PARINGA RESOURCES LIMITED

21 November 2016

BANKABLE FEASIBILITY STUDY CONFIRMS LOW CAPEX PROJECT WITH HIGH FINANCIAL RETURNS

EXECUTIVE SUMMARY:

- The inclusion of the Poplar Grove Mine into an updated Bankable Feasibility Study ("BFS") has significantly lowered the initial capital cost, reduced the development time to first coal and transformed the financial returns of the Buck Creek Complex.
- The BFS reports that the Poplar Grove Mine can be developed at a low capital cost of US$40m for an initial 1.8 Mtpa of production and generate strong cashflows and high investment returns. On a stand-alone basis, this initial development has a Net Present Value ("NPV") of US$172m (A$226m) with an internal rate of return of 35%.
- The BFS validates Paringa's staged development strategy to build low capital and operating cost mines near river transportation. Paringa will maximize shareholder returns and minimize risk by taking a staged development approach – using modular mine investments at the Buck Creek Complex to ultimately become an Illinois Basin coal producer of over 5.7 Mtpa.
- Paringa will start with the development of the low capex and high return Poplar Grove Mine by mid-2017. Once this mine is established, Paringa then intends to make low cost modular expansions of Poplar Grove's capacity followed by the development of the fully permitted 3.9 Mtpa Cypress Mine.
- This staged development plan will be supported with long-term sales contracts to minimize market risk and generate strong, predictable cashflow. Paringa has already successfully underpinned the development of the Polar Grove mine by securing a five-year coal sales agreement worth US$205m with the largest local power utility LG&E and KU.
- The updated financials for the Buck Creek Complex now report that the combined project will generate average annual EBITDA of US$132m whilst Poplar Grove and Cypress Mines are operating at full capacity. This combined development has a Net Present Value of US$497m ($654m) with an internal rate of return of 37%.
- Importantly, the recent discovery of the thicker WK No.11 coal seam above Poplar Grove's WK No.9 seam may provide scope to further significantly increase the capacity of this mine with a low capex modular mine expansion. In light of this, Paringa has accelerated drilling and technical study work and will update the BFS for a potential two coal seam operation at Poplar Grove in Q1 2017.

Paringa's CEO, Mr. Todd Hannigan, said: *"Our plan is simple – we will develop low capital and operating cost mines located near river transportation in the Illinois coal basin. We will start with the low cost and high return 1.8 Mtpa Poplar Grove Mine in 2017."*

"Once Poplar Grove is established, we will then make low cost modular mine expansions to grow our production to 5.7 Mtpa and beyond. We will underpin this growth with long-term sales contracts to ensure that our investments are low risk, high return and generate strong levels of free cash flow."

"After many years of deep restructuring, we now are seeing early stages of robust improvements in the US thermal coal market. We believe the outlook for our regional market is strong and there is already widespread evidence of higher contract prices. We expect to take advantage of these favorable market conditions to lock in new forward sales contracts that will underpin higher cashflow from our operations and allow us to accelerate our development strategy."

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BFS HIGHLIGHTS:

- The BFS demonstrates an after-tax Net Present Value of **US$497 million (A$654 million)** for the Buck Creek Complex with an internal rate of return of **37%** based on a real discount rate of 8% and using a combination of already contracted coal sales prices and independent price forecasts.
- The Buck Creek Complex BFS financials incorporate the initial development of the 1.8 Mtpa Poplar Grove Mine, starting construction by mid-2017, followed by the construction of the 3.9 Mtpa Cypress Mine in early-2019.
- Highlights of the updated Buck Creek Complex BFS (mining the WK No. 9 seam only) are:
    - Nameplate Production Capacity: 5.7 Mtpa
    - Average Annual EBITDA: US$132 million
    - Ungeared NPV_8: **US$497 million (A$654 million)**
    - IRR: 37%
- The highlights of the BFS for the Poplar Grove Mine (mining the WK No. 9 seam only) are:
    - Average Annual Production: 1.8 Mtpa
    - Opex (FOB Barge): US$30.39 per ton
    - Average Annual EBITDA: US$39 million
    - Total Initial Project Capex: US$40 million
    - Ungeared NPV_8: **US$172 million (A$226 million)**
    - IRR: 35%

The BFS was managed by Cardno, Inc. ("**Cardno**") with utilisation of local industry consultants, with expertise in coal mine development in the Illinois Basin region. Cardno has over 39 years of expertise in mine engineering, mine reserve evaluation, feasibility studies, and due diligence services for mining and resource projects across the globe, and is a subsidiary of Cardno Limited, an Australian Securities Exchange ("**ASX**") listed professional infrastructure and mining services company.

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Introduction

Paringa Resources Limited **("Paringa"** or **"Company") (ASX:PNL | OTCQX:PNGZF)** is pleased to announce the results of an updated BFS on the Buck Creek coal mining complex ("**Buck Creek Complex**"), incorporating the staged, modular development and cash flows from the Poplar Grove and Cypress Mines. The BFS confirms the Buck Creek Complex's technical and economic viability, and demonstrates an NPV of US$497 million (A$654 million) with initial project capex of only US$40 million.

The BFS has been prepared in accordance with the JORC Code 2012 Edition ("**JORC Code**") and National Instrument NI 43-101 'Standards of Disclosure for Mineral Projects' ("**NI 43-101**"). Results of this BFS incorporate the staged, modular development and cashflows from the Poplar Grove and Cypress Mines. Paringa released the results of a BFS for the Cypress Mine to the Australian Securities Exchange ("**ASX**") on 2 December 2015. Please refer to the BFS for the Cypress Mine for additional details including, coal seam access, underground mining, coal processing, materials handling and access to local coal markets for the Cypress Mine.

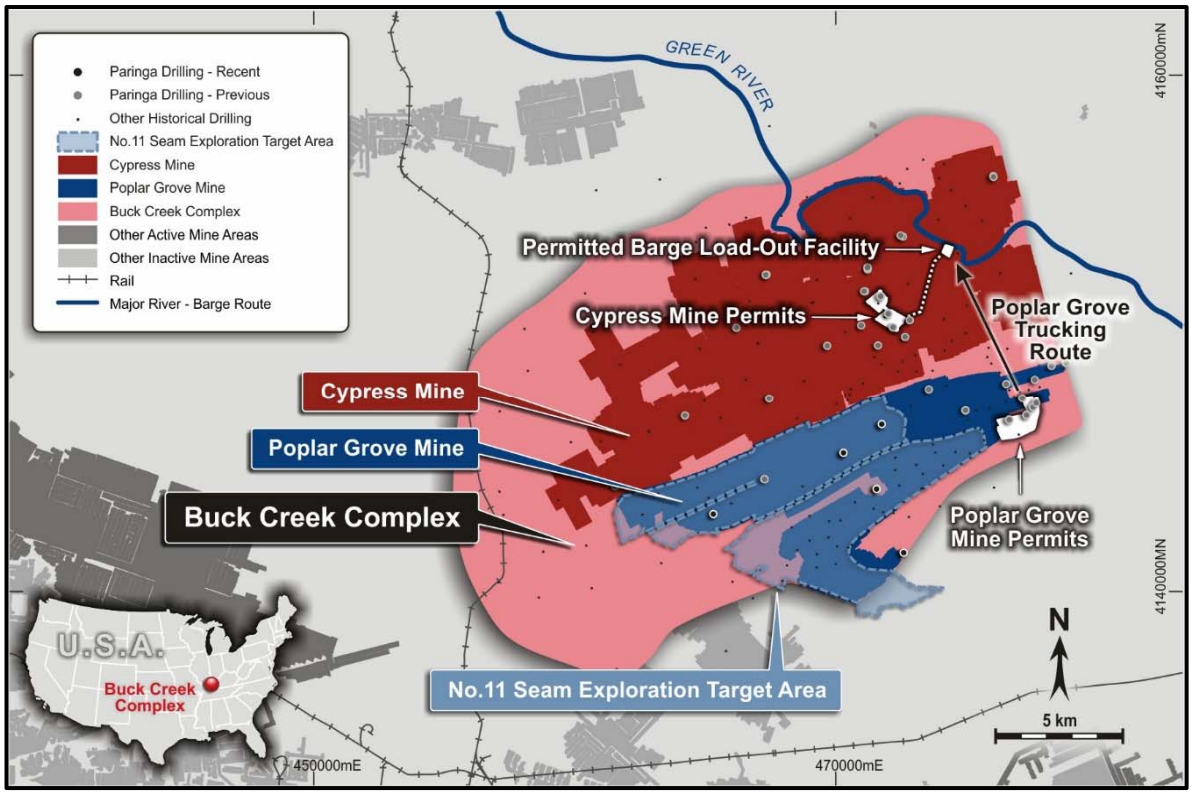

Figure 1: Poplar Grove WK No.9 Mine Plan, Poplar Grove WK No.11 Exploration Target and Cypress Mine Plan

Next Steps

As part of executing Paringa's strategy to develop low capital and operating cost mines near river transportation - the Company will undertake the following actions over the next 18 months:

1. Complete permitting process to start construction at the Poplar Grove Mine;
2. Finalize discussions with debt and equity financiers to deliver the optimal funding package for the development of the Poplar Grove Mine;

3. Fast-track the technical and economic assessment of a potential two seam coal operation at Poplar Grove, mining both the WK No.9 and WK No.11 seams, with results due during the first quarter of 2017;

4. Start construction of the Poplar Grove Mine by mid-2017;

5. Execute additional forward coal sales contracts from the Poplar Grove Mine with domestic base-load coal power plants located throughout the Ohio River and South East markets; and

6. Deliver first coal at Poplar Grove by mid-2018.

Development Strategy: Low Capex, Low Risk, Modular Mine Developments

Paringa's plan is to develop low capital and operating cost mines located near low cost river transportation in the Illinois coal basin.

Paringa will start initially with the low-cost construction of the 1.8 million tons per annum ("**Mtpa**") Poplar Grove Mine during 2017, with total initial capital estimated at US$40 million. This initial project capital cost, which is to a maximum accuracy variation of +/- 10%, excludes any contingencies, working capital and financing costs. The construction period of the Poplar Grove Mine is approximately 12 months, delivering first coal production during the second quarter of 2018.

This initial mine development is already underpinned by a five-year coal supply contract totaling US$205 million with an investment grade regional utility (LG&E and KU), minimizing market risk and providing a clear pathway to strong, predictable free cashflow.

Once Poplar Grove is constructed, Paringa will make low risk, low cost modular mine expansions to grow its coal production to 5.7 Mtpa and beyond. The Company will underpin this additional growth with long-term sales contracts to ensure that additional capacity investments are low risk and generate high levels of free cash flow. Shown below is the potential production profile of the Poplar Grove Mine, followed by the Cypress Mine, and does not take into account the potential expansion of the Poplar Grove Mine from the discovery of a second coal seam.

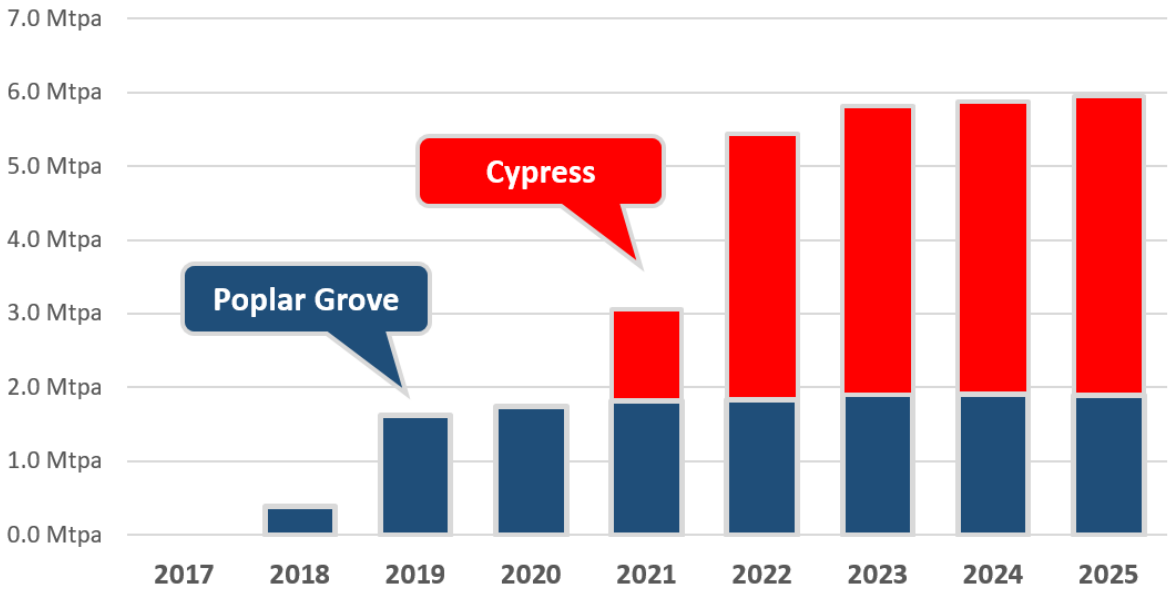

Figure 2: Poplar Grove and Cypress Mines Production Profile (excluding any extraction of the WK No.11 seam)

As recently announced to the ASX on 17 October 2016, the discovery of the Western Kentucky 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 has now accelerated the necessary geological, technical and economic study work 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. Alliance Resource Partners, LP ("Alliance") 9 Mtpa River View mine (40 miles northwest of Poplar Grove) also mines both the WK No.11 and WK No.9 coal seams and is the most productive underground room-and-pillar coal mine in the USA.

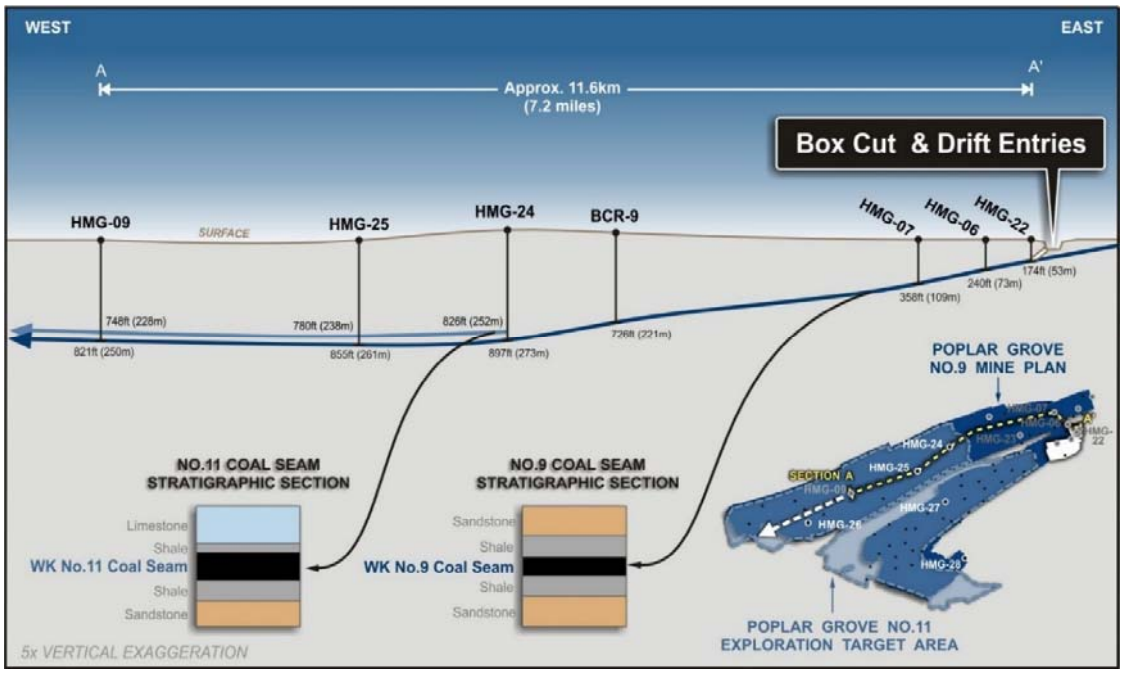

Figure 3: Poplar Grove Cross Section of the WK No.9 and No.11 Coal Seams and Box-Cut Mine Development

The proposed development timetable for the initial Poplar Grove Mine, the conceptual expansion of the Poplar Grove Mine, followed by the fully permitted Cypress Mine is shown below:

Buck Creek	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Poplar Grove																				
Permitting[1]	■																			
Financing	■	■																		
Construction		■	■	■	■															
First Coal						■	■													
Commercial Production								■	■	■	■	■	■	■	■	■	■	■	■	■
Poplar Grove (Stage 2)																				
Technical Studies	■																			
Potential Expansion							■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cypress Mine																				
Construction									■	■	■	■	■	■	■	■	■			
Commercial Production																		■	■	■

Figure 4: Buck Creek Development Timetable

Notes:
(1) Permits required to start mine construction
(2) Indicative timing and conceptual in nature, may change subject to completion of the technical study

Replicating a Proven Business Model: Alliance Resource Partners, LP

Paringa intends to replicate the success of Alliance's operating business by developing low capital and operating cost mines located near low cost river transportation routes that supply to coal fired base-load power plants located in the Ohio River and South East markets.

Paringa is located in the best performing coal basin in the USA – the Illinois coal basin. Despite one of the worst coal market downturns in the last 50 years, the Illinois Basin has provided Paringa's closest peer, Alliance, the ability to consistently maintain strong earnings before interest, tax, depreciation and amortization ("**EBITDA**") margins of approximately US$20 per ton throughout the cycle. Paringa's two proposed mines are located within Alliance's western Kentucky mine region (refer to Figure 6) and will mine the same coal seams with similar coal quality, utilizing the same mining methods and equipment.

Alliance's consistent and predictable margins are in direct contrast to other volatile and unprofitable coal markets both in the US and international seaborne markets. These margins have been supported by structural market advantages that continue to improve as weaker, higher cost, coal basins rationalize production and close unprofitable mines. In addition, with higher international coal prices, rising US natural gas prices and falling US coal inventories, the supply and demand fundamentals in the US are starting to improve, providing an opportune time for Paringa to enter this structurally advantaged market.

Provided below is a comparison of Alliance's sales prices (US$ per ton) and EBITDA expense for its Illinois Basin operations compared to the US natural gas price (Henry Hub, US$ per mmbtu):

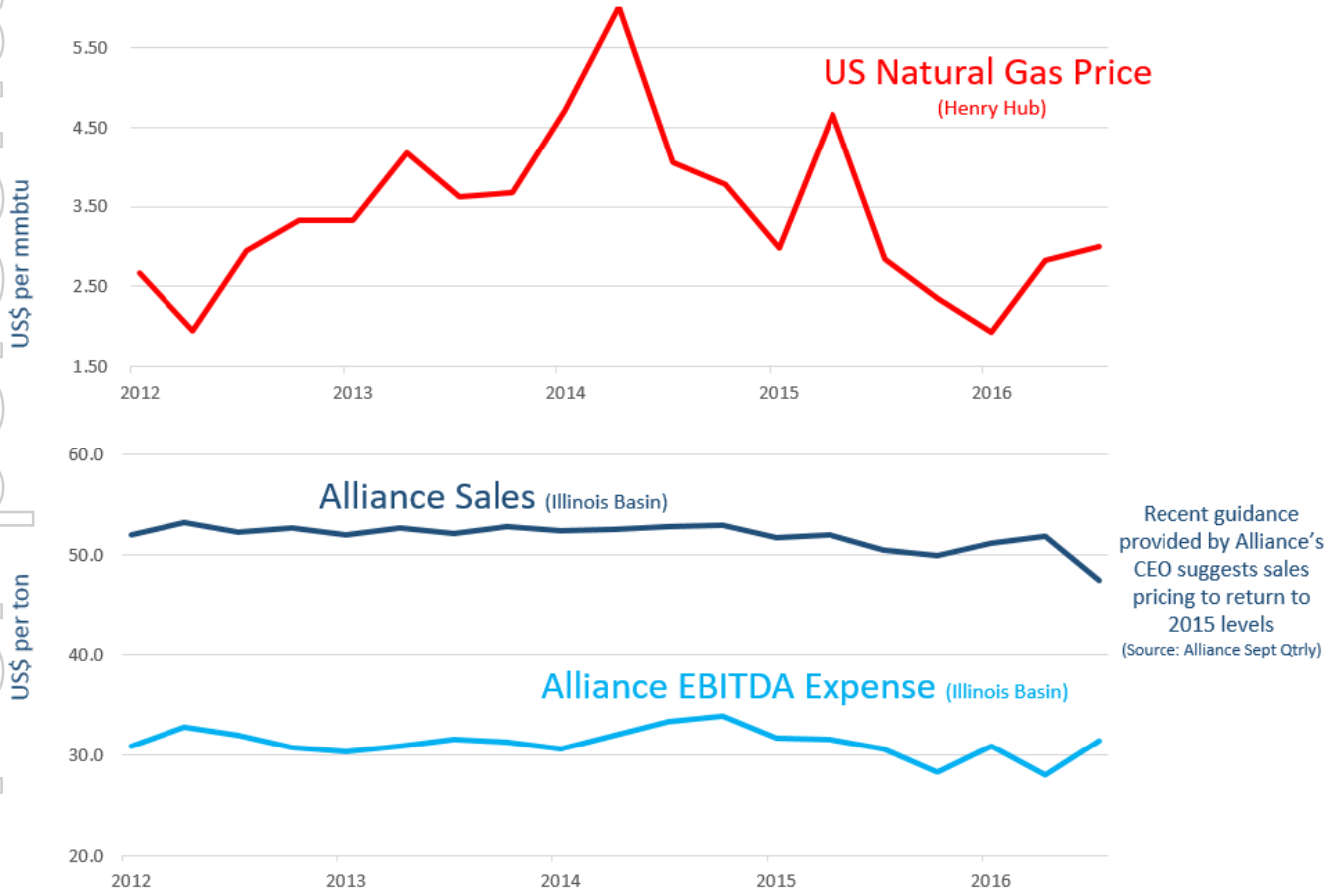

Figure 5: Alliance Sales and EBITDA Expense of Illinois Basin Operations versus Natural Gas (Henry Hub)

Summary of BFS Results

Paringa is pleased to report the results of the BFS for the Poplar Grove and Cypress Mines independently prepared by Cardno with input from local experts. Key results of the BFS are as follows:

Table 1: Poplar Grove and Cypress Project Fundamentals *(to a maximum accuracy variation +/- 10%)*		
Initial Capital Costs	**Poplar Grove Mine**	**Cypress Mine**
Mine Site Development and Infrastructure	US$19 million	US$61 million
Coal Handling Preparation Plant & Barge Load-Out Facility	US$21 million	US$41 million
Total Initial Capital Cost	**US$40 million**	**US$102 million**
Production (tons)		
Average ROM Coal Production Steady State	2.4 Mtpa	5.1 Mtpa
Total ROM Coal Produced Life-of-Mine ("**LOM**")	59.7 million tons	86.3 million tons
Product Heating Content	11,200 Btu/lb	11,200 Btu/lb
Average Product Yield	77%	77%
Mine Life	27 years	18 years
Average Saleable Coal Production Steady State	1.8 Mtpa	3.9 Mtpa
Total Saleable Coal Produced (LOM)	45.8 million tons	66.2 million tons
Coal Processing Plant Capacity	400 tons per hour	700 tons per hour
Coal Processing Method	Dense Media 2-Stage	Dense Media 2-Stage
Underground Mining Method	Room-and-Pillar	Room-and-Pillar
Construction Start Date	Q2 2017	Q1 2019
First Coal Production Date	Q2 2018	Q2 2021
Ramp-up Period to Full Production	12 months	18 months
Cash Flow		
Average Annual Operating Costs (steady state)	US$30.39 per ton	US$27.37 per ton
Average Annual EBITDA (steady state)	US$39 million	US$94 million

Sensitivity Analysis (Poplar Grove Mine)

The Poplar Grove Mine is expected to exhibit high levels of profitability that will deliver value to Paringa shareholders. As the domestic US coal market in general recovers, there is excellent potential for the Poplar Grove Mine's strong financial returns to materially improve. Sensitivity to the average annual EBITDA and NPV of the Poplar Grove Mine from a change in sales prices is shown below:

Table 2: Poplar Grove Sensitivity to EBITDA and NPV from change of Sales Prices ($0.76 AUD/USD)				
	0%	+5%	+10%	+15%
Average Annual EBITDA (US$)	US$39 million	US$43 million	US$47 million	US$52 million
Average Annual EBITDA (A$)	A$51 million	A$57 million	A$62 million	A$68 million
NPV_8 (US$)	US$172 million	US$200 million	US$228 million	US$256 million
NPV_8 (A$)	A$226 million	A$263 million	A$300 million	A$337 million

Sensitivity Analysis (Combined Poplar Grove and Cypress Mines)

Sensitivity to the average annual EBITDA and NPV of the combined Poplar Grove and Cypress Mines from a change in sales prices is shown below:

Table 3: Combined Mines Sensitivity to EBITDA and NPV from change of Sales Prices ($0.76 AUD/USD)				
	0%	+5%	+10%	+15%
Average Annual EBITDA (US$)	US$132 million	US$146 million	US$159 million	US$173 million
Average Annual EBITDA (A$)	A$174million	A$192 million	A$209 million	A$227 million
NPV_8 (US$)	US$497 million	US$568 million	US$640 million	US$711 million
NPV_8 (A$)	A$654 million	A$748 million	A$842 million	A$936 million

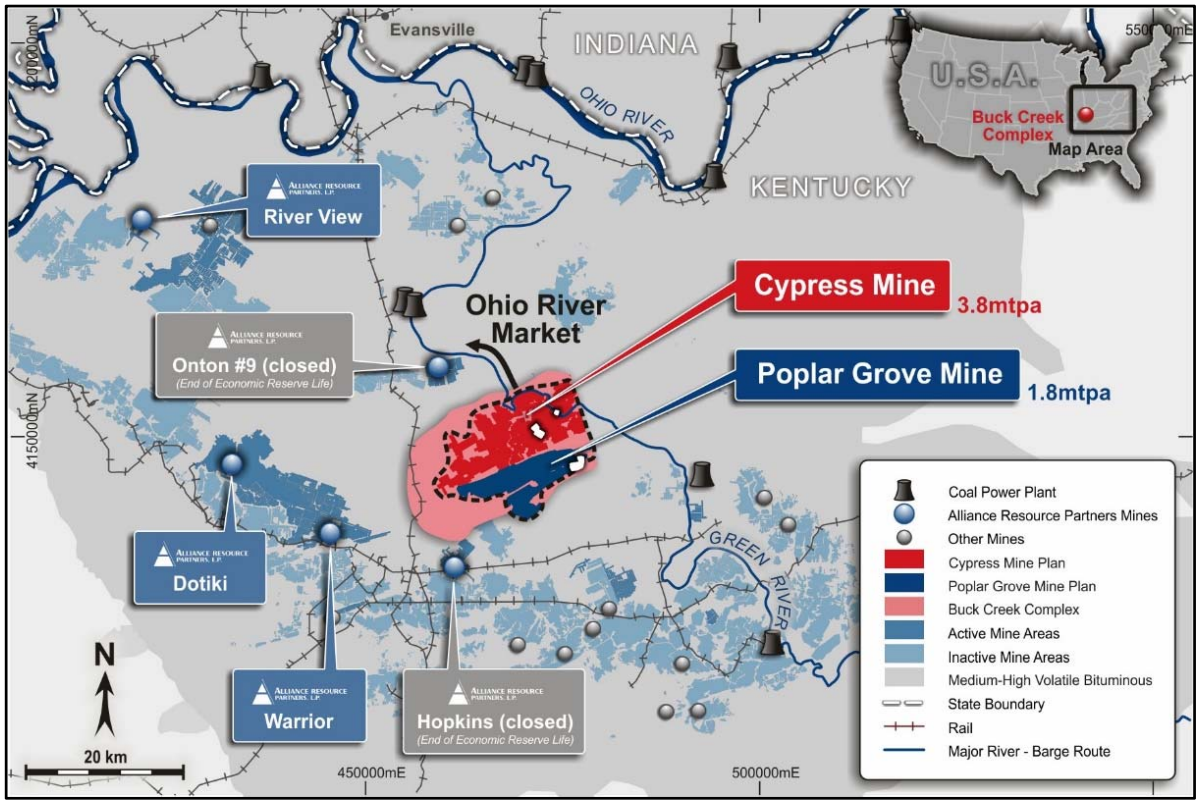

Figure 6: Poplar Grove and Cypress Mines Surrounded by Alliance Resource Partners, LP

US Coal Market Showing Signs of Improvement

Following the widespread rationalization of US coal production and closure of high cost mines, US coal supply is expected to stabilize in 2017 and then increase in 2018 (under an environment of rising natural gas prices, falling thermal coal stockpiles and higher international coal prices). Figure 7 below illustrates the decrease in US coal production from its 2011 highs and expected increase over the 2017 and 2018 years:

Unprecedented Fall in US Coal Production

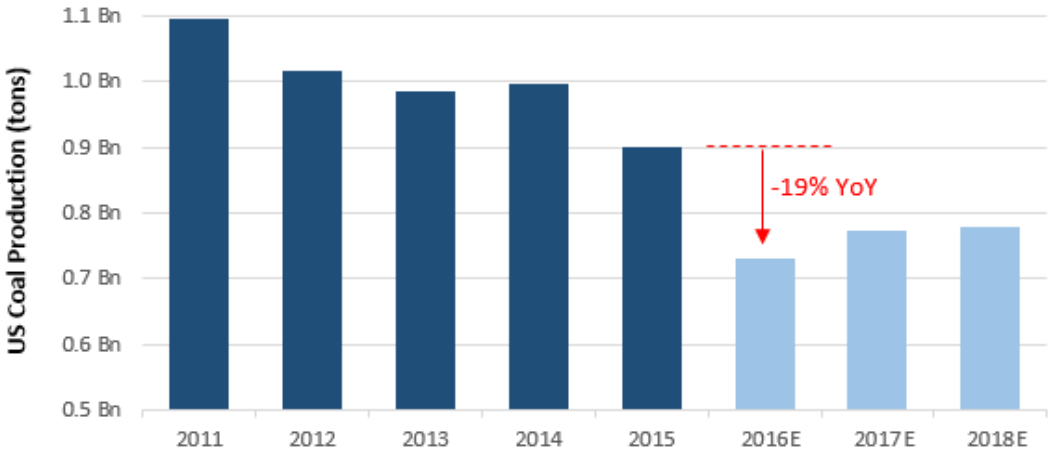

Figure 7: US Coal Production (2011 to 2015) and Forecast US Coal Production (2016 to 2018)

Source: Clarksons Platou

Significant Decrease in US Coal Stockpiles

Figure 8 below illustrates a significant decrease in forecast US stockpiles over 2017 and 2018, potentially leading to rising US domestic thermal coal prices across the sector:

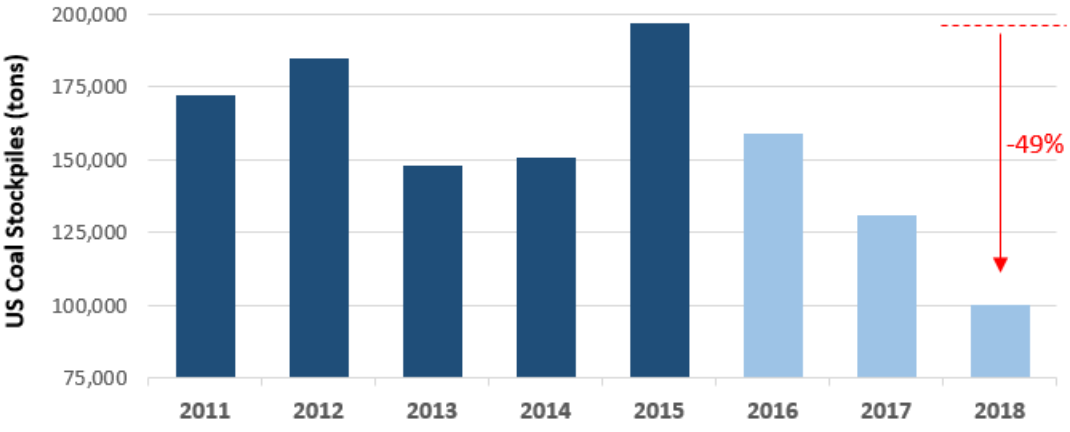

Figure 8: US Coal Stockpiles (2011 to 2015) and Forecast US Coal Stockpiles (2016 to 2018)

Source: Clarksons Platou

Rising US Natural Gas Prices

US Natural Gas Prices have rebounded from their lows in early 2016 leading to increased demand for coal-fired generation. This recovery in coal burn is rapidly re-balancing the US thermal coal market and should support stronger market pricing in 2017. The increased demand in US thermal coal, with thermal coal now representing 33% of total energy production in the US, is coinciding with falling US thermal coal production.

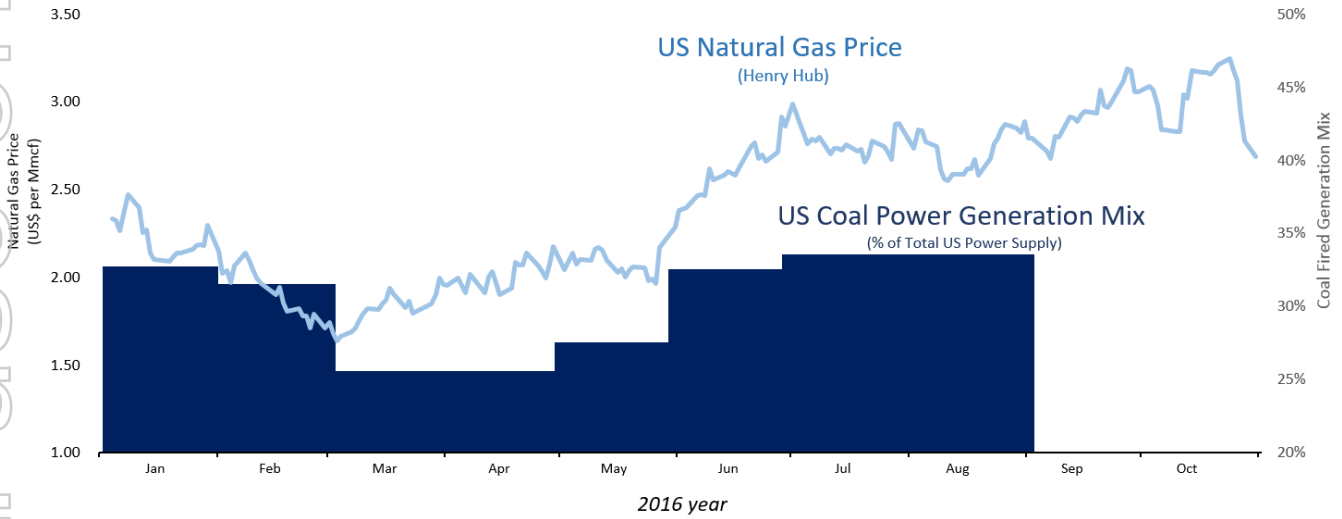

Figure 9: Coal Fired Generation Mix (%) of US Electricity Power Share vs Natural Gas Prices

Illinois Basin: Lowest Delivered Cost Coal to Eastern US Power Markets

The Illinois Coal Basin increased production from around 90 million tons to approximately 130 million tons over a 20-year period up to 2014. This renaissance in Illinois Basin production resulted from increased environmental regulation which required coal fired power plants to install flue gas desulfurization units (e.g. Scrubbers) which remove items such as sulfur-dioxide from emissions. As the Eastern US power market moved to an almost fully scrubbed market, demand for thermal coal increasingly became a function of economics, that is the delivered cost of thermal coal adjusted for heating content, and not based on sulfur content.

The Illinois Basin's position at the bottom of the delivered cost curve for the Eastern US power markets (power plants east of the Mississippi River) is due to the following reasons:

- Proximity to the Eastern US Power Market;
- Superior transportation logistics compared to Powder River and Central Appalachian basins;
- Highly productive geology – predominately flat coal seams with high in-seam coal yield;
- High heating content coal;
- Well understood underground mining techniques; and
- Favourable mine permitting and coal leasing regimes.

Figures 10 and 11 below illustrates that after accounting for transportation costs to Eastern US power markets (east of the Mississippi River) and adjusting for the heating content of the coal, Illinois Basin is generally the lowest delivered cost coal, on average approximately US$2.20 per mmbtu in natural gas equivalent terms (i.e. adjusted for heating efficiencies of natural gas power plants).

Average US Coal Basin Mine Gate Costs (US$ per ton)

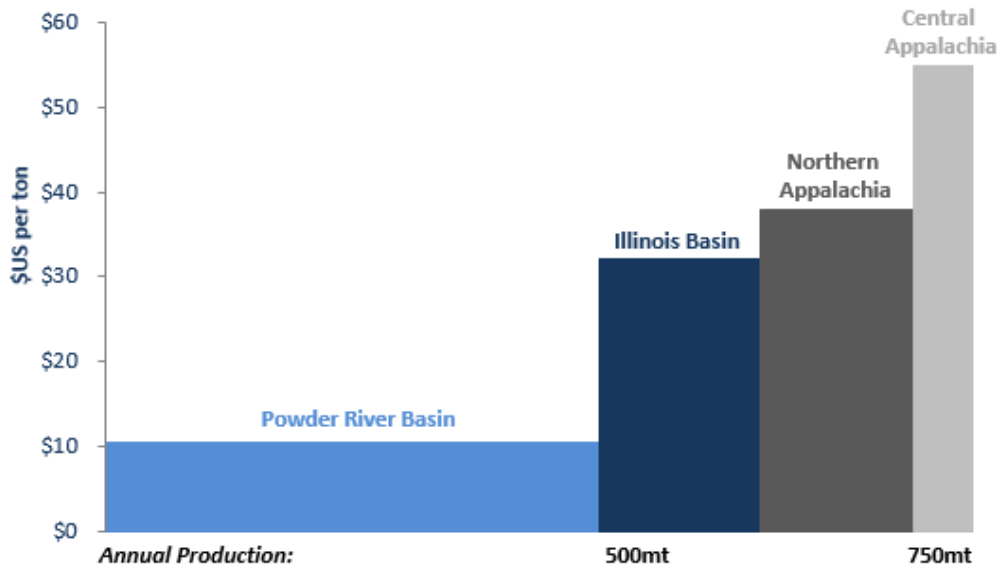

Figure 10: Major US Coal Basin Average Mine Gate Costs (US$ per ton)

Average Delivered Cost to Eastern Power Market (in Natural Gas Equivalent dollars)

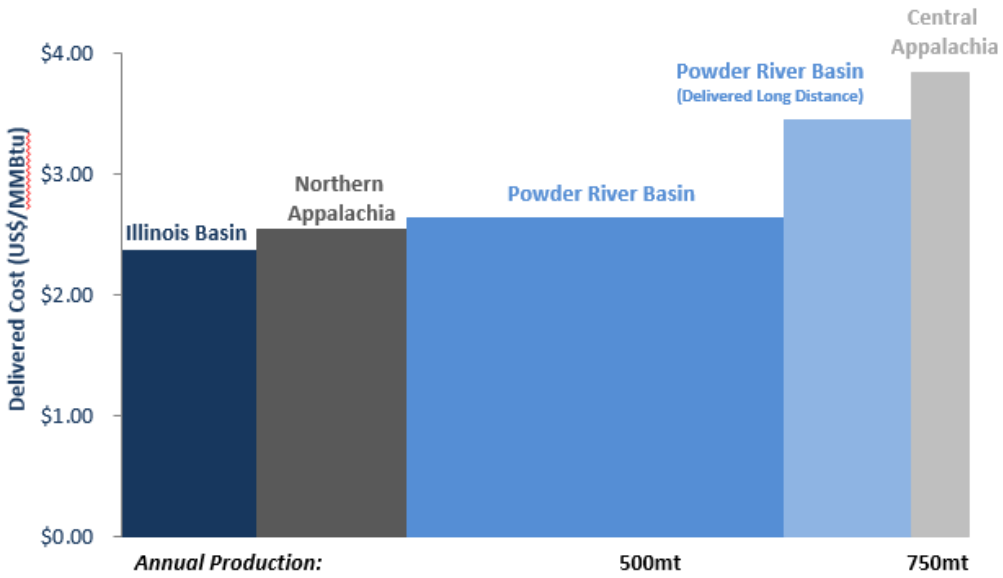

Figure 11: Major US Coal Basin Delivered Cost Curve to Eastern US Power Markets

(Source: Clarksons Platou; Note: Delivered cost curve for each coal basin represents the average operating mine cash costs plus the average transportation costs to Eastern US power markets, adjusted heating efficiencies of natural gas. "Delivered long distance" represents the delivered costs of PRB coal into the South East Markets)

Illinois Basin: Three Distinct Mining Regions and Sales Markets

The Illinois Basin can be divided up into three distinct mining regions:

1. Illinois' high chlorine longwall mines supplying Ohio River and South East markets;
2. Indiana's room-and-pillar and surface mines selling to the State's local truck market; and
3. Western Kentucky's room-and-pillar mines servicing the Ohio River and South East Markets.

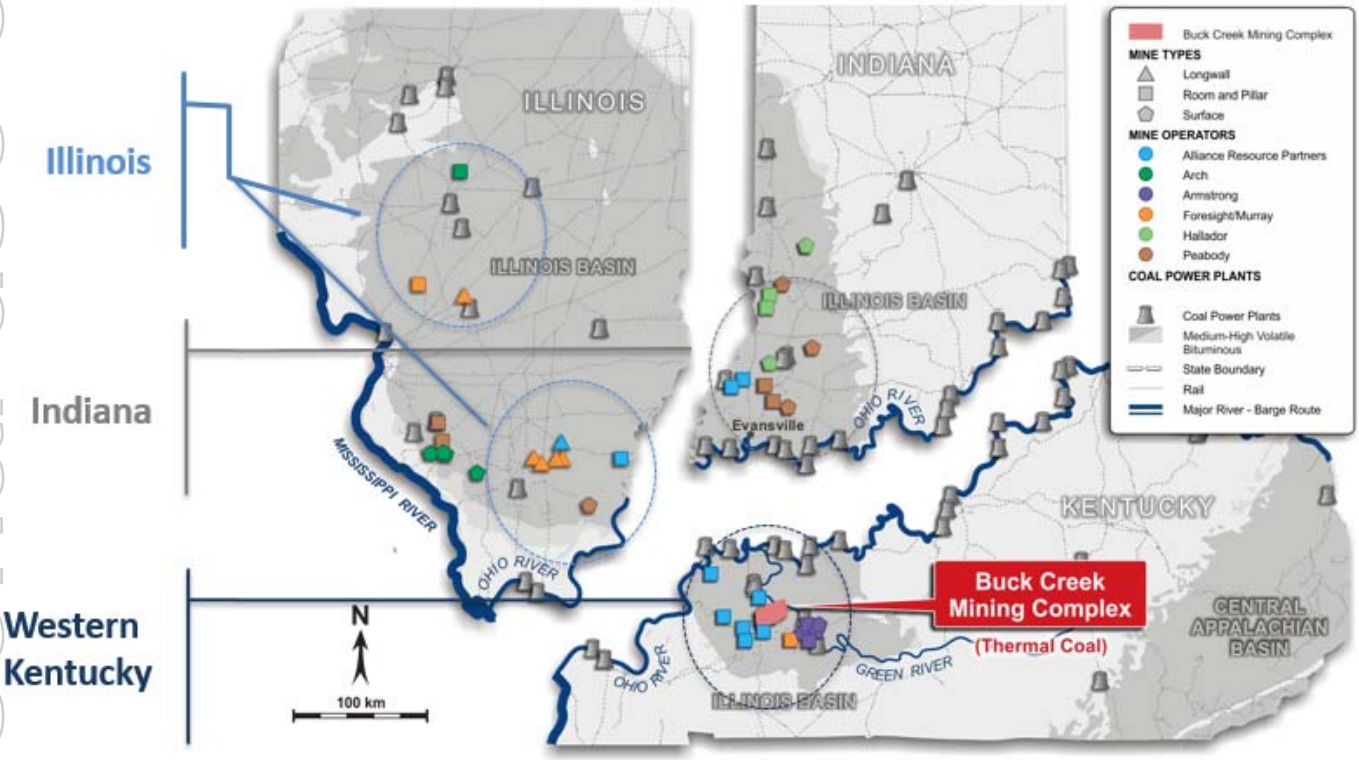

Figure 12: Illinois Basin's Three Distinct Mine Regions: Illinois, Indiana and Western Kentucky

Table 4: Illinois Basin: High Level Comparison of the 3 Distinct Mine Regions

	Western Kentucky	Illinois	Indiana
Key Producers	Alliance	Murray / Foresight	Hallador / Peabody
Chlorine Content	Low to Medium	High	Low to Medium
Primary Mine Method	Room-and-Pillar	Longwall	Room-and-Pillar / Surface
Primary Target Market	Ohio River / South East	Ohio River / South East	Indiana (Local)
Transportation Method	Barge / Rail	Rail	Truck
Typical Mine Gate Costs	<US$30 per ton	US$20 to US$26 per ton	US$28 to US$36 per ton
Transportation Cost to Ohio River	<US$3 per ton	US$6 to $10 per ton	US$6 to $10 per ton
Typical Sales Prices	US$48 to US$55 per ton	US$38 to US$45 per ton	US$42 to US$50 per ton

Illinois Basin: Location and Coal Quality Largely Explain Margins

The location of an Illinois Basin coal mine; its access to low cost barge transportation to the Ohio River Market; the coal quality (e.g. chlorine content) and mining methods (underground longwall, room-and-pillar vs surface mines), largely explains key differences in EBITDA margins among the major Illinois Basin players. The key to Alliance's ability to maintain high EBITDA margins throughout the cycle has been its location, low cost access to market and high coal quality.

One of the most important characteristics to be considered in the Illinois Basin is the chlorine content of the coal. A significant portion of recent new coal production from the Illinois Basin is from the high chlorine longwall mines with dry chlorine contents greater than 0.35% (levels which are typically corrosive to boilers) and typically must be blended domestically with lower chlorine coals (<0.20%) or exported to European markets. The chlorine content of Paringa's Buck Creek Complex is 0.16% and therefore has a significant advantage over many other mines in the Illinois Basin.

Paringa's Initial Target Market – Ohio River Market

A Stable Base-load Energy Source for the Region

The Buck Creek Complex is in an enviable position in having low cost barge access to the Green and Ohio rivers, providing a significant transportation cost advantage over other Illinois Basin and US coal producers. Paringa's initial target market is the 17 large base-load coal fired power plants located on the Ohio River. These plants consume between 50 and 55 million tons of coal per year, primarily from the Illinois Basin, and have installed environmental controls and are fully compliant with Mercury and Air Toxics Standard ("**MATS**") regulations.

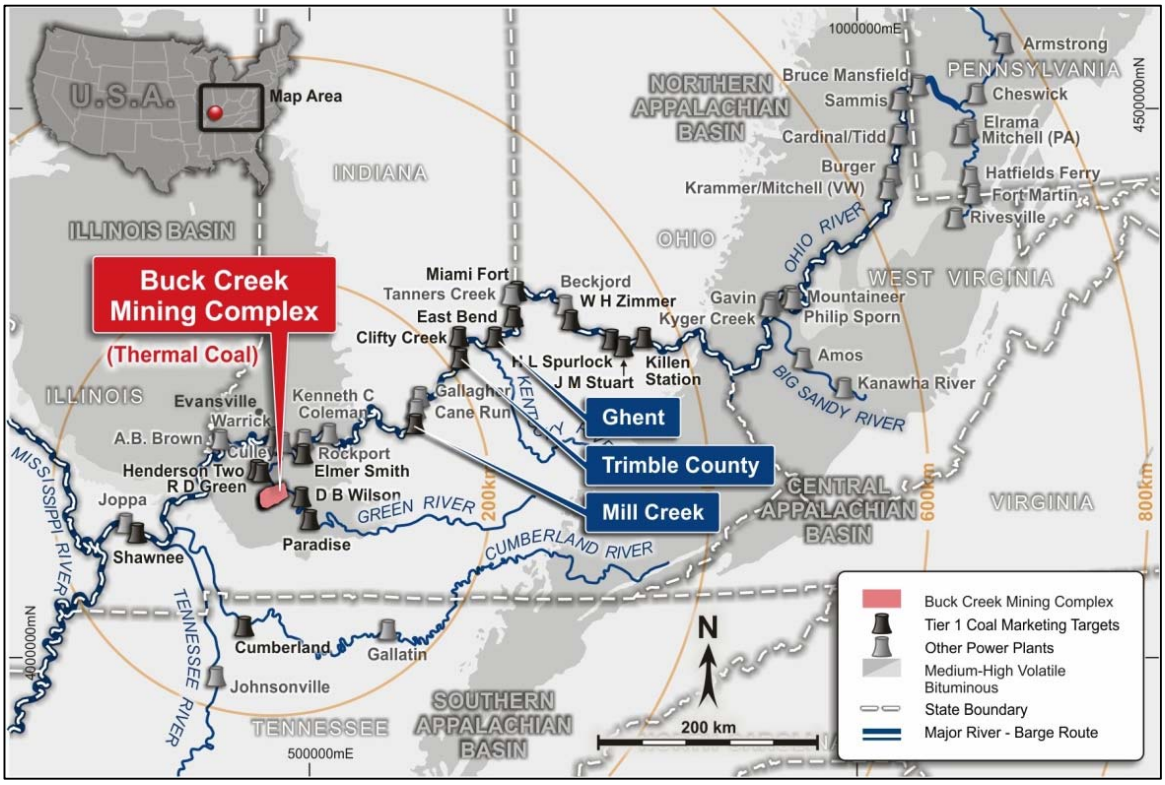

Figure 13: Paringa's Buck Creek Complex and LG&E and KU's Power Plants within the Ohio River Market

The Ohio River Market is an important base-load energy source for the region and is largely insulated from the volatility of natural gas prices. Given the cost competitiveness of Illinois Basin coal delivered to the Ohio River Market (approximately US$2.00 to US$2.30 per mmbtu) and the capital spent on installing environmental controls (+US$35 billion in total in the US), the Ohio River Market will remain a vital source of energy for the region.

Provided below is an overview of the 17 large base-load energy power plants within the Ohio River Market that will be targeted by Paringa:

Table 5: Ohio River Market - Target Customer List #1

Plant	Ghent	Trimble County	Mill Creek	Cumberland	Shawnee	Paradise	R.D. Green	D.B. Wilson	East Bend
State	KY	KY	KY	TN	KY	KY	KY	KY	KY
Plant Owner	LG&E	LG&E	LG&E	TVA	TVA	TVA	BREC	BREC	Duke
Regulated	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
Scrubbers	Yes	Yes	Yes	Yes	Planned	Yes	Yes	Yes	Yes
Capacity (GW)	2.0	1.3	1.5	2.5	1.4	2.3	0.5	0.4	0.6
Coal Burn (2014)	6.0 mt	3.3 mt	3.9 mt	6.1 mt	3.9 mt	5.9 mt	1.3 mt	1.3 mt	1.4 mt
Coal Burn (2015)	5.4 mt	3.7 mt	3.5 mt	6.0 mt	4.0 mt	5.4 mt	1.0 mt	1.3 mt	1.9 mt
Primary Transport Method	Barge	Barge	Rail	Barge	Rail	Barge	Barge	Truck	Barge
Barge Load-out Location	Ohio River	Ohio River	Ohio River	Cumberland River	Ohio River	Green River	Green River	Green River	Ohio River

Table 6: Ohio River Market - Target Customer List #2

Plant	W.H. Zimmer	J.M. Stuart	Killen Station	Miami Fort	Elmer Smith	Henderson 2	H.L. Spurlock	Clifty Creek
State	OH	OH	OH	OH	KY	KY	KY	IN
Plant Owner	Dynergy	Dynergy	AES	Dynergy	Ownesboro City	Henderson City	EKPC	Mulit-owned
Regulated	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Scrubbers	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Capacity (GW)	1.3	2.3	0.6	1.2	0.4	0.3	1.3	1.2
Coal Burn (2014)	2.9 mt	4.6 mt	1.9 mt	3.4 mt	1.2 mt	1.0 mt	4.0 mt	2.9 mt
Coal Burn (2015)	2.4 mt	4.5 mt	1.6 mt	2.9 mt	1.1 mt	0.7 mt	2.6 mt	2.5 mt
Primary Transport Method	Barge	Barge	Barge	Barge	Truck	Truck	Barge	Barge
Barge Load-out Location	Ohio River	Ohio River	Ohio River	Ohio River	Ohio River	Green River	Ohio River	Ohio River

Figure 14: Coal Power Plants along the Ohio River Market and the South East Market Accepting Illinois Basin Coal

Figure 15: Typical Modern Coal Fired Power Plants on the Ohio River
(Left: 2.3GW JM Stuart Plant, Right: 1.3GW Zimmer Plant)

Paringa's Secondary Target Market – South East

Switching from High Cost Central Appalachia Coal Supply to the Illinois Basin

Paringa has also identified a secondary target market, the South East Market, which has traditionally been supplied by the Central Appalachian region. The typical "mine-gate" costs of Central Appalachian mines are between US$55 to US$70 per ton, compared to Paringa's "all-in" average annual operating costs of US$30.39 per ton free-on-board barge ("**FOB Barge**") for the Poplar Grove Mine.

The key reason for the difference in operating costs is primarily due to the geology. The typical "in-seam" yield (i.e. the percentage of coal from top to bottom of the coal seam) for Central Appalachian thermal coal mines ranges from 45% to 55%. The equivalent in-seam yield for Buck Creek's WK No.9 coal seam is 93%. This difference in in-seam yield is a major element in the difference in mine productivity and operating costs at the mine-gate.

New environmental standards has also supported coal basin switching from the higher cost Central Appalachian coals to lower cost Illinois Basin coals. These standards require installation of pollution control devices at coal-fired power plants, including Scrubbers. These Scrubbers now allow power plants to burn the cheapest fuels on a delivered basis, with less importance applied to sulfur content since almost all of the sulfur is removed before being released to the atmosphere.

The increase in scrubber installations in the US has provided an opportunity for low cost Illinois Basin coal to increasingly penetrate a large proportion of the Eastern US power market, which has been traditionally supplied by Central Appalachia. For example, the Illinois Basin's market share of the South East Market has increased from 5% in 2006, to a market share of 26% in 2014. Most of the coal supply out of the Central Appalachian continues to target the South East Market and should remain as a target for Illinois Basin coals.

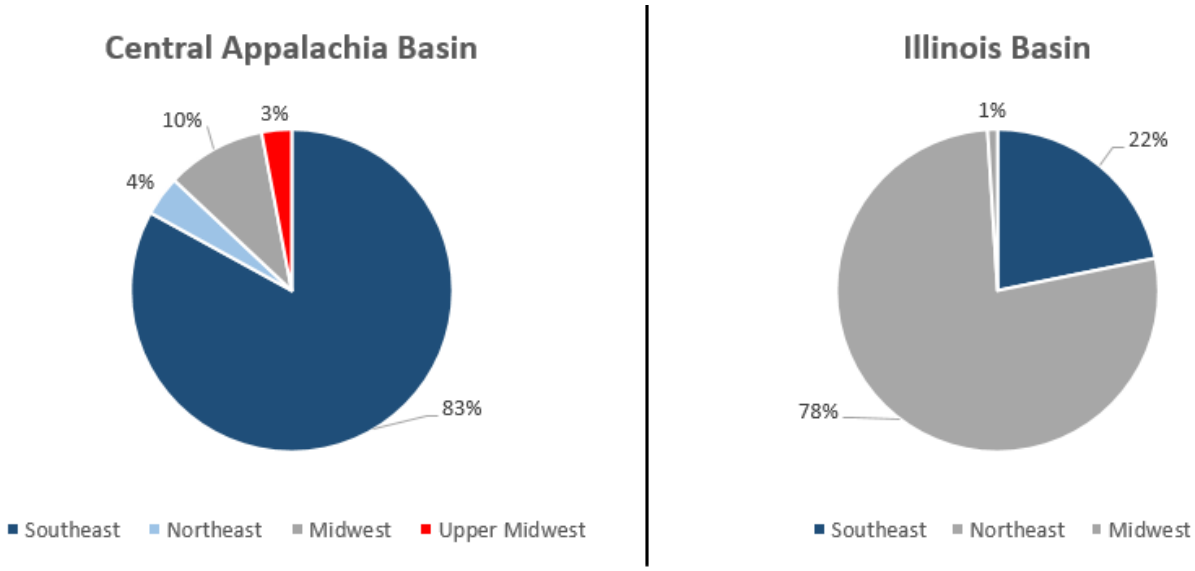

Figure 16: Key Sales Markets of the Central Appalachian and Illinois Basins

Paringa's "Cornerstone" US$205 Million Long Term Contract

In October 2015, Paringa signed a coal sales agreement with LG&E and KU to deliver coal from the Cypress Mine. In February 2016, the Company decided to develop the low capex Poplar Grove Mine first following exceptional results from the Scoping Study.

As a result, the amended cornerstone coal sales agreement with LG&E and KU now reflects delivery of coal from the Poplar Grove Mine. The amended contract is on substantially the same terms as the original contract. Most importantly, coal volumes and coal specifications remain unchanged. Fixed sales prices have changed slightly to reflect recent sales data, and the project development milestones and delivery schedule have been updated for the Poplar Grove Mine.

Under the amended coal sales agreement, Paringa is contracted to deliver a total of 4.75 million tons of its 11,200 btu/lb product over a 5-year period, starting in 2018. The amended contracted fixed coal sales prices for Paringa's 11,200 btu/lb coal specification begins at US$40.50 per ton for the first 750,000 tons

of coal delivered to LG&E and KU, escalating to US$45.75 per ton for the final 1,000,000 tons sold. The new fixed sales prices are as follows:

Table 7: Summary of Key Terms	
Contracted Production	**Fixed Contract Price** (FOB Barge; 11,200 btu/lb)
0 - 750,000 tons	**US$40.50 per ton**
750,001 – 1,750,000	**US$41.50**
1,750,001 – 2,750,000	**US$43.00**
2,750,001 – 3,750,000	**US$44.25**
3,750,001 – 4,750,000	**US$45.75**
Total Sales Contract Value	**US$205 million**

The Poplar Grove and Cypress Mines' access to the Green and Ohio River systems provides a significant transportation advantage to other Illinois Basin coal producers. The LG&E and KU coal sales agreement calls for fixed sales prices based on a FOB basis delivered at the Buck Creek barge load-out facility on the Green River.

The LG&E and KU agreement includes coal specifications for deliveries of Poplar Grove Mine's coal on an "as received" basis:

Table 8: Summary of LG&E and KU Contract Coal Specifications	
Specifications	**Guaranteed Monthly Weighted Average**
Heating Content (Btu/lb)	min. 11,200 Btu/lb
Moisture	max. 10.00 lbs/mmbtu
Ash	max. 11.00 lbs/mmbtu
Chlorine	max. 0.18 lbs/mmbtu

The amended LG&E and KU agreement includes standard project development milestones that are in line with the proposed Poplar Grove Mine construction program. During this construction period, LG&E and KU will progressively monitor Paringa's performance in meeting these milestones. If the Company fails to achieve the relevant milestones, then LG&E and KU may terminate the agreement and the Company shall have no further obligations.

LG&E and KU are subsidiaries of the PPL Corporation (NYSE: PPL) family of companies and are regulated utilities that serve a total of 1.2 million customers. LG&E and KU have consistently ranked among the best companies for customer service in the United States. LG&E and KU own three power plants within Paringa's initial target Ohio River Market (Trimble County, Ghent and Mill Creek) that are almost exclusively supplied by the Illinois Basin.

PPL Corporation is one of the largest investor-owned companies in the US utility sector. PPL Corporation has a Moody's/S&P investment grade credit rating, market capitalization of US$22.2 billion, US$7.6 billion in 2015 annual revenue and 10.5 million utility customers in the US and UK.

Figure 17: LG&E and KU's Trimble County Power Plant on the Ohio River

Conservative Sales Price Assumptions

Paringa has adopted the LG&E and KU long term contract prices for the Poplar Grove and Cypress Mines' Blended Product (11,200 Btu/lb) for the BFS from 2018 to 2022 and Hanou Energy Consulting, LLC's latest Illinois Basin coal price forecast (FOB Barge Ohio River, 11,800 Btu/lb) which has been adjusted for Paringa's 11,200 Btu/lb product heating content, ash content, and transportation costs for delivery at Paringa's Green River Barge Load-Out Facility.

Sales Prices Used for Committed Tons (4.75 million tons sold to LG&E)

Table 9: Selected Average Sales Forecasts (US$ per ton, FOB Barge)					
Project Coal Specification	**2018**	**2019**	**2020**	**2021**	**2022**
LG&E Contract	US$40.50	US$41.50	US$43.00	US$44.25	US$45.75

Selected Sales Prices Used for Uncommitted Tons (Hanou Consulting Forecast - Adjusted)

Table 10: Selected Average Sales Forecasts (US$ per ton, FOB Barge)						
2018	**2019**	**2020**	**2025**	**2030**	**2035**	**2040**
US$43.88	US$44.33	US$44.79	US$47.12	US$49.57	US$52.15	US$54.86

As a benchmark against these price forecasts, it is worth comparing Alliance's historical sales price performance from their Illinois Basin operations to the Hanou assumptions.

Since the start of 2010, Alliance's average quarterly sales price for its Illinois Basin operations was US$50.98. Importantly, the period since the start of 2015 to the September quarter of 2016 – a period that marks the nadir for potentially the worst downturn in the US coal sector for the last 50 years - Alliance's reported average quarterly sales price for its Illinois Basin operations was US$50.64. In light of Alliance's recent public comments, average pricing during 2017 (which was transacted in preceding quarters) will continue to moderate - but the forward pricing curve should be stronger than 2017 with prices forecast to revert to reported 2015 levels.

Low Operating Costs

The Poplar Grove and Cypress Mines' operating cash costs ("Opex") estimates have been built from the "ground-up" using current pricing provided by vendors and contractors. A breakdown of the Opex estimates for both mines is provided below:

Table 11: Poplar Grove and Cypress Mine Operating Costs

Average Annual Operating Costs (LOM)	Poplar Grove	Cypress
Labor and Benefits	US$7.46	US$6.92
Operating & Maintenance	US$8.75	US$8.89
Power & Utilities	US$0.95	US$0.87
General & Administration	US$1.21	US$0.52
Leased Equipment	US$1.45	US$1.64
Sub-total Direct Mining Costs	**US$19.83**	**US$18.85**
CHPP & Barge Load-Out Facility	US$3.41	US$2.92
Transportation Costs (truck to Green River barge load-out)	US$1.65	-
Taxes & Insurance (includes Severance taxes)	US$3.54	US$3.63
Royalties to Landowners	US$1.96	US1.97
Average Annual Operating Costs	**US$30.39 per ton**	**US$27.37 per ton**

The final Opex estimates excludes any vendor overriding royalty as it is assumed that the Company will pay out the vendor in accordance with the revised vendor payment terms announced to the ASX on 2 June 2015.

Poplar Grove Mine Located in a Low Cost, High Margin Mining Region

The Poplar Grove and Cypress Mines are located in one of the best-serviced and infrastructure advantaged coal regions in the US.

The Poplar Grove Mine low operating costs result from the following inherent advantages:

- In-seam yield of the Poplar Grove Mine's WK No.9 seam is 93%, and the Project's mine plan being a relatively flat lying (i.e. 2° to 3° dip), consistent, and laterally continuous coal seam resulting in high productivity;
- Close proximity to the Green River provides low-cost barge access to the Ohio River Market consisting of large, scrubbed, and efficient base load power plants;
- Proximal to local mining services and equipment providers;
- Located within a mature coal mining district with access to highly skilled union-free labour; and
- Competitive power and utilities costs.

A comparison of the operating cash costs of Poplar Grove and Cypress Mines (FOB Barge Green River) to the estimated "mine gate" operating cash costs of other Illinois Basin operations for the 2015 year, is shown below:

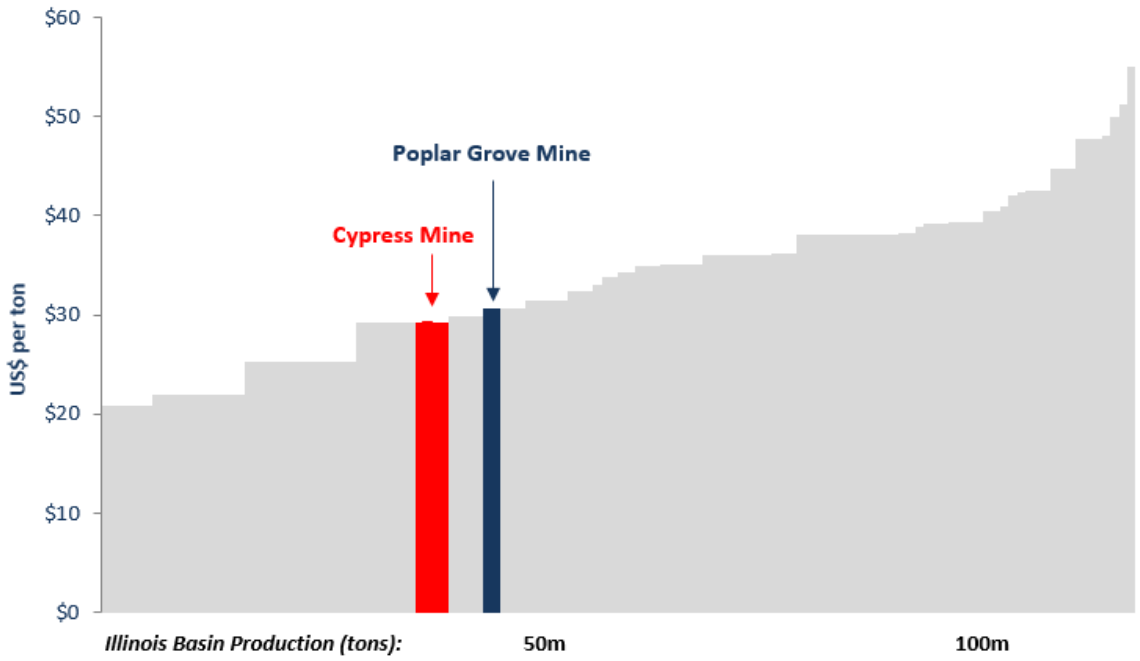

Figure 18: Comparison of Illinois Basin Coal "Mine Gate" Cash Costs vs Poplar Grove and Cypress Mine Green River Cash Costs (FOB Barge)

(Source: third-party Illinois Basin data and Company cost estimates for Poplar Grove and Cypress Mines.)

Low Capex Development

The final Capex estimate for the Poplar Grove Mine, based on pricing provided by vendors and contractors, includes all major capital items including site development, electrical substation and infrastructure, "box-cut" mine development to access the coal seam, surface facilities, coal preparation plant, materials handling and the barge load-out facility.

Table 12: Poplar Grove and Cypress Capital Costs

Capital Item	Poplar Grove	Cypress Mine
Project Development	US$5.6	US$8.8
Mine Development	US$13.6	US$51.7
Sub-total Mine Development	**US$19.2**	**US$60.5**
Coal Preparation Plant	US$12.2	US$19.5
Refuse Disposal Site	US$0.6	US$0.1
Materials Handling	US$4.9	US$20.3
Barge Load-Out Facility and Road Upgrade	US$3.0	US$1.5
Sub-total CHPP & Load-Out	**US$20.7**	**US$41.3**
Total Initial Capital Cost	**US$39.9 million**	**US$101.8 million**

The Poplar Grove Mine is located in one of the best-serviced and infrastructure advantaged coal regions in the US. All construction services, construction personnel, contractors and parts will be supplied by firms who are operating in the region. Sustaining capital for the mine, mine site infrastructure and CHPP has been estimated at US$1.73 per ton. The Capex estimates exclude any contingencies, working capital or financing costs.

Capital costs for the Poplar Grove and Cypress Mines have been benchmarked against similar underground and surface mines in the region that mine the WK No.9 coal seam in similar conditions, utilizing identical mining and processing techniques and equipment.

In addition, the capital intensity (inclusive of leased equipment) of the Cypress Mine is similar to other new coal developments in the Illinois Basin by public listed companies that have started construction since 2007 (refer to Table 13).

Table 13: Capital Intensity of Recent Illinois Basin Developments

Mine	Owner	Construction Start Year	Nameplate Production	Capex Intensity
River View (CM)	Alliance	2007	8.4 Mtpa	US$29 /t
Bear Run (DL)	Peabody	2009	5.2 Mtpa	US$50 /t
White Oak #1 (LW)	Alliance/Private	2011	6.5 Mtpa	US$62 /t
Gibson South (CM)	Alliance	2011	5.2 Mtpa	US$38 /t
Pennyrile (CM)	Rhino	2013	2.0 Mtpa	US$34 /t
Average				**US$43 /t**
Poplar Grove (CM)	Paringa		1.8 Mtpa	US$35 /t
Cypress Mine (CM)	Paringa		3.9 Mtpa	US$43 /t

Capital Intensity = Total Capital divided by Nameplate Production; Capex includes all mining equipment to full production
Note: (CM) – Continuous Miner; (LW) – Longwall; (DL) – Surface Dragline
Source: Company Filings

Coal Resources

Paringa previously announced to the ASX, as part of the BFS for the Cypress Mine, an increase of the Coal Resource Estimate ("**CRE**") for the Buck Creek Mining Complex to 224 million tons (~203 million tonnes) in the Measured and Indicated categories. The total JORC Resource has increased to 250.7 million tons as a result of additional drilling and acquisition of additional leases. The updated CRE also incorporated results from the five-hole drilling program at the Poplar Grove Mine announced to the ASX during October 2016. The total CRE for both the Poplar Grove and Cypress Mines is shown below:

Table 14: Total Coal Resource Estimate for Poplar Grove and Cypress

CRE Tonnage (million tons in-situ)				
Measured	Indicated	**Total Measured & Indicated**	Inferred	**Total**
75.6	175.1	**250.7**	0	**250.7**

The Buck Creek Mining Complex has over 1,200 coal seam intercepts providing a significant level of understanding of the WK No.9 coal seam within the property. A total of 203 bore holes were used in the CRE, including 103 Kentucky Geological Survey core holes, 29 Buck Creek Resources LLC core holes, 10 Buck Creek Resources LLC rotary holes, 28 Hartshorne Mining LLC core holes, 6 Hartshorne Mining LLC rotary holes, and 27 gas wells.

The Buck Creek Complex coal resource is in the WK No. 9 coal seam. Thickness of the WK No. 9 coal seam modelled in the CRE averages approximately 3.8 feet. The coal seam height within the Poplar Grove mine plan averages 3.7 feet, a suitable seam thickness for high-productivity underground mining with approximately 0.8 feet of out-of-seam mining needed to achieve a mining height of 4.5 feet required for equipment clearance. Seam and mining heights are similar to a number of underground mines in the region.

Coal Quality

The Poplar Grove and Cypress Mines' has 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 coal has a high heat content of 11,894 Btu/lb which compares favourably with the larger producing mines in the Illinois Basin. Since thermal coal mines are ultimately selling energy, this factor makes the Buck Creek Complex's quality very attractive as a new source of energy from the Illinois Basin.

Table 15: Poplar Grove and Cypress Mines – 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 (%)
6.4%	11.8%	37.4%	44.3%	0.16%	60	11,894	8.6%	93.0%

The BFS assumes that 100% of the coal product from Poplar Grove Mine will be a blend of processed and bypassed coal to meet a target specification of 11,200 Btu/lb. Please refer to the Coal Processing, Materials Handling and Project Infrastructure section of this Announcement for further details.

Ore Reserve Estimate

The Ore Reserve Estimate underpinning the production target has been reported in accordance with the JORC Code and CIMDS (as adopted May 10, 2014) and has been prepared under the direction of Mr Justin Douthat, a Competent Person who is a Registered Member of the Society of Mining, Metallurgy and Exploration and Mr Kirt Suehs, a Competent Person who is a Member of The American Institute of Professional Geologists. The Ore Reserve Estimate has been generated from the BFS mine plan which is based entirely on the Measured and Indicated Coal Resource of 250 million tons.

The Poplar Grove and Cypress Mines' Marketable Ore Reserve Estimate of 82.7 million tons of thermal coal has been defined from Recoverable Ore Reserve Estimate of 107.9 million tons. The Marketable Ore Reserve is classified as a Proven and Probable Ore Reserve Estimate, of which 23.7 million tons (or 29%) is considered proven and 59.0 million tons (or 71%) is considered probable (after the application of all mining factors).

Table 16: Poplar Grove and Cypress Mines Ore Reserve Estimate

Recoverable Coal Reserve (Mt)			Product Yield	Marketable Coal Reserve (Mt)		
Proven	Probable	**Total**	%	Proven	Probable	**Total**
30.9	77.0	**107.9**	76.7%	23.7	59.0	**82.7**

Proven and probable coal reserves were derived from the defined coal resource considering relevant mining, processing, infrastructure, economic (including estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic, and regulatory factors. They are presented on an as-received, recoverable basis.

The mine plan used in the BFS to underpin the production target ("**Production Target**") of 146.0 million tons of total ROM coal produced over the LOM (which equates to 112.0 million tons of total clean coal produced over the LOM) is based on: (i) Proven ROM Recoverable Coal Reserves of 30.9Mt (21.2%); (ii) Probable ROM Recoverable Coal Reserves of 77.0Mt (52.7%); (iii) Measured Recoverable Coal Resources of 14.1Mt (9.7%); and (iv) Indicated Recoverable Coal Resources of 24.0Mt (16.4%).

Of the total production of 59.7Mt of ROM coal produced at Poplar Grove over the LOM, approximately 21.6Mt of the mine plan can be mined on mineral property currently controlled by Paringa. The Company currently does not control the mineral rights for 38.1Mt. Note, Paringa controls 100% of the mineral property for at least the first 9 years of production at Poplar Grove. Additional mineral leases must be acquired in order to execute the life of mine plan to achieve the projected financial performance of the Poplar Grove Mine. Paringa has an excellent track record of negotiating with mineral property owners, and expects to achieve formal agreements with all necessary landowners in the coming months.

Poplar Grove Coal Seam Access: Simple Box Cut Development

Due to the relatively shallow depth of the WK No.9 coal seam from the surface at the eastern edge of the proposed mining area, access to the proposed Poplar Grove Mine will be provided by a combination of box cut and drifts for ventilation, transport of personnel, materials and ROM coal.

The box cut will consist of a rectangular excavation from the original surface approximately 80 feet (24 meters) in depth, with the remaining 160 feet (48 meters) of depth traversed by three decline drifts developed through the overburden rock above the WK No. 9 seam to a total depth of approximately 240 feet (73 meters). The proposed floor of the box cut will be approximately 300 feet (91 meters) wide and 100 feet (30 meters) long to provide adequate room for pumping, ventilation, and materials handling equipment. This combined box cut/drift method of coal seam access is commonly used in the Illinois Basin to significantly reduce construction expense where coal seams are relatively shallow.

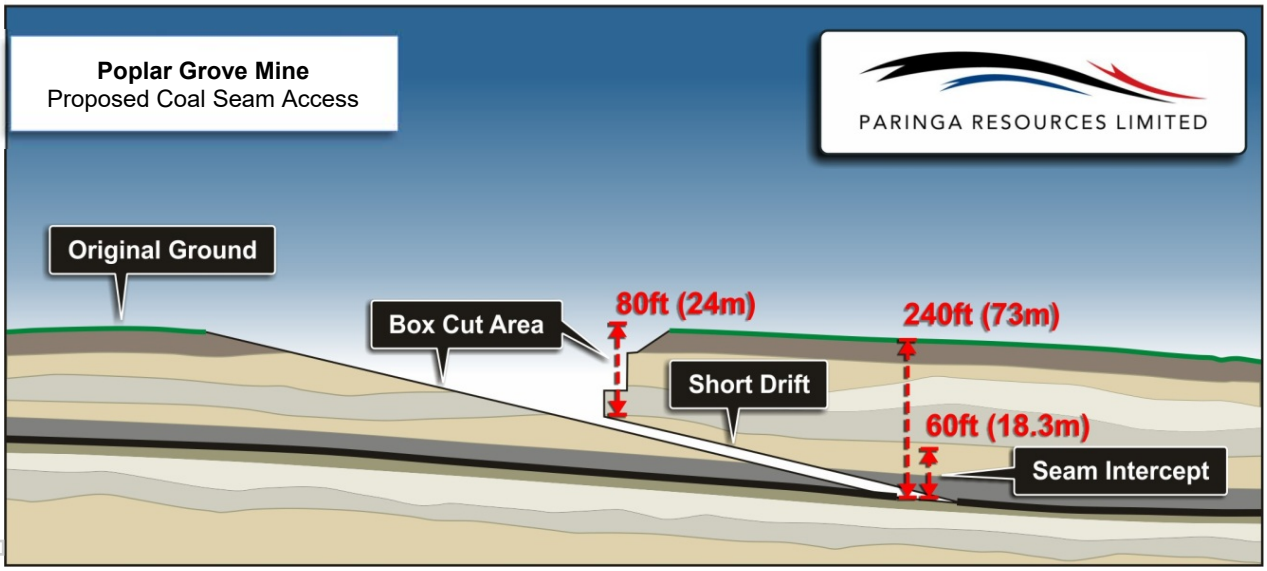

Figure 19: Proposed Coal Seam Access at Poplar Grove Mine

The three decline drifts will be constructed from the bottom of the box cut for an exhaust air portal, a combination of conveyor gallery and travelway, and a blowing fan/intake air portal. The drifts will be driven using continuous mining equipment at a decline of 8 degrees, and each will be approximately 1,150 feet (350 meters) in length. The roof in the declines will be supported with a combination of rock bolting systems and steel arches to provide life-of-mine support

The box cut design will include a drive-able ramp from the surface facility area to the bottom of the box cut for vehicle access. This ramp will be constructed to include the conveyor from the portal area to the raw coal stockpile.

For details in relation to coal seam access for the Cypress Mine, please refer to the announcement released to the ASX on 2 December 2015.

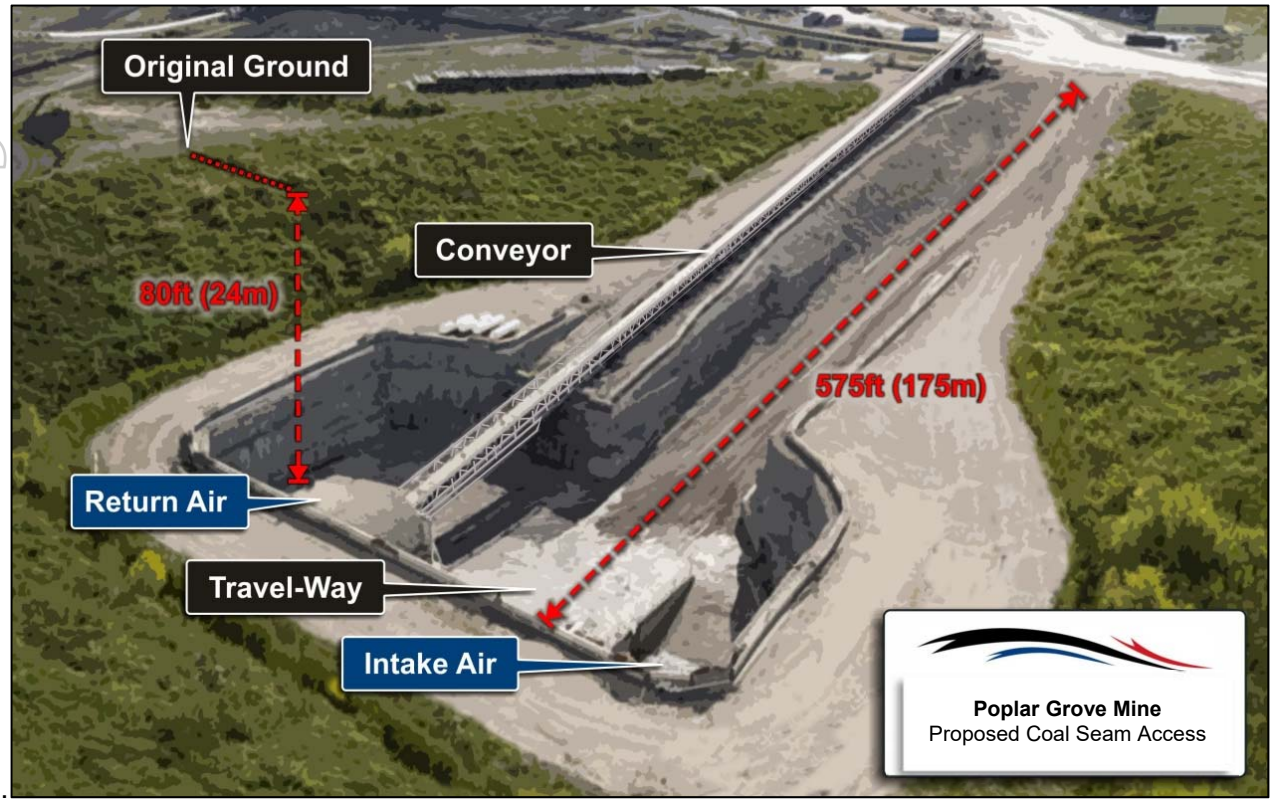

Figure 20: Top View of Box Cut and Drift Portals at the Poplar Grove Mine

Simple Underground Mining Operations at Poplar Grove

The production method from the mine will be room-and-pillar. The selection of underground room-and-pillar mining is validated by examining the method of mining widely used by adjacent operations, which are some of the highest productivity room-and-pillar mines in the world.

In addition, room-and-pillar mining with continuous miners has received all of the necessary approvals from regulatory agencies at nearby operations and is supported by well-established equipment models with a large supply of repair and replacement parts. No prototype equipment has been selected for use in the Poplar Grove Mine.

Paringa's US-based executive staff has vast coal mining experience and, critically, extensive operational experience in the WK No. 9 coal seam. The experience of the leadership team will enable the successful development and execution of the Poplar Grove Mine, incorporating management best-practices, engineering design, personnel selection and training, equipment selection, and a mine plan to maximise safe mine production and high productivity.

Mine Plan

The Poplar Grove Mine has an advantage over many greenfield resources projects in that there are successful mines adjacent to the Property operating in similar conditions. These active operations have been considered in planning the Poplar Grove Mine operation.

The surface facilities will be located on the eastern end of the Poplar Grove Mine area adjacent to the box cut. Centrally located shafts will facilitate future mine ventilation requirements. From the box cut area, the mains are driven southwest from the portals.

After progressing a distance of approximately 3,300 feet, mains development will also be driven to the south and subsequently to the west, as the mine area is essentially bisected by a well-defined structural fault. Mains are designed to provide a sufficient number of intake and return airways in addition to travelways and conveyor entries. Main entries have been designed to expedite the preparation of panel development locations for successive panels.

Mining Production

At steady state production, the continuous miner advance rate projected for the supersection units (two continuous miners per supersection) is a nominal 560 feet per unit-shift, comparable to the performance of other producers in the Illinois Basin, and also comparable to development rates projected for the Cypress Mine BFS.

The Poplar Grove mine plan includes a total production of 59.7 million ROM tons and 45.8 million clean (i.e. marketable) tons. The Poplar Grove Mine is projected to produce 2.4 million ROM tons per year, and 1.8 million clean tons per year at full production over a 27-year mine life.

Due to the size of the resource, the potential exists to add an additional unit and increase annual production. Future technical studies, plans, and designs are needed to evaluate the potential for production increases.

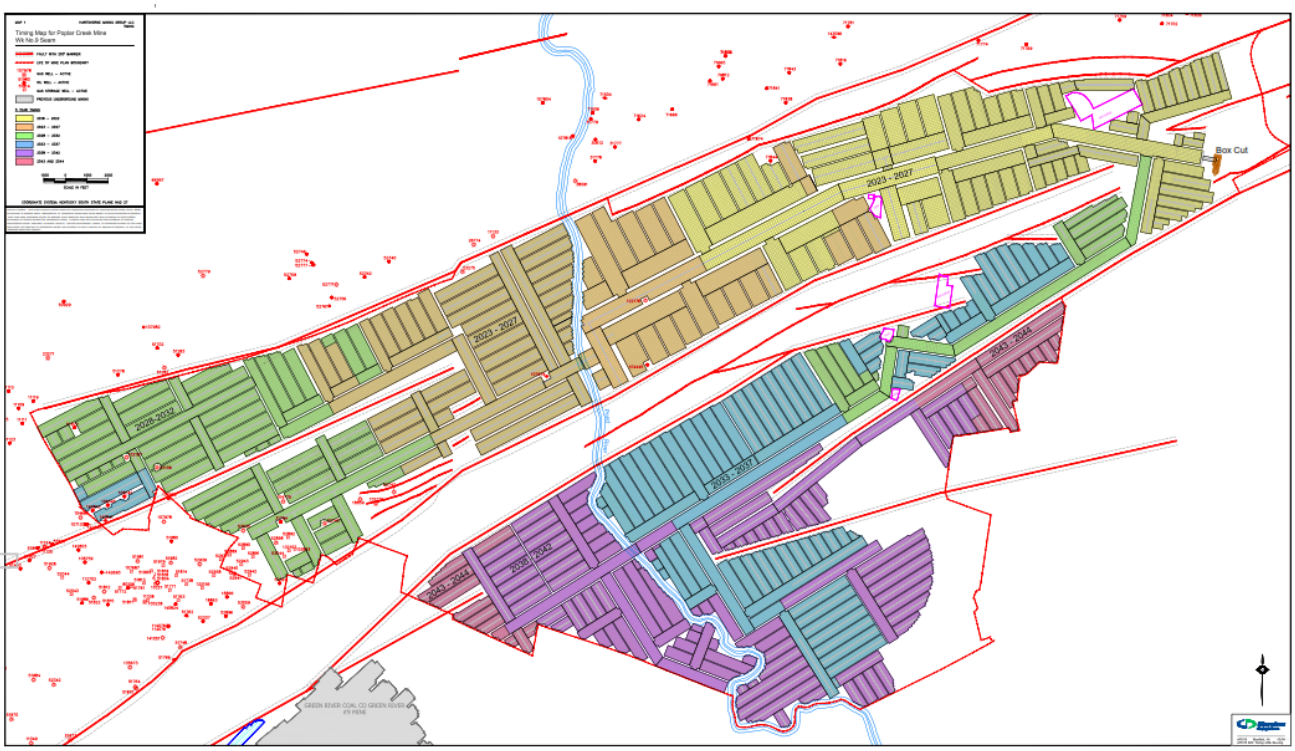

Figure 21: Proposed Underground Life of Mine Plan at Poplar Grove Mine

Mining Method

Production from the proposed Poplar Grove Mine will come from two continuous miner supersection units. Each supersection unit is equipped with two continuous miners and two roof-bolting machines for enhanced productivity.

In addition, each supersection will be equipped with a minimum of four battery haulers discharging onto a belt feeder/breaker, which provides surge capacity to reduce haulage dump times. The supersections utilize scoops for clean-up of spillage, and supply cars for distribution of supplies and materials, rockdusting, and other utility purposes.

Intake air will be directed through central entries and used to provide fresh air for the continuous miners. After ventilating the working faces, the return air will be routed through the exterior entries to exit the mine at the return portal or air shaft.

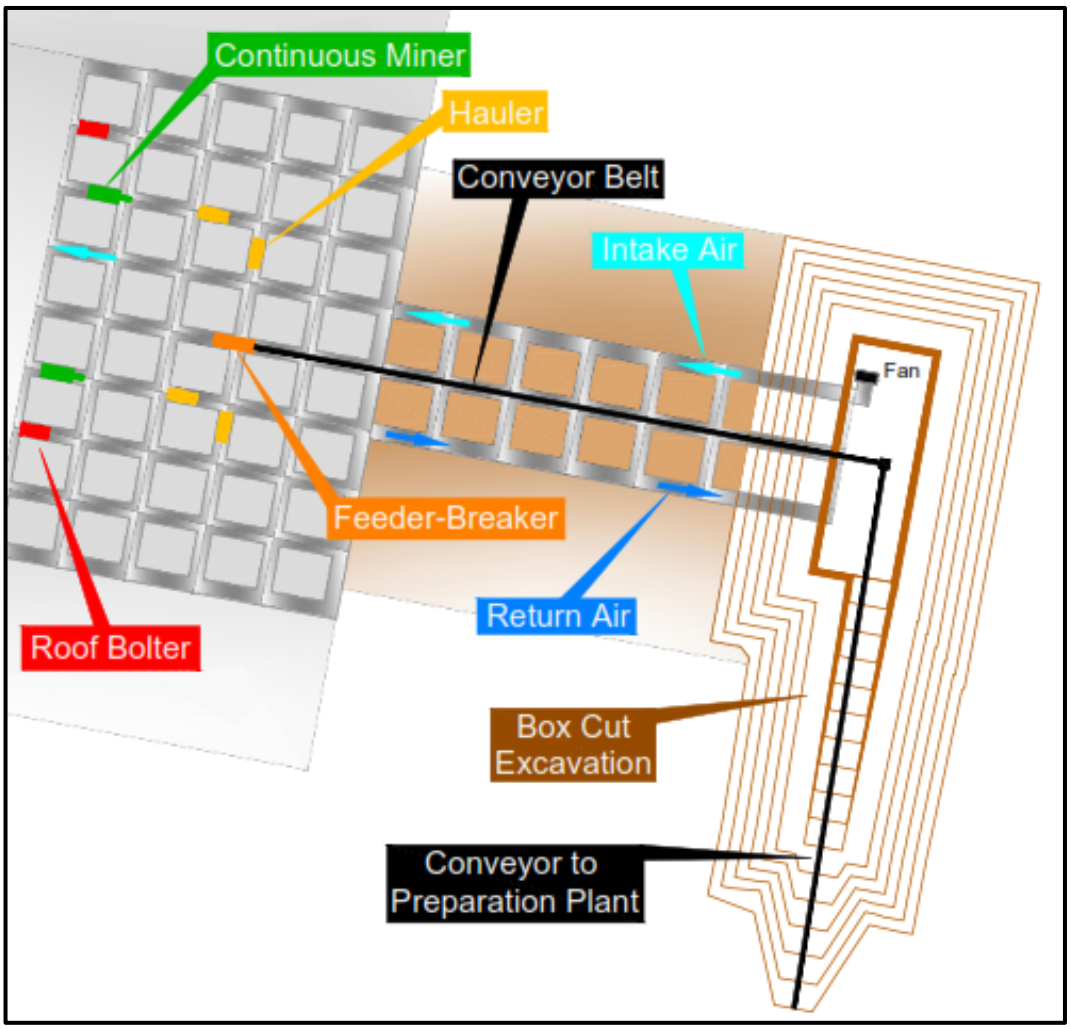

Figure 22: Top View of Proposed Box Cut and Three Drift Portals at the Poplar Grove Mine

Mining Equipment

The equipment must be sized to fit the coal seam height or additional extraneous material must be taken from the roof or floor to accommodate larger equipment. In general, larger equipment will have higher horsepower and greater productive capacity. The Poplar Grove mine plan is based on successful performance at nearby mines and incorporates a cutting height of 4.5 feet.

The equipment list for Poplar Grove Mine's typical supersection production unit is shown below:

Table 17: Supersection Mining Equipment List	
Equipment	**Quantity**
Continuous Miner	2
Coal Haulers (Shuttle Cars or Battery Haulers)	4
Roof Bolter	2
Feeder / Breaker	1
Scoops	2
Electrical Power Center	1

Figure 23: Typical Underground Super-Section Mining Equipment

Local Mining Industry

With mining operations dating back to the early 1800's, western Kentucky's coal mining industry is one of the oldest and most extensively developed coal regions in the US. At full production, staffing for the Poplar Grove Mine is expected to total 165 employees that are non-union, highly skilled and sourced predominately from nearby population centers.

Major mining equipment manufacturers have rebuild and component service exchange centres located near the proposed mine site. A major network of mining service providers including slope, shaft, and preparation plant construction companies are located in the immediate area.

For details in relation to underground mine operations for the Cypress Mine, please refer to the BFS results announcement released to the ASX on 2 December 2015.

Coal Processing, Materials Handling and Project Infrastructure

The ROM production for the Poplar Grove Mine will require processing in order to meet market specifications. Paringa has developed a preparation plant flow sheet for the Cypress Mine that allows for a portion of the minus ½" ROM coal to bypass the preparation process and to be blended back with the processed coal to produce a higher yield, lower quality product. The amount of bypassed coal can be varied to produce a range of product qualities. This process design will also be utilized at the Poplar Grove Mine.

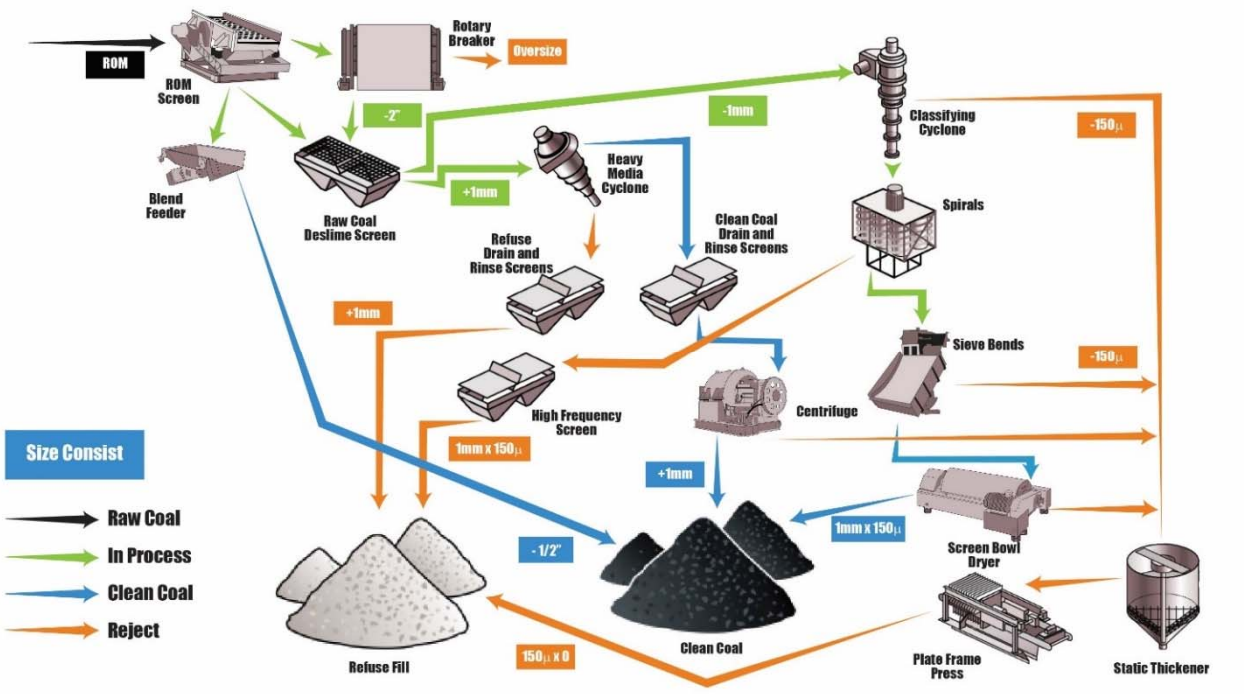

Figure 24: Coal Processing and Materials Handling Flowsheet at Poplar Grove Mine

The BFS assumes that 100% of the coal product from Poplar Grove Mine will be a blend of processed and bypassed coal to meet a target specification of 11,200 Btu/lb. This target coal quality is expected to result in an overall yield of 76.7% as shown below:

Table 18: Poplar Grove Product Quality

Product	% of ROM	Yield	Btu/lb
By-Pass Coal	20%	100%	9,841
Processed Coal	80%	71%	11,695
Product Blend	**100%**	**77%**	**11,204**

It is currently proposed that all of the plant feed for the underground Poplar Grove Mine will come from the WK No. 9 seam (extensive geological, technical and economic studies are underway on the WK No. 11 seam).

Table 19: Summary of Poplar Grove Preparation Plant Design	
Equipment	
Scheduled (Raw tons per Year)	2,400,000
Planned Annual Processing Days	250
Scheduled Operating Hours per Day	24
Utilization	90%
Design Capacity (Raw tons per hour)	400
Required Capacity (Raw tons per hour @ average 20% plant bypass)	348

Any out-of-seam dilution must be removed from the product by coal processing. Precise monitoring and control of the specific gravity of separation during operation of the coal preparation plant will provide a consistent and predictable product in conformance with specifications of coal sales agreements.

The coal preparation plant design throughput capacity will be a nominal 400 tons per hour. Following the initial ramp-up period, the mine will produce an estimated average of 2.4 million ROM tons per year. At full production, the plant will be scheduled for operation with 250 processing days planned each year, which represents an average 5-day per week work schedule.

The design capacity allows for adjustment to operating and maintenance schedules to efficiently meet annual processing requirements.

Refuse Disposal

Coarse and intermediate refuse will exit the plant on a refuse collecting conveyor belt. The combined coarse refuse will be placed in permitted refuse-disposal facilities; the location of the refuse disposal area will be determined in the future by property control.

The production volume at Poplar Grove results in generation of 13.9 million tons of refuse, or approximately 11.1 million cubic yards. The designed refuse storage area at Poplar Grove has a capacity of 14.7 million cubic yards.

Project Infrastructure

Access to the Poplar Grove Mine will be via a box cut and driveable ramp for the coal conveyor belt and transport of supplies and equipment. The main conveyor will discharge raw coal into a stockpile to be conveyed into the coal preparation plant. Supplies and materials will be transferred from the box cut or supply yard area via rubber-tired supply cars to the operating areas of the mine. Other equipment and facilities to support the mine operations include the mine fan, office, bathhouse, warehouse, shop, bulk supplies storage (fuel, oil, rockdust, and roof bolts), fresh water tank with pumping system, sewage treatment facilities, and bulk rockdust bin.

Raw coal from the mine will be recovered through a reclaim tunnel belt, feeding the scalping screen, which will in turn feed the rotary breaker and the plant feed conveyor. After processing, clean coal is sampled and delivered to open storage then loaded into trucks for transport to the Green River barge load-out facility. Plant refuse is conveyed to the refuse disposal areas at the Poplar Grove site.

Power

Poplar Grove will construct 2.5 miles of high-voltage transmission line from the existing Kentucky Utilities 69 kV line to serve the mine and plant. In addition, a main surface substation to supply the mine, plant, and surface facilities, along with internal distribution lines, will be needed.

Water

Fresh water for the mine and plant will be pumped from groundwater wells to a freshwater supply pond or tank adjacent to the surface facilities. In addition to the water needed to run the mine and plant on a daily basis, fresh water will also be stored in a tank for firefighting. Potable water for the bath house and offices will come from a public water supply, which is readily available.

For details in relation to Coal Processing, Materials Handling and Project Infrastructure for the Cypress Mine, please refer to the BFS results announcement released to the ASX on 2 December 2015.

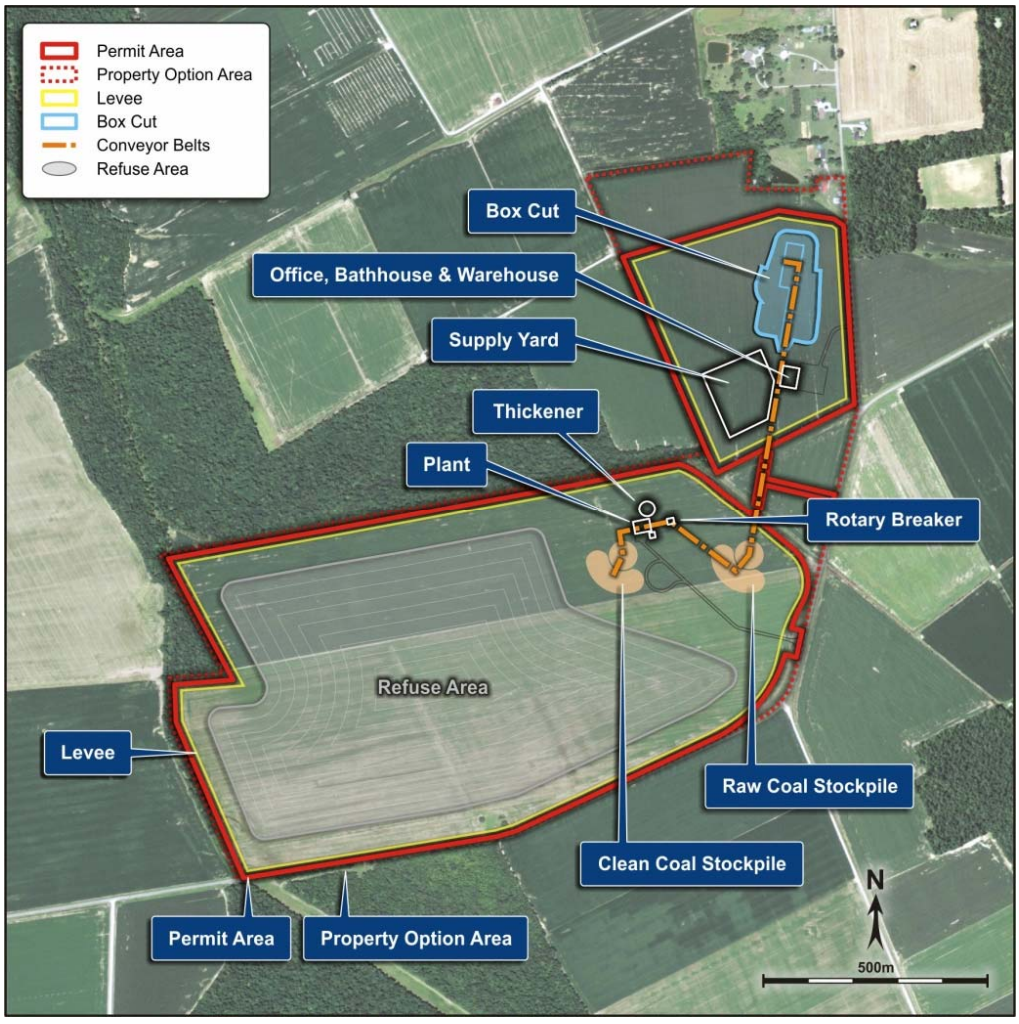

Figure 25: Poplar Grove Mine Site Layout and Refuse Area

Access to Local Coal Markets

The results of the BFS for the Poplar Grove Mine are based on the project being developed as a stand-alone mine with a CHPP and Green River barge load-out facility.

Coal Transportation

Clean coal will exit the CHPP on a clean coal-collecting conveyor belt, equipped with a scale to record plant clean coal production and a sample cutter to monitor coal quality. Ground storage at a radial stacking conveyor will provide live stockpile storage. The capacity can be increased by pushing and rehandling the coal on the clean coal stacking area. Clean marketable coal will be loaded into trucks to be hauled to the proposed location of the Green River barge load-out facility.

Figure 26: View of 4-Barge Tow along the Green River

Green River Barge Load-out Facility

The Company holds necessary permits required to construct the barge load-out facility approximately seven miles northwest of the Poplar Grove Mine's plant site. The Green River barge load-out facility will consist of a ground-based tower connected to a floating work barge by a 170-foot long conveyor belt. The system will have a design capacity of 2,500 tons per hour.

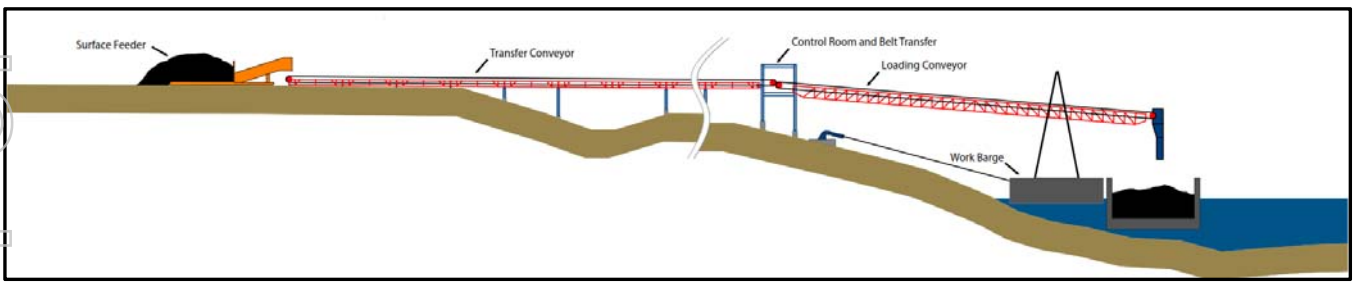

Figure 27: Design of Paringa's Barge Load-out Facility at the Green River

Barge Waterways

The primary market access point for the Poplar Grove Mine's saleable product is via barge on the Green River. The Green River is part of the Mississippi River System, a 12,350-mile (19,871 km) network of navigable waterways serving much of the Eastern and Midwestern US. On the Mississippi, coal is the largest commodity, by volume, and accounts for over 20 percent of all coal consumed in the US. The Poplar Grove Mine's permitted barge load-out facility is located at mile marker 62 on the Green River, as measured from the confluence with the Ohio River. The Green River meets the Ohio River at mile marker 784, which is approximately 169 miles (271 km) from the Mississippi River and 145 miles (233 km) from the Tennessee and Cumberland Rivers. The width of the Green River enables a two-by-two arrangement (two-barges wide and two-barges long).

For details in relation to access to local coal markets for the Cypress Mine, please refer to the BFS results announcement released to the ASX on 2 December 2015.

Permitting and Socioeconomic Position

Permitting

The Poplar Grove Mine requires multiple permits for mining, coal preparation, support facilities, refuse storage, haul roads, transportation, loading, and other incidental activities necessary to support mining. Permitting for the Poplar Grove Mine is progressing as planned and remains on track for mine construction to begin mid-2017. The Cypress Mine is fully permitted for construction.

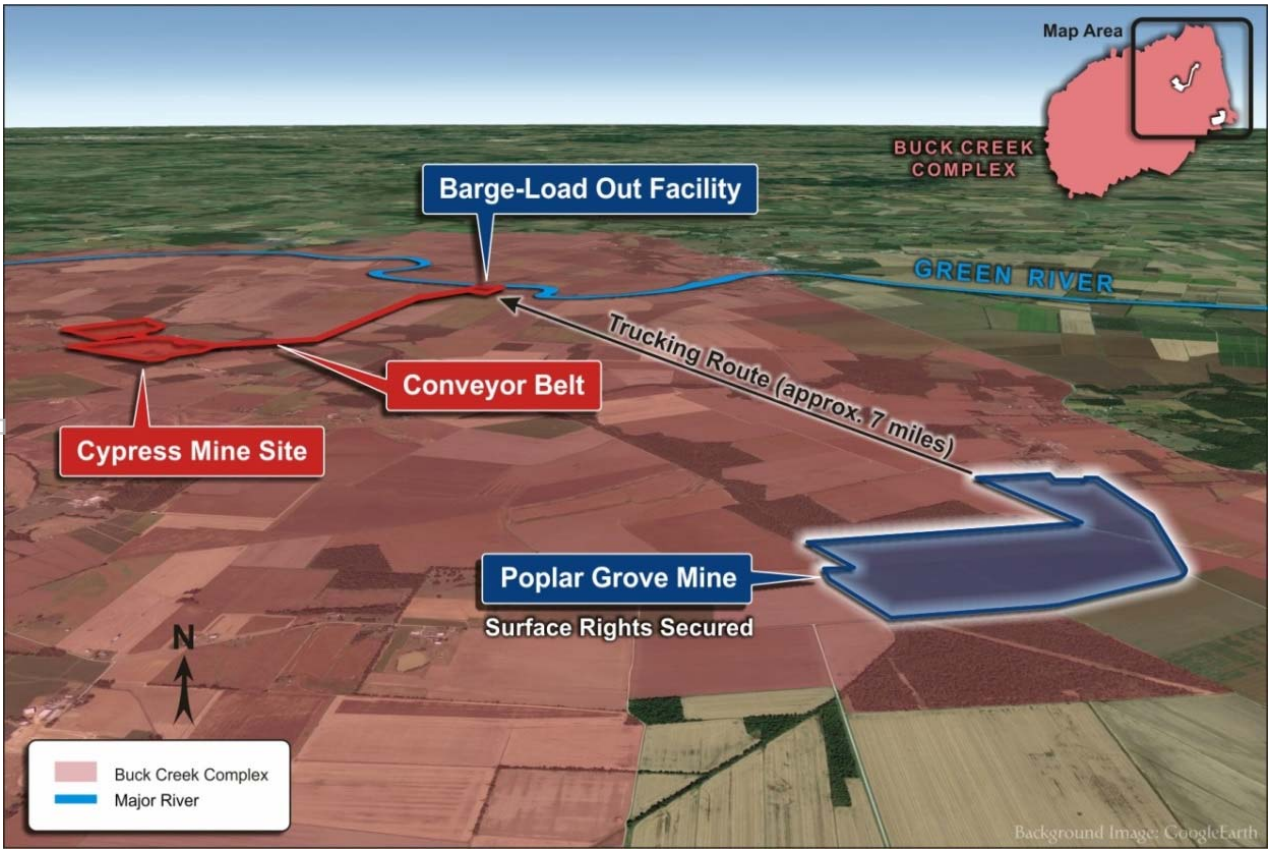

Figure 28: Location of the Poplar Grove and Cypress Mine Permits and Barge Load-Out Facility

Rights to Surface Property for Mine Site and Barge Load-Out Facility

Paringa has secured 100% of the rights to acquire the surface property necessary to construct the Poplar Grove Mine. The surface rights secured represents a total of 318 acres controlled by local landowners. The secured mine site property for Poplar Grove complements the previously secured and permitted Barge Load-Out Facility.

The Buck Creek Complex is located in the western section of Kentucky approximately 30 miles south of Henderson, Kentucky (population 28,757) and between the towns of Calhoun (population 763) to the east and Hanson (population 742) to the west. The property is located within a 45-minute drive of Evansville, Indiana (metro population of 358,676) and within a two-hour drive of Louisville, Kentucky (metro population of 569,135) and Nashville, Tennessee (metro population of 1,589,934). Given the importance of coal mining to the region, community attitudes towards new underground coalmine developments are positive.

Study Consultants

The BFS was managed by Cardno with utilisation of local industry consultants, with expertise in coal mine development in the Illinois Basin region, to analyse the various components of the BFS, including (but not limited to) the design of box cut access, design of the mine, design of processing facilities, and the preparation of coal marketing studies.

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, and is a subsidiary of Cardno Limited, an ASX listed professional infrastructure and mining services company.

Table 20: Buck Creek BFS Consultants

Consultant	Activity
Cardno, Inc.	Geology, Mineral Resource and Reserve Estimation, and Mine Planning, Site Planning, and BFS Management
Strategic Energy Resolutions, Inc.	Market Assessment and Preliminary Marketing Plan
Hanou Energy Consulting, LLC	Market Price Forecasts
Appalachian Mining & Engineering, Inc.	Ground Control Design
General Mine Contracting, Inc.	Preliminary Preparation Plant Design and Cost Estimation
William E. Groves Construction, Inc.	Electrical System Preliminary Design and Cost Estimation
Associated Engineers, Inc.	Permitting Information, Site Design, Geologic Consulting
Jennmar, Inc.	Roof Control Design and Cost Estimation
Pollard and Sons Excavating	Site Construction Cost Estimation
Buchanan Pump	Water System Design and Cost Estimation
Green River Barge Service	River Dock Operating Plan and Cost Estimation
Garrett Mine Service (GMS)	Supply & Materials Pricing
United Central Supply	Supply & Material Pricing
Miller Contracting	Fan and Surface Facility Design and Cost Estimation
Alpha Engineering	Ventilation System Design
Magnum Drilling Services, Inc.	Exploration Core Drilling Services
Hawkey & Kline Coring & Drilling, Inc.	Exploration Core Drilling Services
3D Dycus Diamond Drilling, LLC	Exploration Core Drilling Services
Standard Laboratories, Inc.	Analytical Laboratory Testing Services
SGS North America, Inc.	Analytical Laboratory Testing Services
Precision Testing Laboratory, Inc.	Analytical Laboratory Testing Services

For details in relation to study consultants for the Cypress Mine, please refer to the BFS results announcement released to the ASX on 2 December 2015.

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 mineable seam thickness ranges from 3.0 feet (0.91 metres) to 5.0 feet (1.5 metres) for the WK No.9 Seam with fairly consistent coal thickness exhibiting minimal splitting and non-coal partings.

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 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 203 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, 28 Hartshorne Mining LLC core holes, 6 Hartshorne Mining LLC rotary holes, and 27 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 2016 Paringa successfully completed 6 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.

Paringa core drilling included two (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 2016 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 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) 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 85 offices and 2,500 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 utilized was 3.0 feet (0.91 metres).

Mining and metallurgical methods and parameters

The Company has completed a BFS 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 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 coal to demonstrate that the fundamentals from the initial development of Poplar Grove 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 twenty seven 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 twenty seven recently completed core samples and the historical 24 samples were utilized in determining the average core coal quality.

This average quality value was tabulated in Microsoft Excel utilizing 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 21: Poplar Grove and Cypress Mines – 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 (%)
6.39%	11.82%	37.39%	44.30%	0.16%	60	11,894	8.56	93.05%

SUMMARY OF ORE RESERVE ESTIMATE AND REPORTING CRITERIA

Material assumptions

The BFS, Coal Reserves, Production Targets, and forecast financial information derived from the BFS, Coal Reserve, Production Target contained in this announcement for the Poplar Grove Mine, are based on the material assumptions contained within this announcement which are summarized below:

Table 22: Assumptions

Mine	Poplar Grove
Maximum Accuracy Variation	+/- 10%
Minimum LOM	27 years
Mining Method	Underground / room-and-pillar
Modelled Seam Thickness	3.7 feet
Average Mining Height	4.5 feet
Total Work Days per Year	250
Productivity Rate (feet advance per unit shift at steady state production)	560 feet
Annual ROM Coal Production (tons)	2.4 Mtpa
Capacity CHPP	400 raw tons per hour
Yield CHPP	76.7%
Processing Method	Dense Media 2-stage
Annual Clean Coal Production (tons)	1.8 Mtpa
Average Direct Mining Costs (Steady State)	US$19.83 per ton
Average CHPP and Barge Load-out costs (Steady State)	US$3.41 per ton
Average Other (Steady State)	US$7.15 per ton
Total Average Operating Costs (Steady State)	US$30.39 per ton
Total Initial Capital Costs	US$40 million
Mine Royalty (4% of Gross Sales Value less taxes and fees)	4.0%
Leased Equipment - Operating Lease	Included in Average Direct Mining Costs
Leased Equipment - Interest Rate	8%
Leased Equipment - Term	5 to 7 years
Leased Equipment - Original Cost	US$23.9 million
Leased Equipment - Residual Value	20%
Kentucky State Severance Taxes	4.5%
Coal Specification	11,200 Btu/lb
Corporate Tax Rate	25%
Discount Rate (8%, Real)	8%

For details in relation to assumptions used for the Cypress Mine, please refer to the BFS results announcement released to the ASX on 2 December 2015. Paringa confirms that: a) it is not aware of any new information or data that materially affects the information included in the original ASX announcement; b) all material assumptions and technical parameters underpinning the Coal Reserve, Production Target, and related forecast financial information derived from the Production Target included in the original ASX announcement 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 announcement.

Coal Reserve classification criteria

Proven and probable Coal Reserves were calculated on the measured and indicated portion of the Coal Resources for the Project. The coal reserve was calculated using Carlson Mining software by applying a detailed mine design and LOM mine production scheduling to the resource model, also created in Carlson Mining. A minimum underground mining height of 54 inches (based on typical mining practices and/or equipment capabilities) was used to determine out-of-seam dilution (*OSD*) and project raw production tons. Production data outputs from LOM sequencing were exported into Microsoft® Excel spreadsheets and summarized on an annual basis for processing within the economic model. Coal reserves are estimated based on a mining recovery that ranges from 29 to 56 percent, and an effective plant yield of 76.7 percent. The Coal Reserves estimate has been classified as proven and probable based on guidelines specified in the JORC Code. The Coal Resources in this report are reported inclusive of Coal Reserves.

Mining method and assumptions

Paringa anticipates commencing construction at the proposed Poplar Grove Mine in the second quarter of 2017, with initial production planned for the second quarter of 2018. Access to the coal seam will be via box cut and decline slope, with ventilation provided through the portals and subsequently supplemented by vertical shafts. Production from the proposed Poplar Grove Mine will come exclusively from continuous miner units using room-and-pillar methods. Production sections will be configured as super-sections, each equipped with two continuous miners, four haulage units, two roof-bolting machines and one feeder/ breaker for enhanced productivity. Production sections will be equipped with four battery-powered haulers to move material from the continuous miner to the mine's conveyors. Haulage units will discharge onto a belt feeder/breaker, which provides a limited amount of surge capacity to reduce hauler dump time. Feeders also provide more uniform transfer of raw coal onto the section conveyor. Two dual-head roof bolting machines will install immediate roof support in mined entries. Battery scoops will be used for cleanup of spillage, distribution of supplies and materials and other utility purposes on the production sections.

At full production, staffing for the operation is expected to total 165 employees, and each section will produce approximately 2,140 to 2,493 tons of run-of-mine (*ROM*) coal per shift; ROM production for Poplar Grove will total approximately 2.3 million to 2.4 million tons per year. Clean coal recovery is calculated at approximately 76.7 percent, (which includes average direct shipment/preparation plant bypass of approximately 20 percent of the ROM production) yielding an average of approximately 1,800 tons of clean coal from each unit-shift of production. Annual production will total approximately 1.8 million clean, marketable tons at full production.

Processing method and assumptions

In order to optimize product yields and to conform with market needs and specifications, the Poplar Grove preparation plant will be designed and equipped to incorporate direct ship ROM coal blended with fully-washed product. Based on customer coal quality needs, 100 percent of the marketable coal will be a blend of raw and processed coal that will have a heating content of 11,200 Btu/lb. The plant is designed as a 400-raw-ton-per-hour facility. Approximately 40% of the minus half-inch ROM coal will bypass the plant and be blended back with the washed product to meet the 11,200 Btu/lb customer specification. The balance of the minus two-inch ROM coal will be separated into coarse and fine material at a one-millimeter size separation as it crosses one double-deck raw coal de-slime screens. The coarser material (plus one-millimeter size fraction) will be processed in a heavy media cyclone; the finer coal (minus one millimeter) will be processed by classifying cyclones and spirals. The minus 150-micron material is lost as effluent. Coarse and fine refuse will be combined and subsequently exit the plant on a 36-inch refuse collecting conveyor at an anticipated rate of 123 tons per hour with a surface-moisture of 9.4 percent. Course refuse will be dewatered utilizing drain & rinse and high frequency screens. Fine refuse will be dewatered using plate and frame presses.

The combined refuse will be placed in the permitted refuse-disposal facilities, adjacent to the preparation plant, as dry material with no impoundment. The total surface property available to Hartshorne contains adequate refuse capacity for the life of the Project. All property to be used for refuse disposal are flat to slightly rolling and will not require any valley fills.

The capital cost of the coal preparation plant, refuse disposal site, and materials-handling system is expected to total $17.7 million. That total excludes permitting, site preparation, power substation and distribution, which are included in mine and site development capital estimates. The capital costs projected for the river dock is estimated at $3.0 million. The LOM average plant cash cost is estimated to be $2.84 per clean ton sold for the assumed product mix.

The proposed Poplar Grove preparation plant will use standard equipment and processes for gravity separation of coal and reject; it will also use mechanical dewatering processes. Similar equipment to that proposed is currently in use at other ILB preparation plants. The proposed method for disposal of refuse material is consistent with those of neighboring operations.

Coal quality parameters applied – Poplar Grove

The WK No. 9 seam on the Project contains an average in-seam raw ash content of 11.71 percent, raw sulfur content of 3.97 percent and raw thermal (heat) content of 12,048 British thermal units per pound (*Btu/lb.*) at the average as-received moisture content of 6.37 percent. Based on the preparation plant information, the out-of-seam dilution, and the processing method described in the section above, the average product coal quality is projected to contain an ash content of 11.7 percent, sulfur content of 3.1 percent, heat content of 11,200 Btu/lb and 5-5.5 lbs. SO2. The effective plant yield is 76.7 percent.

Coal Reserve estimation methodology

Grid files prepared from the geological database were used in the estimation of coal resources, including both seam thickness and elevation models encompassing the WK No. 9 seam. Coal seam thickness and base-of-coal-seam structure grid files were used to define the top and bottom of the coal horizon. The grid models were developed using Carlson Mining software, which was also used to develop LOM projections and production timing sequence plans. A minimum underground mining height of 54 inches, based on typical mining practices and/or equipment capabilities, was used to determine OSD and project raw production tons. A project schedule and estimated capital and operating costs (+/-10 percent in accuracy) have been developed. Annual production will total approximately 1.8 million clean, marketable tons at full production.

Other material modifying factors

Economic

A detailed financial model and discounted cash flow analysis was been prepared in order to demonstrate the economic viability of the Coal Reserves. On a stand-alone basis, the NPV of the projected cash flows from the initial Poplar Grove Mine is US$172m (A$226m) at an 8% (real) discount rate, with an IRR of 35%.

As previously announced, the Company is in ongoing discussions with a number of potential equity and debt financiers to fund the construction of the proposed Poplar Grove Mine. The Company will make announcements to the market as appropriate should this occur.

Marketing

In October 2015, Paringa signed a coal sales agreement with LG&E and KU to deliver coal from the Cypress Mine. In February 2016, the Company decided to develop the low capex Poplar Grove Mine first following exceptional results from the Scoping Study.

As a result, the amended cornerstone coal sales agreement with LG&E and KU now reflects delivery of coal from the Poplar Grove Mine. The amended contract is on substantially the same terms as the original contract. Most importantly, coal volumes and coal specifications remain unchanged. Fixed sale prices have changed slightly to reflect recent sales data, and the project development milestones and delivery schedule have been updated for the Poplar Grove Mine.

Under the amended coal sales agreement, Paringa is contracted to deliver a total of 4.75 million tons of its 11,200 btu/lb product over a 5-year period, starting in 2018. The amended contracted fixed coal sales prices for Paringa's 11,200 btu/lb coal spec begins at US$40.50 per ton for the first 750,000 tons of coal delivered to LG&E and KU, escalating to US$45.75 per ton for the final 1,000,000 tons sold.

In addition, Paringa has identified 14 other "Tier 1" coal marketing targets operated by 9 different utilities that have traditionally received fuel similar to the Project's coal. The latest available data indicates Paringa's target market received over 55 million tons of coal in 2014. Whilst Paringa's target market is largely insulated from the impact of volatile natural gas prices and is relatively stable in terms of coal demand, over the past 10 years coal supply into the market has become increasingly concentrated into one to two major US coal producers. Based on discussions with Paringa's target market, new independent sources of supply are highly valued.

Infrastructure

The Project is a well-defined coal resource, which is located in an area with a long history of coal mining. The primary market access point for the Project's saleable product is via barge on the Green River. The Green River is part of the Mississippi River System, a 12,350-mile (19,871 km) network of navigable waterways serving much of the Eastern and Midwestern US. The Project is located in a region serviced by two separate electric utility providers, Kentucky Utilities and Big Rivers Electric Corporation, both of which are capable of supplying the 69-kv service required. Fresh water for the Project's mine and plant will be pumped from the barge load-out facility on the Green River along the corridor provided for the overland conveyor.

Environmental, Permitting, Legal and Socioeconomic Position

Paringa has two distinct areas for the proposed Poplar Grove Mine. The larger of the areas is the proposed location of the mine site and preparation facilities which is held under three purchase options. The smaller site is the barge load-out site on the Green River and is held under lease with full rights to develop the surface. The barge load-out site is fully permitted and the mine site permitting is underway (the permit approval process is not expected to impose delays in the construction of the Project).

Paringa controls approximately 38,370 gross acres (~15,528 ha) of coal leases in Kentucky, United States, which comprise the Buck Creek Mining Complex. Kentucky state law allows the owner (or controller) of a partial interest to develop and enjoy the coal rights in a manner consistent with 100% control, therefore leases with partial interests (i.e. less than 100%) can be mined. The coal leases grant Paringa the coal and coal rights with respect to the leased premises, together with the right to mine coal by the underground mining method only and the right to remove the coal seam gas and coal mine gas by any method from under the leased premises. All of the coal leases are with private owners and the agreements are fundamentally identical with a term of 20 years for the date of execution. The coal leases require the payment of an annual minimum royalty and an earned royalty which are industry standard in the region. The annual minimum royalty is an annual per acre charge 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.

Forward Looking Statements

This announcement 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 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.

The information in this report that relates 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. Messrs. Douthat and Enigk consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

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 through 2016 to retrieve coal core samples for quality analyses and seam thickness determination. The programs consisted of 35 drill holes from which 27 WK No. 9 coal core 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 103 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 2016 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.	> 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 (Cardno) 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 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 BCRs 2009 through 2011 drilling program and the HMG 2013 through 2016 drilling programs. 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 seam 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' WK No.9 seam 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 seam 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*). > 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 know 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.	> 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.

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 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 coal controlled properties. > All WK No. 9 coal is 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 six drilling programs between 2013 and 2016.
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 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.	> 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 > All drill holes are provided with a collar elevation and a Kentucky South NAD 27 easting and northing coordinate.
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.

Criteria	JORC Code explanation	Commentary
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. > 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. > 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.	> A 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. As part of the 2014 site visit, Cardno met with Hartshorne to discuss the proposed Buck Creek operations. > 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 and all controlled resources occur below drainage.

Criteria	JORC Code explanation	Commentary
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 203 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. This includes 176 drills holes specific to coal identification from BCRs, HMG and the KGS and an additional 27 oil and gas well holes. These 27 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 compare to the BCRs, HMG and KGS data. > Of the reserves contiguous to Buck Creek reserve, there is one mine actively operating 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 acres, 37,566 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.	> 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 Resource estimation contains 203 drill holes of which 176 are coal specific obtained from the KGS and drilling programs conducted by BCRs and HMG. The other 27 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.

Criteria	JORC Code explanation	Commentary
	> 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.	> 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. > 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 seam 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 is reported to range between 3.9% and 8.1%. > 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 37,566 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.

Criteria	JORC Code explanation	Commentary
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 seam is a thermal product; therefore, no metallurgical assumptions have been applied in estimating the Resource.
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 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	> 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.

Criteria	JORC Code explanation	Commentary
	values, quality, quantity and distribution of the data). > Whether the result appropriately reflects the Competent > Person's view of the deposit.	> 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, Senior Geologist with Cardno. > Cardno 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 as a result of the 2013 through 2016 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 – Mining Advisory Service with Cardno, 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 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.

Section 4 Estimation and Reporting of Ore Reserves

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	> The original coal resource estimate for the Property was prepared by Cardno and presented in the TR titled "Resource Estimate for the Buck Creek Property as of August 14, 2013 – Located in McLean and Hopkins Counties, Kentucky" dated November 2013. > The coal resource estimate was subsequently updated in conjunction with this Bankable Feasibility Study (BFS) in order to incorporate additional exploration and coal quality data, along

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>with changes in mineral property control since the 2013 TR.
> The relative accuracy of, and confidence in, the coal resource tonnage estimates are judged to be in conformance with current industry best-practices; they are of sufficient reliability to support the mine plans and coal reserve estimates.</td></tr>
<tr><td></td><td>> Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</td><td>> Coal resources are reported inclusive of the coal reserves.</td></tr>
<tr><td>Site visits</td><td>> Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</td><td>> A site visit, including Cardno's representative Mr. George Oberlick, P.E., was made to the Buck Creek Property on December 17 and 18, 2013. Mr. Oberlick served as an advisor in development of the Cypress Mine PFS. As part of the 2013 site visit, Cardno met with Hartshorne personnel to discuss Hartshorne's planned future operations. Cardno also visited the locations for the proposed surface facilities, river dock and underground mine.
> A subsequent site visit to the Buck Creek Complex property occurred on October 29, 2014 by Mr. Gerard Enigk, P.E., who is one of the CPs for this report. As part of the 2014 site visit, Cardno met with Hartshorne to discuss the proposed Buck Creek Complex operations. The following observations were made:
- Site access is well established and not likely to be impacted by adverse weather conditions
- Public utilities (electrical power, potable water) are available at the site
- Relatively flat-lying topography will help minimize earthwork-related construction and expense</td></tr>
<tr><td>Study status</td><td>> The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</td><td>> The Study is classified as a BFS, and was undertaken by a team of industry professionals as listed below:
<table>
<tr><td>Cardno</td><td>Geology, Mineral Resource and Reserve Estimation, and Mine Planning, Site Planning, and BFS Management</td></tr>
<tr><td>Strategic Energy Resolutions, Inc.</td><td>Market Assessment and Preliminary Marketing Plan</td></tr>
<tr><td>SNL Financial LC</td><td>Market Price Forecasts</td></tr>
<tr><td>Energy Venture Analysis, Inc.</td><td>Market Price Forecasts</td></tr>
<tr><td>Hanou Energy Consulting, LLC</td><td>Market Price Forecasts</td></tr>
<tr><td>Appalachian Mining & Engineering, Inc.</td><td>Ground Control Design</td></tr>
<tr><td>General Mine Contracting, Inc.</td><td>Preliminary Preparation Plant Design and Cost Estimation</td></tr>
<tr><td>William E. Groves Construction, Inc.</td><td>Electrical System Preliminary Design and Cost Estimation</td></tr>
<tr><td>Associated Engineers, Inc.</td><td>Permitting Information, Site Design, Geologic Consulting</td></tr>
<tr><td>Jennmar, Inc.</td><td>Roof Control Design and Cost Estimation</td></tr>
<tr><td>Pollard and Sons Excavating</td><td>Site Construction Cost Estimation</td></tr>
<tr><td>Buchanan Pump</td><td>Water System Design and Cost Estimation</td></tr>
<tr><td>Green River Barge Service</td><td>River Dock Operating Plan and Cost Estimation</td></tr>
</table></td></tr>
</table>

Criteria	JORC Code explanation	Commentary	
		Garrett Mine Service (GMS)	Supply & Materials Pricing
		United Central Supply	Supply & Material Pricing
		Miller Contracting	Fan and Surface Facility Design and Cost Estimation
		Alpha Engineering	Ventilation System Design
		Magnum Drilling Services, Inc.	Exploration Core Drilling Services
		Hawkey & Kline Coring & Drilling, Inc.	Exploration Core Drilling Services
		3D Dycus Diamond Drilling, LLC	Exploration Core Drilling Services
		Standard Laboratories, Inc.	Analytical Laboratory Testing Services
		SGS North America, Inc.	Analytical Laboratory Testing Services
		Precision Testing Laboratory, Inc.	Analytical Laboratory Testing Services
	> The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	> Coal reserves are based on an independent evaluation of the coal geology and a BFS of the coal reserve deposits contained within the controlled property. > A BFS economic analysis was completed, including discounted cash flow (DCF). Sensitivities to annual production, sales price, operating costs and capital costs were analyzed. > Coal reserves are presented on a recoverable basis and were derived from the controlled coal resources considering relevant modifying factors.	
Cut-off parameters	> The basis of the adopted cut-off grade(s) or quality parameters applied.	> No coal quality cut-off parameters were applied.	
Mining factors or assumptions	> The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	> Grid files prepared from the geological database were used in the estimation of coal resources, including both seam thickness and elevation models encompassing the WK No. 9 seam. > The grid models were developed using Carlson Mining software, which was also used to develop mine plan projections and production timing sequence plans.	
	> The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	> The selection of the underground room-and-pillar mining method (with no second mining) is dictated by the size and configuration of the proposed mine boundary and the stipulation in the mineral leases that mining will not result in surface subsidence. > Access to the coal seam will be via box cut, with ventilation provided by a main fan within the box cut access as well as vertical shafts. > Standard mining equipment, as deployed in neighboring mines, will be used at Poplar Grove.	
	> The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.	> Geotechnical parameters and coal quality characteristics are based on laboratory results from samples taken from the coal seam, overlying strata, and underlying strata. These samples were taken from core obtained during exploration drilling. > A detailed geotechnical study was completed by AME in December 2013 titled "Ground Control Design for the Buck Creek Reserve West Kentucky #9 Seam".	
	> The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	> Pillar design is based on geotechnical characteristics defined during exploration drilling	

Criteria	JORC Code explanation	Commentary
		and laboratory testing of the coal seam, overlying strata, and underlying strata.
	> The mining dilution factors used.	> Dilution is based on the minimum mining height required (54 inches) for the equipment selected for the operation, resulting in an average dilution of approximately 8 inches for the reserve.
	> The mining recovery factors used.	> Resource recovery used in the BFS is based on pillar design which incorporates geotechnical parameters defined by laboratory samples, mining depth at specific locations, and on practices at adjacent mines. Poplar Grove mining recovery ranges from 29% to 56%.
	> Any minimum mining widths used.	> Productivity and ground control design are based on mining widths of 19 feet. This width is consistent with the geotechnical design and practices at adjacent mines and is compatible with continuous mining room-and-pillar production equipment.
	> The manner in which Inferred Mineral Resources are utilized in mining studies and the sensitivity of the outcome to their inclusion.	> No Inferred Mineral Resources are included in the reserves or BFS financial model.
	> The infrastructure requirements of the selected mining methods.	> Provisions for supporting infrastructure are included in the capital expense estimates and include the following: - Offices and warehouse buildings - Bath house facilities - Power substation and connection to local utility - Coal Handling and Preparation Plant - Box cut for seam access - Truck transport to barge-loading dock - Barge loading dock on the Green River
Metallurgical factors or assumptions	> The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	> Processing will include crushing, heavy media separation, spiral separation, and mechanical dewatering. The plant will have the capability for a percentage of the run-of-mine feed to bypass the plant in order to produce a different quality product.
	> Whether the metallurgical process is well-tested technology or novel in nature.	> Processes are typical of those used in the coal industry, and are in use at adjacent coal processing plants.
	> The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	> Processes have been simulated by numerous float/sink tests on coal cores from exploration drilling using specific gravity of 1.6 based on 51 samples. Results indicate an average 93% float recovery of the coal seam.
	> Any assumptions or allowances made for deleterious elements.	> No significant effects on product quality are anticipated from dilution material; Float product quality was used to model final product quality.
	> The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole	> No bulk sample or pilot scale work has been completed.
	> For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet specifications?	> Average heat value, ash, and sulfur of the test results for the WK No. 9 seam at Poplar Grove indicate suitability for local thermal markets.
Environmental	> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	> Cardno was retained by Hartshorne to perform an Environmental Audit for the Buck Creek Complex. > This Audit did not reveal the presence of any Recognized Environmental Conditions associated with the subject property or operations proposed at the subject property. > The designed refuse disposal areas are all on surface property controlled under existing option

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>agreements and are located adjacent to the preparation plant.
> The total refuse volume required for the life of the Poplar Grove Mine is estimated at 11.1 million cubic yards (MCY). The total available storage capacity is sufficient for the LOM refuse disposal needs of the Poplar Grove Mine (approximately 14.7 MCY).</td></tr>
<tr><td>Infrastructure</td><td>- The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</td><td>> The Poplar Grove Mine is located in McLean County, Kentucky; the required project infrastructure is readily available.
> Paved roads provide access to the Poplar Grove Mine and planned facilities.
> High-voltage power is available and sufficient to operate the mine, plant and associated facilities.
> Potable water for offices and bathhouse facilities is available from a nearby community.
> Water needed for processing coal and underground use can be readily supplied from wells on site.
> The Green River dock site will be the primary avenue for shipment of coal to customers.
> Western Kentucky is an established coal mining region, and workers are readily available from nearby existing communities.
> Social infrastructure such as schools, hospitals, and commercial establishments are available in the surrounding communities.</td></tr>
<tr><td>Costs</td><td>> The derivation of, or assumptions made, regarding projected capital costs in the study.
> The methodology used to estimate operating costs.</td><td>> Capital and operating cost estimates were prepared by Hartshorne and Cardno.
> The mine will be operated by Hartshorne.
> Capital costs are based on vendor quotations.
> Mobile equipment is assumed to be leased, with costs provided by equipment manufacturers.
> Operating costs are estimated based on Hartshorne and Cardno information from adjacent operations, and on the productivity and mine plan components of the BFS.
> Estimated Poplar Grove operating costs for steady-state operating years is shown below:
<table>
<tr><th>Average Annual Operating Costs (steady-state)</th><th>US$ per ton</th></tr>
<tr><td>Labour Costs</td><td>7.46</td></tr>
<tr><td>Operating & Maintenance</td><td>8.75</td></tr>
<tr><td>Power & Utilities</td><td>0.95</td></tr>
<tr><td>Outside Services</td><td>0.20</td></tr>
<tr><td>General & Administration</td><td>1.01</td></tr>
<tr><td>Leased Equipment</td><td>1.45</td></tr>
<tr><td>Subtotal Direct Mining Costs</td><td>19.83</td></tr>
<tr><td>CHPP, Trucking, & Barge Load-Out Facility</td><td>5.06</td></tr>
<tr><td>Taxes & Insurance</td><td>1.30</td></tr>
<tr><td>Royalties</td><td>1.96</td></tr>
<tr><td>Severance Tax</td><td>2.25</td></tr>
<tr><td>Average Annual Operating Costs</td><td>30.39</td></tr>
</table></td></tr>
<tr><td></td><td>> Allowances made for the content of deleterious elements.</td><td>> No allowances have been made for deleterious elements; no impact to quality from deleterious elements is anticipated.</td></tr>
<tr><td></td><td>> The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</td><td>> Sales price assumptions for the Poplar Grove product are based on a market study by Hanou Energy Consulting, LLC, titled “Illinois Basin Coal Price & Demand Forecast 2014 – 2034”, in</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		conjunction with sales agreements between Hartshorne and LGE for 2018 through 2022. > The coal price used to generate the expected revenue for a fully-washed coal product ranges from $46.76 to $68.42 per ton during the mine's life. > All of the Poplar Grove Mine product is projected to be sold as a blended product. > The blended product is predicted to have a quality of 11,200 Btu/lb. and 5.5 lbs. SO_2 which meets the specifications of the target customers. > The lower-quality blended product will be subject to a price deduction for having a heating content less than 11,800 resulting in sales prices for the blended coal ranging from $41.68 to $64.44 during the mine's life.
	> Derivation of transportation charges.	> Transportation costs are based on barge rates for delivery to power plants along the Green River and Ohio River.
	> The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	> Processing costs are based on experience at adjacent operations. Sales price is based on average delivered quality.
	> The allowances made for royalties payable, both Government and private.	> The combination of royalties from all mineral leases is 4.06 percent of gross sales price less federal excise tax, severance tax, and OSM reclamation tax.
Revenue factors	> The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	> Average projected product coal quality is consistent with both the site-specific laboratory data available for the Property and adjacent mining operations currently producing in the WK No. 9 seam. > Average coal sales prices as defined above. > All prices are based on 2016 constant United States dollars. > Processing costs based on producing a single blended product as described above. > Materials handling and coal trucking costs, as well as dock costs, are included in the DCF model. > A $0.50 per ton discount was applied to all coal shipped from Poplar Grove to account for the additional transportation cost of shipping from the Green River.
	> The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	> Coal sales prices as defined above.
Market assessment	> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	> Coal price forecasts, transportation, and market assessment were based on the Hanou Energy Consulting, LLC report titled "Illinois Basin Coal Price & Demand Forecast 2014-2034", which forecasts the market and pricing for Illinois Basin coals, and Strategic Energy Resolution's report titled "Buck Creek Project Market Assessment and Preliminary Marketing Plan," which provides information on the United States coal industry, the Illinois Basin (ILB), and the Ohio River utility market. > Information on historical ILB pricing was also obtained from IHS Energy. > Actual sales agreements between Hartshorne and LGE for Poplar Grove product.
	> A customer and competitor analysis along with the identification of likely market windows for the product.	> The Poplar Grove Mine is well-positioned to take advantage of the lowest cost transportation option,

Criteria	JORC Code explanation	Commentary
		which is delivery by barge on the Ohio River system to electrical utility customers. > In addition, the project is located in close proximity to several power plants which purchase fuel by truck. > The Ohio River utility market provides a stable customer base for the marketing and sales of Poplar Grove coal, largely on account of the targeted plants already being retrofitted with pollution controls and the fact that they provide base-load generation.
	> Price and volume forecasts and the basis for these forecasts.	> Annual Poplar Grove production will total approximately 1.8 to 1.9 million marketable tons at full production. > The estimated average revenue ranges from $41.68 per ton to $64.44 per ton.
Economic	> The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	> Excluding debt, the NPV of the Poplar Grove projected cash flows beginning in the year 2017 is $172 million at an 8-percent (real) discount rate. > The Poplar Grove internal rate-of-return is 34.9 percent. > Capital is projected to be committed beginning in 2017 > All costs and prices are based on 2016 constant United States dollars. **Initial Capital Costs – Poplar Grove** - Mine Site Development and Infrastructure = $19.2 million - Coal Handling & Preparation Plant & Barge Load-Out Facility = $20.7 million - Total Initial Capital Cost = $39.9 million **Production (tons) – Poplar Grove** - Average run-of-mine (ROM) Coal Production Steady State = 2.4 Mtpa - Total ROM Coal Produced Life-of-Mine = 59.7 million tons - Effective CHPP Yield = 76.7% - Life of Mine = 27.0 years - Average Clean Coal Production Steady State = 1.8 Mtpa - Total Saleable Coal Produced LOM* = 45.8 million tons - Start of Construction = Q2 2017 - Start of Production Ramp-Up = Q3 2018 - * Of the total marketable production of 45.8 million tons, only 16.5 million tons of the mine plan can be executed on mineral property currently controlled by Hartshorne. Additional mineral leases must be acquired in order to execute the life of mine plan achieve the projected financial performance of the Poplar Grove mine. **Cash flow** - Average Sales Price Received (per ton) = 2018 is $41.68/ton and 2044 is $57.13/ton - Poplar Grove Average Cash Operating Costs = $30.39 per ton - Poplar Grove Average Annual Operating Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA) (steady state) = $40 million - Poplar Grove NPV = $172 million

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>- Poplar Grove Internal rate of return (IRR) = 34.9%

Combined Complex Valuation
- Combined production includes the 1.8 Mtpa Poplar Grove Mine starting construction by mid-2017, followed by the construction of the 3.9 Mtpa Cypress Mine starting early-2019, for total production capacity of 5.7 Mtpa
- Initial capital cost = $40 million
- Average Annual Complex EBITDA = $132 million
- Buck Creek Complex NPV = $497 million
- Buck Creek Complex IRR = 37.3%</td></tr>
<tr><td></td><td>> NPV ranges and sensitivity to variations in the significant assumptions and inputs.</td><td>> The sensitivity study for Poplar Grove shows the NPV at the 8-percent (real) discount rate when Base Case annual production tonnages, sales prices, operating costs and capital costs are increased and decreased in increments of 5 percent within a +/-10-percent range.
<table>
<tr><th>Minus 10%</th><th>NPV ($000)</th></tr>
<tr><td>Production (tons)</td><td>$130,559</td></tr>
<tr><td>Sales Value</td><td>$115,478</td></tr>
<tr><td>Controllable Costs</td><td>$188,683</td></tr>
<tr><td>Capital Expenditures</td><td>$178,748</td></tr>
<tr><td>Minus 5%</td><td></td></tr>
<tr><td>Production (tons)</td><td>$151,321</td></tr>
<tr><td>Sales Value</td><td>$143,781</td></tr>
<tr><td>Controllable Costs</td><td>$180,384</td></tr>
<tr><td>Capital Expenditures</td><td>$175,416</td></tr>
<tr><td>Base Case</td><td></td></tr>
<tr><td>Production (tons)</td><td>$172,084</td></tr>
<tr><td>Sales Value</td><td>$172,084</td></tr>
<tr><td>Controllable Costs</td><td>$172,084</td></tr>
<tr><td>Capital Expenditures</td><td>$172,084</td></tr>
<tr><td>Plus 5%</td><td></td></tr>
<tr><td>Production (tons)</td><td>$192,846</td></tr>
<tr><td>Sales Value</td><td>$200,387</td></tr>
<tr><td>Controllable Costs</td><td>$163,784</td></tr>
<tr><td>Capital Expenditures</td><td>$168,752</td></tr>
<tr><td>Plus 10%</td><td></td></tr>
<tr><td>Production (tons)</td><td>$213,609</td></tr>
<tr><td>Sales Value</td><td>$228,687</td></tr>
<tr><td>Controllable Costs</td><td>$155,485</td></tr>
<tr><td>Capital Expenditures</td><td>$165,420</td></tr>
<tr><td></td><td></td></tr>
</table></td></tr>
<tr><td>Social</td><td>> The status of agreements with key stakeholders and matters leading to social license to operate.</td><td>> Stakeholder support has been strong during the property acquisition and permitting processes. Almost all mineral leases are held with resident land owners or families of resident land owners providing an enormous opportunity for economic gain in a relatively small community.</td></tr>
<tr><td>Other</td><td>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:

> Any identified material naturally occurring risks.</td><td>> No material naturally occurring risks have been identified.</td></tr>
<tr><td></td><td>> The status of material legal agreements and marketing arrangements.</td><td>> Mining and water quality permits have been submitted as discussed below.
> Hartshorne has received strong support from potential utility customers, and will continue negotiations with these potential customers. One forward sales agreement has been executed, whereby the utility has, prior to the start of</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		construction, committed to buy coal from Hartshorne at a set price.
	> The status of government agreements and approvals critical to the viability of the project, such as mineral tenement status and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third part on which extraction of the reserve is contingent.	> Hartshorne has submitted SMCRA mining permit applications covering the surface and underground disturbance footprints for the proposed Poplar Grove Mine. The SMCRA underground permit (Permit No. 875-5010) and SMCRA surface permit (Permit No. 875-8002) are both submitted and in technical review with the KDMP, with anticipated issuance dates of December 2016 and March 2017, respectively. > The U.S. Army Corps of Engineers and Kentucky Division of Water have approved the associated 404/402 permits required for dock/mine construction.
Classification	> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	> Measured and indicated resources have been converted to proven and probable reserves, respectively. > None of the probable coal reserves have been derived from measured resources. > The results of this BFS define an estimated initial ROM recoverable ore (coal) reserve estimate of 21.52 million tons for Poplar Grove and 107.85 million tons for the combined Cypress and Poplar Grove mines. > The results of this BFS define an estimated 16.50 million tons of proven and probable marketable coal reserves for the Poplar Grove Mine, of which 6.42 million tons (or 39 percent) is considered proven and 10.08 million tons (or 61 percent) is considered probable (after the application of all mining factors). > The results of this BFS define an estimated 82.70 million tons of proven and probable marketable coal reserves for the Buck Creek Complex, of which 23.67 million tons (or 29 percent) is considered proven and 59.04 million tons (or 71 percent) is considered probable (after the application of all mining factors).
Audits or reviews	> The results of any audits or reviews of Ore Reserve estimates.	> Coal reserve estimate has been prepared by Cardno and reviewed internally. > No external audits have been completed to date.
Discussion of relative accuracy/ confidence	> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	> The BFS is based on a mine plan, project schedule and estimated capital and operating costs with an accuracy of +/-10 percent. > The accuracy of and confidence in the tonnage estimates provided herein are judged to be in conformance with current industry best practices. > Based on the sensitivity analysis conducted, the Poplar Grove Mine's NPV is most sensitive to changes in sales value. Because of this, detailed sales and marketing analysis were undertaken to verify the data used in the study.
	> 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.	> All modifying factors have been applied to design the proposed Poplar Grove Mine on a global scale as current local data reflects the global assumptions.
	> Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	> An independent third-party expert should be retained in order to conduct an updated formal market study for the Poplar Grove Mine. > Ongoing efforts should be made to prepare and submit remaining permit applications necessary

Criteria	JORC Code explanation	Commentary
		for construction and operation of the Poplar Grove Mine to the appropriate federal and state agencies.
	> It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	> There has been no production to date, so no comparison to production or reconciliation data can be made.