

ASX ANNOUNCEMENT

20 April 2022

Winchester South Coal Resources and Reserves Update

Highlights

- JORC Reserves upgraded to 380Mt, from 350Mt
- JORC Proved Reserves upgraded to 270Mt, from 140Mt
- 60% of Marketable Reserves comprise metallurgical coal (semi hard coking)
- JORC Resources of 1,100Mt, inclusive of 670Mt of Measured and Indicated Resources
- 20+ year open cut mine life, targeting 15 million tonnes per annum ROM production
- Average prime strip ratio of 5.0 bcm/tonne ROM and product strip ratio of 9.1 bcm/tonne product

Whitehaven Coal Ltd (ASX: WHC) (Whitehaven) is pleased to release its updated Resources and Reserves Statement for the Winchester South Project metallurgical coal mine (the Project) in accordance with the JORC Code (2012).

Whitehaven Coal Managing Director and CEO Paul Flynn said that the updated declaration of Resources and Reserves was another important milestone for the Project which provides further confidence around resource definition and increases metallurgical coal tonnage and quality.

Winchester South is located approximately 30km southwest of Moranbah within the Bowen Basin in Central Queensland and is 100% owned by Whitehaven Coal.

The Project continues to progress through the Queensland Government's Coordinated Project approval process.

Project Resources Estimate Summary

Seam	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	Total (Mt)
Rangal and Fort Cooper Seams (Open Cut)	340	330	190	860
Moranbah Seams (Underground)			255	255
TOTAL	340	330	445	1,100

Note – Some rounding has occurred and this may reflect in minor differences in the overall reported Resource.

Project Open Cut Coal Reserves and Marketable Coal Reserves

	Proved (Mt)	Probable (Mt)	Total (Mt)
Coal Reserves	270	110	380
Marketable Reserves	160	55	215

Tonnages are metric tonnes. Coal Reserves are at 5.5% moisture (ar) (ROM). Marketable Reserves are at 9% moisture (ar). Figures reported are rounded which may result in small tabulation errors.

This Winchester South Coal Resources and Reserves statement is authorised for release to the market by the Managing Director and Chief Executive Officer.

Investor contact

Kylie FitzGerald
 +61 2 8222 1155, +61 401 895 894
KFitzGerald@whitehavencoal.com.au

Media contact

Michael van Maanen
 +61 2 8222 1171, +61 412 500 351
mvanmaanen@whitehavencoal.com.au

JORC Declaration – Coal Resources

Whitehaven commissioned Xenith Consulting Pty Ltd ('Xenith') to update the previous Resources estimate for the Project, in accordance with the JORC Code (2012).

Over 1,000 holes are now included in the Project geological model, including 41 recent holes drilled by Whitehaven in 2021 for detailed pre-treatment, washability, and product coal analysis, gas studies and structural delineation.

The Rangal and Fort Cooper Coal Resources are shallow and are considered the primary open cut mining target. Their depth is predominantly less than 150m and are well drilled and understood. The Moranbah Coal Resources are found at a minimum depth of ~400m and are considered a potential secondary, underground mining target.

Project Resources Estimate Summary by Seam

SEAM	RESOURCE CATEGORY (Mt)			
	Measured	Indicated	Inferred	Total
Leichhardt 1 (L1)	29	14	34	77
Leichhardt 2A (L2A)	84	30	31	145
Leichhardt 2BC (L2BC)	0	24	4	28
Vermont Upper (VA3/VU)	63	70	43	175
Vermont Middle Lower (VML)	164	195	76	435
Subtotal Rangal and Fort Cooper Seams	340	330	190	860
Goonyella Middle (GM) 1			127	130
Goonyella Middle (GM) 2			126	125
Subtotal Moranbah Seams			255	255
TOTAL	340	330	445	1,100

Note – Some rounding has occurred and this may reflect in minor differences in the overall reported Resource.

Project Coal Resources (2022 Resources) total 1,100Mt, comprising 340Mt in the Measured Category, 330Mt in the Indicated Category and 445Mt in the Inferred Category. There is a total of 860Mt included in this Resources estimate for the open cut seams, and 255Mt for the underground seams.

Compared to the 2020 Resources estimate, total open cut Resources have increased by 1.8%, from 845 to 860Mt. However, Resources in the Measured Category increased materially from 175 to 340Mt, primarily due to the re-classification of the VML seam. In this 2022 Resource estimate, the VML is modelled as full seam across the entirety of the deposit, which has increased the number of Points of Observation, and hence influenced the Resource categorisation. The decision to model and re-classify the VML at full seam basis was supported by extensive coal processing and liberation studies in 2021 that show that the VML full seam can be economically recovered without need for selective mining at the ply level.

Competent Person's Statement

Information in this report that relates to Coal Resources is based on and accurately reflects reports prepared by Competent Person Troy Turner, Managing Director of Xenith Consulting Pty Ltd. The named Competent Person consents to the inclusion of material in the form and context in which it appears. The Competent Person named is a Member of the Australasian Institute of Mining and Metallurgy and has the relevant experience in relation to the mineralisation being reported on by him to qualify as Competent Persons as defined in the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition).

JORC Declaration – Coal Reserves

RPM Advisory Services Pty Ltd (RPM) was commissioned by Whitehaven to complete an updated independent estimate (hereafter, referred to as the “Statement”) of the Open Cut Coal Reserves for the Project.

Whitehaven completed the Winchester South PFS in 2020 and updated Life of Mine plans in 2021 and 2022 (JORC 2022 mine plan). The JORC 2022 mine plan is based on the same geological model as used for the 2022 Resources. The 2022 JORC mine production schedule resulted in a mineable pit shell of 408Mt ROM coal and a 31 year mine life targeting an annual ROM coal production of 15Mt at full production. Since the completion of the 2020 PFS, WHC has completed further exploration drilling, geological model updates, coal processing testing and simulation, and mine planning. The Winchester South coal is capable of producing a range of potential products including SHCC and PCI which are used in the manufacture of steel, as well as export thermal coal. Coal price, exchange rate assumptions and marketing categories for coal products are based on Wood Mackenzie forecasts as at December 2021 with discounts applied.

The Measured and Indicated Resource confidence limits were overlaid on the pit shell and imported into the scheduling database. Inferred tonnes were excluded from the estimate. The Coal Reserves were then categorised as Proved or Probable based on a combination of the Coal Resource category and the confidence level in each of the Modifying Factors incorporated in the mine planning.

Based on this approach, a total of 380Mt of Coal Reserves were estimated at the Project, which are categorised by RPM to be 270Mt of Proved Reserves and 110Mt of Probable Reserves. The average prime strip ratio of the supporting mine plan is 5.0 bcm/tonne ROM and a product strip ratio of 9.1 bcm/tonne product. In the calculation of the average strip ratio some Inferred Resource has not been converted to waste and it is assumed that these tonnes will be mined but have not been included as a Reserve. Further drilling is planned to target these areas within the life of mine pit shells.

All coal at Winchester South requires washing to achieve the required product specifications. Independent assessment of coal washability and simulation studies have been completed by Sedgman Pty Limited, Ausenco QCC, and A&B Mylec. A two-stage coal preparation plant is proposed using conventional DMC, reflux classifier and flotation technology. The A&B Mylec results form the basis of the modelled yield and product ash data in the Reserves estimate. The resulting product strategy is:

- All primary product blended to produce a maximum 10.5% ash SHCC product, and
- All remaining secondary products blended to produce an export thermal product.

After processing, the coal is discharged onto a product stockpile which blends various coal products to achieve the required specification. This resulted in 215Mt of Open Cut Marketable Coal Reserves which are categorised by RPM to be 160Mt of Proved and 55Mt of Probable category.

Competent Person’s Statement

The Statement reports the Reserves as at 19 April, 2022 and has been undertaken in accordance with the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (“The JORC Code”).

The Coal Reserve estimates in this report were estimated by Mr Doug Sillar, BE (Mining, Hons) MAusIMM, who is a Member of the Australasian Institute of Mining and Metallurgy. The estimates are based on information compiled and reviewed by Mr. Sillar. He is an employee of RPM and has sufficient experience which is relevant to the style and type of deposit under consideration and to the activity undertaken to qualify him as a Competent Person as defined in the 2012 Edition of the JORC Code. RPM internal review includes RPEQ supervision.

Reserve tonnages are metric tonnes with coal Reserves reported at 5.5% moisture (ar) and Marketable Reserves at 9% moisture (ar). Reserve figures reported are rounded and may result in small tabulation errors. Coal Reserves are included within the coal Resources estimate.

JORC Code, 2012 Edition – Table 1 Report

This Table 1 Report sets out all the information material to understanding the estimate of the Project Resources and Reserves.

The text presented in Sections 1 to 3 has been copied directly from the current Resources Statement prepared by Mr Troy Turner (Xenith).

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<p>Note: The Rangal and Fort Cooper (VML seam and its associated plies) Coal Measures form the Winchester South open cut resources. The potential underground resources are from the Moranbah Coal Measures (MCM).</p>		
<p><i>Sampling techniques</i></p>	<ul style="list-style-type: none"> ▪ <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> ▪ <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> ▪ <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> ▪ <i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘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 (eg submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> ▪ A combination of open holes (predominantly for structural definition) and core holes for coal quality, washability data and geotechnical data have been drilled. ▪ The drill holes were logged on site. The logs were then uploaded into the geological database. ▪ Core sampling was conducted by geologists onsite at the rig. The coal intervals were sampled on a ply basis and within industry standards.
<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> ▪ <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</i> 	<ul style="list-style-type: none"> ▪ The following types of holes have been drilled <ul style="list-style-type: none"> ○ 1,143 open holes ○ 55 large diameter core holes (200 mm) ○ 102 large diameter core holes (100 mm)

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> ○ 163 HQ/PQ wireline core holes ○ 42 geotechnical holes ▪ The 100 mm and 200 mm large diameter drill holes have been drilled/sampled to provide data for detailed washability and coking coal product studies.
Drill sample recovery	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ Standardised logging systems were utilised for all drilling logging and sampling. ▪ Core recovery was recorded by the field geologist while logging the drill hole. If core recovery for a coal interval was less than ~90%, then that section of the hole was redrilled for a representative sample. ▪ Standard checks for sample recovery were undertaken (e.g. sample mass balance against core volume)
Logging	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ Open hole 1 m chip samples were logged for lithology changes. ▪ Core was geologically logged in detail. Logging included lithology, grainsize, weathering and hardness was conducted using standard dictionary definitions. Colour and any additional qualitative comments were also recorded. ▪ Core was photographed on a core table (0.5 m increment) and/or a 5 m tray basis. Chips were photographed as laid out by 1m intervals. ▪ The holes were geophysically logged with a minimum suite of gamma, density and caliper but generally using a comprehensive suite of downhole geophysics tools (calliper, gamma, density, neutron, and sonic), with acoustic scanner (for geotechnical assessment) also run on some recent cored holes. ▪ Total aggregate length of drilling from holes used in the geological model is >185,000 m, in 1,069 drill holes.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> ▪ Core sampling was completed at the drill site and based on set of standard criteria (determined by lithology and structure). Samples were bagged at the drill site and then transported to an external accredited laboratory for analysis as a complete hole batch. ▪ Samples underwent industry standard procedures for sample preparation, analyses and results reporting. ▪ Cored samples were generally analysed in a three-stage method involving raw analysis on all plies followed by washability and clean coal product testing on composite samples as defined by the project. ▪ Samples may have been combined for working sections.

Criteria	JORC Code explanation	Commentary
	<p><i>the material being sampled.</i></p>	
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> ▪ <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> ▪ <i>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.</i> ▪ <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> ▪ All sample treatment and analysis were conducted by procedures which adhere to Australian (or international equivalent) standards in a National Association of Testing Authorities certified laboratory. ▪ Geophysical contractors used internal QA/QC process, including tool calibration. No documentary information on geophysical tool calibration was viewed as part of the current resource estimate.
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> ▪ <i>The verification of significant intersections by either independent or alternative company personnel.</i> ▪ <i>The use of twinned holes.</i> ▪ <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> ▪ <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> ▪ Logged drill hole coal intersections were validated geophysical logs. ▪ Coal intersection depths and correlations have been validated by independent reviewers/auditors and/or alternative company personnel with working experience of the project area. ▪ Drill hole data is stored in Whitehaven's electronic SQL server database. ▪ Source field records, lab reports, core photographs, survey data etc. are stored in electronic form on the Whitehaven Coal network, and hard copy in borehole folders at the Project office and/or the company's Brisbane office.
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> ▪ <i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> ▪ <i>Specification of the grid system used.</i> ▪ <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> ▪ Collars for drill holes were surveyed by registered surveyors, Survey reports are available for most drill holes. ▪ Casing from holes drilled in the early 1980's is still visible for many sites. Where these were found, their location was checked against the records in the geological database and found to be accurate. ▪ The grid system used is the Map Grid of Australia 1994 (MGA94) based on the Geocentric Datum of Australia 1994 (GDA94) values. Older survey data has been converted from the grid systems and projects used at the time of survey. ▪ Downhole surveying was undertaken using the downhole verticality tools.
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> ▪ <i>Data spacing for reporting of Exploration Results.</i> ▪ <i>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.</i> ▪ <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> ▪ Rangal and Fort Cooper seams <ul style="list-style-type: none"> ○ A 250 m grid was drilled out during the drilling programmes in the early 1980's. ○ Infill drilling was also undertaken in the early 1980's with spacing reduced to 50 metres in several places. ○ WHC performed infill drilling to approximately 100 metres in and around the sub-crop area planned to be mined in the first 10 years including:

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> ▪ .Fault delineation drilling ▪ Coal processing and product definition drilling <ul style="list-style-type: none"> ○ Spacing in the western fault block ranges from 100 metres to 500 metres. ▪ Geostatistical studies have been carried out to determine the confidence levels of drill hole spacing ▪ The Moranbah Coal Measures drill holes spacing of the resources area is generally between ~1000-1500 m ▪ Where coal intersections have been sampled in multiple sections per seam, compositing of samples, on a length x RD basis, has been applied to provide representation of ply intervals and working sections. ▪ All core samples were composited within defined seam boundaries.
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> ▪ <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ The seams of the project are part of the Winchester Syncline. The syncline strikes in a northwest-southeast orientation. ▪ Drill holes have been planned and drilled on a regular pattern that considers the orientation of the deposit. Core hole coverage and open hole structural holes are spaced regularly and therefore are not considered to introduce bias into any sampling regime. ▪ The seams have relatively consistent layering with some steeper dips on the limbs of the syncline. The orientation and direction of the drill pattern is considered suitable for these types of stratified deposits.
<p><i>Sample security</i></p>	<ul style="list-style-type: none"> ▪ <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> ▪ Core samples taken at the drill site were reported as being transported daily to the Winchester South drill camp for storage and placed into a cold storage for the Rio drill program. Once the hole had been completed, the samples were transported to the laboratory via a dedicated courier service. ▪ Appropriate chain of custody documentation has been used throughout the sampling and analysis process of the 2019/2020 drilling program.
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> ▪ <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> ▪ No formal audits of the geological database have been undertaken. ▪ Seam picks and sample increments have been interrogated during compositing of data for coal quality modelling. Mismatches of depth between samples and seam intervals were investigated and amended where appropriate. ▪ An extensive review of the data has been undertaken as part of the geological database transfer from RTCA systems to WHC systems. ▪ Further interrogation was undertaken during the structural modelling phase.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary																																																
Note: The Rangal and Fort Cooper (VML seam and its associated plies) Coal Measures form the Winchester South open cut resources. The potential underground resources are from the Moranbah Coal Measures (MCM).																																																		
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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 license to operate in the area. 	<ul style="list-style-type: none"> The Winchester South Project area is covered by Mineral Development Licence ('MDL') 183 which occupies an area of 10,952 Hectares. MDL 183 is currently 100% held by Whitehaven WS Pty Ltd. Whitehaven Coal acquired a 75% interest in the Winchester South Project from Rio Tinto on 22 March 2018, the completion date of this 75% acquisition was on 1 June 2018. The remaining 25% interest of the Winchester South Project was acquired from Scentre Group on 24 May 2018 with the completion date of the remaining 25% acquisition on 20 June 2018. The MDL was renewed for another 5 years in May 2021 and is current until 30 April 2026. The lease is in good standing. MLs 700049, 700050, and 700051 have been applied for open cut mining operations and ML 700065 for the development and operation of an infrastructure corridor Tenure details in table below <table border="1"> <thead> <tr> <th>Tenure</th> <th>Tenement Holder</th> <th>Grant Date</th> <th>Expiry Date</th> </tr> </thead> <tbody> <tr> <td>EPC 352</td> <td>B.P. Australia limited, Drayton Mining, Westfield Development</td> <td>02/04/1981</td> <td>05/03/1989</td> </tr> <tr> <td>EPC 486</td> <td>Queensland Coal Pty Limited</td> <td>06/03/1989</td> <td>07/08/1996</td> </tr> <tr> <td>MDL 183</td> <td>Scentre Ltd (25% ownership)</td> <td>03/02/1995</td> <td>15/09/2014</td> </tr> <tr> <td>MDL 183</td> <td>Drayton Mining Development Proprietary Limited (25%)</td> <td>03/02/1995</td> <td>27/09/1996</td> </tr> <tr> <td>MDL 183</td> <td>Queensland Coal Pty Limited (50%)</td> <td>03/02/1995</td> <td>23/02/1995</td> </tr> <tr> <td>MDL 183</td> <td>Kembla Coal and Coke Pty Limited (50%)</td> <td>23/02/1995</td> <td>27/09/1996</td> </tr> <tr> <td>MDL 183</td> <td>Queensland Coal Pty Limited (50%)</td> <td>27/09/1996</td> <td>27/09/1996</td> </tr> <tr> <td>MDL 183</td> <td>Queensland Coal Pty Limited (75%)</td> <td>27/09/1996</td> <td>20/09/2018</td> </tr> <tr> <td>MDL 183</td> <td>Scentre Ltd (25%)</td> <td>15/09/2014</td> <td>20/09/2018</td> </tr> <tr> <td>MDL 183</td> <td>Queensland Coal Pty Limited (75%)</td> <td>20/09/2018</td> <td>20/09/2018</td> </tr> <tr> <td>MDL 183</td> <td>Whitehaven WS Pty Ltd (100%)</td> <td>20/09/2018</td> <td>30/4/2026</td> </tr> </tbody> </table>	Tenure	Tenement Holder	Grant Date	Expiry Date	EPC 352	B.P. Australia limited, Drayton Mining, Westfield Development	02/04/1981	05/03/1989	EPC 486	Queensland Coal Pty Limited	06/03/1989	07/08/1996	MDL 183	Scentre Ltd (25% ownership)	03/02/1995	15/09/2014	MDL 183	Drayton Mining Development Proprietary Limited (25%)	03/02/1995	27/09/1996	MDL 183	Queensland Coal Pty Limited (50%)	03/02/1995	23/02/1995	MDL 183	Kembla Coal and Coke Pty Limited (50%)	23/02/1995	27/09/1996	MDL 183	Queensland Coal Pty Limited (50%)	27/09/1996	27/09/1996	MDL 183	Queensland Coal Pty Limited (75%)	27/09/1996	20/09/2018	MDL 183	Scentre Ltd (25%)	15/09/2014	20/09/2018	MDL 183	Queensland Coal Pty Limited (75%)	20/09/2018	20/09/2018	MDL 183	Whitehaven WS Pty Ltd (100%)	20/09/2018	30/4/2026
Tenure	Tenement Holder	Grant Date	Expiry Date																																															
EPC 352	B.P. Australia limited, Drayton Mining, Westfield Development	02/04/1981	05/03/1989																																															
EPC 486	Queensland Coal Pty Limited	06/03/1989	07/08/1996																																															
MDL 183	Scentre Ltd (25% ownership)	03/02/1995	15/09/2014																																															
MDL 183	Drayton Mining Development Proprietary Limited (25%)	03/02/1995	27/09/1996																																															
MDL 183	Queensland Coal Pty Limited (50%)	03/02/1995	23/02/1995																																															
MDL 183	Kembla Coal and Coke Pty Limited (50%)	23/02/1995	27/09/1996																																															
MDL 183	Queensland Coal Pty Limited (50%)	27/09/1996	27/09/1996																																															
MDL 183	Queensland Coal Pty Limited (75%)	27/09/1996	20/09/2018																																															
MDL 183	Scentre Ltd (25%)	15/09/2014	20/09/2018																																															
MDL 183	Queensland Coal Pty Limited (75%)	20/09/2018	20/09/2018																																															
MDL 183	Whitehaven WS Pty Ltd (100%)	20/09/2018	30/4/2026																																															

Criteria	JORC Code explanation	Commentary																																					
		ML700049	Whitehaven WS Pty Ltd (100%)																																				
		ML700050	Whitehaven WS Pty Ltd (100%)																																				
		ML700051	Whitehaven WS Pty Ltd (100%)																																				
		ML700065	Whitehaven WS Pty Ltd (100%)																																				
		Application lodged 14/06/2019																																					
		Infrastructure ML; Application lodged 03/09/2020																																					
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The history of exploration is summarised in the table below. <table border="1"> <thead> <tr> <th>Exploration Program</th> <th>Company</th> <th>Number of Holes</th> <th>Type of Exploration</th> </tr> </thead> <tbody> <tr> <td>1981-1982</td> <td>B.P. Coal Australia</td> <td>1032</td> <td>826 chip holes, 138 HQ core holes, 42 geotechnical holes, 18 large diameter core holes, 8 bulk sample holes</td> </tr> <tr> <td>2005</td> <td>Rio Tinto Coal Australia</td> <td>22</td> <td>11 chip holes, 5 100 mm core holes, 6 200 mm core holes</td> </tr> <tr> <td>2011</td> <td>Rio Tinto Coal Australia</td> <td>180</td> <td>107 chip holes, 54 100 mm core holes, 9 200 mm core holes, 10 HQ core holes</td> </tr> <tr> <td>2013</td> <td>Rio Tinto Coal Australia</td> <td>6</td> <td>6 cored holes (HQ and PQ diameter). 25km of 2D seismic survey lines</td> </tr> <tr> <td>2014</td> <td>Rio Tinto Coal Australia</td> <td>11</td> <td>7 deep core holes (PQ diameter), 4 shallow core holes (100 mm), 35km of 2D seismic lines</td> </tr> <tr> <td>2019</td> <td>Whitehaven Coal</td> <td>199</td> <td>163 chip holes, 18 200 mm core holes, 18 100 mm core holes</td> </tr> <tr> <td>2020</td> <td>Whitehaven Coal</td> <td>14</td> <td>14 200 mm core holes</td> </tr> <tr> <td>2021</td> <td>Whitehaven Coal</td> <td>41</td> <td>3 100 mm core holes, 2 100mm Gas holes, 36 chip holes</td> </tr> </tbody> </table>		Exploration Program	Company	Number of Holes	Type of Exploration	1981-1982	B.P. Coal Australia	1032	826 chip holes, 138 HQ core holes, 42 geotechnical holes, 18 large diameter core holes, 8 bulk sample holes	2005	Rio Tinto Coal Australia	22	11 chip holes, 5 100 mm core holes, 6 200 mm core holes	2011	Rio Tinto Coal Australia	180	107 chip holes, 54 100 mm core holes, 9 200 mm core holes, 10 HQ core holes	2013	Rio Tinto Coal Australia	6	6 cored holes (HQ and PQ diameter). 25km of 2D seismic survey lines	2014	Rio Tinto Coal Australia	11	7 deep core holes (PQ diameter), 4 shallow core holes (100 mm), 35km of 2D seismic lines	2019	Whitehaven Coal	199	163 chip holes, 18 200 mm core holes, 18 100 mm core holes	2020	Whitehaven Coal	14	14 200 mm core holes	2021	Whitehaven Coal	41	3 100 mm core holes, 2 100mm Gas holes, 36 chip holes
Exploration Program	Company	Number of Holes	Type of Exploration																																				
1981-1982	B.P. Coal Australia	1032	826 chip holes, 138 HQ core holes, 42 geotechnical holes, 18 large diameter core holes, 8 bulk sample holes																																				
2005	Rio Tinto Coal Australia	22	11 chip holes, 5 100 mm core holes, 6 200 mm core holes																																				
2011	Rio Tinto Coal Australia	180	107 chip holes, 54 100 mm core holes, 9 200 mm core holes, 10 HQ core holes																																				
2013	Rio Tinto Coal Australia	6	6 cored holes (HQ and PQ diameter). 25km of 2D seismic survey lines																																				
2014	Rio Tinto Coal Australia	11	7 deep core holes (PQ diameter), 4 shallow core holes (100 mm), 35km of 2D seismic lines																																				
2019	Whitehaven Coal	199	163 chip holes, 18 200 mm core holes, 18 100 mm core holes																																				
2020	Whitehaven Coal	14	14 200 mm core holes																																				
2021	Whitehaven Coal	41	3 100 mm core holes, 2 100mm Gas holes, 36 chip holes																																				
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> Winchester South is located in Queensland near the township of Moranbah in the Central part of the Bowen Basin which contains numerous important coal producing intervals in the Permian stratigraphy. The sequences of economic interest for open cut mining include the Leichhardt seams and the Vermont Upper seam of the late Permian Rangal Coal Measures as well as the and Vermont Middle Lower seam of the Fort Cooper Coal Measure. The Goonyella Middle seams of the Moranbah Coal Measures are potential targets for underground mining. The main host-rock types of these sub-groups are sandstone, siltstone with minor stratigraphic layers of conglomerate, and tuffaceous bands. 																																					

Criteria	JORC Code explanation	Commentary																					
		<ul style="list-style-type: none"> Structurally the deposit is dominated by the north-south Winchester Syncline which has been itself affected by reverse and normal faulting. The open cut portion (Rangal and Fort Cooper seams) of the deposit is located within the subcrops along the syncline margin. 																					
<p><i>Drillhole Information</i></p>	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole 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. 	<ul style="list-style-type: none"> The table below provides a summary of drill holes in the project database. <table border="1" data-bbox="1115 395 1962 576"> <thead> <tr> <th colspan="7">Numbers of Holes Drilled</th> </tr> <tr> <th></th> <th>Open holes</th> <th>HQ/PQ</th> <th>100 mm</th> <th>200 mm</th> <th>Geo-technical</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>No. of Holes</td> <td>1143</td> <td>163</td> <td>102</td> <td>55</td> <td>42</td> <td>1505</td> </tr> </tbody> </table>	Numbers of Holes Drilled								Open holes	HQ/PQ	100 mm	200 mm	Geo-technical	Total	No. of Holes	1143	163	102	55	42	1505
Numbers of Holes Drilled																							
	Open holes	HQ/PQ	100 mm	200 mm	Geo-technical	Total																	
No. of Holes	1143	163	102	55	42	1505																	
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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. 	<ul style="list-style-type: none"> Ply samples taken at the rig were generally analysed for raw proximate analysis and combined to create composites for washability and product coal analyses representing mineable seam working sections. 																					
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drillhole 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 (eg ‘down hole length, true width not known’). 	<ul style="list-style-type: none"> Based on drilling techniques and stratigraphy, the coal seam intercepts approximate the true coal thickness. 																					

Criteria	JORC Code explanation	Commentary
<i>Diagrams</i>	<ul style="list-style-type: none"> ▪ <i>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 drillhole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> ▪ Diagrams and maps representing seam structure, seam sections, seam quality, topography and deposit location can be reviewed in the resources report.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ Comprehensive reporting of the exploration results is provided in the resources report.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ In addition to drilling, approximately 60km of 2D seismic survey lines have been completed to identify seam structures including faults, folds, and possible igneous intrusions that may affect the target coal seams.
<i>Further work</i>	<ul style="list-style-type: none"> ▪ <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> ▪ <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> ▪ Suggested further work to improve the understanding of the extent and understanding of the deposit could include the following; <ul style="list-style-type: none"> ○ Conduct additional 2D seismic surveys and possibly 3D seismic at a later stage. ○ Further washability, product specifications or coke test studies at pilot scale ○ Further drilling of lox/sub-crop holes to increase confidence in the extent of near-surface fresh coal. ○ Further drilling of holes targeting the Moranbah seams to upgrade current “Inferred” resources to “Indicated” and to obtain detailed washability data.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in Section 1, and where relevant in Section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<p>Note: The Rangal and Fort Cooper (VML seam and its associated plies) Coal Measures form the Winchester South open cut resources. The potential underground resources are from the Moranbah Coal Measures (MCM).</p>		
<p><i>Database integrity</i></p>	<ul style="list-style-type: none"> ▪ 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. 	<p>Rangal and Fort Cooper Seams:</p> <ul style="list-style-type: none"> ▪ Data was validated at the drill site and also prior to loading into the database by the responsible geologist. ▪ All drill hole data securely stored in Whitehaven's database, with regular back-ups. ▪ Lithological logs and coal intersection depths were reconciled with wireline logs. ▪ Coal quality data were cross-checked against lab reports and sample depths were correlated with the lithological database ▪ The database contains automated validation processes which were activated during data loading and to prevent un-validated data being loaded. ▪ The drill hole database has been validated before loaded into the geological model.
<p><i>Site visits</i></p>	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ The CP has not undertaken a site visit however has extensive knowledge of the area and coal seams within the project. The CP has worked on various projects nearby the Winchester South Coal Project and therefore knowledge of the project is sufficient enough for reporting purposes.
<p><i>Geological interpretation</i></p>	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ The deposit is well understood due to the volume of exploration drilling undertaken, supported by seismic survey lines. ▪ The deposit is defined by a structural syncline and two major fault systems (Isaac and New Chum). The confidence in the current geological interpretation is considered high. ▪ 1,069 drill holes and 263 coal quality holes were used in the geological model across the deposit provide good control on structure and coal quality trends of the Rangal and Fort Cooper seams. ▪ 13 cored holes were drilled into the western parts of the Moranbah Coal Measures and are considered sufficient for Inferred resources.
<p><i>Dimensions</i></p>	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ The Rangal and Fort Cooper seams resources trends ~15 km northwest-southeast following the Winchester South syncline and is ~6km wide at its maximum. The seams' depth below topography is generally less than 150 m. ▪ The Moranbah Coal Measures resource in the south-west of the project area trends northwest-southeast for ~10 km with a width of ~3 km and a depth from ~400 m to ~650 m below the topographic surface for the Moranbah Coal Measures seams.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	<ul style="list-style-type: none"> ▪ The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. ▪ The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. ▪ The assumptions made regarding recovery of by-products. ▪ Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). ▪ In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. ▪ Any assumptions behind modelling of selective mining units. ▪ Any assumptions about correlation between variables. ▪ Description of how the geological interpretation was used to control the Resource estimates. ▪ Discussion of basis for using or not using grade cutting or capping. ▪ The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> ▪ After exclusion of duplicate or unreliable holes, 1,069 of the 1,505 holes in the drill hole database were used in the Rangal and Fort Cooper seams model. This includes 263 coal quality holes. Excluded holes were mainly either duplicates or were unreliable. ▪ 13 drill holes were used to generate the MCM model. ▪ The Rangal and Fort Cooper seams were modelled in the Vulcan software package. The MCM seams in the Minescape Stratmodel software package. Details of the estimation techniques are given in the resource report. ▪ The Rangal and Fort Cooper seam model has been updated with the 2021 drilling results by Whitehaven in 2022. ▪ No holes have been drilled into the MCM since 2014. The geological model generated in 2015 is still the latest MCM model. ▪ Details of the geological models is provided in the Winchester South resource report. ▪ Xenith has reviewed both geological models and: <ul style="list-style-type: none"> ○ Worked with Whitehaven personnel to estimate the Rangal and Fort Cooper seams coal resources and ○ Estimated the MCM seams resources. ▪ The resource estimates were reconciled against previous estimates.
Moisture	<ul style="list-style-type: none"> ▪ Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> ▪ Resources were estimated on an in-situ basis. The in-situ relative density was calculated using the Preston and Sanders method with an in-situ moisture of 5.5% for the Rangal and Fort Cooper seams and 5% for the MCM seams.
Cut-off parameters	<ul style="list-style-type: none"> ▪ The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> ▪ No cut-off parameters have been applied to the Rangal and Fort Cooper seams resource model regarding depth. The majority of the modelled coal exists within 150 m depth from surface ▪ The MCM resources have been limited to a maximum depth of 650 m. ▪ Some of the Rangal and Fort Cooper coal plies (L2BC and VML) exceed 50% ash which is usually regarded as maximum limit for coal (resources). These high ash plies are very low yielding but have very favourable coking coal properties after coal processing.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> ▪ Xenith conducted an internal review that led to an analysis of Question 13 in the Appendix of the Guidelines for the Estimation and Classification of Coal Resources 2014 regarding “Can material more than 50% raw ash be estimated as coal?” ▪ The guidelines reference the international standard ISO11760-2005 which states “material with a raw ash value of more than 50% is described as either non-coal or shale”, it continues to reference that “in cases where the bulk of the Resource has a raw ash >50% the rationale for reasonable prospects should be detailed including yield.” ▪ Recent detailed liberation, economic mineability and market potential studies indicate that the L2BC and the VML plies can be mined economically and should therefore, in the view of the Competent Person, be classified as resources. ▪ The resources for the Rangal and Fort Cooper seams are limited in area by the following parameters: <ul style="list-style-type: none"> ○ In the north-western portion of the deposit, the resource is limited by the MDL property boundary ○ The resource is split by a rail corridor in the northern part of the project. A 50 m buffer each side of the railway has been defined. ○ In the south-eastern portion of the deposit, the resource has been limited by the MDL property boundary. ○ In the central portions of the deposit, the northern and central extents have been limited by the subcrop lines. ▪ Apart from the depth limit, the resource for the Moranbah seams are limited by the following parameters: <ul style="list-style-type: none"> ○ The Isaac Thrust Fault limits the eastern extent of the resource. ○ The MDL property boundary limits the resource along the western portion of deposit.
<p><i>Mining factors or assumptions</i></p>	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ Development of the Rangal and Fort Cooper seams resource has assumed mining using standard large scale mining equipment. The mining method is assumed to include overburden removal via conventional truck and shovel as per neighbouring deposits in the region. ▪ The MCM seams are assumed to be mined by underground methods, likely to be longwall supported by continuous miners.
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> ▪ <i>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</i> 	<ul style="list-style-type: none"> ▪ It is assumed that a combination of density separation and fines flocculation processes would be applicable for the processing of Winchester South coal.

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p>	<ul style="list-style-type: none"> ▪ Test work has been undertaken to better understand the washability characteristics of the various Rangal and Fort Cooper seams with a focus on their size distribution given the vitrinite macerals report to the finer fractions. ▪ Further work is required to better understand the washability characteristics of the MCM seams.
<p><i>Environmental factors or assumptions</i></p>	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ Environmental studies are currently underway as part of the EIS process. ▪ No issues are expected that would impact on the resource estimate at this point.
<p><i>Bulk density</i></p>	<ul style="list-style-type: none"> ▪ <i>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.</i> ▪ <i>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.</i> ▪ <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> ▪ Resources were estimated on an in-situ basis. The in-situ relative density was calculated using the Preston and Sanders method with an in-situ moisture of 5.5% for the Rangal and Fort Cooper seams and 5% for the MCM seams ▪ No other bulk density has been used.
<p><i>Classification</i></p>	<ul style="list-style-type: none"> ▪ <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> ▪ <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> ▪ <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> ▪ Resources have been classified from valid Points of Observations (PoO) and distances between PoOs ▪ PoOs are cored holes with: <ul style="list-style-type: none"> ○ Coal recovery >95% for Rangal and Fort Cooper seams or >90% for Moranbah Coal Measures seams ○ Surveyed location ○ Lithological log ○ Geophysical log ○ Raw coal quality data

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> ▪ Three resource categories have been identified depending on the level of confidence in the seam structure and continuity as well as the level of variability in the coal quality data, in accordance with the JORC Code. ▪ A geostatistical analysis (DHSA) of the Rangal and Fort Cooper seams thickness and raw ash content has been undertaken to determine the spacing between PoOs for the different resource categories. ▪ The Rangal and Fort Cooper seams spacing generally used was: <ul style="list-style-type: none"> ○ 600 m for Measured, ○ 1,050 m for Indicated, and ○ 2,200 m for Inferred but for the L1A1/2 and L2BC seams, which used 400, 700 and 1,200 m respectively ▪ The MCM seams used a nominal spacing of: <ul style="list-style-type: none"> ○ 500 m for Measured ○ 1,000 m for Indicated, and ○ 4,000 m for Inferred. ▪ The resulting resource categories polygons were reviewed by the CP before resources were estimated.
Audits or reviews	<ul style="list-style-type: none"> ▪ <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> ▪ No formal audits have been completed on this Resource Estimate.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> ▪ <i>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.</i> ▪ <i>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.</i> ▪ <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<ul style="list-style-type: none"> ▪ The CP has reviewed the geological data and the geological models as well as the resource estimation processes. ▪ A geostatistical analysis (DHSA) has been undertaken for the Rangal and Fort Cooper seams resource classifications. ▪ The Rangal and Fort Cooper seams geostatistical analysis reported relative accuracy of $\pm 10\%$ for Measured resources, $\pm 20\%$ for Indicated resources, and $\pm 50\%$ for Inferred resources. ▪ No geostatistical analysis was carried out the MCM resources. The classification of all resources as Inferred resources is considered appropriate.

Section 4 Estimation and Reporting of Ore Reserves

The completed Section 4 checklist is in response to mine planning work completed for the Winchester South Reserves Report performed by Competent Person Mr Doug Sillar on behalf of RPM. (Criteria listed in Section 1, and where relevant in Sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<ul style="list-style-type: none"> ▪ <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i> ▪ <i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i> 	<ul style="list-style-type: none"> ▪ The Mineral Resource estimate used as the basis for this Coal Reserves Statement is described in the document “Winchester South Project Resource Estimate”, April 2022, prepared by Mr. Troy Turner. The Competent Person, Mr. Turner, has sufficient expertise that is relevant to the style of mineralisation and type of deposit and activity to qualify as a Competent Person as specified under the JORC Code and is a member of the Australian Institute of Mining and Metallurgy. ▪ The Resources Statement was compiled in accordance with The JORC Code 2012 Edition. ▪ The Coal Resources reported are inclusive of the Coal Reserves.
<i>Site visits</i>	<ul style="list-style-type: none"> ▪ <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> ▪ <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> ▪ The Reserves Competent Person (“CP”) has not visited the site as it is currently a Greenfield site.
<i>Study status</i>	<ul style="list-style-type: none"> ▪ <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ WHC with input from various technical experts has completed a Pre-Feasibility Study for the Project in December 2020. The Competent Person for Reserves is satisfied that the study meets the technical requirements of a Pre-Feasibility Study. ▪ The life of mine plan including cost updates was updated in 2021 (FS 3A) and in 2022 based on the 2022 JORC Resources model. ▪ WHC has commenced work on the Winchester South Feasibility Study.
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> ▪ <i>The basis of the cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> ▪ No ash cut off has been applied to the Resource model classification.
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> ▪ <i>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).</i> ▪ <i>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.</i> ▪ <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i> 	<ul style="list-style-type: none"> ▪ Pit limits were determined using the Minex Pit Optimiser software as part the PFS. The software produces a series of nested pit shells at a range of revenue assumptions. The selected shells represents the incremental break-even limit at which point the cost of mining is the same as the revenue. Minor edits have been made to the pit shell since the previous Reserves report as part of the 2022 JORC mine plan. ▪ The mining method is a conventional truck and excavator mining method supported by cast blasting and dozer push operations for a portion of the VA3 interburden. Waste will initially be hauled to out of pit emplacements but will transition to inpit dumping as inpit dump capacity becomes available. This is a proven mining method and considered appropriate for future planning based upon geology, deposit characterisation and strip ratio.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> ▪ <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> ▪ <i>The mining dilution factors used.</i> ▪ <i>The mining recovery factors used.</i> ▪ <i>Any minimum mining widths used.</i> ▪ <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> ▪ <i>The infrastructure requirements of the selected mining methods.</i> 	<ul style="list-style-type: none"> ▪ Geotechnical studies have been completed by previous owners of the project. The recommended slope designs are consistent with those in the region. Additional work is required to confirm the slope criteria of the proposed pit shells, particularly in the vicinity of fault zones. ▪ The mining modifying factors used were: <ul style="list-style-type: none"> ○ Minimum coal mining thickness of 0.3 m; ○ Minimum parting mining thickness of 0.3 m; ○ Loss and dilution criteria: <ul style="list-style-type: none"> ▪ Mineable coal section roof loss of 0.055 m; ▪ Mineable coal section floor loss of 0.055 m; ▪ Mineable coal section roof dilution of 0.055 m; ▪ Mineable coal section floor dilution of 0.055 m; ▪ Edge loss and dilution applied to the leading edge of each mining block ○ Additional fault loss of 20% plus and increase to roof and floor dilution to 0.2m has been applied to blocks in the model through which faults are present. ○ The quality of diluting material is relative density of 2.2 t/bcm, and ash of 80% (ad); and ○ ROM moisture is assumed to be 5.5%. ▪ 15 Mt of Inferred coal is contained within the Reserves pit shell and represents 3.8% of the coal in the Reserves pit shell. If this coal is excluded from the mine plan it would reduce the mine life by 1-2 years. RPM anticipate that exclusion would not impact on the outcomes of the study. ▪ The key infrastructure requirements for a truck and excavator operation includes maintenance workshop, stores, administration building, water management structures and haul roads. There is currently no infrastructure located on the site.
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> ▪ <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> ▪ <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> ▪ <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i> ▪ <i>Any assumptions or allowances made for deleterious elements.</i> ▪ <i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole.</i> 	<ul style="list-style-type: none"> ▪ All coal requires washing at Winchester South. ▪ The proposed coal preparation plant is a two stage plant with dense media cyclones, reflux classifiers and flotation. The technology is well tested in the industry. ▪ Following the completion of 18 large diameter drill holes, A&B Mylec completed a washability and CHPP simulation study in 2020. Further technical assessment (process plant flowsheet improvements and product quality simulations) and peer review has resulted in improved washability outcomes and primary product coking properties, enabling a 100% SHCC primary product (no PCI), with an export secondary thermal product. This technical assessment utilised three independent organisations (Sedgman Pty Limited, Ausenco QCC, A&B Mylec). Yield and ash projections were estimated for primary and secondary products for a range of cut points. ▪ The project has potential to produce a range of coal products including: <ul style="list-style-type: none"> ○ SHCC - CSR 45-55, CSN 5-6 and 10.5% Ash (ad); ○ MVPCI - Ash at 11% (ad); and

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> ▪ <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i> 	<ul style="list-style-type: none"> ○ Thermal coal ranging from 22% - 28.5% (ad) ash. ▪ For the purposes of this Reserves statement, it is assumed that: <ul style="list-style-type: none"> ○ All primary product blended to achieve a 10.5% (ad) ash SHCC product, and ○ All remaining secondary product blended and sold as thermal coal. ▪ No bulk samples or test pits have been completed.
Environmental	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ The Winchester South EIS has been completed in December 2020 and submitted as Draft EIS to the Queensland Government. WHC is currently responding to submissions to the EIS and preparing a revised Draft of the EIS. ▪ Waste rock characterisation has been completed with greater than 99% of rock with low sulphur and no-acid forming. It is assumed that any material with acid forming potential can be managed through sequencing of dumps and selective placement.
Infrastructure	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ The Winchester South Project is a Greenfield site and as such there is currently no mine infrastructure on the site. ▪ The required infrastructure has been outlined in the 2020 PFS and will include administration building, workshops, coal handling and preparation plant, rail loop, stockpiles, haul roads and surface water management structures. ▪ Power is proposed to be connected to the site via the Powerlink Eagle Downs Substation, and raw water from the Eungella Pipeline system. ▪ The workforce will be accommodated in existing camp facilities in the region.
Costs	<ul style="list-style-type: none"> ▪ <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> ▪ <i>The methodology used to estimate operating costs.</i> ▪ <i>Allowances made for the content of deleterious elements.</i> ▪ <i>The source of exchange rates used in the study.</i> ▪ <i>Derivation of transportation charges.</i> ▪ <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i> ▪ <i>The allowances made for royalties payable, both Government and private.</i> 	<ul style="list-style-type: none"> ▪ Capital costs have been estimated for the project as part of the 2020 PFS. The costs are considered reasonable for the project ▪ Following the initial infrastructure development costs and initial purchase of mining equipment, the primary ongoing capital requirement is for the replacement of mining equipment. Equipment ownership costs are included as a lease fee in the financial model. ▪ All operating costs were estimated as part of the 2020 PFS and then updated for the FS 3A mine plan in December 2021. Mining costs have been estimated based on RPM equipment cost databases. Site overheads have been estimated in conjunction with WHC. ▪ Long-term exchange rate assumptions were provided by WHC and based on Wood Mackenzie December 2021 long term forecast. ▪ Transport cost estimates provided by WHC. ▪ Queensland state royalty has been estimated and applied as a cost in the project economic model. ▪ RPM reviewed all costs and they are considered reasonable.
Revenue factors	<ul style="list-style-type: none"> ▪ <i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or</i> 	<ul style="list-style-type: none"> ▪ The long term Wood Mackenzie coal price forecasts were provided by WHC. These assumptions are considered reasonable for the purposes of estimating Reserves.

Criteria	JORC Code explanation	Commentary
	<p><i>commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i></p> <ul style="list-style-type: none"> ▪ <i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i> 	<ul style="list-style-type: none"> ▪ WHC advised site specific discounts to apply to the benchmark coal prices for the various products. ▪ Thermal prices have been energy adjusted.
Market assessment	<ul style="list-style-type: none"> ▪ <i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i> ▪ <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i> ▪ <i>Price and volume forecasts and the basis for these forecasts.</i> ▪ <i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i> 	<ul style="list-style-type: none"> ▪ WHC has conducted both internal and external market assessments and advised on the appropriate discounts to benchmark pricing for the Winchester South product specification. ▪ Analysis of supply and demand is a primary consideration of coal price forecasts. Markets exist for the coal products produced by the project.
Economic	<ul style="list-style-type: none"> ▪ <i>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.</i> ▪ <i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i> 	<ul style="list-style-type: none"> ▪ The inputs to the economic analysis of the Project are derived capital and operating cost estimates outlined in the “Costs” section of this Table 1. The source of the inputs is through mine planning to PFS level of detail and the confidence satisfactory. The economic modelling is in real terms at a discount rate of 9.25%. ▪ The NPV results produced from economic modelling generated a positive and acceptable NPV at 9.25% discount rate and the mine is considered economic from an NPV stand-point. ▪ Sensitivity analysis has been completed on key value drivers. The results indicate that the mine is sensitive to downside variations in revenue, operating cost and exchange rate. If there are changes in the global metallurgical and thermal coal markets that lead to a downward revision of coal price, the Project economic viability diminishes. Similarly, increases in operating costs, adverse foreign exchange movements affecting revenue and increase in capital costs to construct the Project will also result in adverse economic viability consequences. Conversely, during the economic cycle, should changes in the global metallurgical and thermal coal markets lead to upside revisions to coal prices the Project economic viability would be improved with the potential for Reserves and Marketable Reserves to be restated upwards.
Social	<ul style="list-style-type: none"> ▪ <i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i> 	<ul style="list-style-type: none"> ▪ WHC’s first agreement for the Winchester South Project was its Cultural Heritage Management Plan (“CHMP”) with the Barada Barna. In addition to the CHMP, Whitehaven Coal also has in place a Reconciliation Action Plan (“RAP”) and the RAP operates across all areas of the business (incl. Winchester South) and contains practical and meaningful objectives to address issues affecting local Aboriginal and Torres Strait Islander people. ▪ Stakeholder engagement was an integral part of the Social Impact Assessment (“SIA”) process which informed the development of the Social Impact Management Plan (“SIMP”) for the Project. The SIMP will detail the actions that WHC has committed to in response to the impacts and opportunities identified in Winchester South SIA.

Criteria	JORC Code explanation	Commentary
<i>Other</i>	<ul style="list-style-type: none"> ▪ <i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i> ▪ <i>Any identified material naturally occurring risks.</i> ▪ <i>The status of material legal agreements and marketing arrangements.</i> ▪ <i>The status of governmental 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 party on which extraction of the reserve is contingent.</i> 	<ul style="list-style-type: none"> ▪ WHC also has a compensation agreement in place with Pembroke Olive Downs Pty Ltd for the land associated with MLA700051. ▪ All mining projects operate in an environment of geological uncertainty. RPM is not aware of any other potential factors, legal, marketing or otherwise, that could affect the project's viability. ▪ The project approvals are not yet in place. ▪ WHC does not own all the land covering the project area. ▪ EIS has been submitted to the Queensland Government in Dec 2020. The Project continues to progress through the Queensland Government's Coordinated Project approval process with the draft Environmental Impact Statement (EIS) having been on Public Notification late in 2021. The company is currently responding to submissions and is targeting to submit a revised draft EIS to the Government by mid 2022.
<i>Classification</i>	<ul style="list-style-type: none"> ▪ <i>The basis for the classification of the Ore Reserves into varying confidence categories.</i> ▪ <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> ▪ <i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i> 	<ul style="list-style-type: none"> ▪ Classification of Coal Reserves has been derived by considering the Measured and Indicated Resources and the level of mine planning. ▪ For the Main, Railway and West pits, Measured Coal Resources are classified as Proved Coal Reserves and Indicated Resources classified as Probable Coal Reserves, as the level of mine planning is considered adequate to support this level of certainty in the Reserves estimate. ▪ South pit and North west pit excluded from Reserves as these pits contain a high proportion of Inferred coal. Further drilling is planned to improve Resource classification in these pits. ▪ The Inferred Coal Resources have been excluded from the Reserves estimates. ▪ The result reflects the Competent Persons view of the deposit.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> ▪ <i>The results of any audits or reviews of Ore Reserve estimates.</i> 	<ul style="list-style-type: none"> ▪ Internal peer review and reconciliation by RPM of the Reserves estimate has been completed.
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ The Reserves are supported by approximately 70% of Measured Coal Resources within the JORC pit shells. ▪ The basis of the estimate is the 2020 PFS, the 2021 mine plan update and the 2022 JORC mine plan. Costs have been reviewed by the Competent Person and are deemed reasonable for the estimation of Reserves. ▪ There is no mine infrastructure currently in place. ▪ Analysis of the coal quality has been undertaken by independent laboratories working under international standards of method and accuracy.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> ▪ <i>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.</i> ▪ <i>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.</i> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ Coal washability and simulation studies have been completed and used as the basis for product tonnage and ash estimates. ▪ The level of accuracy will continue to be dependent on the ongoing update of the geological model and monitoring of the Modifying Factors affecting the Reserves estimate once the project is in production. ▪ Geotechnical studies have been completed however an update is required during Feasibility Study to confirm pit limits. ▪ Internal peer review and reconciliation by RPM of the Reserves estimate has been completed.