PARINGA RESOURCES LIMITED

20 February 2017

SUBSTANTIAL 77 MILLION TON INCREASE (30%) IN COAL RESOURCES TO 328 MILLION TONS

HIGHLIGHTS:

- ***Following a successful drilling campaign, Paringa's total Coal Resources have increased from 251 to 328 million tons from the inclusion of the WK No.11 coal seam***
- ***Importantly, the Coal Resources at the Poplar Grove Mine (including both WK No.11 and No.9) have increased by 62% to 118.5 million tons***
- ***WK No.11 exhibits excellent Illinois Basin coal quality with high heating value (12,160 btu/lb), low ash (8.4%) and low chlorine (0.12%)***
- ***Updated Coal Resource will be incorporated into an expanded Bankable Feasibility Study to include a two-coal seam operation (WK No.11 and No.9) at Poplar Grove***
- ***Poplar Grove mine permitting process and the expanded Bankable Feasibility Study on track for completion by the end of Q1 2017***
- ***Paringa currently in discussions with financers to develop the low capex Poplar Grove Mine, set for construction to start mid-2017***

Paringa Resources Limited ("**Paringa**" or "**Company**") is pleased to announce an updated 328 millionton (~298 million tonnes) Coal Resource Estimate ("**CRE**") for the Poplar Grove and Cypress Mines ("**Project**") located in the low cost and proven Illinois Coal Basin in Kentucky, USA.

As recently announced to the ASX on 17 October 2016, the discovery of the WK No.11 ("**WK No.11**") coal seam above the Western Kentucky No.9 ("**WK No.9**") coal seam at Poplar Grove has the potential to significantly improve the project economics by increasing capacity with minimal capital cost. Paringa is in the final stages of completing an updated Bankable Feasibility Study ("**BFS**") to assess the potential for a two-coal seam operation at Poplar Grove and the optimal method to access the WK No.11 seam from planned underground mine operations for the WK No.9 seam.

Paringa's CEO, Mr. Todd Hannigan, said*: "I would like to congratulate the Paringa team for the very successful drilling campaign over the last 4 months which has enabled us to announce the significant upgrade in our JORC Resources. This Resource upgrade will now underpin our proposed two seam mining operation at Poplar Grove. Importantly, we remain on track to deliver on the commitments we made to our shareholders and we look forward to commencing construction of Poplar Grove by mid-2017."*

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Coal Resource Estimate

As part of preparing an updated BFS, the Company has completed an update to the CRE which was prepared by Marshal Miller and Associates, Inc. (formerly owned by Cardno Inc.) in accordance with the 2012 JORC code. The CRE increased 30% from 251 million tons to 328 million as a result of including coal from the WK No.11 seam identified at Poplar Grove and Cypress Mines.

An overview of the total CRE for both the WK No.11 and WK No.9 coal seam at Poplar Grove and Cypress Mines are provided below in Table 1:

Table 1: Poplar Grove and Cypress Mines Coal Resource Estimate (WK No.9 and No.11 seam)

CRE Tonnage (tons)					
Coal Seam	Measured	Indicated	**Total Measured & Indicated**	Inferred	Total
WK No.11	23.2 million	53.4 million	76.6 million	-	76.6 million
WK No.9	77.9 million	172.8 million	250.7 million	0.7 million	251.5 million
Total	**101.2 million**	**226.3 million**	**327.4 million**	**0.7 million**	**328.1 million**

An overview of the total CRE for both the WK No.11 and WK No.9 coal seam at Poplar Grove Mine (only) is provided below in Table 2:

Table 2: Poplar Grove Coal Resource Estimate (WK No.9 and No.11 seam)

CRE Tonnage (tons)					
Coal Seam	Measured	Indicated	**Total Measured & Indicated**	Inferred	Total
WK No.11	15.5 million	28.2 million	43.7 million	-	43.7 million
WK No.9	30.8 million	44.0 million	74.8 million	-	74.8 million
Total	**46.3 million**	**72.2 million**	**118.5 million**	**-**	**118.5 million**

Note: Total Coal Resource for Poplar Grove Mine's WK No.9 seam was previously 73 million tons, hence increase to current Total Coal Resource Estimate (WK No.11 and No.9) of 118.5 million tons is 62%.

The updated CRE also incorporated drilling results from new and historical drill holes at the Poplar Grove Mine and Cypress Mine (refer to Appendix 1). In addition, a total of 193 drill holes were used in the WK No. 9 seam calculation, including 80 Kentucky Geological Survey core holes, 29 Buck Creek Resources LLC core holes, 10 Buck Creek Resources LLC rotary holes, 34 Hartshorne Mining LLC core holes, 15 Hartshorne Mining LLC rotary holes, and 25 gas wells. A total of 191 drill holes were used in the WK No. 11 seam calculation, including 79 Kentucky Geological Survey core holes, 30 Buck Creek Resources LLC core holes, 10 Buck Creek Resources LLC rotary holes, 6 Hartshorne Mining LLC core holes, 42 Hartshorne Mining LLC rotary holes, and 24 gas wells.

In total, there are over 1,200 coal seam intercepts at the Poplar Grove and Cypress Mines, providing a significant level of understanding of the WK No.9 and WK No.11 coal seams within the property.

Coal Quality

The Poplar Grove and Cypress Mines have highly attractive coal quality properties compared to existing operating mines in the Illinois Basin. On a 100% washed basis, together with a 4% addition to equilibrium moisture, the WK No.11 and WK No.9 coal seams have a high heat content of 12,160 Btu/lb and 11,852 Btu/lb respectively, which compares favourably with the larger producing mines in the Illinois Basin. Since thermal coal mines are ultimately selling energy, this factor makes the Poplar Grove and Cypress Mines very attractive new sources of energy from the Illinois Basin.

An overview of the Raw Proximate Analysis and Average Washed Core Product Qualities for the WK No.11 coal seam at Table 3:

Table 3: Coal Seam Coal Quality Specifications – WK No.11

Raw Proximate Analysis (As Received)						**Average Washed Core Product Qualities** (Float 1.60 SG with Moisture = Equilibrium Moisture +4%)			
EQ Moisture	Ash	Volatile Matter	Fixed Carbon	Chlorine	HGI	Calorific Value (Btu/lb)	Ash	Sulfur	Yield @ 1.60 Float)
4.9%	15.7%	38.6%	40.1%	0.12%	58	12,160	8.5%	3.4%	84.2%

An overview of the Raw Proximate Analysis and Average Washed Core Product Qualities for the WK No.9 coal seam at Table 4:

Table 4: Coal Seam Coal Quality Specifications – WK No.9

Raw Proximate Analysis (As Received)						**Average Washed Core Product Qualities** (Float 1.60 SG with Moisture = Equilibrium Moisture +4%)			
EQ Moisture	Ash	Volatile Matter	Fixed Carbon	Chlorine	HGI	Calorific Value (Btu/lb)	Ash	Sulfur	Yield @ 1.60 Float)
6.3%	11.7%	37. 5%	44.3%	0.15%	60	11,851	8.7%	2.8%	93.3%

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 and WK No, 11 Seams associated with the Project have 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. The WK No. 11 seam is not continuous and occurs in pods throughout the west and central portions of the property until becoming absent to the east. Due to the eventual absence of the seam in the eastern portion of the property the WK No. 11 seam is slightly more complex than the WK No. 9 seam. The mineable seam thickness for the WK No. 9 seam ranges from 3.0 feet (0.91 metres) to 5.0 feet (1.5 metres) with fairly consistent coal thickness exhibiting minimal splitting and non-coal partings. The mineable seam thickness for the WK No. 11 seam ranges from 3.0 feet (0.91 metres) to 5.5 feet (1.67 metres) and frequently includes shale partings. Furthermore, as common in Western Kentucky, the seams are affected by tectonic deformation within the resource area.

The 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 interval overlying the WK No. 11 seam consists of a black to gray shale or claystone which is generally overlain by a limestone that can range from 0.5 feet to15 feet in thickness.

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 MM&A. 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 within the WK No.9 Seam but no mining of the WK No.9 Seam has occurred within the Project. The WK No. 11 seam has been mined to the west of the Project area but not as extensively as the WK No. 9 seam.

Drilling and Sampling Techniques

A total of 193 bore holes were used in the WK No. 9 seam calculation, including 80 Kentucky Geological Survey core holes, 29 Buck Creek Resources LLC core holes, 10 Buck Creek Resources LLC rotary holes, 34 Hartshorne Mining LLC core holes, 15 Hartshorne Mining LLC rotary holes, and 25 gas wells. A total of 191 bore holes were used in the WK No. 11 seam calculation, including 79 Kentucky Geological Survey core holes, 30 Buck Creek Resources LLC core holes, 10 Buck Creek Resources LLC rotary holes, 6 Hartshorne Mining LLC core holes, 42 Hartshorne Mining LLC rotary holes, and 24 gas wells

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 2017 Paringa successfully completed 7 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 5.125-inch diameter rotary bit followed by a 3-inch diamond core of the roof, seam, and floor. The air rotary drilling consisted of 5.125-inch diameter bore holes.

Hartshorne core drilling included three (3) continuous cores, HMG-14-01 and HMG-14-02, with 2.75-inch diameter core samples produced from the entire rock column and HMG-16-22 with 3.0-inch diameter core samples produced from the entire rock column. The remainder of the core holes were spot drilled utilizing a 5.125-inch diameter rotary bit followed by a 3-inch diamond core of the roof, seam, and floor. The air rotary drilling consisted of 5.125-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 2017 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 27 of the Hartshorne 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. Hartshorne 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 (MM&A) 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 MM&A.

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 MM&A geologist before inclusion into the geologic model and use in the resource estimate.

Resource Estimation Methodology

The preparation of the CRE was undertaken by MM&A (formerly Cardno) based in Bluefield, Virginia, USA. MM&A 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 Effective January 1, 2017, Cardno's mining group (formerly Marshall Miller & Associates) is no longer affiliated with the Cardno organization. **Marshall Miller & Associates, Inc. (*MM&A*)** has been reestablished under private ownership.

As a leading consulting firm in the coal and coalbed methane industries working in the United States and internationally, MM&A's energy-related client base consists of over 250 companies. MM&A provides advisory and technical services on project feasibility, acquisition due diligence, mineral reserve and resource reporting, operations assessment, safety and risk management, and process improvement, among others.

MM&A 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 MM&A'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

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 utilized was 3.0 feet (0.91 metres). Average thickness of the WK No.11 Seam is 4.16. feet (1.16 metres).

Mining and metallurgical methods and parameters

The Company has completed a BFS on the WK No. 9 Project which was prepared by MM&A, 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 confirmed the potential of the Project to be developed as a high margin, low cost mine in the growing Illinois Basin. The Study utilized the Buck Creek Complex's CRE of 250.7 million tons of WK No. 9 seam coal to demonstrate that the fundamentals from the initial development of Poplar Grove Mine, a portion of the Buck Creek Complex, 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.

Core quality and washability testing was completed on the thirty-one Hartshorne 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 -thirty-one recently completed core samples and the historical 24 samples were utilized in determining the average core coal quality.

Core quality and washability testing was completed on the six Hartshorne drill core holes conducted within controlled leases of the Project targeting the WK No.11 seam. The coal samples were shipped to SGS North America Inc. in Henderson, Kentucky for analysis. Core recovery was greater than 95 percent for all of the samples sent for analysis. Coal seam quality data from the six recently completed core samples were utilized in determining the average core coal quality.

This average quality value was tabulated in Microsoft Excel. 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 5: Poplar Grove and Cypress Mines WK9 – Coal Quality Specifications

Raw Proximate Analysis (As Received)						**Average Washed Core Product Qualities** (Equilibrium Moisture +4%)		
EQ Moisture	Ash	Volatile Matter	Fixed Carbon	Chlorine	HGI	Calorific Value (Btu/lb)	Ash	Yield @ 1.60 Float
6.3%	11.7%	37.5%	44.3%	0.15%	60	11,851	8.7	93.3%

Table 6: Poplar Grove and Cypress Mines WK11 – Coal Quality Specifications

Raw Proximate Analysis (As Received)						**Average Washed Core Product Qualities** (Equilibrium Moisture +4%)		
EQ Moisture	Ash	Volatile Matter	Fixed Carbon	Chlorine	HGI	Calorific Value (Btu/lb)	Ash	Yield @ 1.60 Float
4.9%	15.72%	38.6%	40.1%	0.12%	58	12,160	8.5%	84.2%

Forward Looking Statements

This report may include forward-looking statements. These forward-looking statements are based on Paringa's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Paringa, which could cause actual results to differ materially from such statements. Paringa makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement.

Competent Persons Statements

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.

The information in this report that relates to Coal Reserves, Production Targets, Mining, Coal Preparation, Infrastructure, and Cost Estimation was extracted from Paringa's ASX announcements dated November 21, 2016 entitled 'BFS Confirms Low Capex Project With High Financial Returns', October 17, 2016 entitled 'Discovery of Additional Major Coal Seam at Poplar Grove Mine', and December 2, 2015 entitled 'BFS Confirms Buck Creek will be a Low Capex, High Margin Coal Mine' which are available to view on the Company's website at www.paringaresources.com.au.

The information in the original ASX announcements that related to Coal Reserves, Production Targets, Mining, Coal Preparation, Infrastructure, and Cost Estimation is based on, and fairly represents, information compiled or reviewed by Messrs. Justin S. Douthat and Gerard J. Enigk, both of whom are Competent Persons and are Registered Members of the Society for Mining, Metallurgy & Exploration. Messrs. Douthat and Enigk are employed by Cardno. Messrs. Douthat, and Enigk have 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 Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' and to qualify as Qualified Persons 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.

Paringa confirms that: a) it is not aware of any new information or data that materially affects the information included in the original ASX announcements; b) all material assumptions and technical parameters underpinning the Exploration target, Coal Resource, Coal Reserve, Production Target, and related forecast financial information derived from the Production Target included in the original ASX announcements continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this presentation have not been materially modified from the original ASX announcements.

Appendix 1 – Table of New Drill Holes Included in Updated Coal Resource Estimate

Drill Hole	Seam Intercept	Northing	Easting	Surface Elevation (ft.)	Seam Base Elevation (ft.)	Depth to Top of Seam (ft.)	Seam Thickness (ft.)	Total Drill Hole Depth (ft.)	Hole Type	Purpose	Quality Data?
3	WK#11	1544848.68	393045	375.00	132.68	237.33	4.99	328.98	Core	Explor.	No
72326	WK#11	1525556.96	405776.25	382.00	-348	724.5	5.5	3050	Rotary	Explor.	No
111968	WK#11	1520044.86	404197.0399	388.00	-283.5	666	5.5	3020	Rotary	Explor.	No
137119	WK#11	1519353.98	402407.68	395.00	-340	729.5	5.5	1500	Rotary	Explor.	No
BCR-1	WK#11	1514364.8	404506.5	398.22	-285.78	678.2	5.8	770	Rotary	Explor.	No
BCR-10	WK#11	1534500	408000	345.00	-395.79	736.94	3.85	847	Rotary	Explor.	No
BCR-2	WK#11	1516379.4	407141.9	446.66	-389.44	830.4	5.7	930	Rotary	Explor.	No
BCR-3	WK#11	1522686.4	406550.3	381.91	-366.69	743.2	5.4	840	Rotary	Explor.	No
BCR-6	WK#11	1521289.4	407833.4	404.40	-396.45	795.55	5.3	900	Rotary	Explor.	No
HMG-14-09-SC	WK#11	1529689.24	408857.99	379.59	-368.31	744.8	3.1	829.9	Core	Explor.	No
HMG-16-24-SC	WK#11	1544542.24	415621.17	461.00	-364.50	821.40	4.10	910.70	Core	Explor.	No
HMG-16-24-SC	WK#9	1544542.24	415621.17	461.00	-436.30	893.70	3.60	910.70	Core	Explor.	Yes
HMG-16-25-SC	WK#11	1539683.27	412044.57	378.00	-401.70	774.80	4.90	866.80	Core	Explor.	No
HMG-16-25-SC	WK#9	1539683.27	412044.57	378.00	-477.20	851.70	3.50	866.80	Core	Explor.	Yes
HMG-16-26-SC	WK#11	1523195.71	404526.48	391.00	-300.35	686.15	5.20	775.60	Core	Explor.	Yes
HMG-16-26-SC	WK#9	1523195.71	404526.48	391.00	-381.85	768.15	4.70	775.60	Core	Explor.	Yes
HMG-16-27-SC	WK#11	1543790.98	407414.70	428.00	33.50	389.40	5.10	486.80	Core	Explor.	Yes
HMG-16-27-SC	WK#9	1543790.98	407414.70	428.00	-49.20	473.20	4.00	486.80	Core	Explor.	Yes
HMG-16-28-SC	WK#9	1546636.63	398932.57	378.00	127.90	246.50	3.60	260.60	Core	Explor.	Yes
HMG-16-29-SC	WK#11	1534353.61	413751.95	379.98	-437.95	812.75	5.18	885.75	Core	Explor.	Yes
HMG-16-29-SC	WK#9	1534353.61	413751.95	379.98	-505.72	882.2	3.50	885.75	Core	Explor.	No
HMG-16-30-SC	WK#11	1540353.58	415914.82	404.63	-421.87	821.4	5.10	899.2	Core	Explor.	Yes
HMG-16-30-SC	WK#9	1540353.58	415914.82	404.63	-494.57	895.8	3.37	899.2	Core	Explor.	Yes
HMG-16-31-SC	WK#11	1549911.62	409890.51	407.70	-36	439.4	4.3	529.0	Core	Explor.	Yes
HMG-16-31-SC	WK#9	1549911.62	409890.51	407.70	-121.3	525.1	3.91	529.0	Core	Explor.	Yes
HMG-16-32-SC	WK#11	1539923.1	402613.55	379.86	123.66	251.7	4.5	346.9	Core	Explor.	Yes
HMG-16-32-SC	WK#9	1539923.1	402613.55	379.86	32.96	343.25	3.65	346.9	Core	Explor.	Yes
HMG-16-33-SC	WK#11	1535309.26	401475.37	379.36	113.36	266	0.0	352.52	Core	Explor.	No
HMG-16-33-SC	WK#9	1535309.26	401475.37	379.36	26.74	348.7	3.92	352.52	Core	Explor.	Yes
HMG-16-36-SC	WK#9	1562557.5	418217.96	380.95	169.1	210.0	1.85	211.85	Core	Develop.	No
HMG-17-01-SC	WK#9	1562949.81	418119.94	381.5	191.6	186.1	3.8	202	Core	Develop.	In Process
HMG-17-02-RD	WK#9	1562149.23	418314.83	381.49	145.54	231.95	4.0	252	Rotary	Develop.	No
HMG-17-03-RD	WK#9	1561051.89	418474.41	379.00	89.29	285.66	4.05	301	Rotary	Develop.	No
HMG-17-04-RD	WK#9	1562645.7	418131.45	381.00	177.70	199.4	3.9	220	Rotary	Develop.	No
HMG-17-05-RD	WK#9	1562664.73	418268.79	381.00	173.10	206.3	1.6	220	Rotary	Develop.	No
HMG-17-06-RD	WK#11	1546440.31	408542.14	429.00	6.45	418.0	4.55	521	Rotary	Explor.	No
HMG-17-06-RD	WK#9	1546440.31	408542.14	429.00	-81.6	506.5	4.1	521	Rotary	Develop.	No
HMG-17-07-RD	WK#9	1561347.42	417972.31	381.00	109.85	267.25	4.0	285	Rotary	Develop.	No
HMG-17-11-RD	WK#9	1561799.76	418796.39	381.49	116.19	261.3	4.0	279.	Rotary	Develop.	No
HMG-17-20-RD	WK#11	1553990.72	412346.29	402.00	-22.90	424.2	0.7	521	Rotary	Develop.	No
HMG-17-20-RD	WK#9	1553990.72	412346.29	402.00	-106.90	505.05	3.85	521	Rotary	Explor.	No

JORC Table 1 Checklist of Assessment and Reporting Criteria

Section 1 Sampling Techniques and Data

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 West Kentucky No. 9 (*WK No. 9*) or Springfield seam; no core samples were retrieved. > In 1950 the **Kentucky Geological Survey (*KGS*)** began acquiring drilling data 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 continuous core drilling and air rotary spot core drilling designed for seam delineation and acquisition of coal samples for analyses. > The last 10 drill holes in this program were air rotary holes and no coal core samples were collected. > Roof and floor samples from five of the WK No. 9 BCRs core samples were retained for acid-base analyses. > **The Hartshorne Mining Group, LLC (*HMG*)** conducted drilling programs beginning in 2013 and continued into 2017 to retrieve coal core samples for quality analyses and seam thickness determination. The programs consisted of 49 drill holes from which 31 WK No. 9 coal core samples were retrieved and analysed and six WK11 samples were retrieved and analysed. > Unless otherwise specified, drilling data that references sampling, core recoveries, quality, geophysical logging and other specific analyses refers to the coal specific drill holes associated with BCRs and HMG programs.

Criteria	JORC Code explanation	Commentary
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 2.75 inch diameter core samples and one continuous core drill hole producing 3-inch diameter core samples. > The BCRs air rotary spot core drilling consisted of 5.125-inch diameter holes followed by 3-inch diameter conventional core samples of the roof, seam, and floor. HMG air rotary spot core drilling consisted of 5.125-inch diameter holes and 3.0- inch diameter core samples of roof, seam and floor. > The BCRs air rotary drilling consisted of 6.625-inch diameter bore holes. HMG air rotary drilling consisted of 5.125-inch diameter bore holes. > Drill type and size of historical core holes, rotary holes, and oil and gas wells is not known.
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. > A portion of the KGS drill holes used in the resource study contained quality results. The results were provided in an Excel format that did not identify the basis of the analysis, the laboratory that performed the results or the core recovery, therefore the reported data was not used.
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 were geophysically logged using a downhole density and gamma tool. All but one of the drill holes in the HMG 2013 through 2017 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 27 of the HMG 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.

Criteria	JORC Code explanation	Commentary
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.	> WK No. 9 samples from drill holes HMG-14-1, 3 and 6 were divided for beneficiation specific 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 a raw as-received, air dry and washed basis unless otherwise stated. > Geophysical tools are calibrated by the logging company (MM&A) and where possible, validated using a calibration hole. > Quality summary results presented in *Table 15: Poplar Grove and Cypress Mines – Coal Quality Specifications* compare favourably to those prepared and documented in the **United States Geological Survey**'s **(*USGS*)** report titled "*Paper 1625-D, Chapter C Geologic Overview by J. R. Hatch and R. H. Affolter entitled "Resource Assessment of the Springfield, Herrin, Danville and Baker Coals in the Illinois Basin*" dated August 2002 (*Paper 1625-D*) and "*USGS Fact Sheet FS-072-02 August 2002*"
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 MM&A. > 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 MM&A 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 the drill holes from BCRs 2009 through 2011 drilling program and the HMG 2013 through 2016 drilling programs. Coordinates for the 2017 drill holes were obtained from a hand-held GPS. 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 USGS's 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 WK No. 9 and WK No. 11seam resource varied across the property. The abundant oil and gas well data in the area were not generally used for resource thickness mapping, but provided added evidence of the continuity of the seam throughout the area. The oil and gas wells' thicknesses were rounded to even feet and therefore were not used in modelling the seam thickness. As prescribed by the USGS, the following distances from points of observation were used to define the corresponding Resource category arcs: - Inferred Resources – greater than 3,960 feet but less than 15,840 feet (3 miles). - Indicated Resources – 3,960 feet. - Measured Resources – 1,320 feet. > Correlation of the WK No. 9 and 11 seams is relatively simple. Thickness and quality continuity of the WK No. 9 seam is exceptional and well documented as described in Paper 1625-D and the KGS Map and Chart 197, Series XII, 2010 titled "*Remaining Resources of the Springfield Coal*" by Gerald A. Weisenfluh (*USGS Map 2010*). The WK11 seam becomes less continuous and absent to the east but has distinguishable marker beds to identify it's stratigraphic location. > Inferred, Indicated, and Measured resource classifications from the USGS Circular 891 have been implemented in this updated resource report to reflect the spacing and extent of the supporting data used for the resource estimate. The use of the USGS standards are appropriate and customary for this resource jurisdiction and deposition type.

Criteria	JORC Code explanation	Commentary
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 known if the drill holes have deviated away from vertical. Based on an average depth of 800 feet, 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 through USGS and KGS mapping. > 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.
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 HMG during exploration
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	> MM&A has reviewed all available geological information for the property in developing the geologic model. The data is suitable and has been used for generating an updated Resource estimate compliant with the 2012 edition of the JORC Code.

Section 2 Reporting of Exploration Results

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 Complex coal resources are 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 estimates prepared by MM&A was for the region identified as the coal controlled properties. > Coal rights are leased from numerous private owners through the payment of an annual minimum royalty and an earned royalty. The annual minimum royalty is an annual per acre charge that escalates from US $10 per acre to US $25 per acre during the term of the coal leases. Once mining operations commence, the annual minimum royalty is reduced by the amount of earned royalty due on mined coal. All annual minimum royalty payments are recoupable against any earned royalty due under the coal leases on a lease-by-lease basis. The earned royalty is the greater of $1.25 per ton or 4% of the average gross sales price F.O.B. mine. > Under the original Buck Creek acquisition agreement, a final vendor payment of US$12,000,000 is to be made by 28 March 2018 to complete the acquisition.

Criteria	JORC Code explanation	Commentary
		> 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 designed specifically for coal identification was carried out by the KGS in the 1950's. BCR conducted three different drilling programs between 2009 and 2011. HMG conducted seven drilling programs between 2013 and 2017.
Geology	> Deposit type, geological setting and style of mineralisation.	> The Buck Creek Complex is located in the West Kentucky Coal Fields, which is part of the Illinois Basin. The thickest and most continuous coal seams, including the WK No. 9 and 11 seams, 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.	> Detailed lists of the BCRs, KGS and HMG drill holes used to define the resource have been included numerous previous market announcements including: - Maiden Coal Resources at Buck Creek Project – Released 4/11/2013 - Excellent Results from Buck Creek Drilling Program – Released 12/5/2013 - Excellent Coal Quality Results – Released 11/2/2014 - Substantial 54% Increase in Coal Resources – Released 2/24/2015 - Excellent Results from Drilling at Buck Creek No.2 Mine – Released 5/21/2015 - September 2016 Quarterly Report – Released 10/28/2016 > Drill holes are provided with a collar elevation and a Kentucky South NAD 27 easting and northing coordinate. Collar elevations for the 2017 drilling have been picked from USGS topographic maps or, if near the Poplar Grove facilities site, determined from LIDAR data.

Criteria	JORC Code explanation	Commentary
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 summary results have been documented in this report and can be found in the *Table 15: Poplar Grove and Cypress Mines – Coal Quality Specifications*. Coal quality was not used as a limiting parameter. The coal Resource estimate was limited to a minimum seam thickness of 3.0 feet. > Average coal quality values were generated using the polygonal method based on drill hole spacing 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.
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.	> Diagrams showing the coal seam intercepts were included in the announcements listed in the *Drill Hole Information* section above.
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 HMG, BCRs and the KGS have been included in reporting of this 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 and USGS 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 WK No. 9 seam extends in all directions beyond the limits of the controlled property. Outcrop and potential seam thinning to the east, along with previous mining around the property, are the most obvious limits to potential resource expansion. The WK No. 11 seam becomes less prominent to absent and outcrops in the eastern portion of the property. > 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.	> The BCRs, HMG, KGS and specific oil and gas well data has been validated prior to being imported into the geological database used to build the geological model.

Criteria	JORC Code explanation	Commentary
		> Seam picks for all coal-specific drill holes have been compared to lithological logs, sample intervals, and geophysical logs where available.
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.	> An original site visit to the Buck Creek Property occurred on October 29, 2014 by Mr. Gerard Enigk, P.E., who is one of the CPs for this report. Another site visit was made by Justin Douthat and Gerard Enigk of MM&A, on December 13, 2016. As part of the 2014 and 2016 site visits, MM&A met with Hartshorne to discuss the proposed Buck Creek operations. > A site visit by the CP Geologist was considered not to be required at this time 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 and all controlled resources occur below drainage.
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 193 drill holes have been used to define the WK No. 9 seam coal deposit, develop a geologic model and provide the basis for a good understanding of the geology within the project area. A total of 191drill holes have been used to define the WK No. 11 seam coal deposit, develop a geologic model and provide the basis for a good understanding of the geology within the project area. > From the original 203 drill hole database used to generate the geologic model, 25 drill holes were removed. These drill holes were removed because (1) they fell within the 200 feet barrier surrounding the faults which could potentially affect the seam thickness or, (2) secondary drilling, with more controlled data retrieval, approximate to an existing KGS drill hole revealed a thickness discrepancy The WK No. 9 seam database used for modelling now includes 168 drills holes specific to coal identification from BCRs, HMG and the KGS and an additional 25 oil and gas well holes. The WK No. 11 seam database used for modelling now includes 166 drills holes specific to coal identification from BCRs, HMG and the KGS and an additional 25 oil and gas well holes. > These 25 oil and gas wells contained a geophysical log of better resolution than others in the area from which a seam thickness was obtained. An additional 1,040 oil and gas well holes have been identified within and surrounding the property of interest that have identifiable seam thickness but were used only to map the bottom seam elevation and overburden of the WK No. 9 seam, confirm location and displacement of faults, and verify continuity of the seam. Seam thickness of the oil and gas wells were generally reported on an even-feet basis and may not represent an accurate thickness compared to the BCRs, HMG and KGS data. > Of the reserve property contiguous to Buck Creek, there is one mine actively operating in the WK No. 9 seam and one in the 11 WK No.

Criteria	JORC Code explanation	Commentary
		seam in the area west of the Buck Creek property. There are three mines in the WK No. 9 seam not active in areas to the north, west and south of the Buck Creek property. > There are numerous other active, inactive, and historical mines in the vicinity of the Buck Creek property. > Faulting is present throughout the area, the extent of which is well documented by the KGS. > The geology of the Buck Creek Complex is sufficiently understood through the exploration data, historical public records and publications by the USGS and the KGS for estimation of the coal 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 Complex covers an area in excess of 74,000 acres37,622 of which are currently leased. > The overburden thickness varies from less than 100 feet in the south-eastern portion of the property to more than 1,100 feet in the north-western corner.
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. sulfur 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.	> Coal exploration along with oil and gas drill hole information was used to develop a geologic model, which was used as the basis of the Resource estimation. The seam thickness model used for the WK No.9 Resource estimation contains 193 drill holes and the WK No. 11 contains 191 drill holes of which 168 and 166 respectively are coal specific obtained from the KGS and drilling programs conducted by BCRs and HMG. The other 25 are select oil and gas well holes use to identify areas of indicated coal. > 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 a laboratory for testing. > Geological data was imported into Surfer™ 12 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 geologic model was created > 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.

Criteria	JORC Code explanation	Commentary
		> As prescribed by the USGS the following distances from points of observation were used to define the corresponding Resource category arcs: - Inferred Resources – greater than 3,960 feet but less than 15,840 feet (3 miles). - Indicated Resources – 3,960 feet - Measured Resources – 1,320 feet. > The use of the USGS standards are appropriate and customary for this resource jurisdiction and deposition type. > Resources were then estimated from the geological model using the resource categorization polygons for the WK No. 9 and WK No. 11 seams to limit the estimate to within the area defined by each polygon.
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 a raw as received moisture basis. > Equilibrium moisture for the WK No. 9 seam is reported to range between 4.6% and 8.1% and the WK No. 11 seam ranges between 3.7% and 6.1%. > Resource tons estimated on a raw 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 a raw 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 37,622 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 WK No. 9 and 11 seams are 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. > MM&A is not aware of any significant environmental risk or encumbrances to mine development associated with the Buck Creek Complex. 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 of the BCRs coal samples and HMG's 2015 and 2016 coal samples analysed and used to estimate the Resource tons. Seam density was not determined for the coal samples from the HMG drilling programs of 2013 and 2014. > Coal Resources were estimated and reported on a raw as received moisture basis. > Resource tons estimated on a raw 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 a raw 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. The use of the USGS and SEC standards are appropriate and customary for this resource jurisdiction and deposition type. > 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.
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, Project Geologist with MM&A. > MM&A constructed the geological model after validation of the raw data and data processed previously by personnel from BCRs and the latest data provided by HMG of the 2013 through 2017 drilling programs. > 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. > Engineering and Mining – MM&A peer reviewed the resource estimation and found it to be satisfactory with no fatal flaws.

Criteria	JORC Code explanation	Commentary
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 MM&A 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 use of the USGS standards are appropriate and customary for this resource jurisdiction and deposition type. > The categories reflect the underlying confidence in the resources over the Buck Creek Complex.