|---|---|
| | Anniversary | MAP Sheet | Area (Ha) | BLOCK | UNITS |
| 416922 | 06/22/2005 | 093I058 | 1501 | A | 53,54,55,65,66,67,68,75 76,77,78,87,88,89,90,97 98,99,100 |
| 416923 | 06/22/2005 | 093I057 | 1499 | H | 9, 10, 19, 20 |
| | | | | G | 1,2,11,12,21,22,23,24 25,26,31,32,33,34,35,36 |
| 416924 | 06/22/2005 | 093I067 | 1498 | G | 43,44,45,46,47,48,53,54 55,56,57,58,67,68,69,70 77,78,79,80 |

## 2.3 Location

This property is located in the Peace River Coalfield of British Columbia approximately 50km south-southeast of the town of Tumbler Ridge. Tumbler Ridge is about 400 km northeast of Prince George, British Columbia by Highways 97 and 29. Dawson Creek is 115 km to the northeast via Highways 97 and 52. The Belcourt West property is accessed via the Heritage Highway and the Wapiti Forest Service Road. The centre of the property is in UTM Zone 10, NAD 83 at coordinates 6050000 Northing, 655000 Easting. (Figure1.1)

# 3 Geology

## 3.1 Regional Setting

The Belcourt West stratigraphy is confined mainly to the Lower Cretaceous (FIGURE 3.1.1 – Regional Stratigraphic Section). Significant units, in ascending stratigraphic order are:

• **Nikanassin Formation (Minnes Group)**: Mainly argillaceous with occasional siltstones, fine sandstones and minor coal seams. This unit straddles the Jurassic-Cretaceous boundary at the top of the Minnes Group.

• **Cadomin Formation (Bullhead Group)**: Mainly coarse grained, well cemented

Conglomerates, it's thickness ranges from 15 to 45 metres. The Cadomin is highly resistant to weathering and consequently forms a persistent and visible regional stratigraphic marker. This unit sits disconformably on the Minnes Group and forms the base of the Bullhead Group.

• **Gething Formation (Bullhead Group)**: Comprises alternating units of fine to coarse grained sandstone, carbonaceous shale, coal, siltstone and conglomerate. Three to four significant coal seams occur in the upper part of this formation and form part of the Trend Project reserves. The Gething Formation coal seams have not been mined in this area. The upper contact is of the Gething Formation is a thin pebble conglomerate overlain by distinctive glauconitic, marine sandstones that form the base of the overlying Moosebar Formation. Its thickness ranges from 120 – 200 metres.

• **Moosebar Formation (Fort St. John Group)**: Homogeneous dark grey

shales and siltstones, often sideritic. This marine unit grades upward into similar, continental shales, forming the base of the overlying Gates Formation. The lower half of this unit is the most recessive-weathering rock in the area and commonly forms linear gullies and stream channels. Its thickness ranges from 120 – 215 metres.

• **Gates Formation (Fort St. John Group)**: This is the major coal-bearing unit of the study area and comprises siltstone, shale, sandstone, and conglomerate in several cycles of deposition, each culminating in a major coal seam. It is generally subdivided into the Lower, Middle and Upper units.

The Lower Gates comprises the Quintette Member, an 80 – 90 metre thick sequence of primarily massive, fine grained siltstones and sandstones. The Middle Gates, 90 – 100 metres thick, consists of a series of fining-upward sequences that culminate in the economic coal seams of the Gates Formation. The Upper Gates comprises the Babcock Member which is a sequence of massive fluvial channel, conglomeratic sandstones and averages 20 – 30 metres thick. Contained within the Upper Gates and overlying the Babcock Member is a 30 – 40 metre sequence of shales and sandy shales with several thin, discontinuous coal seams. A thin bed of ferruginous chert pebbles marks the top of the unit.

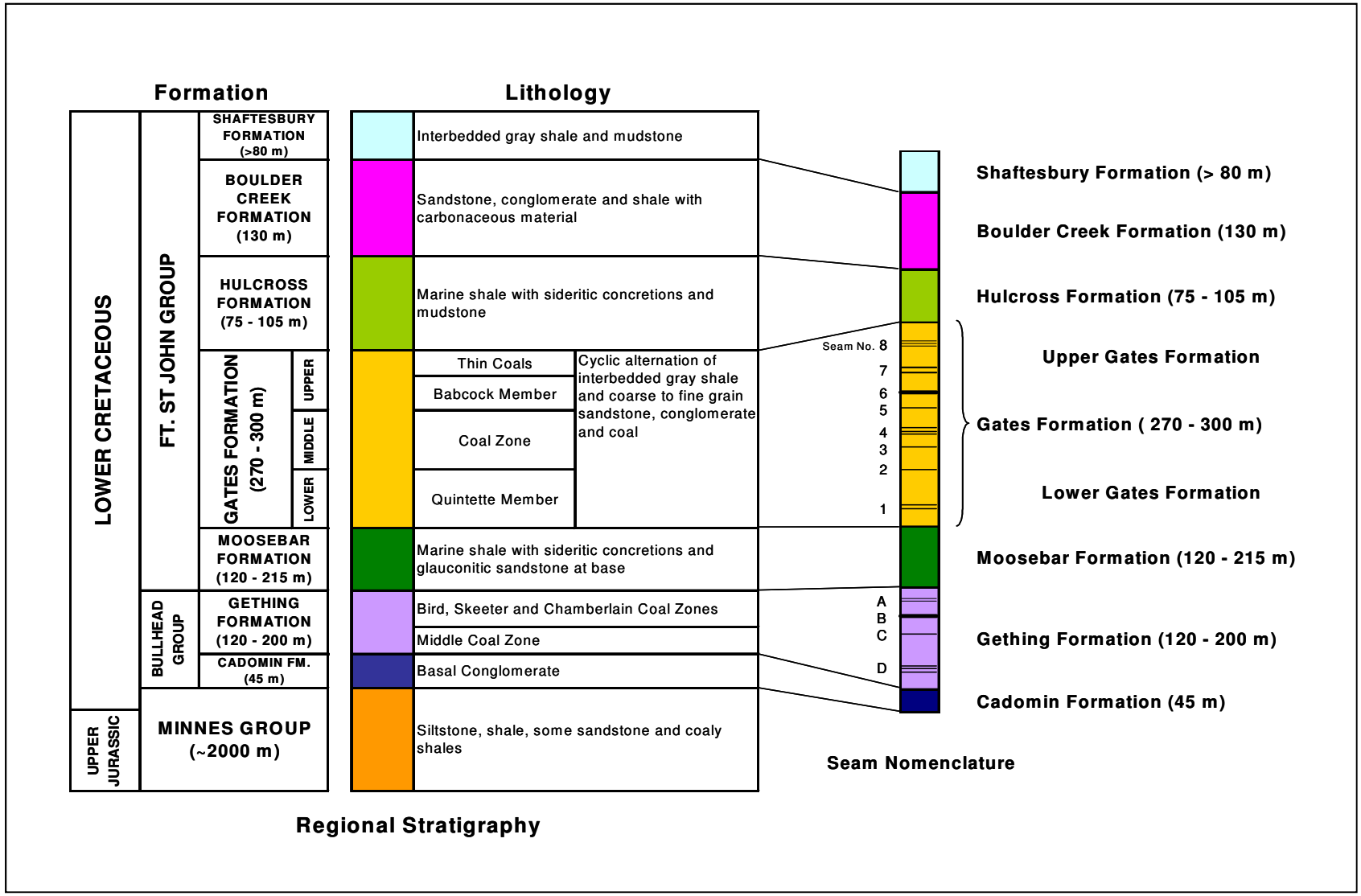
The overall thickness of the Gates Formation is 270 – 300 metres.

• **Hulcross Formation (Fort St. John Group)**: A marine unit consisting of medium-dark grey shales with thin interbeds of siltstone and very fine sandstone. Its thickness ranges from 75-105m.

• **Boulder Creek Formation (Fort St. John Group)**: An alternating sequence of shale and medium- to fine-grained greywacke, overlain by conglomeratic sandstone. Some thin, discontinuous coal seams exist. Its thickness averages ~130 metres.

• **Shaftesbury Formation (Fort St. John Group)**: The uppermost unit found in the area, consisting of dark grey-black marine shales with minor siltstone, with a thickness in excess of 80 metres.

## Figure 3.1.1 Regional Stratigraphic Section



## 3.2 Geological Overview

The Belsax properties consist of two subareas: Belcourt and Saxon. The Belcourt properties are Belcourt North, Belcourt South, Belcourt West and Onion. The Saxon properties are Omega, Saxon North, Saxon South and Saxon East. Belcourt West is bounded by the Onion syncline to the north and the Saxon Thrust fault to the south.

The foothills strata were deposited during the Jurassic and Cretaceous. At this time a shallow sea existed between the eastern stable shelf and the actively uplifting areas of central British Columbia. Clastic sediments from erosion of this highland were transported and deposited on older marine sediments. The large accumulations of plant debris deposited between deposition of the clastic sediments indicate a probable deltaic facies. Transgressions were periodic when subsidence occurred. This has resulted in stratigraphy that is composed of marine and nonmarine to near marine units being interlayered.

## 3.3 Stratigraphy and Coal Seams

Six major coal seams, are identified in Belcourt West. These are 1, 2, 3, 5, 6, and 7. 7 is the uppermost seam in the area. The 4 seam is represented by a carbonaceous shale coaly zone. The seams of interest at this time are 6.1, 5.0, 3.1, 3.2 and to a lesser degree 1.1 and 1.2. The 7 and 2 seams can be over a metre in true thickness, but have not been identified as targets. The 1 seam plys are often high in ash, and have also not been identified as targets. There is variability in seam continuity and additional work will be required to increase the confidence in the seam correlation.

## 3.4 Structure

The Peace River Coalfield structure, which is a part of the Rocky Mountain chain, is characterized by the Upper Cretaceous regional thrusting and associated folding along a northwest – southeast trend.

The Wapiti Dip Slope is a continuous feature that trends in a southeasterly direction. As previously mentioned, the Wapiti Dip Slope is interpreted to be an extensive syncline that was truncated on the western edge by a major thrust fault. The eastern limb composes the Wapiti Dip Slope. This fault places Paleozoic sediments over Cretaceous and Jurassic strata. The syncline is intact at the northern and southern extremities.

The northern end is made of the Five Cabin syncline, which is asymmetrical. The western limb of the Five Cabin Syncline dips at a high angle to the east, while the eastern limb dips shallowly to the west.

The Five Cabin Syncline plunges to the north at a shallow angle. The southern termination of the Five Cabin Syncline is masked by thick overburden made of Cretaceous strata and appears to be at the Old Kinuseo Creek Road.

The Onion Syncline occurs to the south of the Old Kinuseo Creek Road. The northern portion of the syncline is masked by thick overburden. The syncline is symmetrical with both limbs dipping around 50°. The plunge is obscured in the north, but the southern portion of the syncline shows a plunge of approximately 20° to the north. The Onion Syncline and Five Cabin Syncline fold axes show displacement along the southeastern trend, further supporting *en echelon* development.

The Saxon North property is made of a syncline that is the southern continuation of the Wapiti Dip Slope. The syncline has been displaced by the Saxon Fault, separating it from the Wapiti Dip Slope.

## Figure 3.4.2 Belcourt West – Typical Section

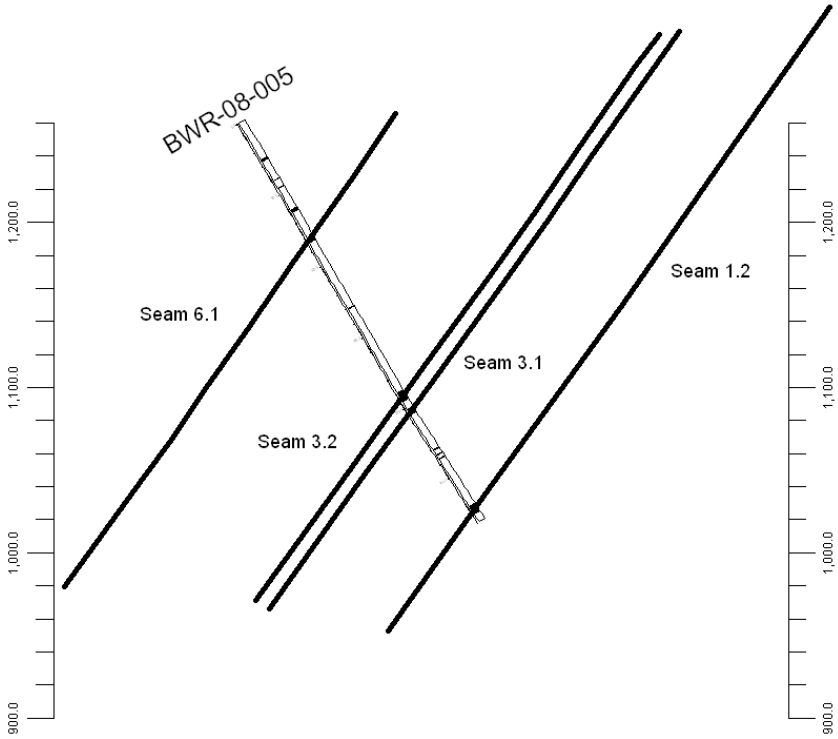
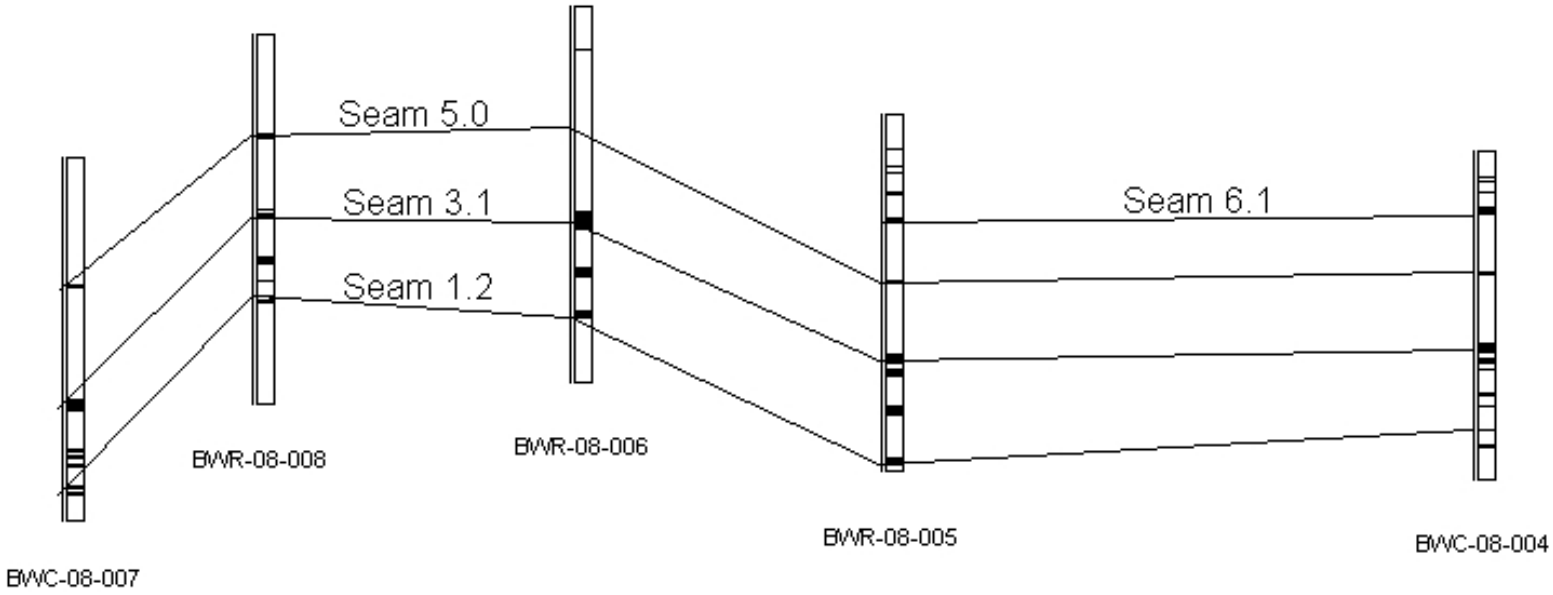


**Figure 3.4.2 Belcourt West – Longitudinal Section**
**V.E. 10:1**



# 4 Program Overview

## 4.1 Goals and Parameters

Program objectives of the 2008 exploration program were to review the historical data and gather additional information to provide a more comprehensive picture of the Belcourt West – Wapiti Dip Slope deposit. Primary targets included the 1, 3, 5 and 6 coal seams of the Gates Formation. There was no intent to explore the coal seams of the Gething Formation.

This deposit is considered Moderate under the guidelines of GSC Paper 88-21, which suggests that a spacing of 900m-2400m between data points is needed to satisfy the requirements of a structurally Inferred classification. The 2008 drill program focused on increasing the structural data point density in the Gates Formation to increase confidence in coal zone correlations across a portion of the deposit and create a basic geological model.

## 4.2 History

1968 Regional Mapping by GSC

1970 Property acquired by McIntyre Mines, Ltd.

1971 Generalized mapping of Belcourt-Duke area with limited trenching and sampling by McIntyre Mines, Ltd.

1973 Continuation of 1971 program, with more extensive mapping, trenching and sampling by McIntyre Mines, Ltd.

1975 Canadian Superior Oil, Ltd. enters a partnership with McIntyre Mines, Ltd. with a 66 2/3 % share, the project is named Monkman-Belcourt Project

1975 More extensive field mapping of area, including the Five Cabin, Onion, Wapiti, Duke, Duchess, Belcourt, Dokken, Secus, and Nekik properties; three test holes are drilled to test coking properties, however none in the Belcourt West property; the work was completed by Canadian Superior Oil, Ltd.

1975 Pacific Petroleums, Ltd. enters Monkman Coal partnership

1976 Four test holes were drilled in the Belcourt West property as a part of the more extensive drilling of the Monkman Coal project completed by Pacific Petroleums, Ltd.

1978 Pacific Petroleums, Ltd. increases partnership share to 50%

1979 Detailed mapping of Monkman area by Pacific Petroleums, Ltd.

1980 Petro-Canada Inc. becomes operator of Monkman Coal Project

1981 Petro-Canada Inc. continues Monkman Coal Project, this includes infill mapping completed at Belcourt West

1988 Property is owned by Petro-Canada Inc, Smoky River Holdings Ltd., Mobil Oil Ltd., and Sumitomo Canada Ltd. and Petro-Canada Inc. continues as operator; Petro-Canada Inc. completes a review of the mining and development potential of the North Wapiti Dip Slope using data from previous exploration

2003 NEMI acquires Belcourt and Saxon coal licenses; NEMI previously operated as Consolidated Goldbank Ventures Ltd.

2004 Beclourt Saxon Coal Limited Partnership is created with NEMI and Western Canadian Coal Corp. having equal shares

2005 Belcourt Saxon Coal Limited Partnership does extensive exploration work, however no work is done on Belcourt West

2006 NEMI, Hillsborough Resources Ltd, and Anglo Coal Canada Inc. create new company Peace River Coal Ltd; this company acquires the 50% ownership of Belcourt Saxon Coal Limited Partnership

2009 Western Canadian Coal Corp. acquires Cambrian Mining Plc and becomes Western Coal Corp.

2009 The Vitol Group acquires Hillsborough Resources Ltd, including the share of Peace River Coal Ltd and consequently a portion of the Belcourt Saxon Coal Limited Partnership.

2011 Walter Energy buys Western Coal Corp.

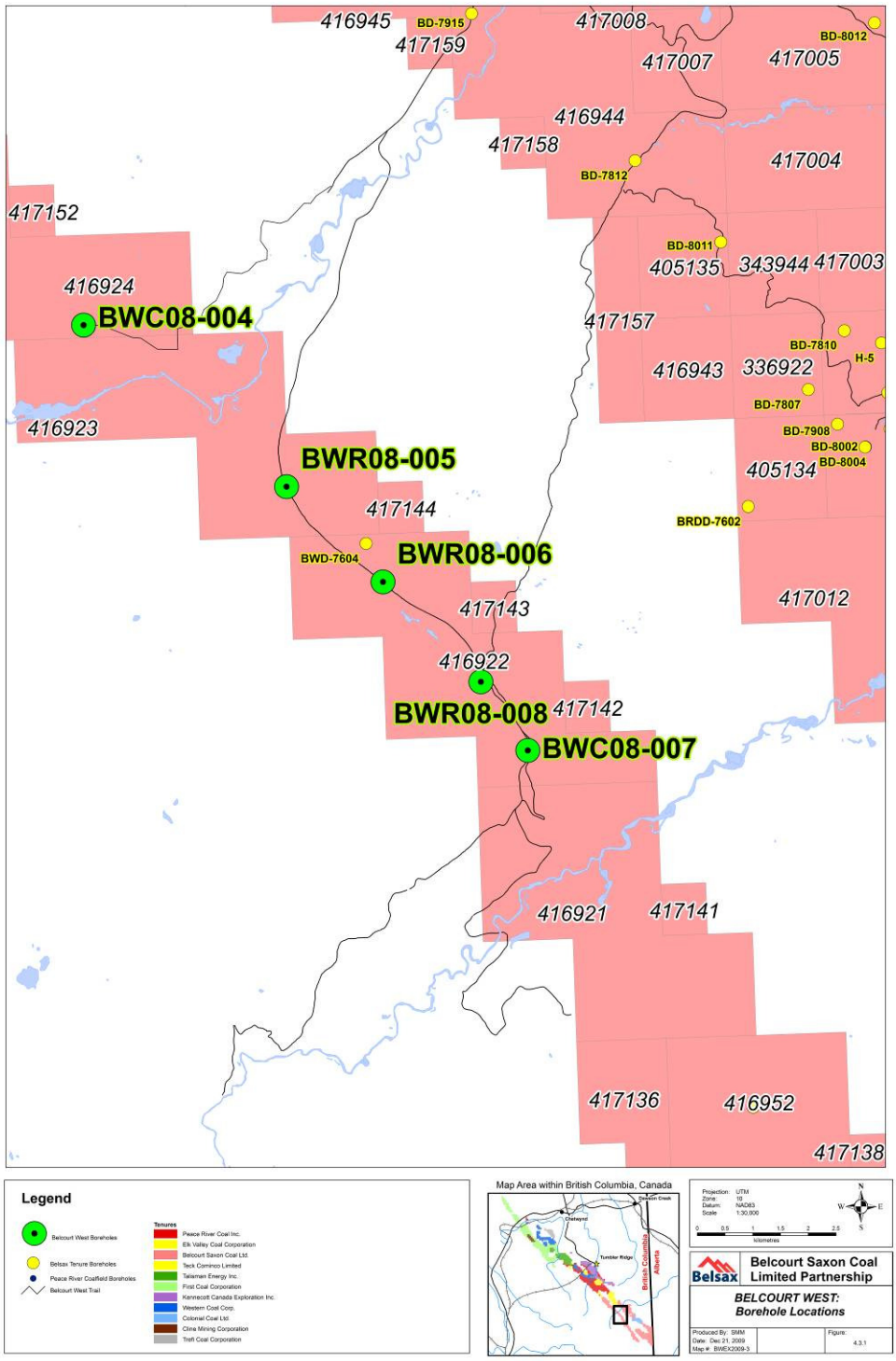
2011 Anglo American plc. acquires 100% of Peace River Coal.

## 4.3 2008 Drilling

In 2008, five boreholes were completed at the Belcourt West property. The drilling consisted of 875 metres of open-hole percussion drilling in three holes and 546 metres of diamond core drilling (HQ) in two holes (Figure 4.3.1). The work was down under the Notice of Work Permit CX-09-037.

All five holes were geophysically logged by Century Wireline Services and surveyed using a Trimble GPS Pathfinder ProXT with submeter accuracy.

## Figure 4.3.1 2008 Belcourt West Exploration Plan



## 4.4 Access

Access to the Belcourt West work area was obtained using existing highways, forest service roads and trails. Highway 97 south from Tumbler Ridge is the main highway access which leads to the Wapiti Forest Service Road, also known as the Ojay Main. The Wapiti Forest Service Road heads south from Highway 97 and is the primary access used at Belcourt West. Existing forestry trails were used to access drill locations not located directly off the Wapiti Forest Service Road.

# 5 2008 Exploration Work

## 5.1 Drilling

In 2008, a total of 1421 m of drilling was completed, which consisted of 875m in three rotary percussion holes, and 546 m in two diamond drill (HQ) holes (Fig. 4.3.1).

**Table 5.1.1 2008 Borehole Summary**

| Borehole | Azimuth | Inclination | Total Depth (m) |
|---|---|---|---|
| BWC-08-004 | 45° | -60° | 260 |
| BWR-08-005 | 45° | -65° | 282 |
| BWR-08-006 | 45° | -65° | 296 |
| BWC-08-007 | 45° | -60° | 286 |
| BWR-08-008 | 45° | -60° | 291 |

Table 5.1.2 lists seam intervals intersected in the five boreholes drilled at Belcourt West. Each borehole intersected at least four seams of thickness greater than 1m and borehole BWC08-004 intersected eight seams greater than 1m. There is some variability in seam development along strike and the primary seams of interest are 6.1, 5.0, 3.2 and 3.1. Seam 6.1 varies in intersected thickness from 3.23m to 5.14m and was intersected in boreholes BWR08-005 and BWC08-004. Seam 5 has a larger degree of variation from 0.41m to 3.29m and appears to increase in intersected thickness towards the southeast. Seam 3.2 also varies in intersected thickness from 0.38m to 7.8m but increase in intersected thickness in a northwesterly direction. The largest and most consistent seam is 3.1 with a minimum intersected thickness of 3.56m and a maximum intersection of 5.41. In total these four primary seams represent 16.98m of coal over 123.68m of length in borehole BWC08-004 which equates to a rock to coal ratio of 7.3:1. For seams greater than 1m, the total intersected seam thickness for borehole BWC08-004 is 21.04m in a section 190.23m thick for an equivalent rock to coal ratio of 9.0:1.

In comparison borehole ON81-1 located seven coal seams greater than 1m thick, with the thickest seam up to 8.5m. In total the seven seams represent 28.9m of coal in a section 127.9m thick, a 3.4:1 rock to coal ratio.

Tables 5.4.1.1 and 5.4.1.2 list the coal intercepts and quality information gathered from boreholes BWC08-004 and BWC08-007.

## Table 5.1.2 2008 Borehole Seam Interval Summary

| BWR08-005 | | BWR08-006 | | BWR08-008 | | BWC08-004 | | BWC08-007 | |
|---|---|---|---|---|---|---|---|---|---|
| Seam | Thickness (m) | Seam | Thickness (m) | Seam | Thickness (m) | Seam | Thickness (m) | Seam | Thickness (m) |
| 7.4 | 1.11 | 7.4 | - | 7.4 | - | 7.4 | - | 7.4 | - |
| 7.3 | 0.41 | 7.3 | - | 7.3 | - | 7.3 | 0.55 | 7.3 | - |
| 7.2 | 0.32 | 7.2 | - | 7.2 | - | 7.2 | 0.35 | 7.2 | - |
| 7.1 | 1.70 | 7.1 | - | 7.1 | - | 7.1 | 0.31 | 7.1 | - |
| 6.3 | - | 6.3 | - | 6.3 | - | 6.3 | - | 6.3 | - |
| 6.2 | - | 6.2 | - | 6.2 | - | 6.2 | - | 6.2 | - |
| 6.1 | 3.23 | 6.1 | - | 6.1 | - | 6.1 | - | 6.1 | - |
| 5.3 | - | 5.3 | - | 5.3 | - | 5.3 | - | 5.3 | - |
| 5.2 | - | 5.2 | - | 5.2 | - | 5.2 | - | 5.2 | - |
| 5.1 | - | 5.1 | - | 5.1 | - | 5.1 | - | 5.1 | - |
| 5.0 | 0.41 | 5.0 | 0.95 | 5.0 | 3.29 | 5.0 | 1.11 | 5.0 | 2.24 |
| 4.2 | - | 4.2 | - | 4.2 | - | 4.2 | - | 4.2 | - |
| 4.1 | - | 4.1 | - | 4.1 | - | 4.1 | - | 4.1 | - |
| 4.0 | - | 4.0 | - | 4.0 | - | 4.0 | - | 4.0 | - |
| 3.4 | - | 3.4 | - | 3.4 | - | 3.4 | - | 3.4 | - |
| 3.3 | - | 3.3 | - | 3.3 | - | 3.3 | - | 3.3 | - |
| 3.2 | 6.17 | 3.2 | 7.80 | 3.2 | 0.38 | 3.2 | 6.94 | 3.2 | 0.40 |
| 3.1 | 4.04 | 3.1 | 3.56 | 3.1 | 4.02 | 3.1 | 3.79 | 3.1 | 5.41 |
| 3.0 | - | 3.0 | - | 3.0 | - | 3.0 | 1.06 | 3.0 | - |
| 2.4 | - | 2.4 | - | 2.4 | - | 2.4 | - | 2.4 | - |
| 2.3 | - | 2.3 | - | 2.3 | - | 2.3 | - | 2.3 | - |
| 2.2 | 0.73 | 2.2 | 1.16 | 2.2 | 1.60 | 2.2 | 0.60 | 2.2 | 2.00 |
| 2.1 | 0.38 | 2.1 | 0.96 | 2.1 | 2.13 | 2.1 | 1.23 | 2.1 | 1.64 |
| 2.0 | 0.51 | 2.0 | 0.48 | 2.0 | 1.36 | 2.0 | - | 2.0 | 0.97 |
| 1.2 | 2.58 | 1.2 | 2.15 | 1.2 | 1.00 | 1.2 | 0.61 | 1.2 | 0.34 |
| 1.1 | 1.49 | 1.1 | 0.89 | 1.1 | 1.07 | 1.1 | 1.77 | 1.1 | 0.99 |

### 5.1.1 Rotary Percussion Boreholes

The rotary drilling holes were completed by G&R Drilling. In addition to these holes, one hole was started, but did not progress below casing because of a broken casing hammer. The hole was then restarted on the same pad and the original attempt was abandoned. The three completed holes all reached the Gates-Moosebar contact as the target. See Table 5.1.1 for a rotary percussion borehole summary.

### 5.1.2 HQ Diamond Drill Boreholes

The diamond drill (HQ) holes were completed by Alliance Drilling. Both holes reached the Gates-Moosebar contact target. See Table 4.1.1 for a diamond drill borehole summary.

## 5.2 Geophysical Logging

All drill holes were geophysically logged by Century Corporation of Canada. The following tools were used:

- gamma/neutron/deviation tool, either tool #9055, #9056, #9057 or #9067
- gamma/density/resistivity/caliper tool, #9239
- dipmeter/deviation tool, #9411
- Through-rod logs used a gamma-gamma tool, #9068

Century has provided digital .las and .tif files and paper copies of all geophysical logs. (see Appendix 13.1)

## 5.3 Surveying

All five holes were surveyed using a Trimble GPS Pathfinder ProXT with submeter accuracy. Survey locations were not verified with existing control points and no post processing was completed.

**Table 5.3.1 2008 Borehole Locations**

| Borehole | Easting | Northing | Elevation (m) |
|---|---|---|---|
| BWC-08-004 | 649678 | 6054830 | 1231 |
| BWR-08-005 | 653335 | 6051914 | 1259 |

# 6 Pre-2008 Exploration Work

## 6.1 Drilling

Pre-2008 five boreholes were drilled in the Belcourt West area. The five diamond drill (HQ) boreholes totaled 1244m.

**Table 6.1.1 Historical Borehole Summary**

| Borehole | Azimuth | Inclination | Total Depth (m) |
|---|---|---|---|
| BBD-7603 | 50° | -60° | 323.90 |
| BWD-7604 | 45° | -70° | 271.20 |
| BWD-7605 | 41° | -65° | 319.10 |
| ON81-01 | 49° | -57° | 236 |
| ON84-01 | 00° | -90° | 93 |

**Table 6.1.2 Historical Borehole Locations**

| Borehole | Easting | Northing | Elevation (m) |
|---|---|---|---|
| BBD—7603 | 661741 | 6040722 | 1231 |
| BWD-7604 | 654768 | 6050890 | 1259 |
| BWD-7605 | 645426 | 6058356 | 1345 |
| ON81-01 | 638777 | 6064643 | 1580 |
| ON84-01 | 656837 | 6048395 | 1322 |

Table 5.1.3 list the seams intersected in the five boreholes drilled at Belcourt West before 2008. All the boreholes intersected the Gates Fm. seams with the exception of borehole BWD-7604 which intersected the lower Gates Fm., Moosebar Fm, and upper Gething Fm.

Borehole BWD-7605 had the most seam intersections with seventeen, from seam 7.3 to 1.1 and a total coal seam thickness of 28.6m over 232.9m depth. This gives a rock to coal ratio of 8.1:1. Of the seventeen seam intersections in BWD-7605, ten were greater than 1m in thickness with a total thickness of 23.8m over a 231.3m interval for a rock to coal ratio of 9.7:1. The primary seams of interest in borehole BWD-7605; 6.1, 5.0, 3.2 and 3.1 have a total thickness of 12.5m over 89.8m depth. This gives a rock to coal ratio of 7.2:1.

Borehole ON81-01 intersected seven coal seams greater than 1m thick, with the thickest seam up to 8.5m. In total the seven seams represent 28.9m of coal in an 127.9m interval, a 3.4:1 rock to coal ratio.

Where boreholes intersected correlated seams, there was significant variance. In borehole BBD-7603 located in the southeast, seams 6.1 and 5.0 appear to thin dramatically to 0.40m each. In borehole BWD-7605, located in the northwest, seams 6.1 and 5.0 have a thickness of 3.3m and 2.9m respectively. This variability is not apparent throughout the section as seams 3.2 and 3.1 have relatively consistent thicknesses from the northwest to the southeast. Seam 3.2 ranges in intersected thickness from 2.35m to 5.7m and seam 3.1 ranges in intersected thickness from 1.5m to 3.0m.

There are several seam repetitions in borehole BWD-7605 indicating localized thrust faulting.

Quality information from the existing boreholes BBD-7603, BWD-7604, BWD-7605, ON81-01 and ON84-01 indicate clean F.S.I. results ranging from 2.0 to 9.0 with 73% of the F.S.I. values greater than 4.5. Sulphur values range from 0.25 to 0.98 with 62% of the values ranging from 0.25 to 0.54. The volatile matter results ranged from 26.4% to 32.5% are medium to high.

## Table 6.1.3 Historical Borehole Seam Interval Summary

| BBD-7603 | | BWD-7604 | | BWD-7605 | | ON81-01 | | ON84-01 | |
|---|---|---|---|---|---|---|---|---|---|
| Seam | Thickness (m) | Seam | Thickness (m) | Seam | Thickness (m) | Seam | Thickness (m) | Seam | Thickness (m) |
| 7.4 | - | 7.4 | - | 7.4 | - | 7.4 | - | 7.4 | - |
| 7.3 | 1.30 | 7.3 | - | 7.3 | 1.50 | 7.3 | - | 7.3 | - |
| 7.2 | - | 7.2 | - | 7.2 | 0.80 | 7.2 | - | 7.2 | - |
| 7.1 | - | 7.1 | - | 7.1 | 0.70 | 7.1 | - | 7.1 | - |
| 6.3 | - | 6.3 | - | 6.3 | - | 6.3 | 8.50 (6.3 & 6.2) | 6.3 | - |
| 6.2 | - | 6.2 | - | 6.2 | 0.80 | 6.2 | 8.50 (6.3 & 6.2) | 6.2 | - |
| 6.1 | 0.40 | 6.1 | - | 6.1 | 3.30 | 6.1 | 3.93 | 6.1 | - |
| 5.3 | - | 5.3 | - | 5.3 | - | 5.3 | - | 5.3 | - |
| 5.2 | - | 5.2 | - | 5.2 | - | 5.2 | - | 5.2 | - |
| 5.1 | - | 5.1 | - | 5.1 | - | 5.1 | - | 5.1 | - |
| 5.0 | 0.40 | 5.0 | - | 5.0 | 0.90 | 5.0 | 4.70 | 5.0 | - |
| 4.2 | 1.20 | 4.2 | - | 4.2 | 0.40 | 4.2 | 0.99 | 4.2 | - |
| 4.1 | - | 4.1 | - | 4.1 | 1.40 | 4.1 | - | 4.1 | - |
| 4.0 | - | 4.0 | - | 4.0 | - | 4.0 | - | 4.0 | - |
| 3.4 | - | 3.4 | - | 3.4 | - | 3.4 | - | 3.4 | - |
| 3.3 | - | 3.3 | - | 3.3 | - | 3.3 | - | 3.3 | - |
| 3.2 | 5.70 | 3.2 | - | 3.2 | 4.80 | 3.2 | 1.38 | 3.2 | - |
| 3.1 | - | 3.1 | - | 3.1 | 1.50 | 3.1 | 1.00 | 3.1 | - |
| 3.0 | - | 3.0 | - | 3.0 | - | 3.0 | - | 3.0 | - |
| 2.4 | - | 2.4 | - | 2.4 | - | 2.4 | - | 2.4 | - |
| 2.3 | - | 2.3 | - | 2.3 | - | 2.3 | - | 2.3 | - |
| 2.2 | 1.30 | 2.2 | 1.20 | 2.2 | 1.70 | 2.2 | - | 2.2 | - |
| 2.1 | 0.80 | 2.1 | 0.80 | 2.1 | 1.00 | 2.1 | - | 2.1 | - |
| 2.0 | - | 2.0 | - | 2.0 | - | 2.0 | - | 2.0 | - |
| 1.2 | 1.90 | 1.2 | 1.70 | 1.2 | 2.40/3.30 | 1.2 | 7.56 (1.2 & 1.1)/1.88 | 1.2 | - |
| 1.1 | 3.00 | 1.1 | 1.20 | 1.1 | 0.80/0.40 | 1.1 | 7.56 (1.2 & 1.1) | 1.1 | - |
| B3 | - | B3 | 1.60 | B3 | - | B3 | - | B3 | - |
| B2 | - | B2 | 2.90 | B2 | - | B2 | - | B2 | - |
| B1 | - | B1 | 1.30 | B1 | - | B1 | - | B1 | - |
| CZ | - | CZ | 0.50 | CZ | - | CZ | - | CZ | - |

## Table 6.1.4 ON81-01 Sample Summary

| Seam | Thickness (m) | Core Recovery (%) | Raw Coal Quality (ADB) | | | | | | Clean Coal Quality (ADB) | | | | | | | HGI | Max Fluidity (ddpm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Moisture (%) | Ash (%) | VM (%) | FC (%) | Sulphur (%) | F.S.I. | Moisture (%) | Ash (%) | VM (%) | FC (%) | Sulphur (%) | F.S.I. | Yield (%) | | |
| 6.3 and 6.2 | 8.50 | ~80 | 0.88 | 21.03 | - | - | - | 4.5 | 1.01[1] | 6.36[1] | 29.78[1] | 62.85[1] | 0.35[1] | 6.50[1] | 74.00[2] | - | - |
| 6.1 and 6.0 | 3.93 | ~74 | - | 40.10[1,3] | - | - | - | - | - | 9.82[1,3] | 27.64[1,3] | - | 0.25[1,3] | 5.50[1,3] | 55.00[1,3] | - | - |
| 5.0 | 4.70 | ~79 | 0.72 | 21.56 | - | - | - | 6.5 | 1.30[1] | 5.60[1] | 29.81[1] | 63.29[1] | 0.52[1] | 7.00[1] | 74.00[2] | - | - |
| 4.2 | 0.99 | ~96 | 0.72 | 9.24 | - | - | - | 8.5 | 1.09[1] | 5.66[1] | 31.11[1] | 62.14[1] | 0.98[1] | 8.50[1] | 91.00[2] | - | - |
| 3.2 | 1.38 | ~100 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3.1 | 1.00 | ~100 | 0.78 | 13.54 | - | - | - | 5.0 | 1.19[1] | 4.97[1] | 27.94 | 65.90 | 0.56 | 6.00 | 82.00[2] | - | - |
| 1.2 and 1.1 | 7.56 | ~88 | - | 15.46[1,3] | - | - | - | - | - | 6.13[1,3] | 29.59[1,3] | - | 0.40[1,3] | 7.00[1,3] | 92.00[1,3] | - | - |
| 1.2 | 1.88 | ~96 | 0.77 | 24.30 | - | - | - | - | 0.84[1] | 7.13[1] | 26.99[1] | 65.04[1] | 0.35[1] | 4.50[1] | 66.00[2] | - | - |

Notes: 1) Clean data @ 1.60 float.
2) Theoretical Yield @ 1.6.
3) Seam values are mathematically composited.

## Table 6.1.5 BBD-7603 Sample Summary

| Seam | Thickness (m) | Core Recovery (%) | Raw Coal Quality (AAB) | | | | | | Clean Coal Quality (AAB) | | | | | | | HGI | Max Fluidity (ddpm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Moisture (%) | Ash (%) | VM (%) | FC (%) | Sulphur (%) | F.S.I. | Moisture (%) | Ash (%) | VM (%) | FC (%) | Sulphur (%) | F.S.I. | Yield (%) | | |
| 7.3 | 1.30 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6.1 | 0.40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5.0 | 0.40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4.2 | 1.20 | 70.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3.2 | 5.70 | 81.00 | 1.80 | 26.70 | 26.50 | 45.00 | 0.39 | 3.0 | 1.40[2] | 7.6[2] | 32.0[2] | 59.0[2] | 0.49[2] | 9.0[2] | 59.40[2] | - | - |
| 2.2 | 1.30 | 90.00 | 1.70 | 21.10 | 27.50 | 49.70 | 0.42 | 6.5 | 1.40[3] | 4.40[3] | 31.60[3] | 62.60[3] | 0.50[3] | 8.5[3] | 73.80[3] | - | - |
| 2.1 | 0.80 | 90.00 | 1.80 | 27.80 | 25.40 | 45.20 | 0.60 | 5.0 | 1.30[3] | 6.80[3] | 32.00[3] | 59.90[3] | 0.72[3] | 9.0[3] | 60.40[3] | - | - |
| 1.2 | 1.90 | 90.00 | 1.40 | 38.80 | 21.40 | 38.40 | 0.37 | 1.00 | 1.30[2] | 8.90[2] | 28.40[2] | 61.40[2] | 0.47[2] | 3.5[2] | 33.90[2] | - | - |
| 1.1 | 3.00 | 80.00 | 1.70 | 47.00 | 19.80 | 31.50 | 0.40 | 1.0 | 1.40[2] | 6.50[2] | 31.70[2] | 60.40[2] | 0.63[2] | 9.0[2] | 33.40[2] | - | - |

Notes: 1) Data reported on an as analyzed basis.
2) Clean data @ 1.50 float.
3) Clean data @ 1.45 float.

## Table 6.1.6 BBD-7604 Sample Summary

| Seam | Thickness (m) | Core Recovery (%) | Raw Coal Quality (AAB) | | | | | | Clean Coal Quality (AAB) | | | | | | | HGI | Max Fluidity (ddpm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Moisture (%) | Ash (%) | VM (%) | FC (%) | Sulphur (%) | F.S.I. | Moisture (%) | Ash (%) | VM (%) | FC (%) | Sulphur (%) | F.S.I. | Yield (%) | | |
| 2.2 | 1.20 | 50.00 | 1.60 | 29.50 | 21.30 | 47.60 | 0.41 | 1.5 | 1.30[2] | 6.90[2] | 29.70[2] | 62.10[2] | 0.69[2] | 2.0[2] | 50.20[2] | - | - |
| 2.1 | 0.80 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1.2 | 1.70 | 57.00 | 1.60 | 26.00 | 23.20 | 49.20 | 0.37 | 1.0 | 1.20[2] | 6.20[2] | 28.30[2] | 64.30[2] | 0.58[2] | 7.5[2] | 69.40[2] | - | - |
| 1.1 | 1.20 | 57.00 | 1.80 | 50.20 | 17.80 | 30.20 | 0.39 | 1.0 | 1.20[2] | 6.30[2] | 32.10[2] | 60.40[2] | 0.46[2] | 8.0[2] | 26.60[2] | - | - |
| B3 | 1.60 | 69.00 | 1.30 | 24.40 | 23.30 | 51.00 | 1.12 | 4.0 | 1.10[3] | 6.40[3] | 30.20[3] | 62.30[3] | 0.52[3] | 5.0[3] | 69.60[3] | - | - |
| B2 | 2.90 | 61.00 | 1.50 | 36.20 | 19.90 | 42.40 | 1.28 | 1.0 | 1.00[2] | 7.20[2] | 28.10[2] | 63.70[2] | 0.57[2] | 5.5[2] | 41.00[2] | - | - |
| B1 | 1.30 | 80.00 | 1.60 | 38.10 | 18.60 | 41.70 | 0.51 | 1.0 | 1.20[2] | 9.40[2] | 26.10[2] | 63.30[2] | 0.42[2] | 4.5[2] | 24.20[2] | - | - |
| CZ | 0.50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Notes: 1) Data reported on an as analyzed basis.
2) Clean data @ 1.45 float.
4) Clean data @ 1.50 float.

## Table 6.1.7 BBD-7605 Sample Summary

| Seam | Thickness (m) | Core Recovery (%) | Raw Coal Quality (AAB) | | | | | | Clean Coal Quality (AAB) | | | | | | | HGI | Max Fluidity (ddpm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Moisture (%) | Ash (%) | VM (%) | FC (%) | Sulphur (%) | F.S.I. | Moisture (%) | Ash (%) | VM (%) | FC (%) | Sulphur (%) | F.S.I. | Yield (%) | | |
| 7.3 | 1.50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7.2 | 0.80 | 86.00 | 1.80 | 41.80 | 19.00 | 37.40 | 0.52 | 1.0 | 1.30[2] | 5.90[2] | 29.10[2] | 63.70[2] | 0.74[2] | 3.5[2] | 37.60[2] | - | - |
| 7.1 | 0.70 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6.2 | 0.80 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6.1 | 3.30 | 95.00 | 1.70 | 25.00 | 23.80 | 49.50 | 0.38 | 1.5 | 1.20[2] | 4.80[2] | 30.20[2] | 63.80[2] | 0.50[2] | 3.0[2] | 56.90[2] | - | - |
| 5.0 | 2.90 | 92.00 | 1.80 | 19.60 | 25.80 | 52.80 | 0.44 | 4.5 | 1.40[3] | 6.90[3] | 31.00[3] | 60.70[3] | 0.54[3] | 7.0[3] | 65.00[3] | - | - |
| 5.0 | 0.90 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4.2 | 0.40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4.1 | 1.40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3.2 | 4.80 | 87.00 | 1.70 | 16.30 | 26.40 | 55.60 | 0.33 | 4.0 | 1.20[3] | 7.50[3] | 29.20[3] | 62.10[3] | 0.54[3] | 5.0[3] | 75.30[3] | - | - |
| 3.1 | 1.50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2.2 | 1.70 | 53.00 | 1.70 | 10.30 | 26.10 | 61.90 | 0.39 | 2.5 | 1.40[3] | 7.00[3] | 27.40[3] | 64.20[3] | 0.61[3] | 3.5[3] | 91.50[3] | - | - |
| 2.1 | 1.00 | 83.00 | 1.50 | 18.20 | 25.40 | 54.90 | 0.43 | 6.0 | 1.30[3] | 6.20[3] | 30.40[3] | 62.10[3] | 0.63[3] | 7.0[3] | 55.30[3] | - | - |
| 1.2 | 2.40 | 100.00 | 1.40 | 18.50 | 26.30 | 53.80 | 0.42 | 5.5 | 1.10[3] | 5.80[3] | 31.60[3] | 61.50[3] | 0.39[3] | 7.0[3] | 67.90[3] | - | - |
| 1.1 | 0.80 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1.2 | 3.30 | 95.00 | 1.40 | 18.80 | 25.30 | 54.50 | 0.45 | 4.0 | 0.60[3] | 6.10[3] | 30.40[3] | 62.90[3] | 0.42[3] | 6.0[3] | 72.70[3] | - | - |
| 1.1 | 0.40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Notes: 1) Data reported on an as analyzed basis.
2) Clean data @ 1.45 float.
3) Clean data @ 1.50 float.

# 12 Signature page

I, David Phillippe Lortie, P. Geo., do hereby certify that:

1. I am currently employed as Coal Resource Manager by Peace River Coal Inc., Suite 800 - 700 West Pender Street, Vancouver, British Columbia, Canada V6C 1G8. Peace River Coal Inc. is a subsidiary of Anglo American Plc.
2. This certificate applies to the Coal Assessment Report entitled “Belcourt West Coal Assessment Report, Peace River Coal District”, dated September 8, 2014.
3. I graduated with a Bachelor of Science in Geology degree from Acadia University in 1976. I have worked as a Geologist for more than 21 years since my graduation from university. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (License #31067) I am a “qualified person” for purposes of National Instrument 43-101 (“NI 43-101”).
4. I am responsible for the preparation of this Coal Assessment Report.
5. I have previously been involved with the Northeast British Columbia coal fields since 2004 as the Chief Geologist with Western Coal Corp. (previously Western Canadian Coal Corp.) and now with Peace River Coal Inc. planning and supervising the exploration work.

Dated this 8 day of September, 2014

D.P. Lortie P. Geo.

# 13 References

Allen, E.J., 1988: Review of the Mining and Development Potential of the North Wapiti Dip Slope. Petro-Canada Inc. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-745.

Gormley, G., January 1976: 1975 Exploration and Development Report. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-607.

Gormley, G., December 1976: 1976 Geological Assessment Report. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-609.

Hughes, J.D., Klatzel-Maudry, L. and Nikols, D.J. 1989: A Standardized Coal Resource/Reserve Reporting System for Canada. Geological Survey of Canada Paper 88-21, 17p.

Johnson, A.A., 1972: Exploration Results: Quintette Coal Limited, License Numbers 1303 to 1427 and 2607 to 2644 Incl., January 31, 1972 to August 31, 1972. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-600.

Kakizaki, I. 1974: Report on the Geological Exploration of the Babcock Property, June to September, 1974. Mitsui Mining Co. Ltd. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-605.

McKelvie, D.L. 1973: Geological Report on Monkman Pass Coal Licenses. McIntyre Porcupine Mines Ltd. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-539.

Paul Dyson Consultants and Holdings Ltd. November 1975: Geology and Coal Potential of Belcourt-Monkman Area British Columbia. Canadian Superior Oil Ltd. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-540.

Petro-Canada Coal Division, 1981: Monkman Coal Project 1981. Petro-Canada Inc. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-542.

Quintette Joint Venture, 1973: Second Interim Report, Babcock Area, May 1973, Volume II. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-602.

Smith L.A., Bienia, A.E. and Wright, J.Y. 1977: Monkman Coal Project 1977. Pacific Petroleums Ltd. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-542.

Smith L.A. and Rowe R.B. 1976: Report on 1976 Exploration Program Monkman Coal Property, Volume I. Canadian Superior Oil Ltd. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-541.

Wright, J.Y. 1978: Monkman Coal Project 1978. Pacific Petroleums Ltd. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-543.

Wright, J.Y. and Panchy, E. 1982: Petro-Canada Monkman Coal Project. Petro-Canada Inc. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-464.

# 14 Appendices (Attached as folders on DVD)

## 14.1 2008 Geophysical Logs

## 14.2 2008 Coal Quality reports