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BC Geological Survey Coal Assessment Report 996

## COAL ASSESSMENT REPORT WATERFALL PROPERTY

## PEACE RIVER DISTRICT

LOCATED AT UTM: 6089800 N, 622500 E

LICENSES: 416978, 416994, 416996, 410364, 410365,417451,417524, 418612, 418613 AND 418614.

Peace River Coal Inc. - Anglo American Coal Pty Ltd 800 – 700 West Pender Street Vancouver, British Columbia V6C 1G8

Author: David Lortie P.Geo. August 21, 2015 Portions of Section 6, Attachment 7, and Appendix 4 remain confidential under the terms of the Coal Act Regulation, and have been removed from the public version.

http://www.bclaws.ca/civix/document/id/complete/statreg/25 <u>1 2004</u> This page left blank on purpose



#### COAL ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Coal Assessment Report Waterfall Property, Peace River District

TOTAL COST: *\$2,599,323* 

AUTHOR(S): David Lortie SIGNATURE(S): David

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): *CX-9-058, 1641196* STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):

YEAR OF WORK: **2013 – August 2015** PROJECT NAME: *Waterfall Property* COAL LICENSE(S) AND/OR LEASES ON WHICH PHYSICAL WORK WAS DONE: *416978, 417451* COAL LICENSE(S) IN PROJECT AREA ON WHICH NO PHYSICAL WORK WAS DONE OVER THE CURRENT REPORTING PERIOD: *416994, 416996, 417524, 410364, 410365, 417524, 418612, 418613 AND 418614.* 

BC MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: *Liard* NTS / BCGS: *093I14* LATITUDE: *54°56' 5.47"* LONGITUDE: *-120°4' 48.32"* (at centre of work) UTM Zone: *10* EASTING: *622500* NORTHING: *6089800* 

OWNER(S): Peace River Coal Inc.

MAILING ADDRESS: Suite 800 - 700 West Pender Street, Vancouver, BC V6C 1G8

OPERATOR(S) [who paid for the work]: *Peace River Coal Inc.* 

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REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**): *Coal, sandstone, siltstone, mudstone, shale, Gates Formation, folding, faulting* 

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: *Previous coal assessment report: #603 (1973), #618 (1984), #941 (2014).* 

WORK PROPOSED OVER THE NEXT YEAR (SPECIFY WHICH TENURE BLOCKS WILL SEE PHYSICAL WORK, IF KNOWN): *On going reclamation on 416978, 417451in 2015.* 



## RATIONALE FOR NEXT YEAR'S PROGRAM *See report section 7.2*

SUMMARY OF TYPES OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH TENURES
GEOLOGICAL (scale, area)		
Ground, mapping		
Photo interpretation		
GEOPHYSICAL (line-kilometres)		
Ground (Specify types)		
Airborne (Specify types)		
Borehole		
Gamma, Resistivity,		
Resistivity		
Caliper		
Deviation		
Dip Others (specify)		
Core		
Non-core		
SAMPLING AND ANALYSES		
Total # of Samples		
Proximate		
Ultimate		
Petrographic		
Vitrinite reflectance		
Coking		
Wash tests		
PROSPECTING (scale/area)		
PREPARATORY/PHYSICAL		



Line/grid (km)	
Trench (number, metres)	
Bulk sample(s)	



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- 3 Regional Geology Map
- 4 Borehole Plan
- 5 Table of Borehole Locations
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### 1 SUMMARY

The property consists of contiguous coal licenses in the Waterfall area that Peace River Coal Inc acquired in 2006 as part of the formation of the company. Until December 2006, the Trend Mine was owned and operated by NEMI Northern Energy and Mining Inc. (NEMI). In November 2, 2006 NEMI's assets were consolidated with Hillsborough Resources Ltd. and Anglo Canadian Coal Inc. assets to form a new coal mining company, Peace River Coal Limited Partnership (PRCLP). NEMI and Hillsborough Resources Ltd. remained as minority shareholders in PRCLP, and PRC managed the PRCLP assets as general partner.

In October 2011, the NEMI and Hillsborough Resources Ltd. minority interests were sold to PRC. PRC now manages the assets and is a wholly owned subsidiary of Anglo American plc. PRC operates as part of Anglo American's Coal business unit based in Brisbane Australia.

The property is located in the Peace River Regional District of Northeast British Columbia, Canada. The property is in the Inner Foothills of the Canadian Rocky Mountains near the town of Tumbler Ridge, British Columbia and about 725 km northeast of Vancouver, British Columbia. The property is readily accessible by provincial highway and an all-weather forestry service road. See Attachment 1 and Attachment 2.

The coal resources in the Waterfall area are part of the Peace River Coalfield. The coal seams are contained in the Lower Cretaceous Gates Formation and were deposited in an alluvial-deltaic environment 145 million years ago. Gates Formation coals have been mined extensively in the region, and the seams at the Waterfall area may be correlated with the seams mined nearby.

Regional tectonism from post-depositional mountain building has folded the geological structures regionally and locally. In this area, significant reverse and thrust faulting are interpreted in parts of the resource area. The local structures are of moderate geology, as defined by GSC paper 88-21,

In the Waterfall area, the D1, E2, F1, J, and K2 Seams are considered to have economic potential for development.

Denison carried out drilling exploration on Roman Mountain in 1973 and 1984. The work included a two HQ diamond core borehole drilling program in 1973 as part of a regional drill program in the Babcock and Waterfall Creek areas. In 1984, seven rotary boreholes were completed.

In the summer of 2006 Hillsborough Resources completed an open-hole rotary and diamond drill (HQ) coring program. Exploration access was established via existing dormant roads and trails. A total of 1,805 metres of drilling was completed, which included 1581 metres of open-hole percussion drilling (10 boreholes) and 224 metres of HQ diamond core drilling (4 boreholes)

During the winter of 2013 and 2014 a drill program was carried out on the Waterfall property by Peace River Coal Inc. under Notice of Work permit CX-9-058. The purpose of the program was to retest some of the area that had been drilled in 1984 and to expand the structural and quality information along the southwest portion of the area towards the area drilled in 2006. The work consisted of 13 rotary percussion boreholes and 4 PQ core boreholes.

The structural information from the 2013 – 2014 drilling was used in the creation of a resource geological model for Waterfall which was completed in December 2014.

The exploration work for all the programs focused on the area south of the Murray River and was centered on coal licences 410364, 410365, 416978 and 416996.

In 2013 a preliminary geological model was constructed using the historical data from 1973, 1984 and 2006. This model was used as the bases for the 2013 - 2014 exploration programs carried out on the Waterfall Property. Due to the large spatial distances between data points and the poor quality of the



information from 1973 and 1984 no resource estimation was made. The drill data for 1973 and 1984 were taken from the Coal Assessment reports filed by Quintette Coal Ltd.



## 2 INRODUCTION

#### 2.1 Purpose of Report

This report has been prepared as an update to the Waterfall Coal Assessment report 941. That report covered the exploration activities undertaken until April 2014 on the Waterfall property as part of the requirements for holding coal tenure under the British Columbia Coal Act. The exploration program was undertaken under Notice of Work permit CX-9-058. This report will deal with coal quality results and resource modelling which had not been finalized at the time report 941 was filed.

#### 2.2 Project Description

Peace River Coal Inc. (PRC) is a producer of high-quality metallurgical coal in Canada. In addition to holding significant coal resources in western Canada, PRC conducts mining operations at the Trend Mine in the Tumbler Ridge area of northeast British Columbia

Until December 2006, the Trend Mine was owned and operated by NEMI Northern Energy and Mining Inc. (NEMI). In November 2 2006 NEMI's assets were consolidated with Hillsborough Resources Ltd. and Anglo Canadian Coal Inc. assets to form a new coal mining company, Peace River Coal Limited Partnership (PRCLP). NEMI and Hillsborough Resources Ltd. remained as minority shareholders in PRCLP, and PRC managed the PRCLP assets as general partner.

In October 2011, the NEMI and Hillsborough Resources Ltd. minority interests were sold to PRC. PRC now manages the assets and is a wholly owned subsidiary of Anglo American plc. PRC operates as part of Anglo American's Coal business unit based in Brisbane Australia.

#### 2.3 Property Description & Location

The Waterfall coal deposit located on Peace River Coal Inc. owned licenses are: 416978, 416994, 416996, 410365, 410365, 417451, 417524, 418612, 418613 and 418614.

This property is located in the Peace River Coalfield of British Columbia approximately 25km southsouthwest 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 Waterfall property is accessed via the Heritage Highway and the Murray River Forest Service Road. The centre of the property is in UTM Zone 10, NAD 83 at coordinates 6089800 Northing, 622500 Easting. See Attachment 1

#### 2.4 Mineral Rights & Surface Title

The Waterfall property occurs on several Crown Coal Licences. Table 2.4.1 lists the licences and their present status including data concerning the coal licences. The company advises that the property has not been legally surveyed.



Tenure	Coal									
Туре	Licence									
Tenure Number	410364	410365	416978	416994	416996	417451	417524	418612	418613	418614
Site	Waterfall									
Name	Waterfall									
Holder	PRC									
Holder %	100	100	100	100	100	100	100	100	100	100
Area	298	298	818	1487	75	891	520	75	75	223
Units	Ha									
Expiry Date	2015.09.15	2015.09.15	2015.09.15	2015.09.15	2015.09.15	2015.09.15	2015.09.15	2015.09.15	2015.09.15	2015.09.15

Table 2.4.1: Summary of Mineral Rights

#### 2.5 Accessibility, Climate, Infrastructure & Physiography

The Waterfall Project area is accessed from Tumbler Ridge via the paved Heritage Highway and an all-weather gravel road named Murray River Forest Service road. See Attachment 2.

All weather data was obtained from the Trend Mine weather station between 2006 and 2009. The station is located in UTM Zone 10, NAD 83 at coordinates 6085666 Northing, 630950 Easting and 1,434 m above mean sea level.

The climate within the project area is characterized by long, cold winters, from November through March, and short, cool summers, from June through August. Summer temperatures generally range between 5°C and 15°C but maximum values of up to 30°C have been recorded. Average winter temperatures range between -10°C and -5°C with minimum temperatures as low as -30°C. Rainfall occurs during the summer months with an annual average of 306 mm. Snow pack at the Trend South Mine normally averages 200 cm per annum but may exceed 275 cm. Wind speeds vary throughout the year averaging approximately 16 km per hour. Maximum wind speeds of up to 111 km per hour have been recorded.

The centre of the Waterfall Project area is located about 100 km south of Dawson Creek, British Columbia and 175 km south of Fort St. John, British Columbia. Dawson Creek and Fort St. John have populations of approximately 11,000 and 17,400 respectively. In addition, the Waterfall Project is located approximately 175 km northeast of Prince George, British Columbia and 120 km southwest of Grande Prairie, Alberta both of which have populations greater than 40,000. Each of these cities has regularly scheduled flights to and from major western Canadian cities such as Vancouver, Edmonton and Calgary. Tumbler Ridge is a small town with a population of approximately 2,500 located 20 km to the north of the Waterfall Project.

The nearest railhead is the CN Rail Tumbler Subdivision, which terminates 12 km south of Tumbler Ridge at the Quintette rail load-out. PRC constructed a rail load-out facility in 2005 located approximately 4 km north of the Quintette rail load-out which also connects with the CN Rail Tumbler Subdivision railhead. Distance from this load-out to the Ridley Terminal Inc., in Prince Rupert, British Columbia is approximately 1,000 km. An airstrip is situated 11 km south of Tumbler Ridge along the Heritage Highway. The unmanned airstrip is primarily used for chartered flights. Primary industrial development activities in the region include oil and natural gas exploration and production, coal exploration and mining, forestry and wind energy generation.

The Waterfall Project is located in the Rocky Mountain Foothills of British Columbia. The Foothills consist of a series of ridges and valleys that parallel the Rocky Mountains to the west. The topography of the Waterfall Project area varies from gentle slopes to rugged cliffs and steep valleys. The total elevation change across the project area is approximately 700 m, from 800 m above mean



sea level at the Murray River, to 1,500 m above mean sea level at the top of the southwest ridge.

#### 2.6 Adjacent Properties

The Waterfall Project is located within an area that contains a number of both closed and currently operating metallurgical coal properties including Perry Creek, Bullmoose, Wolverine, Quintette and the Trend Mine.

#### 2.7 Historical Information

Commercial coal deposits were first discovered north of the Waterfall Project area beside the Sukunka River in 1965, and this discovery triggered a coal "staking rush" by various companies led mainly by Brameda Resources and Denison Mines Limited.

In 1970 and subsequent years Denison Mines Limited (Denison) acquired a large number of crown coal licences in the Wolverine Valley, Quintette Mountain and Roman Mountain areas.. In April 1971 Denison entered into an agreement with Mitsui Mining Co. Ltd., Alco Standard Corporation and Tokyo Boeki Ltd. to form Quintette Coal Ltd. Several changes in the partnership took place in the 1970's and 1980's leaving Denison as the major shareholder and managing partner. By 1983 Denison had accumulated a 50% stake in the partnership with Mitsui Mining Co. Ltd. holding 12.5%. The remainder of the partnership comprised twelve other companies, mainly representing interests in the Japanese steel industry.

This activity occurred in response to global expansion of steel production which stimulated worldwide exploration for coking coal. Intensive exploration from the late 1960's to the 1980's followed that culminated in the development of the Quintette and Bullmoose Coal Mines.

Infrastructure development included the construction of the town of Tumbler Ridge, 129 km of rail line, 95 km of highway, 127 km of high voltage transmission line, a new port at Ridley Island and the upgrading of the 752 km existing rail line from Prince George to the port at Prince Rupert.

The Quintette Mine made its first coal shipment in December 1983 and operated until August 2000. The mine had a raw coal production capacity in excess of 6 million tonnes per annum, making it one of Canada's largest mines. Production came from four open pits named Mesa, Wolverine, Shikano and Babcock. Clean coal production capacity was 2.3 million tonnes per annum, although shipments toward the end of the mine's life in 2000 ranged from 1.4 to 1.9 million tonnes per annum.

The Bullmoose Mine produced 34 million tonnes of high quality metallurgical coal from 1983 until its closure in April 2003. Teck, which acquired the property through the purchase of Brameda Resources, operated the mine and owns the majority of the remaining mine assets along with minority partners.

In response to decreasing economic certainty and rulings by federal authorities to reduce coal prices, Teck Corporation took control of Quintette Coal Limited from Denison in 1991 and the Quintette Operating Corporation was created. As a result of diminishing coal prices the Waterfall licenses reverted to the crown in 1999 to 2000.

Since 2004, four new open pit coal mines have opened in the region. Two of these which are the Wolverine and Trend Mines, are located in the Tumbler Ridge area and produce metallurgical coal. The others, the Pine Valley Coal Mine and the Brule Mine, are located in the Chetwynd area. The Brule Mine produces Pulverized Coal Injection (PCI) coal while Pine Valley produces both PCI and metallurgical coal.

Ownership of the Waterfall coal license was obtained by Hillsborough Resources in 2005. Control of



the Waterfall coal license was transferred to PRC when Hillsborough joined the PRC partnership in 2006.

#### 2.8 Exploration by Other Parties

Denison Mines Limited carried out exploration work on the Waterfall area in 1973 and 1984. The work included detailed surface geological and topographical mapping, structural interpretation and mechanical exploration including drilling. Activities in the field included rotary percussion and diamond core drilling.

In 2006 Hillsborough Resources completed an open-hole percussion and diamond drill (HQ) coring program.



## 3 EXPLORATION

#### 3.1 Historical Drilling

Denison carried out drilling exploration on Roman Mountain in 1973 and 1984. The work included a two HQ diamond core borehole drilling program in 1973 as part of a regional drill program in the Babcock and Waterfall Creek areas. In 1984, seven rotary boreholes were completed.

In the summer of 2006 Hillsborough Resources completed an open-hole rotary and diamond drill (HQ) coring program. Exploration access was established via existing dormant roads and trails. A total of 1,805 metres of drilling was completed, which included 1581 metres of open-hole percussion drilling (10 boreholes) and 224 metres of HQ diamond core drilling (4 boreholes)

#### 3.2 2013 – 2014 Drilling

In 2013 a drill program was carried out on the Waterfall property by Peace River coal from October to mid December. This purpose of the program was to retest some of the area that had been drilled in 1984. The work consisted of 6 rotary percussion boreholes and 2 PQ core boreholes.

In early 2014 the drill program started in 2013 was continued on the Waterfall property by Peace River Coal Inc.. The purpose of the program was to expand the structural and quality information along the southwest portion of the area towards the area drilled in 2006. The work consisted of 7 rotary percussion boreholes and 2 PQ core boreholes.

The structural information from the 2013 - 2014 drilling is being used in the creation of a resource geological model for Waterfall which will be completed by the end of August 2014. See Attachment 4 for the borehole location map for the 2013 - 2014 drill program. Attachment 5 has the list of the Borehole collar information for all the drilling undertaken on the Waterfall property and Attachment 6 has a list of the coal seams intersected by borehole on the property.

The exploration work for all the 2013 -2014 programs focused on the area south of the Murray River and was centered on coal licences 410364, 410365, 416978 and 416996. There has been no exploration work carried out by Peace River Coal on the ground north of the Murray River. This area is underlain by mainly by the Gething Formation coal sequence and will be the focus of exploration once the work on the current area is completed.

The costs for the exploration work completed since the last report was filed are recorded in Attachment 12

Waterfall Creek Drillhole Details							
Year	Total	Total Rotary Core Tre					
1973	5		5				
1984	7	7					
2006	14	10	4				
2013	9	7	2				
2014	11	6	2				
Total	46	30	13				

Table 3.2.1:	Summary	y of Waterfall Drillholes
	ounnui	



#### 3.3 Drill Sample Recovery

Sample analyses were undertaken according to prescribed standard analytical flow sheets. A prerequisite for analyses to be undertaken on any individual sample was that for raw analyses the coal core recovery had to exceed 60% and for wash ability analyses the coal core recovery had to exceed 65%. Samples were evaluated on a case by case basis to determine if the results were to be included in the quality model.

#### 3.4 Geological & Geophysical Logging

All the Hillsborough and PRC rotary and core boreholes were logged by borehole geophysical techniques employing the following Century Geophysical Corporation tools:

- gamma / neutron / deviation;
- gamma / density / resistivity / calliper;
- dipmeter / deviation;
- through the rod logs used a gamma-gamma.

Century Geophysical Corporation carried out the geophysical logging. Deliverables included compiled raw geophysical data based on industry standards; digital and paper logs, based on PRC Standard Operating Procedures. In addition to lithological measurements, strata dip and borehole deviation was also measured.

Borehole collar positions and trench locations for the Hillsborough and PRC exploration programs were initially surveyed using a GPS operated by the field geologist, with follow-up by a professionally registered land surveyor.

All coal seams were picked according to the company's Standard Operating Practice (SOP). The geophysical logs were used as the basis for measuring coal sample recoveries and detecting and recording coal seam lithology variations.

The copies of the geophysical logs from the 2013 - 2014 boreholes are contained in Appendix 1.

#### 3.5 Data Density

The borehole data density for Waterfall area at this time is not sufficient to support a resource statement for either the Canadian 43-101 requirements for structure or the JORC standard for quality. Once the 2014 Resource model is completed for the Waterfall property, an evaluation of the resource classification will be undertaken.

#### 3.6 Data Location / Topographical Data

The Waterfall area was flown for an aerial survey in 2005 using LIDAR technology with the generation of detail contours and DTM data. This data was used as the basis for the topographic surface used in the geological Resource Model.

#### 3.7 Data Orientation Relative to Geological Structure



Wherever possible, boreholes have been logged with a verticality tool to survey tilt and azimuth down the hole. The data was loaded into MineSight which displays the seam locations based on the downhole survey. Boreholes without downhole surveys were considered as vertical for the purpose of geological modelling. Percussion rotary boreholes tend to deviate more than core holes and are likely to turn into the bedding.

#### 3.8 Reporting Archives / Database

The geological data for Waterfall property is in electronic format with the exception of early historic borehole data from the 1973 and 1984. New field information is collected digitally and then transferred directly into acQuire.

PRC uses the Mincom MineSight software package for all geological modelling purposes.

An acQuire database for Peace River Coal has been set up and is now the primary geological database for all borehole and trench data. Data is transferred from acQuire into a MineSight model to facilitate interrogation and modelling.

The validation of non-core borehole data includes the following:

- inspection, encoding and loading of lithological logs,
- visual inspection and loading geophysical logs,
- correction of coal seam depths and thicknesses to geophysical picks, and
- checking of seam correlations with surrounding boreholes

The validation of cored borehole data includes the following:

- inspection, encoding and loading of lithological logs,
- visual inspection and loading geophysical logs,
- correction of coal seam depths and thicknesses to geophysical picks,
- apportioning core losses,
- checking of seam correlations with surrounding boreholes, and
- ensuring sample depths and thicknesses correspond to corrected log depths and thicknesses



## 4 COAL ANALYSIS

#### 4.1 Sampling

For the 2013 – 2014 exploration programs, the coal seams were sampled from PQ size diamond core. With respect to coal handling, description, and sampling the following industry standards and procedures applied:

- At the drill, PQ core was placed in wooden core boxes with PQ diameter sized partitions that were covered prior to being transported to the logging area for description and sampling. As per industry standards, a plastic sleeve or plastic sheets were used to wrap the coal core sections. Coal seam cores were geologically logged in detail, and core recoveries obtained by comparing the lithology logs to the detailed density / gamma geophysical logs.
- Photos of core were taken ensuring box number and / or borehole number was visible.
- Sample increments were selected on a geological basis, modified, as necessary, for core recovery. Geologists conducted all sampling. For each sample interval the entire core was submitted for analysis. A suite of selected immediate roof and floor lithologies were also sampled. In general, samples with a core recovery greater than 65% were submitted for analysis and the analytical results are imported into the acQuire database.
- Typically, samples were placed in thick plastic bags with each bag containing two sample tags that recorded borehole number, seam, and bag number. Samples were double-bagged and placed in plastic buckets for shipping. Duplicate tags were retained by the company.
- All samples were stored in a cool, dry environment prior to dispatch to the laboratory. Current practice is to ship samples in a timely manner.
- Denison's (i.e. historical) coal core logging and sampling followed prescribed guidelines to ensure a consistent approach by each geologist and to provide consistency from one project to another. Their approach to sample selection met industry standards of the time. Historical approaches to both core logging and sampling are consistent with those employed by PRC in the 2013 - 2014 exploration programs.
- Hillsborough's exploration programme in 2006 included 4 HQ core boreholes. Detailed geological logs and sampling were completed on the drill core. The geological logs are stored at the Tumbler Ridge Exploration Office. All of the samples were packaged and shipped to GWIL Industries: Birtley Coal and Minerals Testing Division. Hillsborough's approaches to both core logging and sampling are similar with those employed by PRC in the 2013 - 2014 exploration programs.

#### 4.2 Sub-Sampling and Sample Preparation

On the Waterfall property sample preparation was handled differently depending on when the samples were taken.

Historical samples obtained by Denison during 1973 were analysed by Cyclone Engineering Sales Limited in Edmonton, AB and the Department of Energy, Mines and Resources, Clover Bar Lab., AB. The sampling procedures are available for review.

PRC's, standard procedures are described below.



#### 4.3 Assay, Analysis and Laboratory

**Denison:** Denison samples were sent to a coal laboratory and the samples were analysed according to a supplied flow sheet. All core drilled was HQ in size. The core was dried then crushed to  $\frac{1}{2}$ , the Denison flow sheet is attached at the end of this section.

**Hillsborough:** Samples analysed for Hillsborough in 2006 followed similar standard procedures to PRC's, which are described in the following section.

**PRC:** Sample preparation and analyses were undertaken according to the standard analytical flow sheets included in flow sheets at the end of this section.

- Raw coal analyses were limited to samples where core recovery was >60%.
- Washability analyses were limited to samples where core recovery was >65%.
- Only samples with >65% recovery and passing validation were included in the quality model.

PQ cores were crushed after being composited.

The flow sheets were used for PQ size core is given in Attachment 7.

#### 4.4 Size Analysis

Denison created composite from the individual crushed components and screen the composites at 28 mesh and the -28 mesh was split and one split was screen at -100 mesh.

PRC used the following size fractions for screening.

• PQ: 12.7 x 0.15 mm; 0.15 x 0 mm

#### 4.5 Raw Coal & Non-Coal Analysis

Refer to attached flow sheets for a detail explanation of the pre-treatment and size analysis carried out on PRC samples (Attachment 7). In the Waterfall area borehole core is sampled by components, which are analysed for ARD, then the components are combined to form seam composites. No compositing was undertaken within the MineSight model.

The raw coal composites are analysed for Proximate Analysis, Sulphur, FSI and Relative Density, as listed in Appendix 4 which shows raw coal data for the Waterfall Project from the 2013 - 2014 drill programs.

#### 4.6 Clean Coal (Float) Product Analysis

With the PRC samples, the resulting product sample masses were proportionately combined on the basis of seam thickness, seam density and cumulative yield.

Next, washability size fractions were mathematically composited, including the flotation component, to create the Simulated Seam Product (SSP). The SSPs or Clean Coal composites were tested for proximate analysis, sulphur, FSI, rheology, petrography, ash mineral matter and carbonization properties.

The SSPs are analysed for Proximate Analysis, Sulphur, FSI and Relative Density, as listed in Appendix 4 which shows clean coal data for the Waterfall Project from the 2013 - 2014 drill programs.



#### 4.7 Verification

All boreholes drilled are geophysically logged. Seam depths are adjusted to the geophysics routinely with these adjusted depths entered into the acQuire database for modelling. Coal quality sampling occurs after the hole has been geophysically logged thus enabling an assessment of core loss to be made. This has also ensured a consistency of sampling of plies.

All results that were received from the lab were checked for accuracy and the results were compared to samples from similar coal seams in the area. Any results that were questionable were queried and returned to the lab for retesting.

Each of the Birtley and ALS laboratories used for coal testing by PRC adheres to ASTM analytical standards for coal. In addition the two laboratories regularly participate in round robin exercises that allow comparison of inter-laboratory sample analyses thus assuming accuracy of analyses results between laboratories.



## 5 GEOLOGY

#### 5.1 Geology General

The Waterfall Project is located in the south-central region of the Peace River Coalfield and lies within the Quintette Trend Fold Zone. It is composed of Mesozoic strata that form part of the Rocky Mountain Foothills of north-eastern British Columbia. The strata have been significantly affected by thrust faulting and folding that occurred during the Cordilleran orogeny. Refer to Attachment 8 for an overview of the detailed geology and Attachment 9 for general stratigraphic columns and Attachment 10 for representative cross sections.

Within the Waterfall property, three stratigraphic units are particularly valuable for regional correlation. These are the prominent Cadomin Formation conglomerate and the recessive Moosebar Formation and Hulcross Formation shales. The two main coal-bearing units, the Gates Formation and the Gething Formation, are easily distinguished based on their stratigraphic relationship to the Cadomin and Moosebar Formations.

#### 5.2 Coal Seam Geology

#### 5.2.1 Gates Formation

The Gates Formation is the most significant hard coking coal coal-bearing sequence for surface mining in northeast British Columbia. Coal seams of economic thickness are continuous from the Bullmoose Mountain area to the Alberta provincial border, a distance of almost 140 km.

The Upper Gates Formation, from the bottom of the Hulcross to the top of D1 seam, is 90 m thick. No borehole in the area has completely penetrated this zone, however, the lower part, immediately above D1 seam, is sandstone to conglomerate.

The middle Gates Formation, from the top of D1 seam to the bottom of K2 seam, contains D, E, F, I and J seams or zones. This zone is 105 to 125 m thick. The lithologies vary from coaly and carbonaceous shales to sandstones to conglomerates.

Coal seams and major lithological units correspond to those found at the Trend Mine. Eleven coal seams have been identified in the Waterfall Project area. These are named A, at the top of the sequence then B, C, D, E, F, G, I, J, and K Seams. Within these coal seams, individual coal splits are distinguished by a number (e.g., Seams E1, E2 and E3). Of the eleven seams, only the D1, E2, F1, J, and K2 Seams are considered to have economic potential for development.

The D Seam zone, which is the youngest of commercial significance in the project area, includes the D1 and the D2 Seams. Only the D1 Seam is of economic importance. The D1 Seam is persistent throughout the Waterfall Project area. The D1 Seam is from 0.6 to 3.0 m thick. The interval between D seam zone and E seam zone is 38 to 43 metres and consist of interbeds of siltstones, sandstone and conglomerate.

The E seam zone has two to three identifiable coal partings ranging from 0.30 m to 2.53 m. The thick E2 seam appears relatively persistent, however, it was not well developed in QBR84012. The interval between E seam zone and F seam zone is 22 to 28 metres and consist of shale grading to very fine grain sandstones towards the contact with F seam zone.

The F seam zone consists of three to four coal partings, ranging in thickness from 0.26 m to 2.29 m. Some of the partings are close enough to each other to be considered a single thicker seam. This, of course, will increase the ash content. F1 seam is the thickest of the partings and is identifiable across the property, it is considered of economic importance. The interval between F seam zone and G seam zone is 25 to 31 metres and consist of Channel sandstones and conglomerates with abundant carbonaceous and coaly shale near the contact with G seam zone.

The G seam zone consists of several very thin upper coal partings (0.21 to 0.75 m) and up to two seams. In the past it was identified as the upper portion of I seam. It has only been identified as a mineable thickness in three boreholes. The interval between G seam zone and J seam is 3 to 10 metres and consist of coaly shale and thin coal partings that include the I seam zone. I seam is not identified across the whole property and it consist of thin coal partings and carbonaceous shales.

J seam usually consists of one seam, ranging in thickness from 0.58 to 3.14 m. In the past it was also identified as the lower portion of I seam. The interval between J seam and K seam zone is 10 to 15 metres and consist of shale grading to very fine grain sandstones.

The K seam zone consist of two to three seams named K1, K2 and K3, in descending stratigraphic order. Each seam is separated by 1.0 m to 4.0 m of siltstone. The K3 is not economically significant.

Table 5.2.1 list the apparent thickness of the different seams. Since a majority of the boreholes were drilled at an angle into the bedding the drilled thickness is a close approximation of the true thickness. Once the resource model is completed the true thickness will be calculated.

Seam Name	True Thickness (TTHK)
D1	1.62
E2	1.88
F1	2.04
F2	0.81
F3	0.71
Ι	1.83
J	1.76
K2	1.28

#### Table 5.2.1: Drilled Thicknesses of Seams of Economic Interest

#### 5.2.2 Gething Formation

The thickness of Gething Formation is unknown in the Waterfall area. There has been little mapping and no drilling undertaken in the area, more exploration is required before the full significance of the middle and lower Gething coal zones can be determined in the Waterfall area.

#### 5.3 Structural Setting

The Waterfall deposit structure, which is a part of the Rocky Mountain chain, is primarily controlled by regional thrust faults which have brought the coal-bearing strata to the surface. Within the Waterfall property the primary structures is a syncline, anticline syncline fold. Minor faulting has been seen near the syncline axis.



The main structure is a broad syncline identified as the Murray Syncline. Near the Murray River the syncline has a major flexure on the east limb. Progressing to the southeast the flexure develops into the Waterfall Creek Anticline and Waterfall Creek Syncline. The southwest limb of the Murray Syncline has gentle dips less than 30° near the Murray River but the dips increase to near vertical towards the south. The dips on the limbs of the Waterfall Creek Anticline and Syncline range from 3° to 55°.

No faulting has been interpreted in the coal section, although small faults will occur near or along fold axes.

The development of the structure can be seen in the sections found in Attachment 10.

#### 5.4 Geophysical Data

Geophysical data on the property has been restricted to down-hole geophysics.

#### 5.5 Further Work

Additional drilling and trenching will continue to be carried out on the property. The drilling will include LDC and PQ coring to obtain additional samples to better define the quality of the area. Structural drilling using percussion air rotary drilling will continue to define the structural location of the faults defined in the resource area and better define the location of the Gething seams on the flanks of the syncline.



## 6 STRATIGRAPHICAL-STRUCTURAL MODEL

#### 6.1 Resource Modelling

In 2013 a preliminary geological model was constructed using the historical data from 1973, 1984 and 2006. This model was used as the bases for the 2013 - 2014 exploration programs carried out on the Waterfall Property. Due to the large spatial distances between data points and the poor quality of the information from 1973 and 1984 no resource estimation was made. The drill data for 1973 and 1984 were taken from the Coal Assessment reports filed by Quintette Coal Ltd.

In 2014 a revised coal resource model was completed. This model incorporated the drillhole information from the 2013 and 2014 exploration program. The resource results from this model are listed in table 6.2.1.

The construction of a detailed resource model of the Waterfall property is currently under way. Once the model is completed the geology will be classified using the following parameters.

The classification of the deposit will be assigned in multiple passes. A "structural" classification will be based on the spatial distribution of the seam intercept in the deposit. A "quality" classification will be based on the spatial distribution of the seam intercept containing raw ash information. A "combined" classification will be set based on criteria defined in Table 6.1.1:

		Quality (Moderate)				
		Measured	Indicated	Inferred		
Structure	Measured	Measured	Indicated	Inferred		
(Complex)	Indicated	Indicated	Indicated	Inferred		
(Complex)	Inferred	Inferred	Inferred	Inferred		

 Table 6.1.1: Comparison Matrix for Combined Classification

The Waterfall property will either be classified as Moderate Geology or as Complex Geology.

This delimitation was only applied to the Structural Classification of the deposit. The entire deposit will be assumed as "moderate geology" for the Quality Classification of the deposit. Note that the quality "Distance from nearest data point" was measured from raw ash.

The current practice within Peace River Coal is to use the MineSight interpolation routine which allows the users to store back the average distance to composites used to interpolate values in each blocks. With the right parameters, an interpolation pass was done to retrieve the average distance to the 3 closest composites using different distance search cut-offs along (100, 200, 400) and between (75, 150, 300) sections (rows) for measured, indicated, inferred, and speculative, respectively. For example, a 75 m between section search is equivalent to 150 m volume around a data point. Note that these are in compliance with the Geological Survey of Canada Guidelines for Complex Coal Deposit.

Table 6.1.2 gives the structural and quality parameters based classification recommended for Complex and Moderate geology in the GCS Paper 88-21:



Geology	Criteria	Resource Category			
Туре	Chiena	Measured	Indicated	Inferred	
Moderate	Distance from nearest data point (m)	0-450	450-900	900-2400	
Complex	Cross-section spacing (m)	150	300	600	
	Minimum number of data points per section	3	3	3	
	Mean data point spacing along section	100	200	400	
	Maximum data point spacing along section (m)	200	400	800	

 Table 6.1.2: Structural and Quality Parameters Based Classification Criteria for Complex and

 Moderate Geology





## 7 OTHERS

#### 7.1 Interpretation & Conclusions

The Peace River Coal Waterfall Project encompasses coal seams that demonstrate lateral stratigraphic continuity with thickness variations that are caused mainly by structural disturbance. The structural geology is affected by folding typical of the Rocky Mountains. As a result, the geology type is Moderate according to guidelines set forth in Geological Survey of Canada Paper 88-21.

The verification of the local geology was accomplished through review of current practices and procedures, inspection of a sampling of raw geological and coal analytical data.

#### 7.2 Recommendations

It is recommended that PRC continue to review coal seam data and update the geological database and model as required.

- Confirm the structural interpretation with extra exploration drilling
  - Correlation of the faulted F seam with partings included (south-western limb)
  - o Confirm thicknesses of seams on the north-eastern limb
  - Deep structure drilling to define the bottom of the syncline
  - Include faulting into the interpretation
- More quality information is required to properly evaluate the mining potential of the Waterfall area. A large diameter program is recommended to obtain proper coal quality results.
- The Gething area has not been mapped or drilled in the area of current interest. A ground mapping program and a drill program is recommended to assess the potential for minable coal within the Gething Formation.
- Carry out a domain analysis of the project area.
- Review of the 2006 quality data to determine if the data can be added to the resource model.

#### 7.3 References

- 1. Canadian Institute of Mining, Metallurgy, and Petroleum (CIM). 2005. CIM Definition of Standards For Mineral Resources and Mineral Reserves, 10 p.
- Canadian Securities Administrators. 2005. National Instrument 43-101 Standards of Disclosure for Mineral Projects, Form 43-101 and Companion Policy 43-101CP. Ontario Securities Commission Bulletin, Volume 28, Issue 51, p 10355-10367 (Rules and Policies) p 10368-10374 (Form 43-101F1 Technical Report, Table of Contents) and p 10375-10383 (Companion Policy 43-101CP to National Instrument 43-101 Standards of Disclosure for Mineral Projects).
- 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, 17 p.
- 4. Johnson, A.A., February 1974: Preliminary Report on Exploration 1973 Program. Quintette Coal Limited. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-603.



- 5. Johnson, D., April 1985: 1984 Quintette Geological Report. Quintette Coal Limited. B.C. Ministry of Energy and Mines, Coal Assessment Report 00-618.
- 6. Schalekemp, B., 2010: 2010 Waterfall Property Geology and Resources Peace River Coal Inc., Interim Report.

#### 7.4 Competent Person, Date & Signature Page

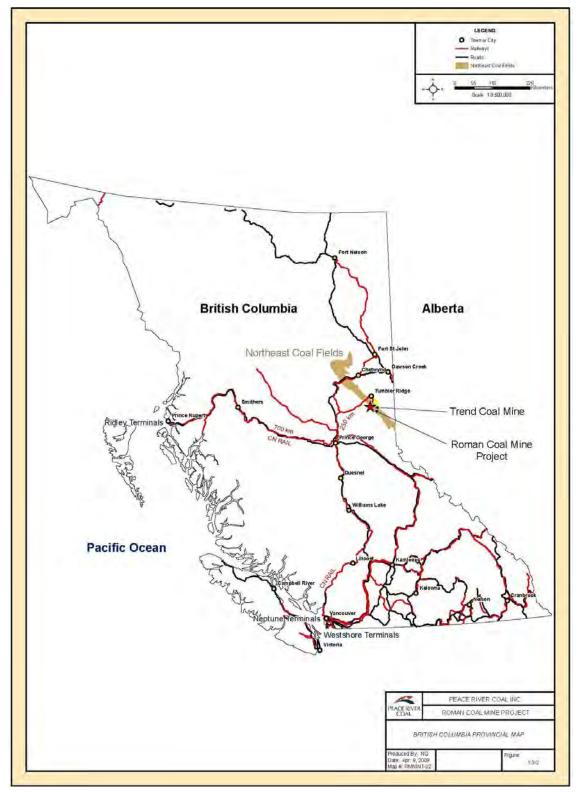
Details of the Competent Person, together with a signatory page, are given at the back of this report Attachment 11.

#### 7.5 Illustrations & Diagrams

See Attachments below and text for references.

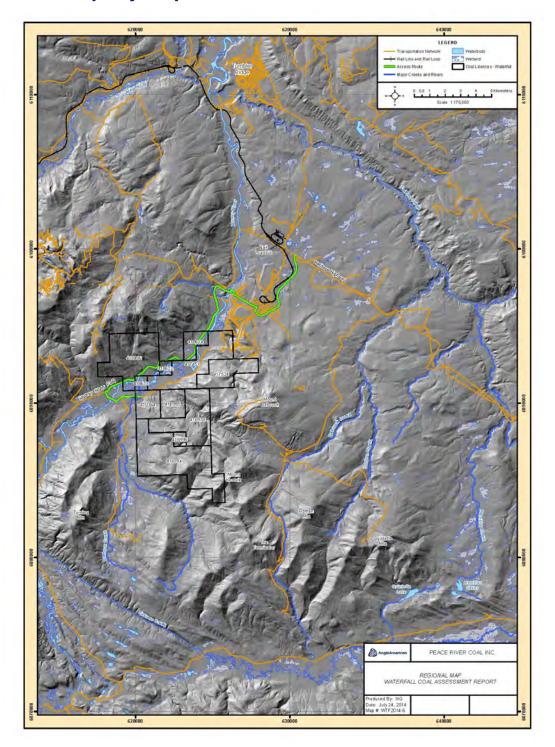


## **Location Map**



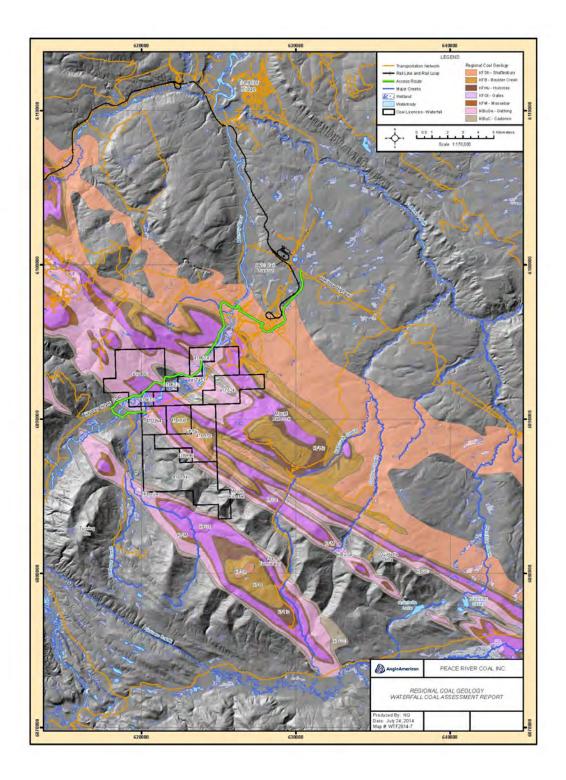


## Attachment 2 General Property Map



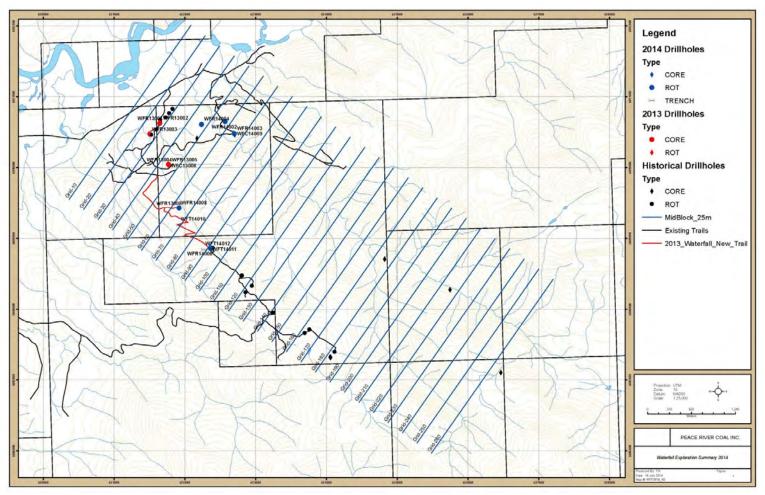


## Attachment 3 Regional Geology Plan





**Borehole Plan** 





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## **Borehole Collar Information**

2013								
<b>HOLE ID</b>	TYPE	EASTING	NORTHING	ELEVATION	DEPTH	Company		
WFC13006	PQ	621767.3	6090043.6	891.3	189.7	Peace River Coal		
WFC13007	PQ	621643.6	6090627.4	806.2	131.9	Peace River Coa		
Total	PQ				321.6			
WFR13001	Rotary	621639.5	6090630.5	806.2	179.7	Peace River Coa		
WFR13002	Rotary	621643.7	6090635.5	805.8	169.3	Peace River Coa		
WFR13003	Rotary	621490.4	6090476.5	811.6	151.3	Peace River Coa		
WFR13004	Rotary	621760.9	6090044.6	891.1	237.7	Peace River Coa		
WFR13005	Rotary	621772.4	6090048.3	891.3	204.2	Peace River Coa		
WFR13008	Rotary	621918.2	6089432.1	1010.8	228.6	Peace River Coa		
TOTAL	Rotary				1170.8			
Total	2013				1492.4			
			2014					
WFC14007	PQ	622363.3	6088861.5	1173.9	167.5	Peace River Coal		
WFC14009	PQ	622691.2	6090487.1	898.7	191.5	Peace River Coal		
Total	PQ				359.1			
WFR14001	Rotary	622568.0	6090651.3	886.4	164.6	Peace River Coa		
WFR14002	Rotary	622566.9	6090649.7	886.4	169.3	Peace River Coa		
WFR14003	Rotary	622698.5	6090481.3	899.1	210.3	Peace River Coa		
WFR14004	Rotary	622233.8	6090612.4	867.5	152.4	Peace River Coa		
WFR14005	Rotary	622370.9	6088859.4	1174.3	288.2	Peace River Coa		
WFR14006	Rotary	622364.5	6088858.1	1173.8	255.4	Peace River Coa		
WFR14008	Rotary	621917.0	6089427.7	1011.0	170.6	Peace River Coa		
TOTAL	Rotary				1410.7			
Total	2014				1769.8			
QBD7307		(2402400	HISTORIC		206.00			
QBD7307 QBD7308	HQ	624824.00	6088708.00	1189.00	396.00	Quintette Coal Lt		
QBD7308 QBD7309	HQ	622170.00	6090412.00	890.00	251.00	Quintette Coal Lt		
Total	HQ	622705.00	6090468.00	895.00	228.00	Quintette Coal Lt		
TUtal	1973				875.0			
QBR84007	Rotary	621823.68	6090826.90	813.82	50.00	Quintette Coal Lt		
QBR84008	Rotary	621729.12	6090706.71	811.28	134.00	Quintette Coal Lt		
QBR84010	Rotary	621649.53	6090675.67	802.88	18.00	Quintette Coal Lt		
QBR84011	Rotary	621776.86	6090765.90	806.27	34.50	Quintette Coal Lt		
QBR84012	Rotary	621599.12	6090540.86	815.98	134.00	Quintette Coal Lt		
QBR84013	Rotary	621523.66	6090462.03	816.31	79.50	Quintette Coal Lt		
QBR84014	Rotary	621647.58	6090636.53	806.97	158.80	Ouintette Coal Lt		
Total	1984				608.8			
FC06-305	Rotary	623246.19	6087947.50	1440.29	239.00	Hillsborough		
FC06-306	Rotary	623239.77	6087947.79	1440.09	261.00	Hillsborough		
FC06-307	Rotary	622946.28	6088326.94	1358.64	178.30	Hillsborough		
FC06-308	Rotary	622857.33	6088236.49	1390.02	202.70	Hillsborough		
FC06-309	Rotary	623690.08	6087660.66	1475.54	144.10	Hillsborough		
FC06-310	Rotary	623758.47	6087713.73	1459.93	204.00	Hillsborough		
FC06-311	Rotary	624112.85	6087396.03	1446.41	152.00	Hillsborough		
FC06-312	Rotary	622393.40	6088860.46	1174.54	150.90	Hillsborough		
FC06-313C	HQ	624053.00	6087323.00	1463.00	44.30	Hillsborough		
EC06 214C			(00=00100					



FC06-314C

FC06-315C

FC06-316

FC06-317

Total

HQ

HQ

Rotary

Rotary

1984

624054.00

622796.00

622801.00

622803.00

6087321.00

6088467.00

6088476.00

6088477.00

1463.00

1336.00

1336.00

1336.00

51.80

85.60

30.50

15.20

1759.4

Hillsborough

Hillsborough

Hillsborough

Hillsborough

## **Borehole Coal seam Intersections.**

Hole ID	Seam Name	From	То	Apparent Thickness
QBD7307	SD1	277.98	280.42	2,44
QBD7307	SD2	286.51	287.73	1.2
QBD7307	SE2	313.87	315.73	1.8
QBD7307	SF1	327.22	329.28	2.0
QBD7307	SI	374.07	378.41	4.3
QBD7307	SJ	378.81	382.65	3.8
QBD7308	SD1	40.84	41.45	0.6
QBD7308	SD2	44.04	44.5	0.4
QBD7308	SE2	83.12	85.59	2.4
QBD7308	SF1	110.7	112.97	2.2
QBD7308	SF2	113.66	114.32	0.6
QBD7308	SF3	114.77	115.82	1.0
QBD7308	SJ	142.34	145.21	2.8
QBD7308	SK2	160.45	162.34	1.8
QBD7309	SD1	56.39	57.61	1.2
QBD7309	SE1	105.58	106.85	1.2
QBD7309	SE2	107.15	108.39	1.2
QBD7309	SF1	130.23	131.87	1.6
QBD7309	SF2	132.37	132.59	0.2
QBD7309	SF3	134.42	135.64	1.2
QBD7309	SI	167.64	168.55	0.9
QBD7309	SJ	170.38	170.99	0.6
QBD7309	SK2	185.78	187.62	1.8
OBR84007	OV	0	7	
QBR84008	OV	0	0.3	0.
QBR84008	SF2	3.3	3.64	0.3
QBR84008	OV	3.64	4.1	0.4
QBR84008	SF3	4.1	4.51	0.4
QBR84008	SI1	21.96	22.43	0.4
QBR84008	SI1	23.17	23.97	0.
QBR84008	SI2	26.22	26.98	0.7
QBR84008	SJ	27.38	28.82	1.4
QBR84008	SK2	49.14	50.88	1.7
QBR84008	UN	129.16	130.17	1.0
QBR84010	OV	0	18	1
QBR84011	OV	0	34.5	34.
QBR84012	OV	0	18	1
QBR84012	SE1	37.25	37.71	0.4
QBR84012	SE3	39.26	41.05	1.7
QBR84012	SF1	72.55	73.6	1.0
QBR84012	SF2	74.38	74.88	0.
QBR84012	SF3	76.01	77.26	1.2
QBR84012	SF4	78.2	78.95	0.7
QBR84012	SI	100.3	100.77	0.4
QBR84012	SI	101.55	102.14	0.5



Hole ID	Seam Name	From	То	Apparent Thickness
QBR84012	SI	102.58	103.05	0.47
QBR84012	SI2	105.58	106.07	0.49
QBR84012	SJ	106.66	108.04	1.38
QBR84012	SK2	120.35	121.62	1.27
QBR84013	OV	0	7.5	7.5
QBR84013	SF1	26.26	27.17	0.91
QBR84013	SF2	28.13	28.86	0.73
QBR84013	SF3	29.79	30.38	0.59
QBR84013	SF4	30.8	31.35	0.55
QBR84013	UN	51.43	51.65	0.22
QBR84013	UN	52.92	53.19	0.27
QBR84013	UN	53.95	54.58	0.63
QBR84013	SI	57.02	57.84	0.82
QBR84013	SJ	58.39	59.62	1.23
QBR84013	SK2	72.68	74.09	1.41
QBR84014	OV	0	7	7
QBR84014	SE1	41.8	42.21	0.41
QBR84014	SE2	44.14	46.5	2.36
QBR84014	SF1	77.77	78.86	1.09
QBR84014	SF2	79.47	80.66	1.19
QBR84014	SF2	81.4	81.96	0.56
QBR84014	SF2	82.1	82.99	0.89
QBR84014	SF3	83.98	84.28	0.3
QBR84014	SF4	85.66	86.55	0.89
QBR84014	UN	111.46	111.9	0.44
QBR84014	UN	112.68	112.92	0.24
QBR84014	UN	113.62	114.18	0.56
QBR84014	SI	116.1	116.64	0.54
QBR84014	SJ	116.93	118.2	1.27
QBR84014	UN	134.48	135	0.52
QBR84014	SK2	142.66	144.68	2.02
FC06305	OV	0	3.04	3.04
FC06305	SD1	30.63	33.58	2.95
FC06305	SB3	97.41	99.01	1.6
FC06305	SB2	99.7	103.2	3.5
FC06305	SB1	103.2	104.55	1.35
FC06305	SA2	135.23	136.99	1.76
FC06305	SA1	137.49	139.58	2.09
FC06306	OV	0	3.04	3.04
FC06306	SE1	8.03	8.72	0.69
FC06306	SE1	9.1	9.69	0.59
FC06306	SE1	10.28	11	0.72
FC06306	SE2	12.59	14	1.41
FC06306	UN	17.39	18	0.61
FC06306	SF1	37.69	38.31	0.62



Hole ID	Seam Name	From	То	Apparent Thickness
FC06306	SF2	38.8	39.81	1.01
FC06306		40.08	40.4	0.32
FC06306	SJ	97.42	98	0.58
FC06306	SK2	127	127.1	0.1
FC06307	OV	0	3.04	3.04
FC06307	SA1	9.9	11.82	1.92
FC06307	SB1	38.31	42.29	3.98
FC06307	SD1	92.27	94.61	2.34
FC06307	SE1	122.9	123.5	0.6
FC06307	SE2	124.2	125.97	1.77
FC06307	SF1	152.84	154.71	1.87
FC06307	SF2	160.3	161.82	1.52
FC06308	ov	0	3	3
FC06308	SE2	42.68	44.68	2
FC06308	SE1	45.18	46.82	1.64
FC06308	SD1	79.6	81.84	2.24
FC06308	SC2	133.28	134.59	1.31
FC06308	SC1	135.5	137.21	1.71
FC06308	SB2	159.58	161.1	1.52
FC06309	ov	0	3	3
FC06309	SD1	59.83	62.5	2.67
FC06309	SE1	88.9	92.39	3.49
FC06309	SE2	93.82	95.52	1.7
FC06309	SF1	105.82	107.22	1.4
FC06310	ov	0	3	3
FC06310	UN	11.3	11.9	0.6
FC06310	UN	69	70.7	1.7
FC06310	UN	91	94.2	3.2
FC06310	SD1	129	131	2
FC06310	SE2	180.7	182	1.3
FC06311	ov	0	3	3
FC06311	SC1	28.59	29.02	0.43
FC06311	SC2	31.33	34.6	3.27
FC06311	SD1	77.68	80.7	3.02
FC06311	SE2	107.18	109.92	2.74
FC06311	SE3	111	112.32	1.32
FC06312	OV	0	3	3
FC06312	SB1	28.52	30.52	2
FC06312	SC1	52.78	53.93	1.15
FC06312	SC2	55.03	57.88	2.85
FC06312	SD1	102.22	104.17	1.95
FC06312	SE1	122.55	123.8	1.25
FC06312	SE1	124.5	125.12	0.62
FC06312	SE2	129.58	131.12	1.54
FC06313C	ov	0	3	3



Hole ID	Seam Name	From	То	Apparent Thickness
FC06313C	SE1	12.24	13.4	1.16
FC06313C	SE1	13.7	14.93	1.23
FC06313C	SE2	16.91	20.02	3.11
FC06313C	SF1	34.44	37.9	3.46
FC06313C2	OV	0	3.05	3.05
FC06313C2	UN	8.91	9.67	0.76
FC06313C2	UN	9.97	11.3	1.33
FC06313C2	UN	11.47	12.71	1.24
FC06313C2	UN	14	14.05	0.05
FC06313C2	SE2	14.57	17.37	2.8
FC06313C2	UN	31.1	31.71	0.61
FC06313C2	SF1	32.68	36.28	3.6
FC06314C	ov	0	3	3
FC06314C	SD2	40.34	40.63	0.29
FC06314C	SD1	42.46	47.5	5.04
FC06315C	SC2	17.28	19.5	2.22
FC06315C	SD1	80.85	82.27	1.42
FC06315C	SD2	83.61	83.9	0.29
FC06316	OV	0	3.05	3.05
FC06317	OV	0	3.05	3.05
WFC13006	OV	0	12.19	12.19
WFC13006	ov	12.19	15.24	3.05
WFC13006	ov	15.24	20.32	5.08
WFC13006	SC2	32.37	32.66	0.29
WFC13006	SC2	32.66	32.77	0.11
WFC13006	SC2	32.77	32.88	0.11
WFC13006	SC2	32.88	33.55	0.67
WFC13006	SC2	33.55	33.56	0.01
WFC13006	SC2	33.56	33.86	0.3
WFC13006	SC2	33.86	34.38	0.52
WFC13006	SC2	34.38	34.45	0.07
WFC13006	SC2	34.45	34.66	0.21
WFC13006	SC2	34.66	34.72	0.06
WFC13006	SC2	34.72	34.82	0.1
WFC13006	SC2	34.82	34.88	0.06
WFC13006	SD1	64.76	66.69	1.93
WFC13006	SD2	70.5	70.91	0.41
WFC13006	UN	94.48	94.7	0.22
WFC13006	SE1	98.78	99.17	0.39
WFC13006	SE2	100.26	101.8	1.54
WFC13006	SF1	127.78	129.56	1.78
WFC13006	SF2	130.17	130.23	0.06
WFC13006	SF2	130.23	130.6	0.37
WFC13006	SF2	130.6	130.75	0.15
WFC13006	SF2	130.75	130.92	0.17



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Hole ID	Seam Name	From	То	Apparent Thickness
WFC13006	SF3	131.23	131.28	0.05
WFC13006	SF3	131.23	131.58	0.3
WFC13006	SF3	131.58	131.91	0.33
WFC13006	SI	164.32	164.49	0.33
WFC13006	SI	164.49	164.5	0.01
WFC13006	SI	164.5	164.75	0.25
WFC13006	SJ	165.37	166.55	1.18
WFC13006	UN	177.27	177.49	0.22
WFC13006	UN	177.49	177.86	0.22
WFC13006	UN	177.86	178.01	0.15
WFC13006	UN	178.01	178.06	0.05
WFC13006	SK2	178.5	180.01	1.51
WFC13007	OV	0	19.37	19.37
WFC13007	SE1	46.13	46.21	0.08
WFC13007	SE1	46.21	46.6	0.39
WFC13007	SE2	48.58	50.5	1.92
WFC13007	UN	54.4	54.9	0.5
WFC13007	SF1	81.13	84.28	3.15
WFC13007	SF2	85.5	85.61	0.11
WFC13007	SF2	85.61	85.77	0.11
WFC13007	SF2	85.77	86.95	1.18
WFC13007	SF3	87.35	87.65	0.3
WFC13007	SF3	87.65	87.67	0.02
WFC13007	SF3	87.67	88	0.33
WFC13007	SF4	90.38	90.94	0.56
WFC13007	SF4	90.94	91.3	0.36
WFC13007	SF4	91.3	91.48	0.18
WFC13007	SG	113.7	114.51	0.81
WFC13007	512	115.57	115.73	0.01
WFC13007	SI2	115.73	115.78	0.05
WFC13007	SI3	116.25	116.74	0.49
WFC13007	SI3	116.74	116.74	0.49
WFC13007	513	118.25	118.46	0.21
WFC13007	SI3	118.46	118.56	0.1
WFC13007	513	118.56	118.6	0.04
WFC13007	SI3	118.6	118.84	0.24
WFC13007	513	118.84	118.97	0.13
WFC13007	SI3	118.97	119.44	0.13
WFC13007	SI3	119.44	119.62	0.47
WFC13007	513	119.62	110.02	0.18
WFC13007	SI3	119.02	120.18	0.30
WFC13007	513	120.18	120.33	0.58
WFC13007	SI3	120.33	121.13	0.38
WFC13007	SI3	121.15	121.56	0.23
WFC13007	SJ	121.30	121.3	1.98



Hole ID	Seam Name	From Io		Apparent Thickness
WFR13001	SE1	45.03	45.32	0.29
WFR13001	SE2	47.65	49.51	1.86
WFR13001	SF1	80.27	83.97	3.7
WFR13001	UN	84.56	84.86	0.3
WFR13001	SF2	85.32	86.32	1
WFR13001	SF3	87.37	87.94	0.57
WFR13001	SF4	89.24	90.57	1.33
WFR13001	SG	112.26	113.33	1.07
WFR13001	SI1	113.59	113.99	0.4
WFR13001	SI2	114.2	114.5	0.3
WFR13001	SI3	115.02	115.51	0.49
WFR13001	SI3	116.94	118.53	1.59
WFR13001	SJ	119.02	121.62	2.6
WFR13001	SK2	143.16	144.79	1.63
WFR13002	OV	0	9.17	9.17
WFR13002	SE1	35.16	35.36	0.2
WFR13002	SE2	37.4	39.29	1.89
WFR13002	SE3	43.26	43.71	0.45
WFR13002	SF1	69.3	71.77	2.47
WFR13002	SF2	72.6	73.4	0.8
WFR13002	SF3	74.6	75.36	0.76
WFR13002	SJ	104.27	107.41	3.14
WFR13002	SK1	125.68	125.9	0.22
WFR13002	SK2	126.27	128	1.73
WFR13003	OV	0	2.83	2.83
WFR13003	SF1	6.6	7.42	0.82
WFR13003	SF2	8.72	9.13	0.41
WFR13003	SF3	10.01	10.63	0.62
WFR13003	SF4	11.13	11.74	0.61
WFR13003	SG	29.37	30.64	1.27
WFR13003	SI2	31.69	32.04	0.35
WFR13003	SI3	32.93	33.52	0.59
WFR13003	SI3	36.38	37.45	1.07
WFR13003	SJ	37.91	39.36	1.45
WFR13003	SK1	50.68	50.97	0.29
WFR13003	SK2	51.15	52.8	1.65
WFR13003	UN	111.46	112.12	0.66
WFR13004	OV	0	0.98	0.98
WFR13004	OV	0.98	2.97	1.99
WFR13004	OV	2.97	8.91	5.94
WFR13004	OV	8.91	16.83	7.92
WFR13004	SC1	27.72	28.34	0.62
WFR13004	SC2	30.19	32.87	2.68
WFR13004	SC2	32.87	32.93	0.06
WFR13004	SD1	62.41	63.7	1.29



Hole ID	Seam Name	From	То	Apparent Thickness
WFR13004	UN	67.53	67.82	0.29
WFR13004	SE1	96.04	96.74	0.7
WFR13004	SE2	97.59	99.11	1.52
WFR13004	SF1	125.25	127.09	1.84
WFR13004	SF2	127.65	128.39	0.74
WFR13004	SF3	128.9	129.38	0.48
WFR13004	SF3	129.38	129.46	0.08
WFR13004	SI	161.76	162.26	0.5
WFR13004	SJ	162.85	164.1	1.25
WFR13004	SK1	175.04	175.21	0.17
WFR13004	SK2	175.9	177.41	1.51
WFR13004	UN	229.83	230.42	0.59
WFR13004	UN	230.42	230.48	0.06
WFR13005	ov	0	3.96	3.96
WFR13005	OV	3.96	8.9	4.94
WFR13005	OV	8.9	13.85	4.95
WFR13005	OV	13.85	14.84	0.99
WFR13005	OV	14.84	17.76	2.92
WFR13005	SC1	38.6	39.2	0.6
WFR13005	SC2	41.28	42.34	1.06
WFR13005	SC2	42.34	42.5	0.16
WFR13005	SC2	42.5	43	0.5
WFR13005	SC2	43	43.61	0.61
WFR13005	UN	74.85	75.08	0.23
WFR13005	SD1	75.38	76.63	1.25
WFR13005	UN	80.16	80.37	0.21
WFR13005	SE1	109.52	109.97	0.45
WFR13005	SE2	111.34	113.02	1.68
WFR13005	SF1	140.74	142.48	1.74
WFR13005	SF2	143.22	144.08	0.86
WFR13005	SF3	144.08	144.93	0.85
WFR13005	SI	177.87	178.35	0.48
WFR13005	SJ	178.82	180.04	1.22
WFR13005	UN	191.39	191.68	0.29
WFR13005	SK2	192.53	194.03	1.5
WFR13008	OV	0	2.4	2.4
WFR13008	SD1	38.97	41.22	2.25
WFR13008	UN	43.68	43.85	0.17
WFR13008	SD2	45.46	46.43	0.97
WFR13008	UN	69.35	69.67	0.32
WFR13008	SE1	72.42	72.95	0.53
WFR13008	UN	74.03	74.8	0.77
WFR13008	SE2	75.42	77.7	2.28
WFR13008	UN	83.76	84.03	0.27
WFR13008	SF1	104.3	106.69	2.39



Hole ID	Seam Name	From	То	Apparent Thickness
WFR13008	SF2	107.38	108.45	1.07
WFR13008	SF3	108.7	109.65	0.95
WFR13008		165.67	166.09	0.42
WFR13008	SJ	166.83	168.18	1.35
WFR13008	SK1	174.27	175.75	1.48
WFR13008	SK1 SK2	176.05	177.62	1.5
WFR13008	SK2	177.62	177.9	0.28
WFR13008	UN	178.81	178.94	0.13
WFC14007	ov	0	2.35	2.3
WFC14007	ov	2.36	3.56	1.2
WFC14007	OV	3.56	7.13	3.57
WFC14007	SB1	7.13	8.81	1.68
WFC14007	SB1	8.81	9.94	1.13
WFC14007	SB1 SB2	10.46	10.76	0.3
WFC14007	SC1	38.16	38.49	0.3
WFC14007	SC1	38.49	38.84	0.3
WFC14007	SC1	38.84	39.19	0.3
WFC14007	SC1	39.19	39.38	0.19
WFC14007	SC1	40.7	41.03	0.33
WFC14007	SC2	40.7	41.68	0.6
WFC14007	SC2	41.68	41.08	0.7
WFC14007	SC2	41.08	42.40	0.29
WFC14007	SC2	42.46	42.73	0.2
WFC14007	SC2	42.73	43.62	0.20
WFC14007	SD1	98.4	100.76	2.3
WFC14007	SD1 SD2	101.81	100.78	0.52
WFC14007	UN	124.31	102.33	0.34
WFC14007	UN	124.51	124.75	0.4
WFC14007	UN	124.75	124.82	0.34
WFC14007	UN	125.7		1.12
WFC14007	UN	120.04	127.16 127.46	0.3
WFC14007	SE1	127.16	127.48	0.34
WFC14007	SE1	127.40	127.8	0.3
WFC14007	SE1	127.8	131.85	2.20
WFC14007	UN	135.06	131.65	0.34
WFC14007		157.03	159.36	2.33
WFC14007 WFC14007	SF1	160.26	the second s	
WFC14007	SF2 SF2	160.26	160.99 161.3	0.73
WFC14007 WFC14007	SF2 SF3	162.09	161.3	0.3
WFC14007 WFC14009	OV OV			9.18
WFC14009 WFC14009		0 49.72	9.18 50.65	
analy and are recently	SD1	49.72	50.65	0.93
WFC14009	SD2	00050809300	Fight set of the set o	
WFC14009 WFC14009	SD2 SD2	51.37 51.52	51.52 51.68	0.1
			5 58	



Hole ID	Seam Name	From	То	Apparent Thickness
WFC14009	SD2	51.88	51.98	0.1
WFC14009	SD2	51.98	52.07	0.09
WFC14009	SD3	53.11	53.21	0.1
WFC14009	SD3	53.21	53.57	0.36
WFC14009	UN	62.22	62.33	0.11
WFC14009	SE2	99.58	102.46	2.88
WFC14009	SE3	104.65	104.95	0.3
WFC14009	SE3	104.95	105.01	0.06
WFC14009	SF1	123.36	125.54	2.18
WFC14009	SF2	126.11	126.2	0.09
WFC14009	SF2	126.2	126.25	0.05
WFC14009	SF2	126.25	126.31	0.06
WFC14009	SF2	126.31	126.72	0.41
WFC14009	SF2	126.72	127	0.28
WFC14009	SF2	127	127.29	0.29
WFC14009	SF2	127.29	127.48	0.19
WFC14009	SF2	127.48	127.74	0.26
WFC14009	SF2	127.74	127.94	0.2
WFC14009	SF2	127.94	128.12	0.18
WFC14009	SF3	129.73	130.11	0.38
WFC14009	SF4	131.95	132.34	0.39
WFC14009	SF4	132.34	132.5	0.16
WFC14009	SI	165.42	165.8	0.38
WFC14009	SI	165.8	165.86	0.06
WFC14009	SI	165.86	166.08	0.22
WFC14009	SJ	168.25	169.14	0.89
WFC14009	SK2	183.72	189.43	5.71
WFC14009	UN	189.1	189.43	0.33
WFR14001	OV	0	3.56	3.56
WFR14001	OV	3.56	6.23	2.67
WFR14001	SD1	6.23	6.86	0.63
WFR14001	SD2	7.38	7.97	0.59
WFR14001	SD3	8.97	9.29	0.32
WFR14001	UN	29.13	29.32	0.19
WFR14001	SE2	56.53	59.65	3.12
WFR14001	SE3	61.78	62.1	0.32
WFR14001	SF1	83.14	86.18	3.04
WFR14001	SF2	86.48	88.74	2.26
WFR14001	SF3	89.38	90.28	0.9
WFR14001	SF4	91.02	91.88	0.86
WFR14001	UN	110.78	111.15	0.37
WFR14001	UN	113.28	113.92	0.64
WFR14001	SI	120.2	120.48	0.28
WFR14001	SI	120.48	120.79	0.31
WFR14001	SI	120.79	121.6	0.81



Hole ID	Seam Name	From	То	Apparent Thickness
WFR14001	SJ	124.31	124.89	0.58
WFR14001	UN	133.22	133.42	0.2
WFR14001	SK2	140.63	142.05	1.42
WFR14001	UN	144.5	144.7	0.2
WFR14002	OV	0	2.03	2.03
WFR14002	OV	2.03	4.06	2.03
WFR14002	OV	4.06	6.1	2.04
WFR14002	UN	9.18	9.49	0.33
WFR14002	SD1	10.27	11.97	1.7
WFR14002	SD2	12.77	13.15	0.38
WFR14002	SD2	13.15	13,4	0.25
WFR14002	SD2	13.4	13.58	0.18
WFR14002	SD2	13.58	14.2	0.62
WFR14002	SD2	14.2	14.38	0.18
WFR14002	SD3	14.89	15.4	0.53
WFR14002	SE2	67.36	69.6	2.24
WFR14002	SE3	71.9	72.18	0.28
WFR14002	SF1	93.71	96.87	3.10
WFR14002	SF2	97.5	98.55	1.0
WFR14002	SF3	100.21	100.95	0.74
WFR14002	UN	118.05	118.28	0.23
WFR14002	SI	135.72	135.9	0.13
WFR14002	SI	135.9	136.32	0.42
WFR14002	SI	136.32	137.18	0.80
WFR14002	SJ	139.66	140.59	0.93
WFR14002	UN	147.38	147.61	0.23
WFR14002	SK2	154.95	156.37	1.42
WFR14003	OV	0	13.11	13.1
WFR14003	UN	47.78	48.11	0.33
WFR14003	SD1	49.12	50	0.83
WFR14003	SD2	50.5	50.8	0.3
WFR14003	SD2	50.8	51.19	0.39
WFR14003	SD2	51.19	51.51	0.33
WFR14003	SD3	52.17	52.51	0.34
WFR14003	UN	60.28	60.66	0.3
WFR14003	SE2	98.44	100.66	2.22
WFR14003	SE3	102.43	102.7	0.2
WFR14003	SF1	120.59	123.03	2.44
WFR14003	SF2	124.23	125.03	0.8
WFR14003	SF3	126.9	127.6	0.7
WFR14003	SI	157.49	157.68	0.19
WFR14003	SI	157.68	158.11	0.43
WFR14003	SI	158.11	159.03	0.92
WFR14003	SJ	160.4	161.35	0.9
WFR14003	UN	169.32	169.47	0.1



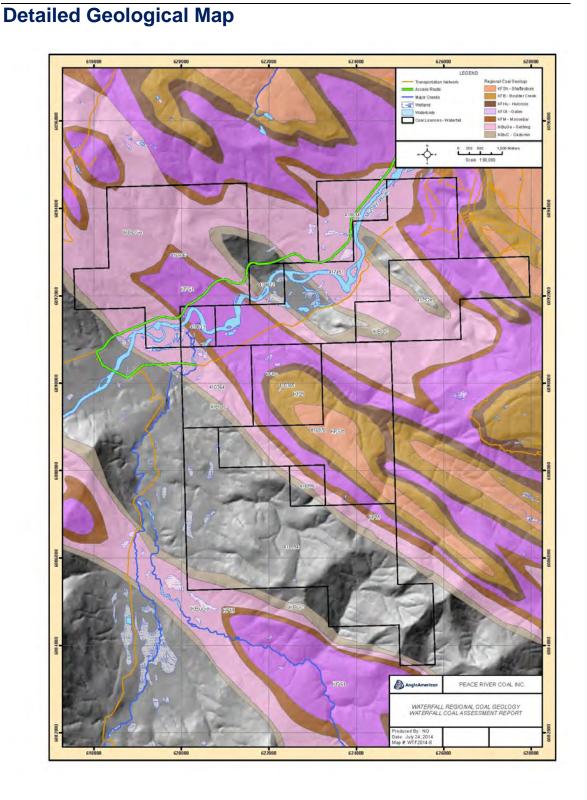
Hole ID	Seam	From	То	Apparent
WFR14003	Name SK2	174.62	176.12	Thickness 1.5
WFR14003	UN	174.02	178.53	0.38
WFR14003	OV	178.13	5.95	5.95
WFR14004	ov	5.95	8.92	2.97
WFR14004	SE1	40.65	41.08	0.43
WFR14004	SE1	40.83	41.08	1.66
WFR14004	SE2	41.27	46.45	0.38
WFR14004	SF1	66.1	68.21	2.11
WFR14004	SF1 SF2	68.69	69.53	0.84
WFR14004	SF2	69.75	70.38	0.64
WFR14004	SG	92.65	92.95	0.03
WFR14004	SI	95.42	96.25	0.83
WFR14004	SJ	96.63	97.37	0.83
WFR14004 WFR14004	SK2	113.95	114.86	0.74
WFR14004	OV	0	1.88	1.88
WFR14005	ov	1.88	3.75	1.88
WFR14005	SB1	17.84	18.52	0.68
WFR14005	SB1	17.84	18.79	0.03
WFR14005	SB1	18.79	19.72	0.27
WFR14005	SB1	19.72	20.17	0.93
WFR14005	SB1	20.17	20.17	2.48
WFR14005	SC1	63.98	64.97	0.99
WFR14005	SC1	64.97	65.39	0.33
WFR14005	SC1	65.39	66.22	0.83
WFR14005	SC1	67.98	69.8	1.82
WFR14005	SC2	69.8	70.12	0.32
WFR14005	SC2	70.12	71.02	0.9
WFR14005	SC2	71.02	71.49	0.47
WFR14005	SC2	71.49	71.83	0.34
WFR14005	UN	142.82	143.94	1.12
WFR14005	SD1	144.19	146.77	2.58
WFR14005	SD2	149.04	149.72	0.68
WFR14005	UN	186.22	186.62	0.4
WFR14005	UN	188.23	189.14	0.91
WFR14005	UN	189.14	189.5	0.36
WFR14005	SE1	190.99	193.17	2.18
WFR14005	SE2	197.13	201.82	4.69
WFR14005	UN	208.95	210.05	1.1
WFR14005	SF1	260.87	266.56	5.69
WFR14005	SF2	268.79	270.25	1.46
WFR14005	SF2	270.25	270.57	0.32
WFR14005	SF2	270.57	271.18	0.61
WFR14005	SF2	271.18	271.23	0.05
WFR14005	SF2	271.23	271.49	0.26
WFR14005	SF2	271.49	271.85	0.36



Hole ID	Seam Name	From	То	Apparent
WFR14005	SF2	371 OF	272.45	Thickness
WFR14005	SF2 SF2	271.85 272.45	272.45	0.6
WFR14005	SF2 SF3	272.43	272.69	0.24 1.67
1	OV		6.15	6.15
WFR14006 WFR14006	SB	0 6.15	9.22	3.07
WFR14006 WFR14006	SC1	35.87	9.22	0.27
WFR14006	SC1	36.14		
WFR14006 WFR14006	SC1		36.37	0.23
-	SC1	36.37 36.47	36.47 37	0.1
WFR14006	_			
WFR14006	SC2	38.47	39.51	1.04
WFR14006	SC2	39.51	40.3	0.79
WFR14006	SC2	40.3	40.82	0.52
WFR14006	SC2	40.82	41.15	0.33
WFR14006	SC2	41.15	41.37	0.22
WFR14006	SD1	95.39	97.57	2.18
WFR14006	UN	121.14	121.65	0.51
WFR14006	UN	122.83	123.2	0.37
WFR14006	UN	123.2	124.56	1.36
WFR14006	SE1	124.56	125.92	1.36
WFR14006	SE2	126.85	128.85	2
WFR14006	UN	132.09	132.31	0.22
WFR14006	SF1	153.23	155.12	1.89
WFR14006	SF2	156.1	156.77	0.67
WFR14006	SF3	157.26	157.85	0.59
WFR14006	UN	177.45	177.85	0.4
WFR14006	SJ	179.45	180.86	1.41
WFR14006	SK1	186.3	187.09	0.79
WFR14006	SK2	188.3	189.57	1.27
WFR14008	OV	0	6.1	6.1
WFR14008	SD1	28.68	30.69	2.01
WFR14008	UN	31.83	32.1	0.27
WFR14008	SD2	35.74	35.87	0.13
WFR14008	UN	56.51	56.78	0.27
WFR14008	SE1	59.01	59.73	0.72
WFR14008	SE2	60.77	62.64	1.87
WFR14008	SF1	87.27	89.03	1.76
WFR14008	SF2	90	90.72	0.72
WFR14008	SF3	91.48	92.13	0.65
WFR14008	SJ	143.56	145.4	1.84
WFR14008	SK1	150.08	150.67	0.59
WFR14008	SK2	151.28	152.48	1.2
WFR14008	UN	152.7	152.91	0.21

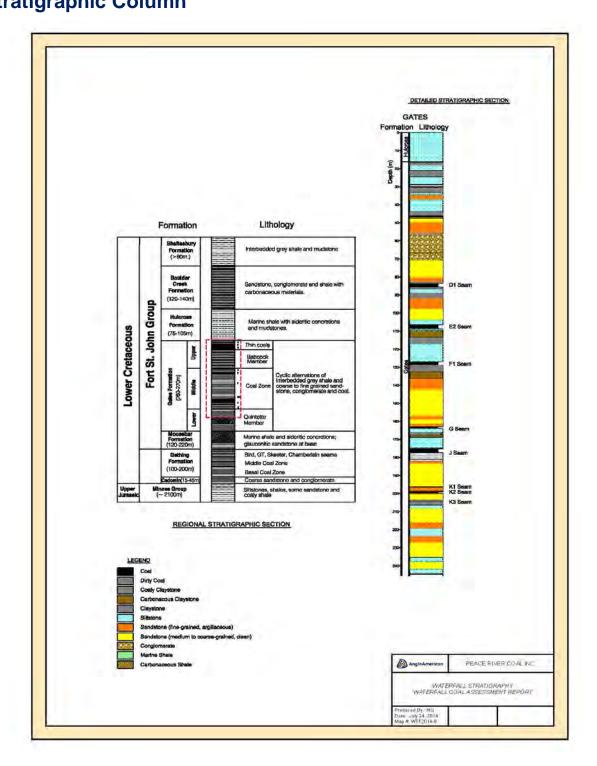


# Attachment 8





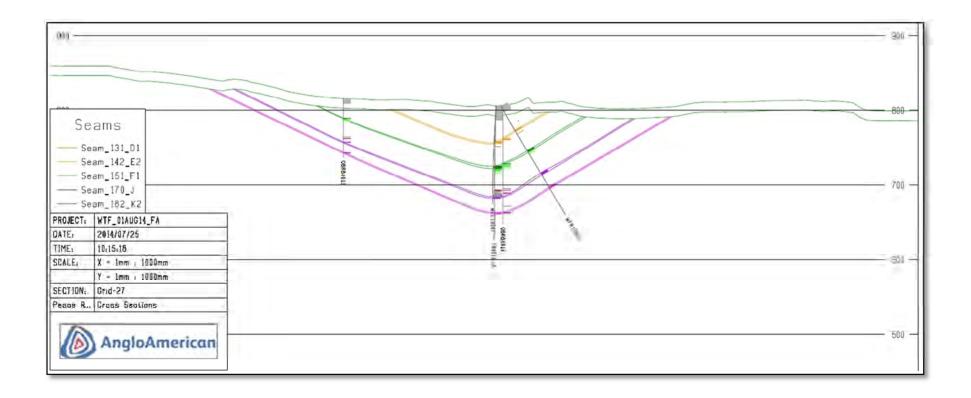
# Attachment 9 Stratigraphic Column





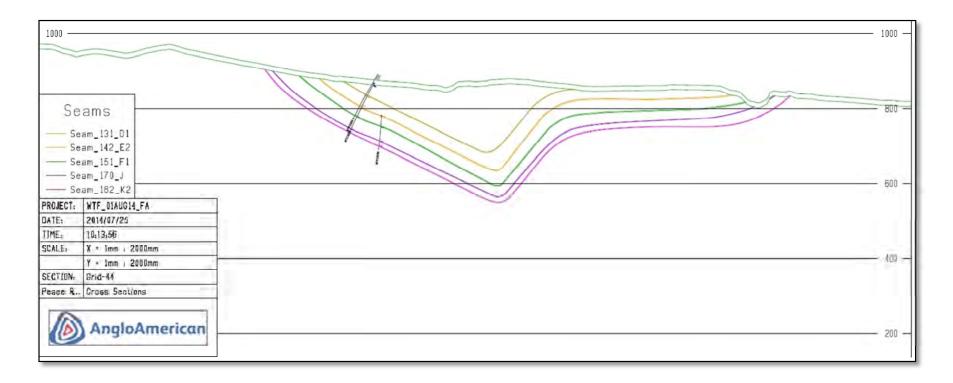
# Attachment 10

## **Representative Cross Section Grid 27**





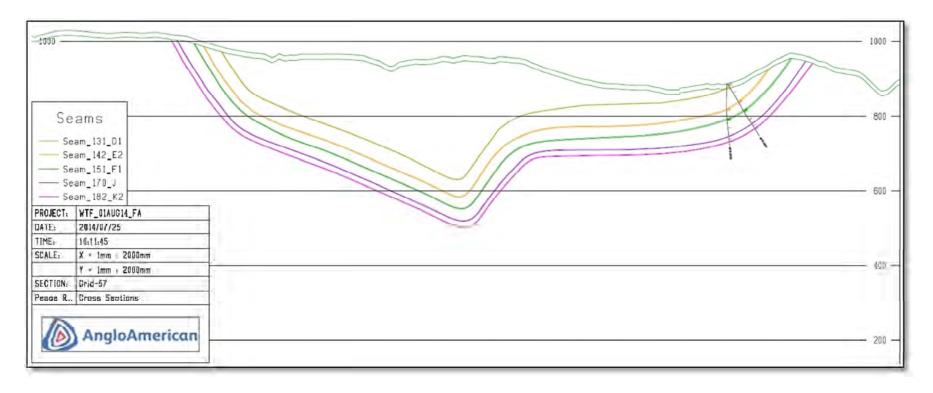
#### **Representative Cross Section Grid 44**





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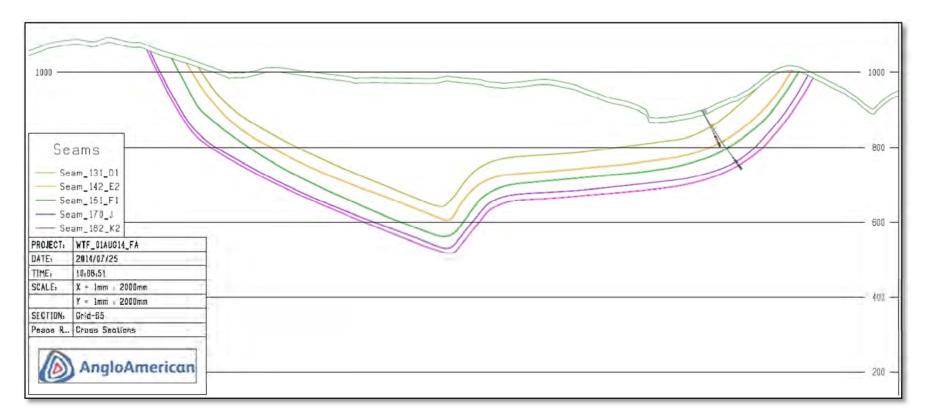
#### **Representative Cross Section Grid 57**





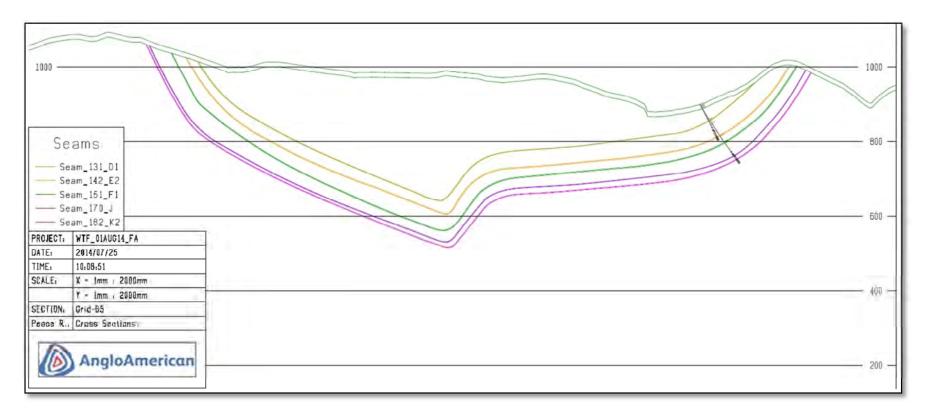
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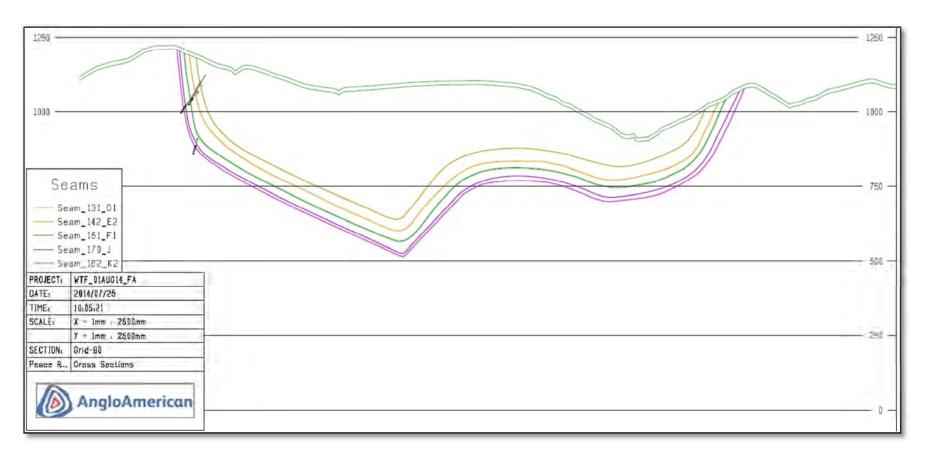








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#### **Representative Cross Section Grid 90**



# Attachment 11 Competent Person Signature page

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

- a) 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.
- b) This certificate applies to the Coal Assessment Report entitled "Coal Assessment Report Waterfall Property Peace River Coal District", dated August 21, 2015.
- c) 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").
- d) I am responsible for the preparation of this Coal Assessment Report.
- e) 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 21 day of August, 2015

David botte

D.P. Lortie P. Geo.



# Attachment 12

# 2013 – August 2015

Exploration Cost						
Type of Work		2013		2014		2015
Total for Geophysics	\$	46,925	\$	60,670	\$	-
Total for Sample Analysis	\$	171,587	\$	119,048	\$	-
Total for Site/Pit Preparation	\$	140,451	\$	331,957	\$	21,985
Total for FIRE SAFETY FIRST AID	\$	27,783	\$	49,784	\$	-
Total for Drilling (including Fuel)	\$	296,997	\$	245,196	\$	2,000
Total for Project Waterfall Exploration	\$	683,743	\$	806,655	\$	23,985
Coal Licences	\$	40,520	\$	40,520	\$	40,520
Staffing	\$	480,411	\$	396,486	\$	86,483
Total Waterfall Exploration cost	\$	1,204,674	\$	1,243,661	\$	150,988

- 2014 Exploration cost revised from August 26, 2014 Coal Assessment Report following yearend audit.
- 2015 cost do not include reclamation work carried out in September 2015.



# Appendix 1 2013 – 2014 Geophysical Logs (Attached as separate folder on DVD)

Name	Date modified	Туре
3 WFC13006	29/07/2014 2:16 PM	File folder
WFC13007	29/07/2014 2:16 PM	File folder
WFC14007	29/07/2014 2:21 PM	File folder
WFC14009	29/07/2014 2:34 PM	File folder
WFR13001	29/07/2014 2:17 PM	File folder
WFR13002	29/07/2014 2:17 PM	File folder
WFR13003	29/07/2014 2:18 PM	File folder
WFR13004	29/07/2014 2:18 PM	File folder
WFR13005	29/07/2014 2:19 PM	File folder
WFR13008	29/07/2014 2:19 PM	File folder
WFR14001	29/07/2014 2:30 PM	File folder
WFR14002	29/07/2014 2:31 PM	File folder
3 WFR14003	29/07/2014 2:31 PM	File folder
WFR14004	29/07/2014 2:46 PM	File folder
WFR14005	29/07/2014 3:06 PM	File folder
WFR14006	29/07/2014 3:32 PM	File folder
WFR14008	29/07/2014 3:44 PM	File folder



# Appendix 2 2013 – 2014 Lithological Logs (Attached as separate folder on DVD)

Name	Date modified	
🔁 2013_2014 Lithological Logs Waterfall Property.pdf	29/07/2014 4:33 PM	
The Explaination of Lithology LOOKUP Codes.pdf	29/07/2014 4:31 PM	



## Appendix 3 Maps and Sections from Attachments 2 – 4, 10, 12 (Attached as separate folder on DVD)

Name	Date modified	Туре	Size
B WTF2014-2_CAR_RegionalMap_85x11.pdf	25/07/2014 10:04 AM	Adobe Acrobat Document	2,093 KE
WTF2014-3_CAR_Geology_85x11.pdf	25/07/2014 10:03 AM	Adobe Acrobat Document	2,254 KE
WTF2014-4_CAR_WTFBoreholeMap.pdf	16/07/2014 12:32 PM	Adobe Acrobat Document	992 KE
WTF2014-10_CAR_WTFGeology_85x11.pdf	25/07/2014 10:02 AM	Adobe Acrobat Document	1,356 KE
WTF2014-12_Section_27.pdf	25/07/2014 10:15 AM	Adobe Acrobat Document	484 KE
WTF2014-12_Section_44.pdf	25/07/2014 10:14 AM	Adobe Acrobat Document	494 KE
WTF2014-12_Section_57.pdf	25/07/2014 10:11 AM	Adobe Acrobat Document	492 KE
WTF2014-12_Section_63.pdf	25/07/2014 10:09 AM	Adobe Acrobat Document	495 KE
WTF2014-12_Section_90.pdf	25/07/2014 10:05 AM	Adobe Acrobat Document	498 KE

