

**COAL ASSESSMENT REPORT TREND MINE****PEACE RIVER DISTRICT**

**LOCATED AT UTM: 6,083,500 N, 630,000 E**

**COAL LEASES: 417059, 417609,**

**COAL LICENSES: 416846, 417467, 417468, 417469, 417470, 417471, 417472**

**Peace River Coal Inc. - Anglo American Coal Pty Ltd**

**800 – 700 West Pender Street**

**Vancouver, British Columbia**

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**September 12, 2014**

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## COAL ASSESSMENT REPORT TITLE PAGE AND SUMMARY

**TITLE OF REPORT:** *Coal Assessment Report Trend Mine Peace River District*

**TOTAL COST:** \$879,576

**AUTHOR(S):** *David Lortie*

**SIGNATURE(S):** *David Lortie*

**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):** *Trend Roman Mine permit C-224*

**YEAR OF WORK:** *2012*

**PROPERTY NAME:** *Trend Mine*

**COAL LICENSE(S) AND/OR LEASES ON WHICH PHYSICAL WORK WAS DONE:** *417059, 417609.*

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

**MINING DIVISION:** *Liard*

**NTS / BCGS:** *093I 15*

**LATITUDE:**

**LONGITUDE:** (at centre of work)

**UTM Zone:** *10*      **EASTING:** *630,000*      **NORTHING:** *6,083,000*

**OWNER(S):** *Peace River Coal Inc.*

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**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:**

- 1. Denison Mines Limited. 1976. Quintette Coal: Limited 1975 Exploration and Development Report, January 1976. Report 607***

2. **Denison Mines Limited. 1976. Quintette Coal Limited: Information Summary, August 1976. Report 608**
3. **Denison Mines Limited. 1976. Quintette Coal Limited: 1976 Geological Assessment Report, December 1976. Report 609**

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)			

Pages 21-23 (Section 4.6 & 4.7), Pages 28-49 (Sections 6, 7, 8), and analytical laboratory certificates 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>

[1 2004](#)

# COAL ASSESSMENT REPORT

## TREND MINE

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- 5 Geological Map
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## 1 SUMMARY

The Trend Mine consists of a coal lease and associated coal licenses on the flank of Roman Mountain in an 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 Trend Mine 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 Trend Mine area may be correlated with the seams mined previously in the region.

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 Trend area, the D1, E1, F, G J, and K3Seams of the Gates Formation and The Bird, GT1 and GT3 seams of the Gething Formation are considered to have economic potential for development.

Denison carried out drilling exploration in area of the Trend Mine between 1972 and 1974. The work consisted of drilling a one core borehole in 1972. In 1974, two HQ diamond core holes were completed along with the digging of ten trenches.

In 1985 Quintette Coal Limited drilled two core boreholes, ten rotary boreholes and dug five trenches in what is now Trend South.

NEMI completed exploration programs in Trend South and Trend Extension from 2002 - 2004 The programs consisted of ninety-two rotary boreholes, twenty-one HQ core boreholes, thirty-two LD core boreholes and the digging of fourteen trenches. In 2005, twelve LD core boreholes were completed by NEMI in Trend South.

Drilling activities carried out on Trend Mine by PRC from 2007 to 2009 included twenty-seven rotary percussion boreholes, sixteen HQ core boreholes and nineteen large diameter boreholes. In addition, nine trenches were excavated during the 2007 to 2009 drilling programs.

In 2010 to 2012 additional exploration work was carried out on the Trend property. The work included the drilling of sixty one rotary boreholes, eleven HQ core boreholes, eighteen LD core boreholes and the digging of 13 trenches.

A series of Geological Resource models have been developed to over the past few years and the coal resources of the property have been estimated using the guidelines set forth under GSC paper 88-21.

Trend-Roman is an open cut operation situated in the Rocky Mountain Foothills of northeastern British Columbia, Canada, approximately 20km south of the town of Tumbler Ridge. Mining currently occurs within two blocks (in Trend South since 2005 and Trend Extension since 2012), with future mining planned in the Roman block. The Roman block consists of a syncline that is located directly south of the current Trend South block, on Roman Mountain.

Because the Roman block will be mined with the same equipment fleet and utilise the same facilities (CHPP, Maintenance Shop, etc.) as Trend, the life of mine plan is integrated for both site (and hence, reserves are reported together).

The open cut truck and shovel mining method utilises three hydraulic excavators and one hydraulic shovel, for a nominal capacity of 23.9 Mbcmpa. This capacity increases slightly during the course of the life of the mine as smaller excavators are replaced with larger equipment.

ROM Coal is processed in the CHPP to produce a clean product. Product spec information can be found in the Product Qualities section. Currently, the plant can run at a feed rate of 400 tph, feeding approximately 2.1Mt ROM per year. Planned upgrades and debottlenecking will increase future feed rate maximum to 525tph and annualized feed of over 3.5Mt ROM.

The nearest railhead is the CN Rail Tumbler Subdivision, which terminates 12km south of Tumbler Ridge at the Quintette rail loadout. Peace River Coal (now a wholly owned subsidiary of AAMC) constructed a rail loadout facility in 2005 located approximately 4km north of the Quintette rail loadout which also connects with the CN Rail Tumbler Subdivision railhead. Clean coal is trucked approximately 20 km from the Trend CHPP to the rail loadout. From the rail loadout, coal is carried by CN trains approximately 1,000km to the Ridley Terminal in Prince Rupert, British Columbia. From here, coal is loaded to vessels and shipped to customers worldwide.

The latest Life of Mine plan outlines the next 14 years, terminating in 2028.

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## 2 GENERAL

### 2.1 Purpose of Report

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This report has been prepared to report on the exploration activities undertaken in 2012 on the Trend Mine property as part of the requirements for holding coal tenure under the British Columbia Coal Act. The exploration program was undertaken under the Trend Roman Mine permit C-224.

### 2.2 Project Description

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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 Metallurgical Coal business unit based in Brisbane Australia.

### 2.3 Property Description & Location

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The Trend Mine is located in the Rocky Mountain Foothills of north-eastern British Columbia. (see Attachment 1). Access to the project is gained by paved and gravel roads from Tumbler Ridge, located 20 km to the north. It is centered in UTM Zone 10 (NAD 83) at coordinates 6,083,500 N, 630,000 E and is located on NTS Map Sheet 93-I/15

### 2.4 Mineral Rights & Surface Title

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The Trend Mine and associated infrastructure occur on seven Crown Coal Licences and two Coal Leases (see Attachment 2). Table 2.4.1 shows the licences and their present status and includes data concerning the coal lease. The Trend Mine is located within Coal Lease 417059 which expires on September 14, 2030 and Coal Lease 417609 which expires on August 7, 2037 both Coal Leases are owned by PRC. The coal lease 417059 covers a total area of 3,201 ha of which approximately 500 ha make up the Trend Mine area and coal lease 417609 covers a total of 1788 ha of which approximately 400 ha make up the Trend Mine area. The company advises that the property has not been legally surveyed.

**Table 2.4.1: Summary of Mineral Rights**

Attribute									
Tenure Type	Coal Lease	Coal Lease	Coal License	Coal License	Coal License	Coal License	Coal License	Coal License	Coal License
Tenure Number	417059	417609	416846	417467	417468	417469	417470	417471	417472
Site	Trend	Trend	Trend	Trend	Trend	Trend	Trend	Trend	Trend
Name	Trend Roman	Trend	RLO and Coal Haul	RLO and Coal Haul	RLO and Coal Haul	RLO and Coal Haul	RLO and Coal Haul	RLO and Coal Haul	RLO and Coal Haul
Holder 1	PRC	PRC	PRC	PRC	PRC	PRC	PRC	PRC	PRC
Holder 1%	100	100	100	100	100	100	100	100	100
Area	3201	1788	594	298	297	223	75	149	149
Units	Ha	Ha	Ha	Ha	Ha	Ha	Ha	Ha	Ha
Expiry Date	14/09/2030	07/08/2037	10/02/2014	12/05/2014	12/05/2014	12/05/2014	12/05/2014	12/05/2014	12/05/2014

## 2.5 Accessibility, Climate, Infrastructure & Physiography

See Attachment 2. The Trend Mine is accessed from Tumbler Ridge via the paved Heritage Highway and an all-weather gravel road named Petroleum Development Road 46 (PDR 46), or the Core Lodge Road. PDR 46 is owned and maintained by Canadian Natural Resources Limited (CNRL) and PRC has entered into a Road Use Agreement for mine access and coal haul. The Heritage Highway and PDR 46 road are maintained year-round in good, drivable condition in support of all resource development in the area.

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 Trend Mine 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 Trend Mine 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 Trend Mine.

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 Trend Mine 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 Trend Mine area varies from gentle slopes to rugged cliffs and steep valleys. The total elevation change across the project area is approximately 500 m, from 1,330 m above mean sea level at Babcock Creek, to 1,850 m above mean sea level at the highest point in Trend Extension.

## 2.6 Adjacent Properties

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

## 2.7 Historical Information

Commercial coal deposits were first discovered north of the Trend Mine 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.

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 the 752 km of 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.

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 has produced both PCI and metallurgical coal.

In 1970 and subsequent years Denison Mines Limited (Denison) acquired a large number of crown coal licences in the Wolverine Valley, Quintette Mountain and Trend Mine 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.

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 Roman licenses

reverted to the crown in 1999 to 2000.

Ownership of the Trend Mine coal license was obtained by NEMI in early 2000. When NEMI joined the PRC partnership in 2006 control of the Trend Mine coal license was transferred to PRC.

## 2.8 Exploration By Other Parties

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Denison Mines Limited carried out extensive exploration work in the area of the Trend Mine between 1972 and 1974. The work included detailed surface geological and topographical mapping, structural interpretation and mechanical exploration including drilling. In 1985 Quintette carried out a small exploration program consisting of drilling and trenching.

## 3 DRILL HOLE DATA

### 3.1 Historical Drilling

Denison carried out drilling exploration in area of the Trend Mine between 1972 and 1974. The work consisted of drilling a one core borehole in 1972. In 1974, two HQ diamond core holes were completed along with the digging of ten trenches.

In 1985 Quintette Coal Limited drilled two core boreholes, ten rotary boreholes and dug five trenches in what is now Trend South.

### 3.2 2005 - 2011 Drilling

NEMI completed exploration programs in Trend South and Trend Extension from 2002 - 2004. The programs consisted of ninety-two rotary boreholes, twenty-one HQ core boreholes, thirty-two LD core boreholes and the digging of fourteen trenches. In 2005, twelve LD core boreholes were completed by NEMI in Trend South.

Drilling activities carried out on Trend Mine by PRC from 2007 to 2009 included twenty-seven rotary percussion boreholes, sixteen HQ core boreholes and nineteen large diameter boreholes. In addition, nine trenches were excavated during the 2007 to 2009 drilling programs.

In 2010 and 2011 additional exploration work was carried out on the Trend property. The work included the drilling of sixty rotary boreholes, seven HQ core boreholes, eighteen LD core boreholes and the digging of 13 trenches.

### 3.3 2012 Drilling

In 2012 additional exploration work was carried out on the Trend property. The work included the drilling of one rotary boreholes and four HQ core boreholes.

**Table 3.1.1: Boreholes Identified By Year and Type**

Year	Total	Rotary	Cored	Trench
Pre-2004	59	54	3	
2004	101	48	53	
2005	12		12	
2006				
2007	3	1	2	
2008	13	3	7	3
2009	55	23	26	6
2010	7			7
2011	91	60	25	6
2012	5	1	4	
<b>Total</b>	<b>344</b>	<b>190</b>	<b>132</b>	<b>22</b>

### 3.4 Drill Sample Recovery

Sample analyses were undertaken according to prescribed standard analytical flow sheets. A pre-



requisite 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.

### 3.5 Geological & Geophysical Logging

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All the NEMI and PRC rotary and core boreholes, including large diameter 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-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 NEMI 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.

Coal seams intersected in trench excavations were logged and described as per the standards for a borehole.

### 3.6 Data Density

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The borehole data for Trend Mine is sufficient to support the current resource statement for both the Canadian 43-101 requirements for structure and the JORC standard for quality. The boreholes were mainly drilled on cross section with an average of 150 m between drilled cross sections. See Attachment 4.

### 3.7 Data Location / Topographical Data

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The Trend Mine area was flown for an aerial survey in 2005 using LIDAR technology with the generation of detail contours and DTM data, with additional LIDAR flyovers to cover the mine infrastructure and mine reconciliation. The most recent flyover was flown April 2013. This data was used as the basis for the topographic surface used in the geological Resource Model.

### 3.8 Data Orientation Relative to Geological Structure

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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 trend to turn into the bedding.

### 3.9 Reporting Archives / Database

The geological data for Trend Mine is in electronic format with the exception of early historic borehole data from the 1970's and 1980's. New field information is collected digitally and then transferred directly into acQuire.

Before the implementation of the acQuire database, Lithological, thickness and depth information was captured in a standardized code format and entered into the GDB database (a Mincom software product). While the PRC data was acquired and entered during the core logging activity, the NEMI information was validated, standardized and entered into GDB during 2009. This data is now been transferred to acQuire which began to be implemented in 2012.

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

The current MineSight model was externally audited by Norwest Corp. (December 2013) and the data used to construct the model was reviewed to confirm completeness and accuracy.

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## 4 COAL ANALYSIS

### 4.1 Sampling

Coal seams were sampled from HQ and PQ size diamond core and bulk samples which were obtained from large diameter (150 mm) cores (LD). With respect to coal handling, description, and sampling the following industry standards and procedures applied:

- At the drill, HQ core was placed in wooden core boxes with HQ 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. Only samples with a core recovery greater than 65% were submitted for analysis and the analytical results later included in the quality 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.
- Large diameter cores were employed for bulk sampling. Initially this was in order to obtain sufficient sample mass for coking tests, but it soon became evident that core recoveries for large diameter cores were superior to HQ cores and in some instances were used instead of HQ samples. These cores were measured, described and sampled at the drill rig. The approach taken to sample selection, collection and bagging was similar to that described for HQ cores as noted above. Sample recoveries and intervals were finalized by reference to the geophysical logs at the core shed.
- 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 exploration programs.

### 4.2 Sub-Sampling and Sample Preparation

At Trend sample preparation was handled differently depending on when the samples were taken.

Historical samples obtained by Denison during 1975-6 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.

Samples analysed for NEMI in 2004 – 2005 followed similar standard procedures to PRC's, which 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 ½", the Denison flow sheet is attached at the end of this section.

**NEMI:** Samples analysed for NEMI in 2004 – 2005 followed similar standard procedures to PRC's, which are described below, NEMI samples were crushed to 12.5 mm.

**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 were included in the quality model.

PRC carried out extensive attrition testing on the LDC samples, a seam composite was created from component samples before any attrition testing was undertaken. HQ cores were crushed after being composited. An HQ type sample was split from the LDC samples in order to provide a means of comparing and calibrating the results from the two types of samples. In 2013 a change was made in core size, borehole core size was increased to PQ to provide better core recovery.

Separate flow sheets were used for HQ and PQ size core and 150 mm large diameter core (LDC), as given in Attachment 4.

#### 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.

NEMI screened only the following size fractions after crushing:

- HQ core -12.0 x 0.6 mm; 0.6 x 0.15 mm, 0.15 x 0 mm; and
- LDC core - 19.0 x 3.0 mm; 3.0 x 0.6 mm; 0.6 x 0.15 mm; 0.15 x 0 mm.

With PRC the following size fractions were screened until 2012:

- HQ: 12.5 x 0.25 mm; 0.25 x 0 mm; and
- LDC: 31.5 x 9.5 mm; 9.5 x 1.0 mm; 1.0 x 0.15 mm; 0.15 x 0 mm.

After a review of the size fractions currently used by the Trend Mine CHHP the following size fractions were used for screening starting in 2013.

- PQ: 12.7 x 0.15 mm; 0.15 x 0 mm; and
- LDC: 31.5 x 12.7mm; 12.7 mm x 1.42 mm; 1.42 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 NEMI and PRC samples (Attachment 4). In the Trend Mine 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 given in Table 4.5.1 which shows average Raw data by seam for the Trend Mine, based on the number of samples as given in Table 4.5.2.

**Table 4.5.1: Raw Coal Seam Average Quality**

Seam	D1	E1	F	G	J	K3	BIRD	GT1	GT2	GT3
IRD	1.47	1.41	1.36	1.39	1.38	1.36	1.38	1.39	1.44	1.33
RRD	1.48	1.42	1.37	1.4	1.39	1.37	1.39	1.4	1.46	1.34
IMST	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
RMST	0.78	0.80	0.71	0.60	0.62	0.61	0.44	0.50	0.48	0.54
RASH	22.4	18.0	12.3	15.6	13.3	13.3	12.5	16.6	21.0	8.9
RVM	23.9	24.0	25.3	22.3	23.3	23.1	20.8	17.3	17.1	21.5
RFC	53.7	57.4	61.7	61.4	62.8	63.0	66.3	65.6	61.5	69.5
RFSI	4	5.5	6.5	6.5	5	5.5	7	3.5	2	4
RS	0.59	0.35	0.38	0.47	0.26	0.54	3.87	0.75	0.37	0.36

**Table 4.5.2: Raw Coal Sample Count**

Seam	D1	E1	F	G	J	K3	BIRD	GT1	GT2	GT3
RRD	17	21	16	8	27	12	15	15	6	16
IRD	17	21	16	8	27	12	15	15	6	16
IMST	17	21	16	8	27	12	15	15	6	16
RMST	17	21	16	8	27	12	15	15	6	16
RASH	17	21	16	8	27	12	15	15	6	16
RVM	17	21	16	8	27	12	15	15	6	16
RFC	17	21	16	8	27	12	15	15	6	16
RFSI	17	21	16	8	27	12	15	15	6	16
RS	17	21	16	8	27	12	15	15	6	16

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#### 4.8 Verification

All boreholes drilled are geophysically logged. Seam depths are adjusted to the geophysics routinely with only these adjusted depths entered into the GDB 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 Bartley, Luring and ALS laboratories used for coal testing either by NEMI or PRC adheres to ASTM analytical standards for coal. In addition the three laboratories regularly participate in round robin exercises that allow comparison of inter-laboratory sample analyses thus assuming accuracy of analyses results between laboratories. All laboratories are working towards ISO 17025 accreditation.

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## 5 DATA COLLATION

### 5.1 Geology General

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The Trend Mine is located in the south-central region of the Peace River Coalfield. It is underlain by Mesozoic strata that form part of the Rocky Mountain Foothills of northeastern British Columbia. Coal seams with resource potential are found with the Lower Cretaceous strata of the Gething and Gates Formations. These units were formed within a deltaic depositional environment. Thin, uneconomic seams may also be encountered within the Boulder Creek Formation above the Gates Formation and in the Minnes Group, below the Cadomin Formation.

The Trend Mine area is characterized by a stratigraphic sequence including strata from the Minnes Group to the Shaftesbury Formation. Refer to Attachment 5 for an overview of the regional geology and Attachment 6 for general stratigraphic columns and representative cross sections

Structural geology within the region is characterized by thrust faults and associated folding within alternating layers of competent sandstone units and incompetent mudstone and coal strata. On a regional scale the large thrust faults display a staircase geometry, exhibited by wide flats sub-parallel to bedding joined by narrow ramps oblique to bedding. The flats are generally developed in more incompetent strata whereas ramps are generally contained within competent lithologies. In the major thrust sheets, faulting preceded folding and major faults tend to maintain a constant angle of about 30° to bedding. This is not always the case, however, particularly where smaller structures are involved and where thrusts are dying out.

The structural geology of the Trend Property and that of the surrounding area is dominated by a regional-scale northwesterly trending anticline – syncline pair, the Murray Syncline and the Waterfall Creek Anticline.

The Murray Syncline and Waterfall Creek Anticline are tight, relatively symmetrical folds that are typical of the fold style in this area. Fold axial surfaces are near vertical and axes plunge between 5° and 10° to the northwest. Strata on the east limb of the Waterfall Creek Anticline, where the Trend Mine is located, have fairly uniform dips that range between 60° and 75° to the northeast.

### 5.2 Coal Seam Geology

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#### 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.

Eleven coal seams have been identified in the Trend Mine area. These are named A, at the top of the sequence then B, C, D, E, F, G, I, J, K and L 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, E1, F, G, J, and K3 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 occurs immediately below the Babcock Member Conglomerate. The D1 Seam has an average thickness of 2.2m in Trend South and an average thickness of 1.2m in Trend Ext. The seam has a sharp roof contact and gradational floor with carbonaceous claystone at the top and bottom of the seam. The average ash content (adb), FSI and sulphur content values for the seam are 22.4%, 4 and 0.59%, respectively.

The E Seam Zone occurs approximately 20 m to 25 m below the D Seam. It is composed of as many



as three seams but only the E1 Seam is of economic importance. The E1 Seam is persistent throughout the Trend Mine area with the main variations occurring in the number and thickness of partings. Typically E1 Seam ash content (adb), FSI and sulphur values are 18 %, 5.5 and 0.35% respectively. In general the lower part of the seam has higher ash content.

The F Seam occurs 15 m to 20 m below the E Seam and is persistent throughout the project area. It has an average thickness of 2.6m in Trend South and an average thickness of 3.1m in Trend Ext. There is an upper portion of high ash coal which has been identified as F Bone. This contrasts with the low gamma response of the seam and consequently facilitates identification and correlation. Ash content (adb), FSI and sulphur content values for the seam are 12.3%, 6.5 and 0.38% respectively.

The G Seam is located 30 m and 40 m below the F Seam. The G Seam is developed only in the Trend South portion of the Trend Mine area with an average thickness of 3.0m. The seam average ash content (adb), FSI and sulphur content values are 15.6%, 6.5 and 0.47%, respectively.

The J Seam is separated from the G Seam by a carbonaceous claystone zone 2.5 to 3.0 m thick. This zone may contain one or more coaly stringers that are referred to as the I Seam. The J Seam has an average thickness of 4.7m in Trend South and an average thickness of 6.1m in Trend Ext. The J Seam normally forms the base of the Gates Formation economic coal zone and has an ash content (adb), FSI and sulphur content of 13.3%, 5 and 0.26% respectively.

The K Seam Zone comprises up 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 economically significant but only in Trend Extension area of the Trend Mine deposit. Ash content (adb), FSI and sulphur for the K3 Seam are 13.3%, 5.5 and 0.54%.

The sequence below the K Seam Zone is a 20 m thick siltstone unit overlying a persistent, approximately 1.0 m thick, clay unit. This clay bed is composed of unconsolidated ash fall tuff and has significant implications with respect to geotechnical design due to its mineralogical properties.

### 5.2.2 Gething Formation

Four coal seams are present in the upper Gething Formation. The uppermost and generally thickest, the Bird Seam, varies from 4.0 m to 5.0 m thick and contains rare thin, shaley partings. The Bird Seam occurs very close to the top of the Gething Formation.

The Bird Seam ash content (adb) and FSI of the seam are 16.6% and 7 respectively. The Bird Seam has an average sulphur content of 3.87% over the project area. The sulphur in the Bird Seam occurs as disseminated flecks of pyrite and less frequently as pyrite nodules. Although the sulphur distribution is variable throughout, the top of the seam often displays significantly higher sulphur content than the remainder.

The GT Coal Zone consists of up to three coal seams referred to, from the top, as the GT1, GT2 and GT3 Seams. Each seam may be well-defined but they often coalesce to form one or two primary seams. The zone varies in thickness between 10 m and 15 m with individual seam thicknesses ranging between 1.0 m and 2.0 m. All three seams are considered minable in Trend South only GT1 and GT3 are considered minable in Trend Extension

The GT1 coal seam has an ash content (adb), FSI and sulphur content values from 16.6%, 3.5 and 0.75%. The GT2 coal seam has an ash content (adb), FSI and sulphur content values from 21%, 2 and 0.37%. The GT3 coal seam has an ash content (adb), FSI and sulphur content value of 8.9%, 4 and 0.36%.

### 5.3 Structural Setting

The Murray Syncline and Waterfall Creek Anticline are tight, relatively symmetrical folds that are typical of the fold style in this area. Fold axial surfaces are near vertical and axes plunge between 5° and 10° to the northwest.

The Murray Syncline is a tight synclinal fold which is roughly symmetrical with the northeast limb dipping fairly uniformly at 50-60° to the southwest. The southwest limb dips generally steeper, up to 80°. The fold axial trend is 130°, with the hinge plunging at an average of 7.5° to the northwest.

The Waterfall Creek Anticline has similar orientation with the strata on the south western limb dipping at 60° to south west and the strata on the northeast limb, where the Trend Mine is located, have fairly uniform dips that range between 60° and 75° to the northeast.

### 5.4 Stratigraphy & Structure

In Trend Mine the current structure data used in the geological model is derived from borehole information and from surface mapping. A large portion of the resource area is above tree line with an abundance of exposed outcrop. Geological mapping has been carried out since the early 1970's by Dennison Mines, NEMI and PRC..

### 5.5 Geophysical Data

Geophysical data on the property has been restricted to down-hole geophysics. All the NEMI and PRC rotary and core boreholes, including large diameter 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-rod logs used a gamma-gamma.

### 5.6 Geotechnical Data

Geotechnical information for Trend is taken from a report - Trend Mine Pit Wall Data Compilation – (Norwest, 2009). Sources of information include the following:

- Outcrop mapping (2008),
- Point load test (PLT) data from exploration borehole core samples (2007/2008),
- Laboratory test data from exploration borehole core samples (2007), and

Geotechnical core logs from select exploration boreholes (2007/2008) which include rock mass characterization using the 1989 version of the Rock Mass Rating classification system (Bieniawski, 1989)

The bedded strata which form the rock mass in this area consist of alternating layers of sandstone, mudstone, siltstone and coal. Given the typical thickness of these layers and frequency of which they alternate, it is not practical to apply strength properties to each rock type for stability analysis. In order to simplify the model, geotechnical domains or zones are selected which are composed of rock units with similar strength characteristics. Although there is some variation in the strength properties, the zones selected and strength parameters applied are deemed representative of the rock mass. The zones used at Trend and are as follows:

- J Footwall Zone (rock mass between J and K seams),

- Gates Footwall (rock mass stratigraphically below K seam plies),
- Gates Highwall (rock mass stratigraphically above J seam),
- Gething Footwall (rock mass below the Bird and GT coal package), and
- Gething Highwall (rock mass above Bird seam).

Data from core logs and laboratory testing was sorted into these zones and design values chosen. The criterion for design parameters was the 30th percentile value for RMR89 and the mean value for the other strength parameters.

This data was used to estimate shear/normal functions within the limit equilibrium software SLOPE/W (Version 7.17). A Mohr-Coulomb strength model was used for the coal seam, clay layer and fault zones. Properties used were based on laboratory testing and back analyses of instabilities at Trend Mine.

## 5.7 Data Aggregation Methods

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Component samples were composited into seam composites for each of the major seams that were identified as minable sections for resource modelling. The seams selected were D1, E1 F, G, J and K3 for the Gates coal seams and Bird GT1, GT2 and GT3 for the Gething coal seams.

## 5.8 Balanced Reporting

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Individual seams were selected for inclusion in the resource evaluation on the basis of its correlation using geophysical logs. In general, all boreholes with geophysical logs have been modelled. Coal seams which had been thickened or thinned due to faulting were used as structural locations and the faulted thickness were not included in creation of hanging wall surfaces.

## 5.9 Other Substantive Exploration

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Other than exploration drilling, downhole geophysical logging, geological mapping and trenching no other substantial exploration techniques have been used on the property.

## 5.10 Further Work

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Additional drilling and trenching will continue to be carried out on the property. The drilling will include additional LDC and PQ coring to obtain additional samples to better define the quality of the Trend Extension area.

### **Trend - Gates**

- CSR Quality in Phases 4-5-6 (2018)
- Geotechnical drilling Phase 5-6 (3-8 year period)
- Phase 1-2-3 down-dip UG Resources (2016)

### **Trend - Gething**

- CSR Quality of Gates/Gething blend (2019)

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## 9 OTHERS

### 9.1 Discussion of Relative Accuracy / Confidence

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The resource figures given here are estimates only, and subject to variation depending on additional exploration data and revised interpretation. The resources are considered the best estimate given the current level of geological understanding of the coal deposit.

### 9.2 Reliance on Other Experts

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This CP Report has been compiled from reports written by the following experts:

- Ted Hannah, Norwest Corporation, Calgary, Alberta (APEGBC member 22009).
- Sean Ennis, Norwest Corporation, Calgary, Alberta (APEGAB member M52576; APEGBC member 24279).
- Melanie Bolduc, Mintec Inc., Vancouver, British Columbia

### 9.3 Other Relevant Information

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No other relevant information.

### 9.4 Interpretation & Conclusions

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The Peace River Coal Trend Mine 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 and faulting 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 and the calculation of reserves were accomplished through review of current practices and procedures, inspection of a sampling of raw geological and coal analytical data, and verification of volume calculations. The density of drilling on this project is adequate for the delineation of resources amenable to surface mining.

All of the coal quality information has now been validated and unified so that just one concise set of data exists. The model also now contains simulated product data and geochemistry where available for the individual seams.

The seam polygons used for coding were built without a minimum mineable thickness and the TTHK was interpolated into the 3DBM and used to remove non-mineable coal. This means that the seam polygons do not require editing/rebuilding to change the minimum mineable thickness.

### 9.5 Recommendations

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

- Additional drilling in some areas of the deposit would be valuable, especially at depth for better definition of mineralization continuity in the deposit.
- Carry out a domain analysis of the project area.

- combine all available topography tiles to form a complete topographical surface
- completely rebuild the OVB surface using a standard and consistent dataset
- More detail quality and seam development is required for the Gething Formation coal seams in Trend Extension.

## 9.6 References

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4. Hannah, T, and Ennis S. May 19th 2010. Technical Report: Trend Mine Tumbler Ridge, British Columbia. Norwest Corporation, Calgary, Alberta.
5. Canadian Institute of Mining, Metallurgy, and Petroleum (CIM). 2005. CIM Definition of Standards - For Mineral Resources and Mineral Reserves, 10 p.
6. 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).
7. 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.
8. Norwest Corporation. 2005. Trend Full Mine Feasibility Study for Northern Energy and Mining Inc.; October 2005.
9. Denison Mines Limited. 1976. Quintette Coal: Limited 1975 Exploration and Development Report, January 1976.
10. Denison Mines Limited. 1976. Quintette Coal Limited: Information Summary, August 1976.
11. Denison Mines Limited. 1976. Quintette Coal Limited: 1976 Geological Assessment Report, December 1976.
12. McIntyre, R.F. 2005. 2005 Assessment Report – Trend Mine Drilling Program, June 2006.

## 9.7 Competent Person, Date & Signature Page

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Details of the Competent Person, together with signatory pages, are found in Attachment 7.

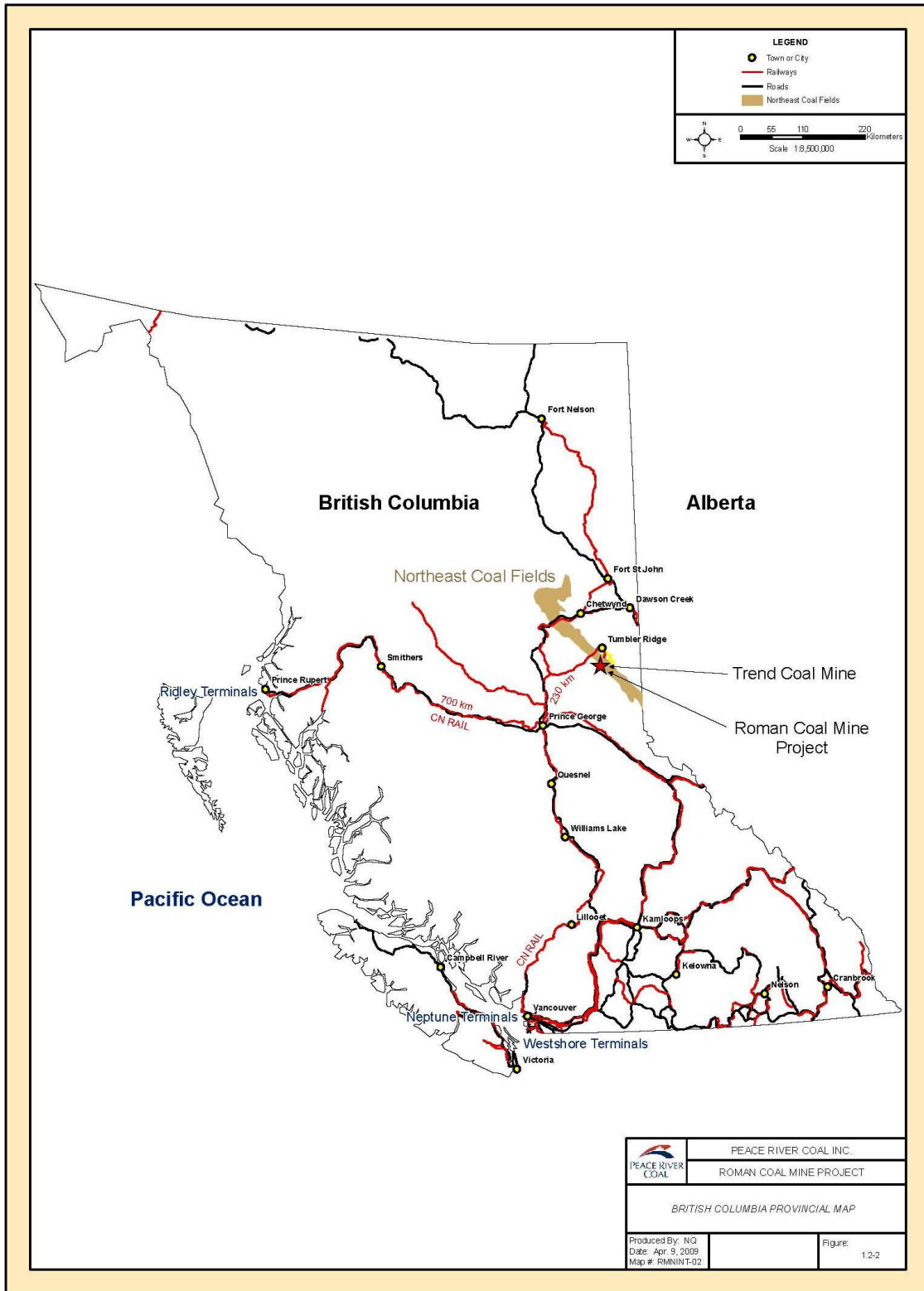
## 9.8 Illustrations & Diagrams

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See Attachments below and text for references.

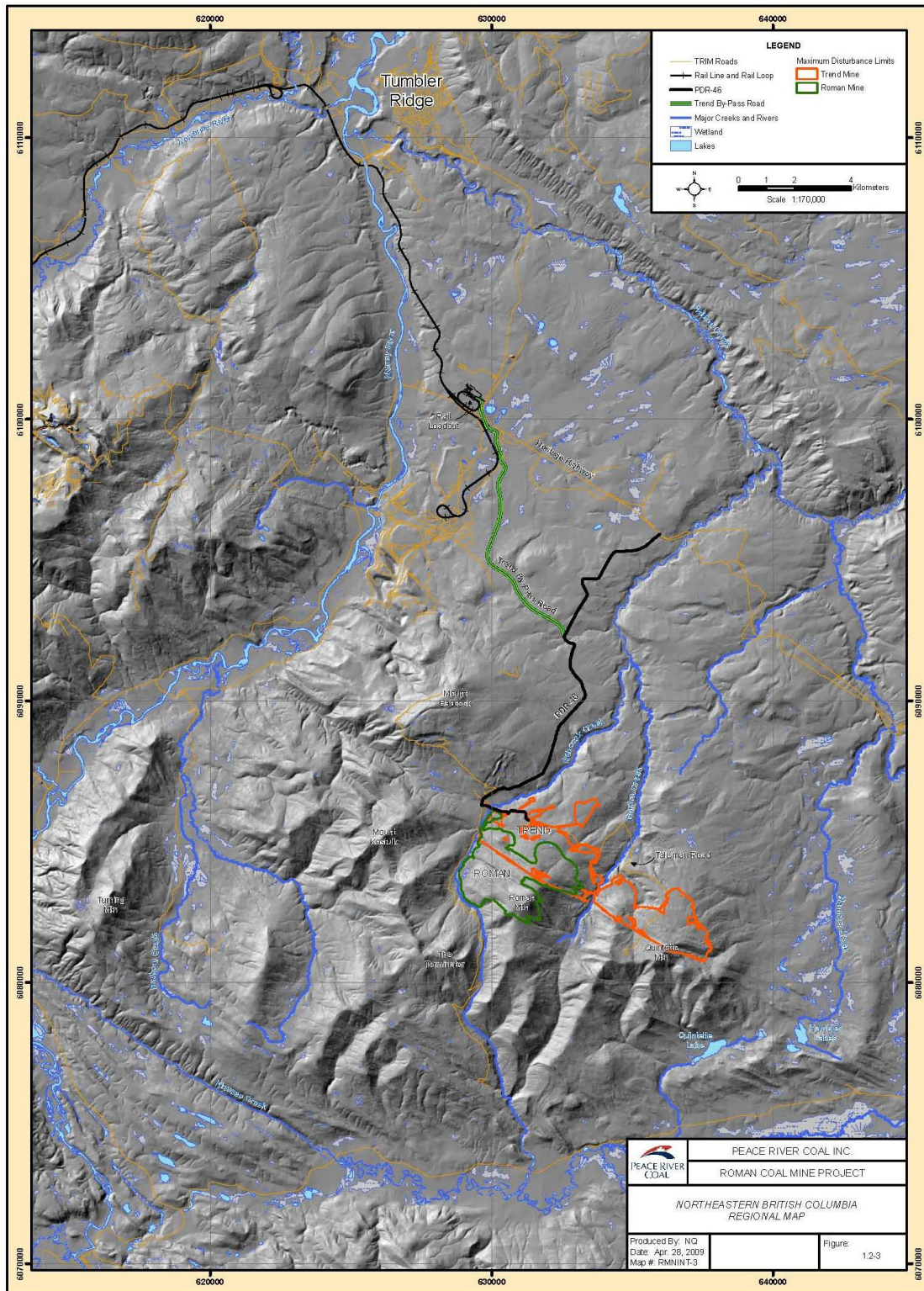
# Attachment 1

## Location Map



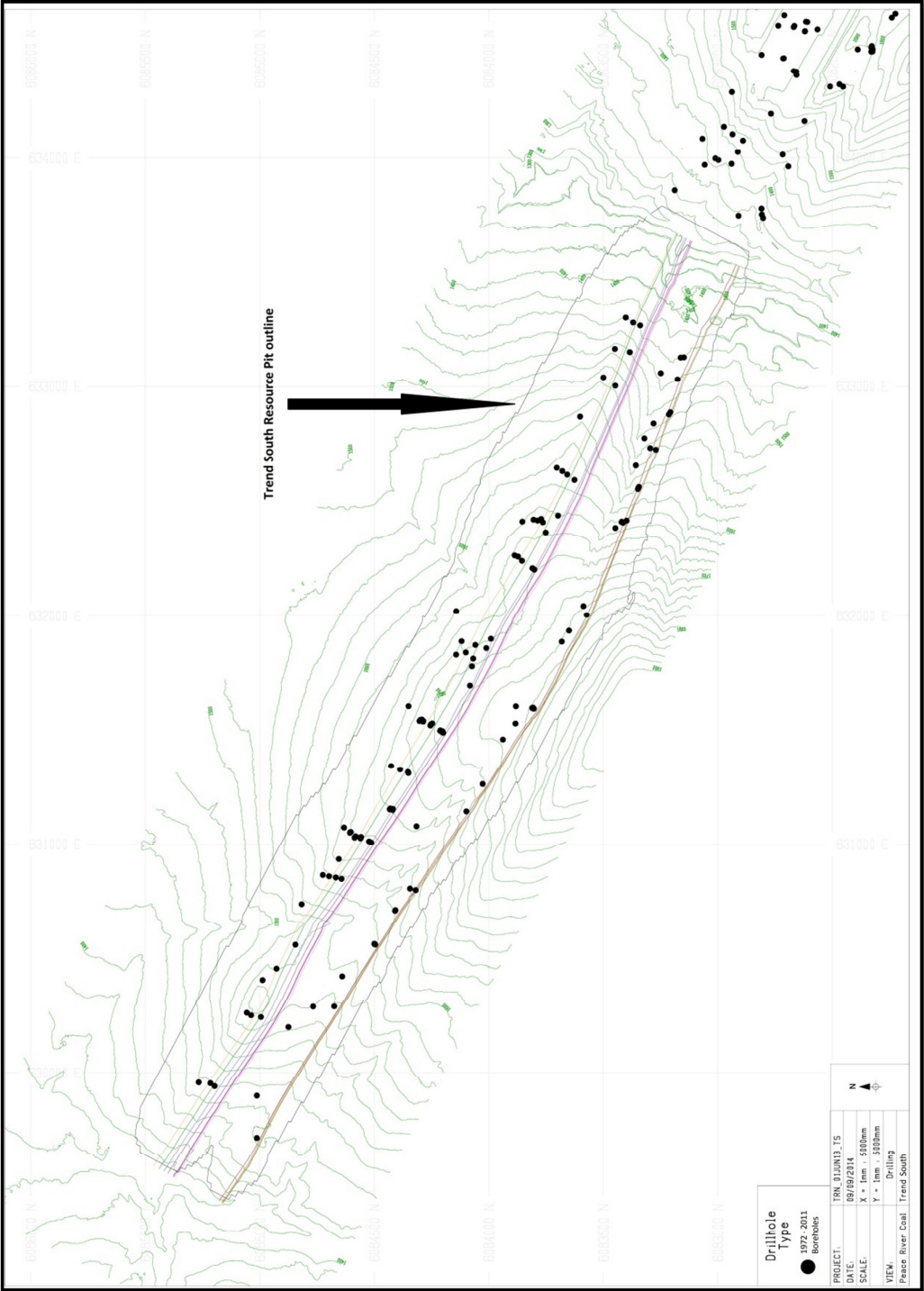
# Attachment 2

## General Property Map



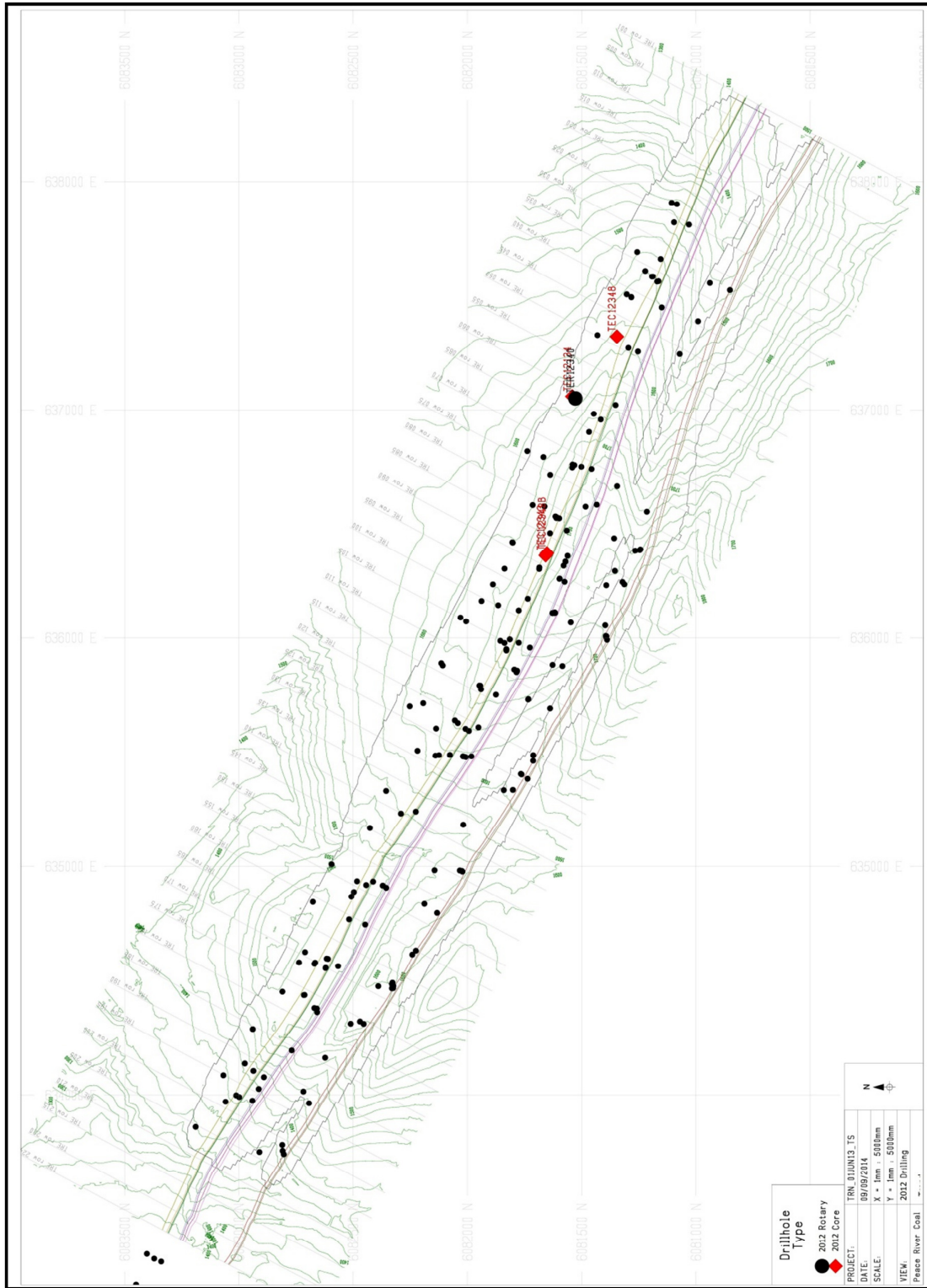
# Attachment 3

## Trend South Borehole Plan



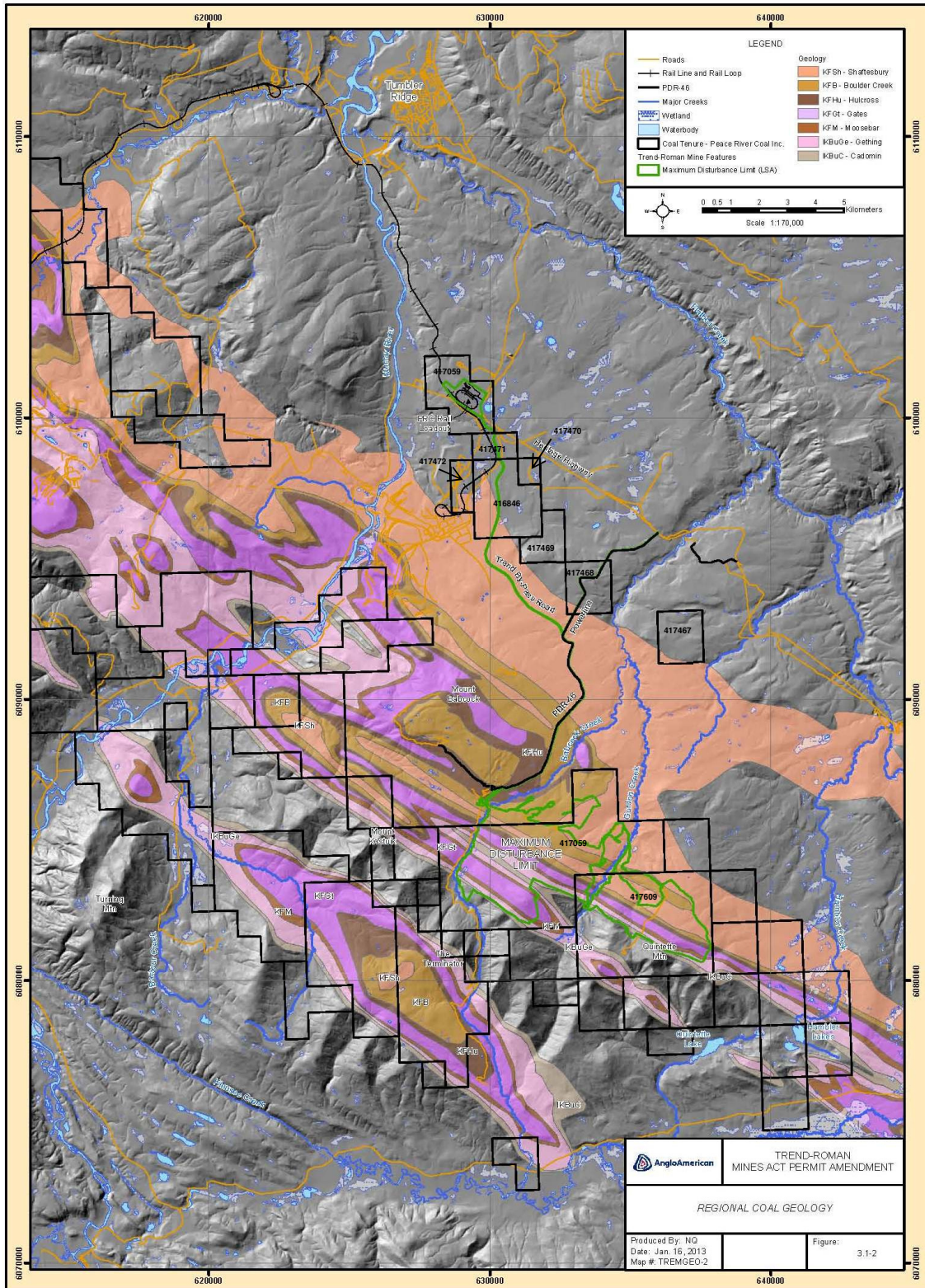


# Trend Extension Borehole Plan



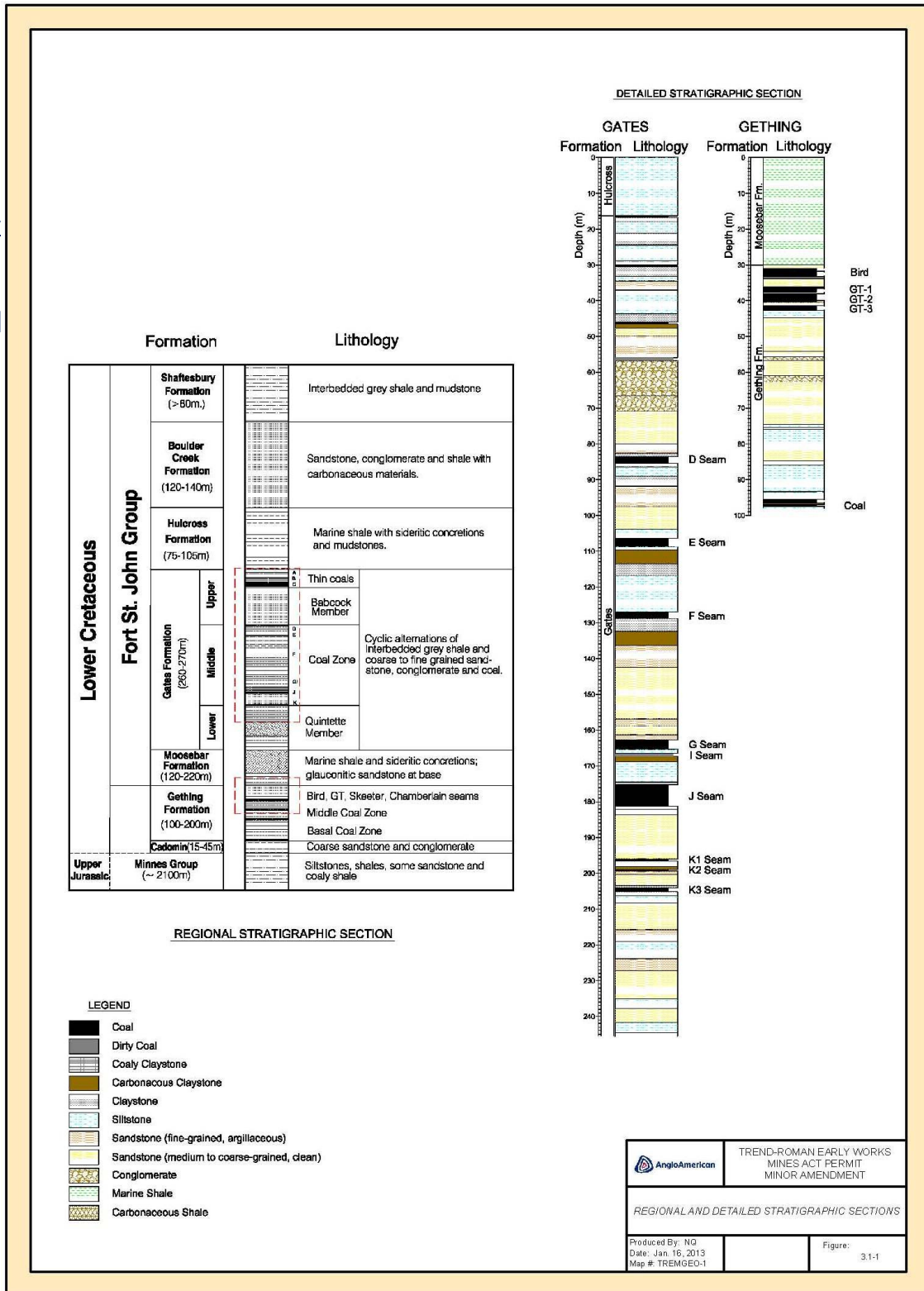
# Attachment 5

## General Geological Map



# Attachment 6

## Stratigraphic Column



# Attachment 7

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## 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 Roman Property Peace River Coal District", dated September 12, 2014.
- 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 12 day of September, 2014



D.P. Lortie P. Geo.






# Attachment 8

## Exploration Cost 2012

Exploration Cost	
Type of Work	2012
Total for Geophysics	\$ 54,658
Total for Sample Analysis	\$ 88,879
Total for Site/Pit Preparation	\$ 120,588
Total for FIRE SAFETY FIRST AID	\$ 6,315
Total for Drilling (including Fuel)	\$ 468,814
Total for Project Trend Exploration	\$ 739,254
Coal Lease	\$ 35,730
Staffing	\$ 104,592
Total Trend Exploration cost	\$ 879,576






















# Appendix 1

## 2012 Geophysical Logs

Name	Date modified	Type
 TEC12134	05/09/2014 8:09 AM	File folder
 TEC12343	04/09/2014 2:42 PM	File folder
 TEC12343B	04/09/2014 2:44 PM	File folder
 TEC12348	04/09/2014 2:46 PM	File folder
 TER12340	04/09/2014 2:48 PM	File folder





## Appendix 2

### Maps and Sections

Name	Date modified	Type	Size
 MineSight_Plot_TRE row 001.pdf	21/06/2013 4:22 PM	Adobe Acrobat D...	28 KB
 MineSight_Plot_TRE row 025.pdf	21/06/2013 4:22 PM	Adobe Acrobat D...	40 KB
 MineSight_Plot_TRE row 050.pdf	21/06/2013 4:23 PM	Adobe Acrobat D...	47 KB
 MineSight_Plot_TRE row 075.pdf	21/06/2013 4:23 PM	Adobe Acrobat D...	47 KB
 MineSight_Plot_TRE row 100.pdf	21/06/2013 4:23 PM	Adobe Acrobat D...	44 KB
 MineSight_Plot_TRE row 125.pdf	21/06/2013 4:24 PM	Adobe Acrobat D...	50 KB
 MineSight_Plot_TRE row 150.pdf	21/06/2013 4:24 PM	Adobe Acrobat D...	39 KB
 MineSight_Plot_TRE row 175.pdf	21/06/2013 4:25 PM	Adobe Acrobat D...	43 KB
 MineSight_Plot_TRE row 200.pdf	21/06/2013 4:25 PM	Adobe Acrobat D...	38 KB
 MineSight_Plot_TRE row 224.pdf	21/06/2013 4:26 PM	Adobe Acrobat D...	31 KB
 MineSight_Plot_TRS row 001.pdf	11/09/2013 9:33 AM	Adobe Acrobat D...	34 KB
 MineSight_Plot_TRS row 025.pdf	11/09/2013 9:33 AM	Adobe Acrobat D...	74 KB
 MineSight_Plot_TRS row 050.pdf	11/09/2013 9:34 AM	Adobe Acrobat D...	76 KB
 MineSight_Plot_TRS row 075.pdf	11/09/2013 9:34 AM	Adobe Acrobat D...	76 KB
 MineSight_Plot_TRS row 100.pdf	11/09/2013 9:34 AM	Adobe Acrobat D...	94 KB
 MineSight_Plot_TRS row 125.pdf	11/09/2013 9:35 AM	Adobe Acrobat D...	83 KB
 MineSight_Plot_TRS row 150.pdf	11/09/2013 9:35 AM	Adobe Acrobat D...	69 KB
 MineSight_Plot_TRS row 175.pdf	11/09/2013 9:35 AM	Adobe Acrobat D...	81 KB
 MineSight_Plot_TRS row 190.pdf	11/09/2013 9:35 AM	Adobe Acrobat D...	65 KB
 Trend Extension Borehole Map.jpg	09/09/2014 9:46 AM	JPG File	5,727 KB
 Trend South Borehole Map.jpg	09/09/2014 9:42 AM	JPG File	4,557 KB

## Appendix 3




### 2012 Coal Quality

Name	Date modified	Type
 TEC12134	04/09/2014 10:12 ...	File folder
 TEC12343	04/09/2014 10:12 ...	File folder
 TEC12343B	04/09/2014 10:12 ...	File folder
 TEC12348	04/09/2014 10:12 ...	File folder
...		



# Appendix 4

## Borehole Data

Name	Date modified	Type
 Trend Borehole Lithology.pdf	08/09/2014 1:51 PM	Adobe Acrobat D...
 Trend South Borehole Collars.pdf	08/09/2014 1:51 PM	Adobe Acrobat D...
 Trend Extension Borehole Collars.pdf	08/09/2014 1:51 PM	Adobe Acrobat D...