ASX Announcement

SUBSTANTIAL 54% INCREASE IN MEASURED AND INDICATED COAL RESOURCES TO 211 MILLION TONS

HIGHLIGHTS:

- *Significant increase in Measured and Indicated Coal Resources to 211 million tons for the Buck Creek Mining Complex, representing a 54% increase from the maiden Coal Resource Estimate*

- *Measured and Indicated Coal Resources now represent 98% of total Coal Resources for the Buck Creek Mining Complex*

- *Updated Coal Resource Estimate ("CRE") based on 186 drill holes and over 33,500 acres of controlled coal leases after recently securing new strategic coal leases*

- *Resource extends over 13 miles (21 kilometres) and is contained in a single, flat, continuous coal seam (WK No.9 seam) which is the second largest producer of thermal coal in the US*

- *Updated CRE will be incorporated into the Pre-Feasibility Study ("PFS") for the Buck Creek No.1 Mine which remains on track for completion during the March 2015 quarter*

Paringa Resources Limited ("**Paringa**" or "**Company**") is pleased to announce an updated 216 million ton (~196 million tonnes) Coal Resource Estimate ("**CRE**") for the Buck Creek Mining Complex ("**Project**") located in the low cost and proven Illinois Coal Basin in Kentucky, USA.

The CRE is reported in accordance with the JORC Code 2012 and comprises 211 million tons (~192 million tonnes) in the Measured and Indicated categories. Coal quality demonstrates excellent Illinois Coal Basin coal quality with high heating value (11,893 Btu/lb), low ash (8.4%) and a very high in-seam yield of 93%. Critically, the coal also displays lower chlorine content (0.18%) than most of the new coal operations being developed in the Illinois Basin.

Table 1: Buck Creek Project – Coal Resource Estimate							
CRE Tonnage (Mt)					Product Quality (+4% Eq. Moisture)		
Measured	Indicated	Total Measured & Indicated	Inferred	**Total**	Calorific Value	Ash	Yield
57.7	153.5	**211.2**	5.3	**216.5**	11,893 Btu/lb (6,600 Kcal/kg)	8.4%	92.9%

Paringa's Chief Executive Officer, Mr David Gay, said *"This updated CRE confirms our Buck Creek No.1 Mine as one of the largest pre-development coal operations in the Western Kentucky region of the Illinois Coal Basin. The updated CRE together with the new strategic coal leases has allowed us to expand our contiguous resource base that now extends over 13 miles (21 kilometers) and will allow us to significantly increase the PFS mine plan for Buck Creek No.1 Mine. The Company will continue to progressively acquire further coal leases to further expand the resource base."*
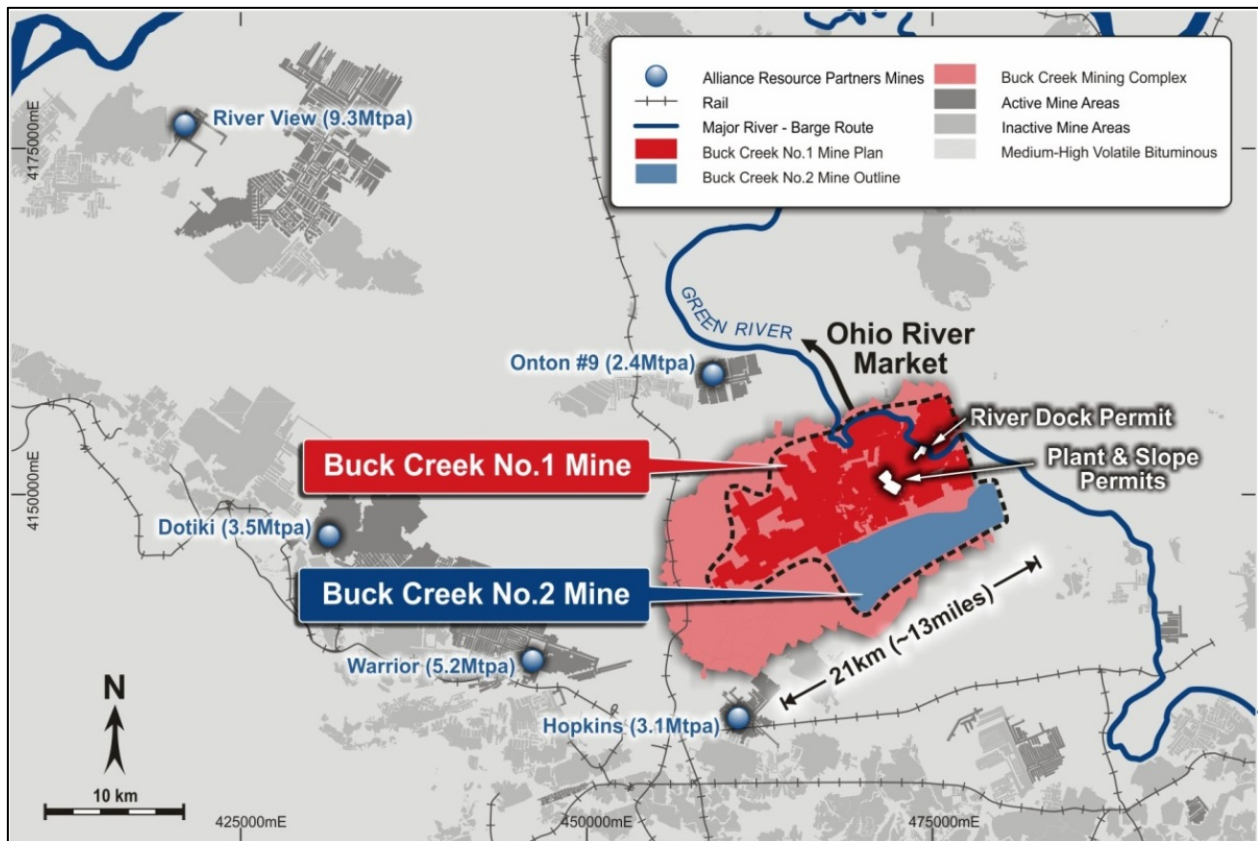
Figure 1: Buck Creek Mining Complex

The updated CRE was estimated by Cardno Inc. ("**Cardno**"), a geological and engineering consulting firm with its mining advisory services headquartered in Bluefield, Virginia (United States). Cardno is a wholly-owned subsidiary of Cardno Ltd., a global infrastructure and environmental services company based in Australia. Cardno has over 39 years of expertise in mining engineering, mine reserve evaluation, feasibility studies and due diligence services for mining and resource projects across the globe. Cardno prepared the updated CRE in accordance with the JORC Code (2012 Edition).

The updated CRE incorporates results from an additional 4 air rotary holes and 14 diamond core holes drilled by Paringa from 2013 to 2014, 5 Kentucky Geological Survey core holes and an additional 8,500 acres of mineral property which have been leased by Paringa, since the maiden CRE was released in November 2013. Drilling has confirmed the WK No.9 seam to demonstrate lateral stratigraphic and coal quality continuity.

A total of 186 bore holes were used in the calculation, including 103 Kentucky Geological Survey core holes, 29 Buck Creek Resources LLC core holes, 10 Buck Creek Resources LLC rotary holes, 14 Hartshorne Mining LLC core holes, 4 Hartshorne Mining LLC rotary holes, and 26 gas wells.

The CRE is contained entirely within one coal seam, being the Western Kentucky No.9 ("**WK No.9**") Seam which is one of the most prolific coal seams produced in the USA. The average thickness of the WK No.9 Seam is 3.8 feet (1.16 metres) across the property which compares favourably to many operations in the immediate vicinity.

For further information contact:

David Gay   **Nathan Ainsworth**
Chief Executive Officer   Business Development

SUMMARY OF RESOURCE ESTIMATE AND REPORTING CRITERIA

Geology and Geological Interpretation

The CRE is located in Hopkins and McLean County, Kentucky, within the Carbondale Formation. The WK No.9 Seam associated with the Project has been identified as exhibiting potential underground mineable resource tonnage.

The primary coal-bearing formations on the Project are situated in the Western Kentucky Coal Field of the Illinois Basin (or Eastern Interior Basin) of the USA and are of middle Pennsylvanian-age. These strata include conglomerate, sandstone, siltstone, shale, limestone, and coal that were deposited primarily in coastal deltaic settings. Coal rank in this area is high volatile bituminous C, with higher rank coals sometimes found along major structural fault systems. Coal in the West Kentucky Coal Field is generally medium to high sulfur, exhibiting average sulfur contents of more than 3.0 percent and averaging more than 5.0 pounds of SO_2 per million Btu.

The strata on the Project generally exhibit a regional northeast-southwest strike, and a regional northwestward dip towards the center of the Illinois Basin, with offsets along the fault zone. As the strata bend around the nose of the basin, strike rotates from northeast to north to northwest, along with an associated change in dip direction. Depth of cover increases gradually to the northwest towards the center of the basin. Depth of cover ranges from approximately 250 (76 metres) feet in the east in the vicinity of the Green River to in excess of 1,100 feet (335 metres) near the town of Slaughters in the west. The WK No.9 Seam across the Project is generally continuous and non-complex but may vary in thickness. Furthermore, as common in Western Kentucky, the seams are affected by tectonic deformation within the resource area. The average mineable seam thickness ranges from 3.0 feet (0.91 metres) to 4.5 feet (1.37 metres) for the WK No.9 Seam with fairly consistent coal thickness exhibiting minimal splitting and non-coal partings.

This interval overlying the WK No.9 generally consists of black shale ("**Turner Mine Shale**" or "**TMS**") that ranges in thickness from 0 to 7.0 feet (2.13 metres) with an average of about 1.5 feet (0.46 metres). The black shale is overlain by gray shale ("**Canton Shale**") ranging in thickness from 0 to 55 feet (16.76 metres). Overlying the gray shale is sandstone ("**Vermillionville Sandstone**") ranging in thickness from 0 to 75 feet (22.86 metres).

The Project is east of the Henderson Sandstone Channel (as defined by the KGS through mapping of both boreholes and oil/gas well geophysical logs that penetrate a thin or absent coal area of the WK No.9 Seam). The Hopkins and McLean County, Kentucky property is south of the northern extent of the Rough Creek Fault System ("**RCFS**") on the down-side of the graben structure. The RCFS is a normal fault with displacement on the order of 200 feet (61 metres). The Project occurs within the RCFS and consists of a series of horst and graben faults trending in an east-west direction with maximum displacements of up to 450 feet (137 metres). The RCFS has been mapped by the KGS and is shown on 1:24,000 scale USGS 7.5-minute quadrangle maps. Fault locations have been reviewed by Cardno. These locations have been accepted as being true and accurate depictions of the fault locations and displacements. Exploration drill holes completed thus far on the Project have not identified any additional faults or structural features.

The region has been extensively mined particularly within the WK No.9 Seam but no mining of the WK No.9 Seam has occurred within the Project.

Drilling and Sampling Techniques

A total of 186 bore holes were used in the calculation, including 103 Kentucky Geological Survey core holes, 29 Buck Creek Resources LLC core holes, 10 Buck Creek Resources LLC rotary holes, 14 Hartshorne Mining LLC core holes, 4 Hartshorne Mining LLC rotary holes, and 26 gas wells. The updated CRE incorporates results from an additional 4 air rotary holes and 14 diamond core holes drilled by Paringa in 2013 and 2014 since the maiden CRE was released in November 2013

Prior to 1950, oil and gas drilling was the primary source of seam thickness and elevation data for the WK No.9 seam. In 1950 the Kentucky Geological Survey ("**KGS**") began acquiring core data from drill holes in and adjacent to the property. In 2009 Buck Creek Resources LLC ("**BCR**") began a drilling program that continued through 2011. The program consisted of diamond core drilling for seam delineation and acquisition of coal samples and air rotary holes for seam delineation. Between 2013 and 2014 Paringa successfully completed 2 drilling campaigns. Like the BCR holes these programs consisted of diamond core drilling for seam delineation and acquisition of coal samples as well as air rotary holes for seam delineation. In addition, all of the 2013 core holes and the first two (2) 2014 core holes underwent geotechnical testing of the roof, seam, and floor.

BCR core drilling consisted of one continuous core, DH-11, with 3-inch diameter core samples produced from the entire rock column. The remainder of the core holes were spot drilled utilizing a 6.625-inch diameter rotary bit followed by a 3-inch diamond core of the roof, seam, and floor. The air rotary drilling consisted of 6.625-inch diameter bore holes.

Paringa core drilling included two (2) continuous cores, HMG-14-01 and HMG-14-02, with 2.5-inch diameter core samples produced from the entire rock column. The remainder of the core holes were spot drilled utilizing a 6.625-inch diameter rotary bit followed by a 3-inch diamond core of the roof, seam, and floor. The air rotary drilling consisted of 6.625-inch diameter bore holes.

Core recoveries were monitored and were generally good at greater than 95%. Coal core samples used for quality analysis contained greater than 95% recovery. Where available, core recovery thickness was reconciled with the thickness interpreted from geophysical logs.

Drill holes were geologically logged by the driller and those producing core were also logged by a geologist. All holes drilled during the 2009 through 2011 program and the 2013 through 2014 program were geophysically logged using a downhole density and gamma tool. A sonic log was performed on 14 of the BCR's drill holes and 16 of the Paringa Holes. In the case of core drill holes, lithological logs were correlated with the geophysical logs and seam thickness and elevation adjusted where appropriate.

Classification criteria

The CRE has been reported in-situ and classified as measured, indicated, and inferred based on the guidelines recommended in the JORC Code (2012 Edition). As is customary in the USA, the categories for measured, indicated, and inferred resources are based on the distances from valid points of measurement as prescribed in United States SEC Industry Guide 7 and USGS Circular 891. This is considered appropriate for the preparation of the CRE in accordance with the JORC Code (2012 Edition).

Sample analysis method

Sample analysis on the BCR recovered cores was carried out by Standard Laboratories, Inc. and performed to American Society for Testing and Materials (ASTM) standards. Paringa utilized SGS North America, Inc. and Precision Testing Laboratory, Inc. for quality testing, both to ASTM standards. All analyses were performed on an as-received, air dry and washed basis unless otherwise stated.

Geophysical tools are calibrated by the logging company (Cardno GLS) and where possible, validated using a calibration hole. All coal intersection data used to generate the geologic model has been cross referenced with the lithological and geophysical logs by Cardno.

Coal quality was adjusted to reflect an addition of 4% moisture to the equilibrium moisture. Coal quality results were verified with laboratory analysis sheets by Cardno geologist before inclusion into the geologic model and use in the resource estimate.

Resource Estimation Methodology

The preparation of the CRE was undertaken by Cardno based in Bluefield, Virginia, USA. Cardno has over 39 years of expertise in mining engineering, mine reserve evaluation, feasibility studies and due diligence services for mining and resource projects across the globe. Cardno has over 10 offices and 180 people based in the USA.

As a leading USA consulting firm working in the coal and coalbed methane industries Cardno has served some of the largest mining companies including Alpha Natural Resources, Peabody, Asian American Coal, Cliffs Natural Resources, Rothschild, First Reserve Corporation, ESSAR Minerals Americas, ArcelorMittal and BHP Billiton.

Cardno prepared the CRE in accordance with the JORC Code (2012 Edition). The resource estimation criteria were developed using current conditions found in surrounding operations and industry accepted standards to assure that the basic geologic characteristics of the coal resources are in reasonable conformity with those currently being mined and marketed in the region. The tonnage estimates provided herein report in-situ coal resources as measured, indicated, and inferred. As is customary in the USA, the categories for measured, indicated, and inferred resources are based on the distances from valid points of measurement as prescribed in United States SEC Industry Guide 7 and USGS Circular 891. This is considered appropriate for the preparation of the CRE in accordance with the JORC Code (2012 Edition).

Fault impacted areas have been excluded from the CRE in an area bounded by 200 feet (60 metres) barriers along either side of a fault and in areas determined as intensely impacted by faulting;

After the geological data was correlated within Cardno's proprietary database and verified, the data required for mapping was extracted and composited with additional data from spreadsheets containing coordinates and similar Z values. These Z value files were imported into either Surfer 8 or Carlson® Mining 2012 computer software packages for modelling. The software programs were used to generate geologic models including coal seam thickness, elevation, and others as well to delineate acreage and thickness for estimation of coal resources. The modelling output for the CRE was imported into a Microsoft® Excel workbook for final processing and tabulation of coal tonnage. The CRE is reported on an as received basis.

Cut-off grades

The average thickness of the WK No.9 Seam is 3.8 feet (1.16 metres) across the property which compares favorably to many of the operations in the immediate vicinity. The cut-off seam thickness utilised was 3.0 feet (0.91 metres).

Mining and metallurgical methods and parameters

In March 2014, the Company completed a Scoping Study ("**Study**") on the Project which was prepared by Cardno, with input from local experts. The Study was prepared in accordance with JORC Code (2012

Edition) and the requirements for a Preliminary Economic Assessment report in accordance with NI 43-101. The Study was conducted on the north-eastern quadrant of the Company's Buck Creek thermal coal project (Buck Creek No.1 Mine) located in the low cost and proven Illinois Coal Basin in Kentucky, US.

The Study confirmed the potential of the Project to be developed as a high margin, low cost mine in the growing Illinois Basin. The Study utilised the Project's maiden CRE of 154 million tons of coal to demonstrate that the Project's fundamentals from this initial development are extremely encouraging. The Project is located in a well serviced and infrastructure advantaged coal region in the US, offering the potential for a low operating and capital cost environment.

The Company is currently completing a Pre-Feasibility Study ("**PFS**") for the Buck Creek No.1 Mine which will incorporate the updated CRE. The PFS remains on track for completion during the March 2015 quarter.

Core quality and washability testing was completed on the fourteen drill core holes conducted within controlled leases of the Project targeting the WK No.9 seam. The coal samples were shipped to SGS North America Inc. in Henderson, Kentucky and Precision Testing Labs Inc. in Davis, West Virginia for analysis. Core recovery was greater than 95 percent for all of the samples sent for analysis. Coal seam quality data from the fourteen recently completed core samples and the historical 24 samples were utilised in determining the average core coal quality.

This average quality value was tabulated in Microsoft Excel utilising the polygonal area method. The polygonal method involves the calculation of an area of influence around each sample intersection and calculating the average grade by weighting each sample grade by the corresponding polygon's area. Qualities for each core hole include an addition of 4 percent moisture to the equilibrium moisture, which is intended to represent the true moisture of a saleable product (to approximate the As Received (AR) basis).

Table 2: Buck Creek Mining Complex Seam Coal Quality Specifications								
Raw Proximate Analysis (As Received)						**Washed Core Quality** (Equilibrium Moisture +4%)		
EQ Moisture	Ash	Volatile Matter	Fixed Carbon	Chlorine	HGI	Calorific Value (Btu/lb)	Ash	Yield @ 1.60 Float
6.6%	11.9%	37.0%	44.5%	0.18%	60	11,893	8.4%	92.9%

Competent Persons Statement

The information in this announcement that relates to Exploration Results and Coal Resources is based on, and fairly represents, information compiled or reviewed by Mr. Kirt W. Suehs, a Competent Person who is a Member of The American Institute of Professional Geologists. Mr. Suehs is employed by Cardno. Mr. Suehs has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' and to qualify as a Qualified Person as defined in the 2011 Edition of the National Instrument 43-101 and Canadian Institute of Mining's Definition Standards on Mineral Reserves and Mineral Resources. Mr. Suehs consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

ABOUT THE BUCK CREEK MINING COMPLEX

The Buck Creek Mining Complex is located in the Western Kentucky region of the Illinois Coal Basin which is one of the most prolific coal producing regions in the USA. Paringa controls over 33,500 gross acres (~13,500 ha) of coal leases.

The Buck Creek Mining Complex is one of the few remaining contiguous high quality thermal coal projects within the WK No.9 seam that is not controlled by one of the major USA coal companies and offers one of the highest quality, highest heating value products in the Illinois Coal Basin. The WK No.9 is now the second largest producer of coal in the US by coal seam.

Buck Creek Mining Complex – Coal Resource Estimate (WK No.9 Seam)				
Measured (Mt)	Indicated (Mt)	Total Measured and Indicated (Mt)	Inferred (Mt)	Total (Mt)
57.7	153.5	211.2	5.3	216.5

Buck Creek Mining Complex – Coal Quality (+4% Eq. Moisture)	
Calorific Value	11,893 Btu/lb (6,600 kcal/kg)
Ash	8.4%
Yield – From In Seam Core Analyses	92.9%

The Buck Creek Mining Complex is located adjacent to the Green River which provides year round linkage to the Ohio and Mississippi rivers systems which feed domestic coal-fired power plants and coastal export coal terminals in the Gulf of Mexico.
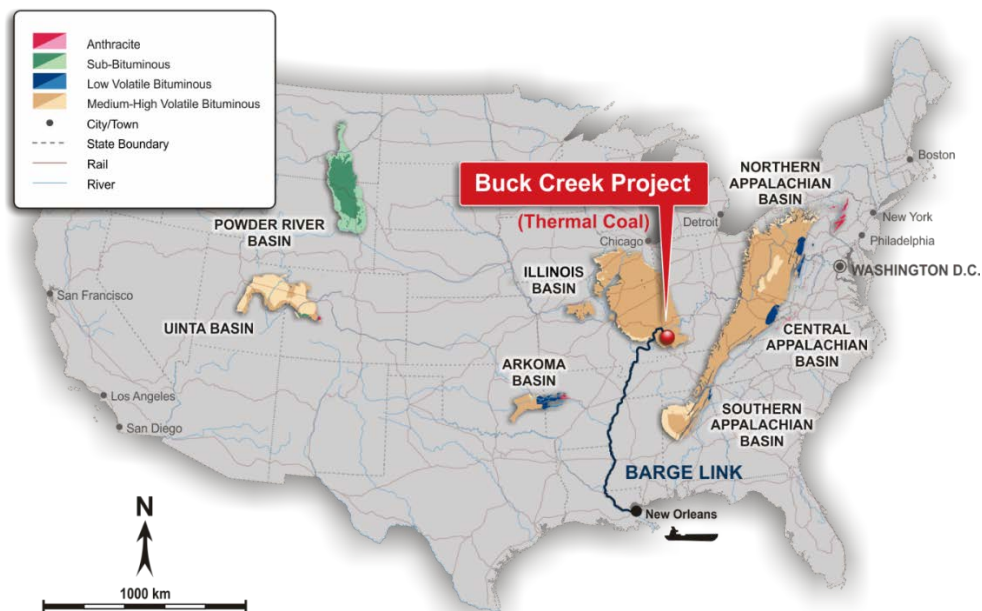
Figure 2: Location of the Buck Creek Mining Complex

APPENDIX 1 – NEW DRILL HOLE DETAILS

Project	Drill Hole	Northing	Easting	Surface Elevation (ft.)	WK No.9 Seam Base Elevation (ft.)	Depth to WK No.9 Top of Seam (ft.)	WK No.9 Seam Thickness (ft.)	Total Drill Hole Depth (ft.)	Quality Data
Buck Creek	GR7	390111.93	1528874.63	385.0	-94.12	474.12	5.0	491	No
Buck Creek	M175	388560.14	1534023.61	401.0	-16.84	413.18	4.66	420	No
Buck Creek	PR4	388027.53	1529618.46	401.0	-73.17	469.50	4.67	475	No
Buck Creek	3	393045.00	1544848.68	375.0	49.52	321.48	4.0	329	No
Buck Creek	R30	393667.40	1542457.64	377.0	42.50	330.00	4.5	342	No
Buck Creek	HMG-13-01	428877.42	1548233.11	383.5	-228.54	607.95	4.09	622.9	Yes
Buck Creek	HMG-13-02	426767.72	1547624.62	389.85	-220.83	606.51	4.17	626.43	Yes
Buck Creek	HMG-13-03	425722.33	1544198.86	404.45	-218.30	618.61	4.14	629.67	Yes
Buck Creek	HMG-13-04	428297.42	1542127.00	409.6	-301.62	707.21	4.01	724.6	Yes
Buck Creek	HMG-13-05	425770.34	1537806.37	396.39	-272.73	665.20	3.92	683.8	Yes
Buck Creek	HMG-13-06	428221.35	1526409.36	380.2	-499.66	875.84	4.02	900	Yes
Buck Creek	HMG-13-07	419084.88	1530421.02	378.47	-201.48	576.65	3.30	595.82	Yes
Buck Creek	HMG-13-08	417041.13	1519788.29	380.49	-248.01	624.50	4.00	639	Yes
Buck Creek	HMG-13-09	408193.73	1510877.87	427.27	-315.20	737.47	5.00	756.2	Yes
Buck Creek	HMG-14-01-CC	429754.77	1545528.81	403.32	-289.18	688.22	4.28	708.75	Yes
Buck Creek	HMG-14-02-CC	431974.57	1544599.20	383.87	-310.53	690.61	3.79	710.13	Yes
Buck Creek	HMG-14-03-SC	432656.74	1542547.73	393.09	-345.42	734.59	3.92	744.9	Yes
Buck Creek	HMG-14-04-RD	446949.27	1558997.63	461.06	-71.89	529.02	3.93	545.03	No
Buck Creek	HMG-14-05-RD	439669.88	1547237.22	383.05	-184.74	564.21	3.58	580.09	No
Buck Creek	HMG-14-06-SC	428012.84	1546117.66	395.79	-250.68	642.23	4.24	655.53	Yes
Buck Creek	HMG-14-07-RD	435644.14	1543001.54	381.19	-317.65	694.95	3.89	710	No
Buck Creek	HMG-14-08-RD	434887.83	1530203.55	381.8	-570.50	948.78	3.52	964	No
Buck Creek	HMG-14-09-SC	408857.99	1529689.24	379.59	-441.07	817.42	3.24	840	Yes

APPENDIX 2 – JORC TABLE 1 CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA

<u>**Section 1 Sampling Techniques and Data**</u>

Criteria	JORC Code explanation	Commentary
Sampling techniques	> *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* > *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* > *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	> Prior to 1950, Oil and gas drilling was the primary source of seam thickness and elevation data for the WK No.9 Seam, which is also known as the West Kentucky No. 9 (*WKY9*) seam; no core samples were retrieved. > In 1950 the Kentucky Geological Survey (*KGS*) began acquiring core data from drill holes in and adjacent to the property; no core samples from this drilling have been physically examined by Hartshorne. > In 2009 Buck Creek Resources (*BCRs*) began a drilling program that continued through 2011. The program consisted of diamond core drilling designed for seam delineation and acquisition of coal samples and air rotary holes for seam delineation. > Paringa Resources (PNL) conducted drilling programs in 2013 and 2014 to retrieve coal core samples for quality analyses and seam thickness determination. The programs consisted of 14 diamond core drill holes and 4 air rotary holes. All holes were used for seam delineation and the diamond core holes were also used for coal quality sampling.
Drilling techniques	> *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	> One continuous core, DH-11, was taken during the BCRs drilling programs and 3-inch diameter core samples were produced. HMG drilling programs included two continuous core drill holes producing 2.50 inch diameter core samples. > Both PNL and BCRs spot core drilling consisted of 6.625-inch diameter holes followed by 3-inch diameter conventional core samples of the roof, seam, and floor. > Both HMG and BCRs air rotary drilling consisted of 6.625-inch diameter bore holes.
Drill sample recovery	> *Method of recording and assessing core and chip sample recoveries and results assessed.* > *Measures taken to maximise sample recovery and ensure representative nature of the samples.* > *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	> Core recoveries were monitored and were generally good at greater than 95%. > Coal core samples used for quality analysis contained greater than 95% recovery. > Where available, core recovery thickness was reconciled with the thickness interpreted from geophysical logs.

Criteria	JORC Code explanation	Commentary
Logging	> *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* > *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* > *The total length and percentage of the relevant intersections logged.*	> Drill holes were geologically logged by the driller and those producing core were also logged by a geologist. > All holes drilled during the BCRs 2009 through 2011 programs and HMG 2013 through 2014 programs were geophysically logged using a downhole density and gamma tool. A sonic log was performed on 14 of the BCR's drill holes and on 16 of the PNL drill holes. > In the case of core drill holes, lithological logs were correlated with the geophysical logs and seam thickness and elevation adjusted where appropriate.
Sub-sampling techniques and sample preparation	> *If core, whether cut or sawn and whether quarter, half or all core taken.* > *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* > *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* > *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* > *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* > *Whether sample sizes are appropriate to the grain size of the material being sampled.*	> Core was not divided for sampling.
Quality of assay data and laboratory tests	> *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* > *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* > *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	> Sample analysis was carried out by Standard Laboratories, Inc, SGS North America Inc and Precision Testing Laboratory and performed to American Society for Testing and Materials (ASTM) standards. > Analyses were performed on an as-received, air dry and washed basis unless otherwise stated. > Geophysical tools are calibrated by the logging company (Cardno GLS) and where possible, validated using a calibration hole.
Verification of sampling and assaying	> *The verification of significant intersections by either independent or alternative company personnel.* > *The use of twinned holes.* > *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* > *Discuss any adjustment to assay data.*	> All coal intersection data used to generate the geologic model has been cross referenced with the lithological and geophysical logs by Cardno. > Coal quality was adjusted to reflect an addition of 4% moisture to the equilibrium moisture. > Coal quality results were verified with laboratory analysis sheets by Cardno geologist before inclusion into the geologic model and use in the resource estimate.

Criteria	JORC Code explanation	Commentary
Location of data points	> *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* > *Specification of the grid system used.* > *Quality and adequacy of topographic control.*	> Coordinates for the drill hole locations are in the Kentucky South, State Plane system, North American Datum 1927. Surveyed locations were available for all of the drill holes from the 2009 through 2011 drilling program. Coordinates for the oil and gas wells and those drill holes obtained from the KGS were provided by the KGS and the method of determination is unknown. > Topography is based on the United States Geological Survey's (*USGS*) topographic 7.5 minute quadrangle maps.

Data spacing and distribution	> *Data spacing for reporting of Exploration Results.*
	
	> *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*
	
	> *Whether sample compositing has been applied.*
		> Various sources of data where utilized, as such, spacing of the drill holes used to model the WKY9 seam resource varied across the property ranging from 500 feet (152m) in the eastern portion of the property to 10,000 feet (3,048m) in the western portion of the property.
		
		> As prescribed by the USGS the following distances between points of observation were used to define the corresponding Resource category arcs:
		
		  o Inferred Resources – greater than 3,960 feet (1,207m) but less than 15,840 feet (4,828m) or 3 miles apart.
		
		  o Indicated Resources – 3,960 feet (1,207m) apart.
		
		  o Measured Resources – 1,320 feet (402m) apart.
		
		> Correlation of the WKY9 seam is relatively simple due to the thickness and continuity of the seam.
		
		> Inferred, Indicated, and Measured resource classifications have been reported which reflects the expansive spacing and extent of the supporting data used for the resource estimate.

Orientation of data in relation to geological structure	> *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* > *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	> Drill holes have been vertically drilled. No downhole deviation logs have been collected and it is therefore not know if the drill holes have deviated away from vertical. Based on an average depth of 800 feet (244m), any deviation is expected to be insignificant and immaterial to the geologic characterization of the property. > Horst and graben faults that exist on the property are part of the Rough Creek fault system and have been accurately identified by the KGS. > The dip of the coal seam ranges from 2.0 to 3.0 degrees except for areas directly adjacent to the faulting, where the dip can potentially increase.

Criteria	JORC Code explanation	Commentary
Sample security	> *The measures taken to ensure sample security.*	> Sample handling procedures were developed for the project and are understood to have been employed by BCRs and PNL during exploration.
Audits or reviews	> *The results of any audits or reviews of sampling techniques and data.*	> Cardno has reviewed all available geological information for the property in developing the geologic model. The data is suitable and has been used for the purpose of generating an updated Resource estimate compliant with the 2012 edition of the JORC Code and the 2014 Edition of the Australian Guidelines for the Estimation and Classification of Coal Resources.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	> *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* > *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	> The Buck Creek project is located within the Carbondale Formation of the Illinois Basin between the towns of Hanson and Calhoun in Hopkins and McLean Counties, Kentucky. The geologic model and Resource estimate prepared by Cardno was for the region identified as the area of interest but concentrated on the coal controlled properties. > All coal is leased from numerous private owners through the payment of an annual minimum royalty and an earned royalty. > On 80% of the controlled property by area, once mining operations commence, the annual minimum royalty is reduced by the amount of earned royalty due on mined coal. On these leases the annual minimum royalty payments are recoupable against any earned royalty due under the coal leases on a lease-by-lease basis. > On the remaining 20% of controlled property by area, the annual minimum royalties are not recoupable against the earned royalty. > There are no known legal or environmental encumbrances that would impede coal property acquisition.
Exploration done by other parties	> *Acknowledgment and appraisal of exploration by other parties.*	> The oil and gas exploration was carried out by several drilling entities. The largest collection of drill holes was carried out by the KGS in the 1950's. BCR conducted three different drilling programs between 2009 and 2011. > Oil and gas wells were used in the resource study largely for structural control.

Criteria	JORC Code explanation	Commentary
Geology	> Deposit type, geological setting and style of mineralisation.	> The project is located in the West Kentucky Coal Fields, which is part of the Illinois Basin. The thickest and most continuous coal seams, including the WKY#9 seam, are found in the Carbondale Formation. The Carbondale Formation consists largely of shale, sandstone siltstone, limestone and to a lesser extent fireclays and coal. > Coal seams dip on average 2.0 to 3.0 degrees toward the center of the basin which lies toward the northwest portion of the property.
Drill hole Information	> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: > easting and northing of the drill hole collar > elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar > dip and azimuth of the hole > down hole length and interception depth > hole length. > If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	> A detailed list of the updated PNL and KGS drill holes used to define the resource can be found in Appendix 1 of this report entitled Drill Hole Details. > For coal quality drill hole locations, see Appendix 1: Drill Hole Details > All drill holes are provided with a Kentucky South NAD 27 easting and northing coordinate. > All drill holes have been vertically drilled on flat topography.
Data aggregation methods	> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. > Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. > The assumptions used for any reporting of metal equivalent values should be clearly stated.	> Coal quality results have been documented in this report. Average values can be found in Table 2: Buck Creek Mining Complex Seam Coal Quality Specifications. Coal quality was not used as a limiting parameter. > Average coal quality values were generated and summarized in Microsoft® Excel.
Relationship between mineralisation widths and intercept lengths	> These relationships are particularly important in the reporting of Exploration Results. > If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. > If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	> Coal thickness values from all coal intersections and down hole geophysical logs are considered to be vertical thicknesses. Seam dip of approximately 2.0 to 3.0 degrees has little effect on the vertical thickness of the seam.

Criteria	JORC Code explanation	Commentary
Diagrams	> *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	> Appropriate geologic and coal quality maps, diagrams and exhibits are included in this report.
Balanced reporting	> *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	> All of the available exploration data from PNL, BCRs and the KGS have been included in the geologic model. > A select group of oil and gas wells of suitable resolution were also used in modelling the Resource.
Other substantive exploration data	> *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	> Informational material available from the KGS was used to assist in the Resource estimate.
Further work	> *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* > *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	> The WKY9 seam extends in all directions beyond the limits defined by the area of interest. Outcrop and potential seam thinning to the east, along with previous mining around the property, are the most obvious limits to potential resource expansion. > Further work is expected to include additional exploration, geotechnical testing, coal quality analyses, and coal property acquisition.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	> *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* > *Data validation procedures used.*	> All data has been validated prior to being imported into the geological database used to build the geological model. > Seam picks for all core drill holes have been compared to lithological logs, sample intervals, and geophysical logs where available.

Criteria	JORC Code explanation	Commentary
Site visits	> *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* > *If no site visits have been undertaken indicate why this is the case.*	> No site visit has been undertaken by the Cardno CP geologist, however site visits by a Cardno mining engineer has occurred. > The CP has worked with the exploration geologists and other Hartshorne personnel involved in the exploration. > The CP is familiar with the area through working with other projects in the area and is experienced in the type of depositional environment of the coal seams being explored. > A site visit by the CP Geologist was considered not to be required as the data provided was sufficient to develop the geological model and Resource estimate. Furthermore, there is currently no mining of the WK No. 9 seam or infrastructure on the property.
Geological interpretation	> *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* > *Nature of the data used and of any assumptions made.* > *The effect, if any, of alternative interpretations on Mineral Resource estimation.* > *The use of geology in guiding and controlling Mineral Resource estimation.* > *The factors affecting continuity both of grade and geology.*	> A total of 186 drill holes have been used to define the WKY9 seam coal deposit and provide the basis for a good understanding of the geology of the project area. > Three mines in the WKY9 seam are actively operating in areas to the north, west and south of the area of interest as shown on the diagram included in this report. > Faulting is present throughout the area, the extent of which is well documented by the KGS. > The geology of the Buck Creek project is sufficiently understood through the exploration data and historical public records for estimation of the Resource.
Dimensions	> *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	> The geological model for the Buck Creek Resource Boundary covers an area in excess of 73,800 acres, 33,500 of which are currently leased. > The overburden thickness varies from less than 400 feet (122m) in the south eastern portion of the property to more than 1,100 feet (335m) in the north western corner.

Criteria	JORC Code explanation	Commentary

Estimation and modelling techniques	> *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*
	
	> *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	
	> *The assumptions made regarding recovery of by-products.*
	
	> *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).*
	
	> *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	
	> *Any assumptions behind modelling of selective mining units.*
	
	> *Any assumptions about correlation between variables.*
	
	> *Description of how the geological interpretation was used to control the resource estimates.*
	
	> *Discussion of basis for using or not using grade cutting or capping.*
	
	> *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		> Exploration and oil and gas drill hole information was used to develop a geologic model, which was used as the basis of the Resource estimation.
		
		> Coal seams were identified from drill holes based on lithological logging by a competent geologist, and cross referenced with downhole geophysical survey logs where available.
		
		> Seam correlation across the drill holes was completed by a BCRs and Cardno geologists. All correlations were verified by Cardno.
		
		> Coal seams from cored drill holes were sampled and sent to laboratory for testing.
		
		> Geological data was imported into Surfer 8 and Carlson Mining® (formerly SurvCADD®) geological modelling software in the form of Microsoft® Excel files incorporating, drill hole collars, seam and thickness picks, bottom seam elevations and raw and washed coal quality. These data files were validated prior to importing into the software.
		
		> Once imported, a model was created for all of the mapped seam and geologic and quality features.
		
		> The geological model was verified and reviewed.
		
		> Resources were estimated by defining seam thickness at each point of observation and by defining resource confidence arcs around the points of observation.
		
		> Points of observation for Measured and Indicated confidence arcs were defined for all drill holes that intersected the seam.
		
		> As prescribed by the USGS the following distances between points of observation were used to define the corresponding Resource category arcs:
		  o Inferred Resources – greater than 3,960 feet (1,207m) but less than 15,840 feet (4,828m) or 3 miles apart.
		  o Indicated Resources – 3,960 feet (1,207m) apart.
		  o Measured Resources – 1,320 feet (402m) apart.
		
		> Resources were then estimated from the geological model using the resource categorization polygons for the WKY9 seam to limit the estimate to within the area defined by each polygon.

Criteria	JORC Code explanation	Commentary
Moisture	> *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	> Resource tonnage has been estimated and reported on an in-situ air dry basis. > Equilibrium moisture is reported to range between 3.9% and 8.1%. > Resource tons estimated on an as received moisture basis will be less than Resource tons reported on an equilibrium moisture + 4.0 percent moisture basis. Therefore, reporting Resource tons on an as received moisture basis is a more conservative approach
Cut-off Parameters	> *The basis of the adopted cut-off grade(s) or quality parameters applied.*	> Resource tonnage was estimated within the approximately 33,500 acres of controlled coal. > Resource tons were terminated at a minimum seam thickness of 3.0 feet. > A 200-foot mine exclusion zone was applied to each side and terminus of the identified faults. > No coal quality cut-off parameters were applied.
Mining factors or assumptions	> *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	> No mining factors (i.e. dilution, coal loss, recoverable resources at selective mining block size) have been applied.
Metallurgical factors or assumptions	> *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	> The WKY9 seam is a thermal product therefore no metallurgical assumptions have been applied in estimating the Resource.

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	> *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	> No environmental assumptions have been built into the geological model or the Resource estimate. > Cardno is not aware of any significant environmental risk or encumbrances to mine development associated with the Buck Creek project. The land is currently primarily used for farming.
Bulk density	> *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* > *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* > *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	> Laboratory derived seam densities measured in pounds per cubic foot were established for each BCRs coal sample analysed and used to estimate the Resource tons. Seam density was not determined for the coal samples recovered during PNLs 2013-2014 drilling programs. > Coal Resources were estimated and reported on an as received basis. > Resource tons estimated on an as received moisture basis will be less than Resource tons reported on an equilibrium moisture + 4.0 percent moisture basis. Therefore, reporting Resource tons on an as received moisture basis is a more conservative approach.
Classification	> *The basis for the classification of the Mineral Resources into varying confidence categories.* > *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* > *Whether the result appropriately reflects the Competent* > *Person's view of the deposit.*	> The Resource has been classified based on suitable distances from points of observations prescribed in the USGS Circular 891 and the United States Security and Exchange Commission's Industry Guide 7. > Points of observation that included seam thickness have been extracted from cored drill holes, air rotary drill holes and a select few oil and gas wells.

Criteria	JORC Code explanation	Commentary
Audits or reviews	> *The results of any audits or reviews of Mineral Resource estimates.*	> The geological model and Resource estimation have been conducted by Mr. Kirt W. Suehs, Senior Geologist with Cardno. > Cardno constructed the geological model after validation of the raw data and data processed previously by personnel from BCRs. Additionally, Cardno reviewed, processed, and integrated results of PNLs 2013 and 2014 drilling programs into the model. > The geological model was reviewed by checking the data in the geologic model against the actual data. > The geological model was verified by a series of cross sections and contour plans. > Mr. Justin Douthat, Business Unit Manager – Mining Advisory Services for Cardno and Mr. Peter Taylor, Principal and Business Unit Manager – Mining Advisory Services, peer reviewed the resource estimation and found it to be satisfactory with no fatal flaws.
Discussion of relative accuracy/ confidence	> *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* > *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* > *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	> The geological model used for the Resource estimation has been constructed by Cardno and all data has been validated. > Resource estimation has been completed using standard coal estimation methods which are deemed appropriate for this deposit. > Resources have been categorized based on valid points of measurements and distances from points of observation as prescribed in the USGS Circular 891 and the United States Security and Exchange Commission's Industry Guide 7. > The categories reflect the underlying confidence in the resources over the Project area.