

8 November 2021

Stanmore Resources to acquire BHP's 80% interest in BMC

Highlights

- Stanmore Resources has executed a definitive agreement with BHP to acquire BHP's 80% interest in the BMC (BHP Mitsui Coal Pty Ltd) joint venture
- Consideration for the acquisition comprises US\$1.2B cash with a potential follow-up payment of up to US\$150M after two years, the value of which is dependent on the prevailing coal price exceeding certain targets
- Stanmore intends to fund the acquisition with a combination of debt and equity, and has in place committed debt term sheets for US\$625M and equity commitments for a further US\$600M
- BMC owns high quality metallurgical coal assets with Mineral Resources of 2,245 million tonnes and Total Coal Reserves of 171 million tonnes (100% basis & JORC compliant estimate) based on open cut operations
- BMC achieved EBITDA of US\$174 million on an 80% basis (US\$217 million on a 100% basis) for the 12 months to 30 September 2021. Based on the September 2021 quarter results, BMC has annualised revenue in excess of US\$1.5 billion and EBITDA of US\$696 million on a 100% basis.¹
- The acquisition includes port and rail agreements to support at least 10.5 million tonnes per annum through the DBCT facility at Hay Point and the NQXT facility at Abbot Point
- Completion of the acquisition is subject to satisfaction of conditions precedent including regulatory approvals

Stanmore Resources Limited ("Stanmore" or the "Company") (ASX:SMR) is pleased to announce it has signed a definitive share sale and purchase agreement ("Share Sale and Purchase Agreement") with BHP Minerals Pty Ltd ("BHP") to acquire BHP's 80% interest in BHP Mitsui Coal Pty Ltd ("BMC") through the acquisition of all of the shares in Dampier Coal (Queensland) Pty Ltd ("Dampier Coal"), by Stanmore SMC Holdings Pty Ltd, a newly incorporated wholly-owned entity, as the buyer under the agreement (the "Transaction").

BMC owns the world class South Walker Creek and Poitrel mines, with combined metallurgical coal production of around 10Mt per annum and total marketable reserves in excess of 135Mt, as well as the undeveloped Wards Well coal project.²

The purchase price for the Transaction comprises:

¹ Results based on unaudited management accounts.

² BHP Annual Report 2021 (see ASX announcement dated 14 September 2021) provides estimates of Coal Reserves of

¹⁷¹Mt and Marketable Proved and Probable Reserves of 137Mt as at 30 June 2021.



- US\$1,100M payable on completion;
- US\$100M payable six months post completion; and
- Up to a maximum of US\$150M based on a revenue sharing mechanism if the average sales price achieved is above a certain threshold over a two year period, payable within three months of the end of the testing period (expected in CY2024).

The purchase price is subject to customary completion adjustments.

Stanmore intends to fund the Transaction via:

- A partially underwritten pro-rata accelerated renounceable entitlement offer of ordinary shares, the terms of which will be overseen by a committee of independent Stanmore directors;
- a new US\$625M acquisition debt facility; and
- internal sources.

Golden Energy and Resources Limited ("GEAR"), the parent company of Stanmore, which holds a 75.33% interest in Stanmore through Golden Investments (Australia) Pte Ltd ("Golden Investments"), is fully supportive of the Transaction and has agreed to guarantee Stanmore's obligations to pay the purchase price and any break fee to BHP up to US\$600M.

Completion of the Transaction is expected mid-CY2022, following the satisfaction of certain conditions precedent, including but not limited to, regulatory approvals. The Transaction follows an extensive due diligence process undertaken by Stanmore with the assistance of external legal, tax, accounting and technical advisers, and of our exclusive marketing and sales agents from M Resources in key marketing and sales support and advice. Palaris Australia Pty Ltd has also assessed, and represented, that the Mineral Resources and Coal Reserves presented in this announcement conform to the requirements of the JORC Code 2012.

Transaction Highlights

- The acquisition of an 80% interest in BMC is transformational for Stanmore and creates a leading global metallurgical coal producer with a portfolio of high quality assets in the Bowen Basin, a leading global metallurgical coal basin
- BMC's assets are in close proximity to Stanmore's and our MetRes JV's existing operating assets and there is potential for the combined group to benefit from shared infrastructure, corporate functions and coal blending opportunities
- Proforma production for the 12 months ending 30 June 2021 of approximately 11Mt of saleable coal. Steady state combined production is expected to be higher given production in FY21 was impacted by dragline maintenance at BMC and higher strip ratio at Isaac Plains before the Isaac Downs project commenced. Stanmore is expecting greater production in CY2022 from its recently started Isaac Downs project, with dragline operations commencing in March 2022, and the ramp up of production at MetRes' Millennium and Mavis mines
- BMC portfolio includes significant infrastructure including an 8.4Mtpa Coal Handling and Processing Plant ("CHPP") at South Walker Creek, the 9Mtpa Red Mountain CHPP (fully



owned by BMC) in close proximity to Poitrel, two rail loops and train loading facilities, two Marion 8050 draglines, and a fleet of excavators, dozers and haul trucks

• BMC metallurgical coal products are well established in the seaborne market and have high penetration in key global markets such as Japan, South Korea India, the largest growth driver of steel production and global met coal demand

Mr Marcelo Matos, Chief Executive Officer of Stanmore, said:

"This is an exciting and transformative acquisition for Stanmore, and we are fortunate to be able to rely on the full support received from our controlling shareholders, GEAR as well as the Sinar Mas Group, to successfully execute this deal.

This transaction will see the Company become one of the leading metallurgical coal producers globally and provide Stanmore with a portfolio of tier 1 assets, with a significantly increased reserves and resources base and assets with an expected mine life exceeding 25 years production, positioning the company for substantial cashflow generation and future growth opportunities.

BHP have managed the BMC business competently and responsibly over the years, and as new custodians we look forward to integrating the BMC business into Stanmore with a continued focus on safety, and responsibly and sustainably producing high quality metallurgical coal products for our global customers".

Transaction Summary

Stanmore has entered into a binding Share Sale and Purchase Agreement with BHP to acquire 100% of the shares in Dampier Coal, which holds BHP's 80% interest in BMC.

Upon completion of the Transaction, BMC will be owned 80% by Stanmore and 20% by Mitsui. Stanmore will be the operator of the assets and significant planning has been undertaken to ensure smooth integration of the business post Transaction completion, including the ongoing negotiations of a Transitional Services Agreement with BHP to ensure the business is able to operate efficiently from Day 1.

Schedule 1 contains a summary of the key terms of the Share Sale and Purchase Agreement.

Reasons for the Transaction

BMC's operations are complementary to Stanmore's main operations in the metallurgical coal mining sector and directly aligned with Stanmore's investment strategy to develop its existing operations and maximise the geographical synergies from its existing infrastructure (evidenced by the recent acquisition of the Millennium and Mavis Downs mines, as well as its commitment to develop Isaac Downs).

The Transaction will materially increase Stanmore's production, reserves position, weighted average mine life and cashflow generation. The addition of South Walker Creek and Poitrel mines adds further product and customer diversification to Stanmore's portfolio and increases its presence in key growth markets such as India.

Key highlights include (on a 100% basis compared to Stanmore's existing profile):



- 5.6x increase in metallurgical coal production
- 4.2x increase in marketable metallurgical coal reserves
- 5.1x increase in metallurgical coal resources

The Transaction also provides Stanmore the opportunity to realise potential synergies identified between its existing assets and the BMC assets, including access to available infrastructure, additional (and long term) coal preparation and train loading capacity to support Millennium's expansion, product blending opportunities, and other operational and project related savings. The transaction includes the added benefit of inheriting an experienced workforce and management team such that operations can be seamlessly transitioned under the revised ownership structure.

Overview of BMC

BMC's assets include the producing South Walker Creek and Poitrel mines, and the Wards Well development asset located in the Bowen Basin metallurgical coal mining region in Queensland, Australia.

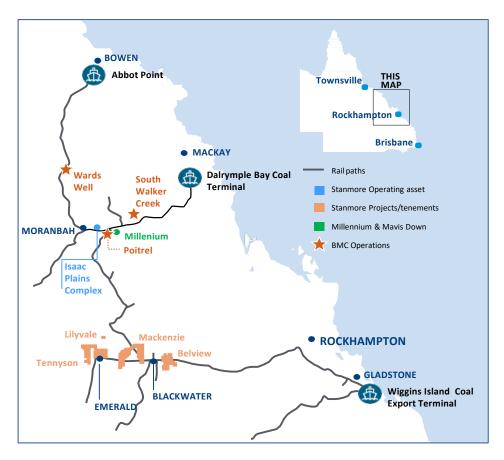


Figure 1: Location Map

South Walker Creek is an open cut 100% pulverised coal injection ("PCI") metallurgical coal mine, with coal marketed as 'best in class' low volatile PCI. It has a mine life in excess of 25 years and a



large resource base of 689Mt total resources which includes 98Mt marketable coal reserves³. In addition to these resources, the Bee Creek and Nebo West tenements are close to South Walker Creek infrastructure and have estimated coal resources of 23Mt and 71Mt respectively.

South Walker Creek has been operating since 1996 as an opencut operation and now has two fully owned Marion 8050 draglines operating, a contracted fleet of excavators, dozers and haul trucks, as well as fully owned fleet to support the dragline and CHPP⁴ operation. Saleable coal production is generated by the 8.4Mtpa (ROM) CHPP including ROM crusher, coal processing plant, product stockpile and rail load-out facilities. All mining tenements are held in the name of BHP Mitsui Coal Pty Ltd and are in good standing.

Coal from South Walker Creek will be transported for export via rail to the Dalrymple Bay Coal Terminal. South Walker Creek is the closest mine in the whole Bowen Basin to the coal terminals at Hay Point.

The South Walker Creek coal deposit is on the eastern flank of the Rangal Coal measures with the 'Main' seam being equivalent to the Leichardt and Vermont seams (known as Elphinstone and Hynds seams at Hail Creek mine to the north of South Walker Creek). Typically in the Rangal coal measures, the seams split and coalesce across the deposit with geological structures such as faulting also evident.

The resource is well defined with 3,686 chip holes and 2,799 core holes (coal quality) contributing key information for the development of geological models.

The coal seam quality associated with the declared Marketable Reserve is a prime low vol PCI coal with 9.2% ash; low volatile matter 13.5%; and low sulphur at 0.29%⁵.

South Walker Creek Mine has the following Coal Resources and Coal Reserves estimated according to the JORC Code 2012 declared by BHP as at 30 June 2021:

- Measured Resources 237Mt
- Indicated Resources 273Mt
- Inferred Resources 179Mt
- Proved Coal Reserves
 87Mt (opencut)
- Probable Coal Reserves 36Mt (opencut)
- Marketable Coal Reserves
 98Mt

(Note: Resources described here are inclusive of the Coal Reserves)

Additional Resources are located at the Bee Creek deposit and Nebo West deposit located in close proximity to the South Walker Creek Infrastructure, collectively:

- Indicated Resources
 9Mt
- Inferred Resources
 84mt

³ BHP Competent Person Report 2021 under the JORC Code 2012 as provided by BHP as part of due diligence investigations ⁴ CHPP – Coal Handling and Preparation Plan

⁵ Marketable Coal Reserves at South Walker Creek reported at 9% moisture



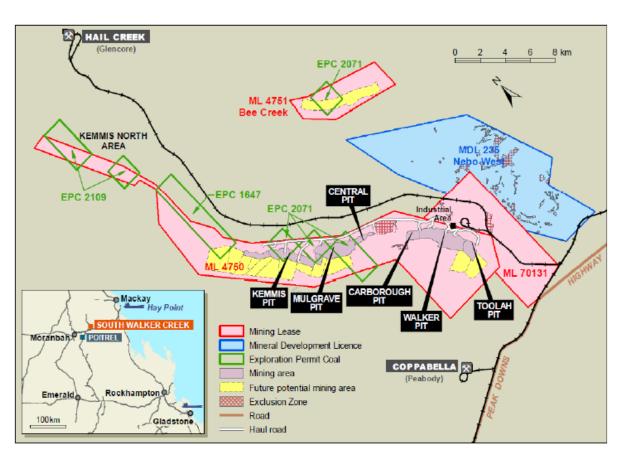


Figure 2 : Primary tenures and layout – South Walker Creek Mine

Poitrel is also an open cut coal mine producing a mix of approximately 65% hard coking coal ("HCC") and 35% PCI. Poitrel has a mine life of approximately 10 years and marketable reserves of 39Mt and resources of 150Mt.

Poitrel has been operating since 2006 and operations are supported by a fleet of excavators, haul trucks and mining dozers. Coal is washed at the modern Red Mountain CHPP (wholly owned by BMC) and loaded for rail.

Coal will be transported via rail to the North Queensland Export Terminal as well as the Dalrymple Bay Coal Terminal for export.

The Poitrel coal deposit is located within the Rangal Coal measures and includes the well-known Leichardt and Vermont seams that are also well drilled and mined at Millennium Mavis mines, Daunia mine, and Isaac Downs and Isaac Plains mines (although at some locations the Vermont seam is not mined due to depth). At Poitrel the seams split and coalesce within the deposit and the faulting has been well mapped with 3D seismic. The faulting is similar to that encountered at Isaac Plains and Isaac Downs mines where Stanmore is currently operating successfully.

The Poitrel resource is well defined with 5,152 chip holes and 381 core holes (coal quality) contributing key information for the development of geological models.



The coal seam quality associated with the declared Marketable Reserves (a combination of Hard Coking coal and mid vol PCI) is 8.1% ash; volatile matter 23.1%; and low sulphur at 0.31%⁶.

Poitrel Mine has the following Coal Resources and Coal Reserves estimated according to the JORC Code 2012 declared by BHP as at 30 June 2021:

- Measured Resources
 42Mt
- Indicated Resources
 49Mt
- Inferred Resources 59Mt
- Proved Coal Reserves 24Mt(opencut)
- Probable Coal Reserves 24Mt(opencut)
- Marketable Reserves 39Mt

(Note: Resources are described here are inclusive of the Coal Reserves)

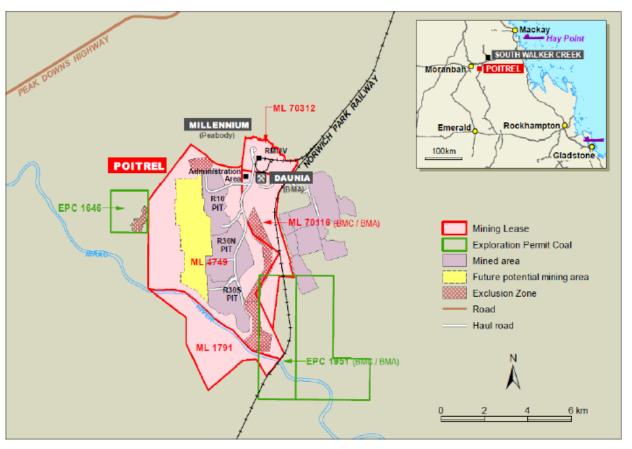


Figure 3: Primary tenures and layouts Poitrel Mine

The Wards Well deposit is situated to the west and north of the other projects and the coal resources are part of the Moranbah Coal Measures. The Goonyella Upper, Middle, and Lower seams are all represented and contribute to the substantial underground coal resources. The coal within

⁶ Marketable Coal Reserves at Poitrel are reported at 12% for coking coal and 10% for PCI coal



this resource is similar to the hard coking coal deposits at the North Goonyella, Riverside and Goonyella mines, which are located to the south of the Wards Well deposit.

The resource is reasonably defined with 358 chip holes and 299 cored holes for coal quality. The coal seam quality associated with the declared resources (based on estimated product coal quality as per BHP methodology) has potential product quality of 8.9% average ash; volatile matter at 20.8%; and sulphur at 0.52%⁷. No Coal Reserves are yet declared for the Wards Well project.

149Mt

- Indicated Resources 1,164Mt
- Inferred Resources

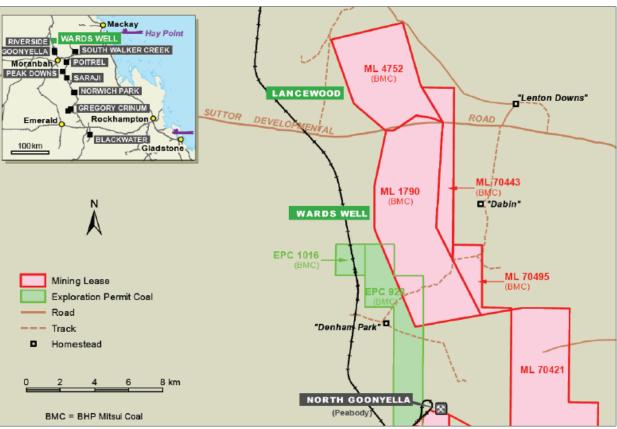


Figure 4: Primary tenures for the Wards Well Project – mining leases in place



Key Transaction conditions

- Australian Foreign Investment Review Board ("FIRB") approval
- GEAR's major shareholder PT Dian Swastatika Sentosa Tbk ("DSS") obtaining shareholder approval for the Transaction (if required). DSS is majority owned by PT Sinar Mas Tunggal ("SMT") and SMT has provided an irrevocable binding commitment to DSS that it will vote in favour of the Transaction
- Approval from certain merger control authorities

Acquisition Funding

The total completion cash funding required for the Transaction, excluding transaction costs, is estimated to be US\$1,200M. Stanmore intends to fund this amount through a combination of:

- a new US\$625M senior acquisition debt facility with a consortium of lenders. The facility will be secured against the shares in Dampier Coal with no recourse to Stanmore;
- a partially underwritten pro-rata accelerated renounceable entitlement offer; and
- available cash and Stanmore operating cashflows.

Stanmore has executed binding commitment letters with certain financiers advised or managed by Varde Partners, Canyon Capital Advisors LLC, Farallon Capital Asia Pte. Ltd., and other credit funds to provide an aggregate US\$625 million secured debt facility ("Debt Facility"). The Debt Facility will be documented in long-form definitive documentation and will include conditions precedent to drawdown which are customary for facilities of this nature. The Debt Facility is not subject to Stanmore shareholder approval; however, Stanmore will need to obtain financial assistance whitewash shareholder approval in connection with the security to be granted in connection with the Debt Facility within 90 days of completion of the Transaction. Further detail in relation to the Debt Facility will be provided upon signing of the definitive documents.

Equity Raising

Stanmore presently intends, although has made no formal decision, to fund at least US\$600M of the consideration via a partially underwritten pro-rata accelerated renounceable entitlement offer of ordinary shares (the "Entitlement Offer").

GEAR has provided a binding commitment letter in support of the Transaction pursuant to which it has committed to subscribe, through Golden Investments, for up to US\$300M of its entitlements, but reserves the right to subscribe up to its full pro-rata entitlement. GEAR may also satisfy its commitment by way of a debt facility, to the extent it does not wish to participate in the Entitlement Offer once the terms are finalised. Stanmore has agreed to pay GEAR a market standard fee in connection with its support for the transaction, including the guarantee provided under the Share Sale and Purchase Agreement.

PT. Sinar Mas Multiartha Tbk ("SMMA"), an affiliate of GEAR, has also provided a binding commitment letter in support of the Transaction pursuant to which it has committed to underwrite up to US\$300M of the Entitlement Offer subject to agreeing the terms of the underwriting agreement, which are expected to be on customary terms. SMMA is an affiliate of GEAR and is the financial services arm of the Sinar Mas Group. SMMA is one of the leading financial services companies in Indonesia providing an integrated and



comprehensive range of services which includes banking, insurance, financing, capital markets and asset management. SMMA is listed on the Indonesia Stock Exchange and has a market capitalisation of approximately US\$4.8B. Notwithstanding this commitment, Stanmore still intends to commence discussions with professional underwriters and third-party investors to underwrite any Entitlement Offer.

Further details of Stanmore's proposed funding strategy for the Transaction, including the proposed Entitlement Offer, will be announced after key conditions precedent for the Transaction have been substantially progressed, and ahead of launch, which is currently expected to occur in Q1 2022.

Stanmore's board of directors has established an independent board committee comprising Mr Mark Trevan and Mr Richard Majlinder ("IBC") to consider and take actions in relation to the equity funding required for the Transaction and any other element of the Transaction which may constitute a related party transaction, to ensure that these matters are undertaken in the best interests of Stanmore and its shareholders as a whole. Among other things, the IBC will develop and determine the terms of the Entitlement Offer.

Advisers

Stanmore is being advised by Grant Samuel, Palaris Australia, Norton Rose Fulbright, EY and M Resources, and wishes to acknowledge their support and assistance throughout the process.

Approval

This announcement has been approved for release by the Board of Directors of Stanmore Resources Limited.

Further information	
Investors	Media
investors@stanmore.net.au	media@stanmore.net.au

About Stanmore Resources Limited (ASX: SMR)

Stanmore Resources Limited owns and operates the Isaac Plains Complex in Queensland's prime Bowen Basin region which includes the Isaac Plains Mine and processing facilities, the adjoining Isaac Plains East and Isaac Downs mining areas and the Isaac Plains Underground Project. The Company is focused on the creation of shareholder value via the efficient operation of the Isaac Plains Complex and the identification of further development opportunities within the region. Stanmore Resources is a 50% shareholder in the Millennium and Mavis Downs Mine and holds a number of additional high-quality prospective coal tenements located in Queensland's Bowen and Surat basins.

Competent Persons Statement

The BHP presented Table 1 for JORC Resources and Reserves for South Walker Creek and Poitrel have been signed off by Palaris Competent Persons on the basis that the data presented appears reasonable following an independent review of the life of mine plans presented by BHP during the 2021 BMC sales process. In parallel to this process, Palaris has been engaged by Stanmore Resource's parent company GEAR to prepare independent JORC Resource and Reserve statements for South Walker Creek and Poitrel based on options presented by Stanmore for operating the assets. In the event that these plans are adopted, it is likely that the presented JORC Resource metrics will be largely unchanged to that presented by BHP and a possibility that the JORC Reserve metrics are different to that presented by BMC. The Palaris independent compilation of the JORC reports for GEAR remains in progress at the time of writing this statement.



The Resource estimate is based on information reviewed by Dr William Bamberry, who is a Member of the Australasian Institute of Geoscientists (#4090). Dr Bamberry is Principal Geologist at Palaris. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking 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. Dr Bamberry has more than 30 years' experience in exploration and mining of coal deposits. Dr Bamberry consents to the inclusion of this Resource Estimate in reports disclosed by the Company in the form in which it appears.

The Reserve estimate is based on information reviewed by Mr John Pala, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) (112634). Mr Pala is Managing Director of Palaris. He has sufficient experience relevant for the style of mineralisation and type of deposit under consideration and to the activity he is undertaking 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. Mr Pala has over 35 years' experience in the estimation, assessment, evaluation, and economic extraction of Coal Reserves. Mr Pala consents to the inclusion of this Reserve Estimate in reports disclosed by the Company in the form in which it appears.



Schedule 1: Summary of key terms of Share Sale and Purchase Agreement

Share Sale and Purchase Agreement ("SPA")	The SPA sets out the terms on which Stanmore SMC Holdings Pty Ltd, a wholly-owned subsidiary of Stanmore (the "Buyer"), agrees to acquire 100% of the shares in Dampier Coal (Queensland) Pty Ltd. Dampier holds an 80% interest in BMC.
Purchase price	 US\$1,100M payable on completion, and subject to customary completion adjustments; US\$100M payable six months post completion; and Up to a maximum of US\$150M payable in CY2024 based on a revenue sharing mechanism if the average sale price achieved is above a certain threshold over a two year period.
Buyer's Guarantors	Stanmore guarantees all obligations of the Buyer under the SPA. GEAR guarantees Stanmore's obligation as guarantor with regards to the payment of the purchase price and any break fee, up to a maximum aggregate amount of US\$600M (after deducting any other funding provided to Stanmore by GEAR or Golden Investments in connection with the Transaction) ("GEAR Guarantee"). The GEAR Guarantee will only be payable in circumstances where Stanmore is unable to meet its purchase price obligations on or after Completion, or fails to pay the break fee in circumstances where it has become payable.
Conditions Precedent	 Completion of the SPA is subject to the following conditions precedent: Foreign investment review board approval Stanmore receiving Foreign Investment Review Board approval for the Transaction DSS shareholder approval If required, the shareholders of DSS (GEAR's controlling shareholder) approving the Transaction, as well as GEAR's participation in any entitlement offer, in accordance with the requirements of Otoritas Jasa Keuangan (the Indonesian Regulator) Offshore merger clearances Approval from certain merger control authorities
Termination Rights	 The SPA may be terminated as follows: Mutual termination rights Either the Buyer or the Seller may terminate the SPA before completion if: (conditions precedent) the conditions precedent haven't been satisfied or waived by the date that is nine months from the date of the SPA (which date may be extended by agreement between the parties);



DSD	
(D)	Deposit and Break
	Warranties and Indemnities
	Conduct of busines
	Transitional service agreement

	 The Seller may terminate the SPA before completion if there is a change in control of the Buyer or the Buyer's Guarantors. Buyer termination right The Buyer may terminate the SPA before completion if, in the Buyer's absolute discretion, a material adverse change event has occurred which hasn't been cured by the Seller, being an event which: reduces BMC's production of saleable coal by 3Mt or more (as compared to the planned level of coal from the FY22 budget) for the relevant 12 month period from completion; or sterilises more than 15% of BMC's "Total Reserves" from the Seller's 2021 annual report (as reduced by depletion from mining and increased by any new published reserves).
eposit and Break Fee	A deposit of US\$30 million is payable on execution, which will be refunded once DSS shareholder approval is satisfied as a CP. Stanmore has also agreed to pay a break fee in the event that certain conditions precedent are not satisfied or waived by the date that is 9 months from the date of the SPA.
Varranties and ndemnities	Customary warranties and indemnities are set out in the SPA.
onduct of business	Prior to completion, except as expressly permitted by the SPA or consented to by Stanmore in writing, the Seller must use reasonable endeavours to ensure that the business of BMC is conducted materially in the ordinary and usual course, and substantially consistent with past practice and materially in accordance with the FY22 budget and plan (subject to reasonable deviations in the ordinary course and for unforeseen events). The SPA includes certain restrictions on how the business can be conducted, limited by competition / anti-trust legislation and actions taken in the ordinary course and consistent with past practice, including for unplanned or unforeseen matters.
ransitional services greement	A transitional services agreement is currently being negotiated between the parties to include a number of services the Seller will provide for a short period following the Transaction to ensure a successful transition.



Schedule 2: JORC Reserves and Resources Statement

Competent Person Statement

The information in this report relates to Coal Resources as at 30 June 2021 is based on and fairly represents information for the following deposits compiled and reviewed by:

- Bee Creek Mr Roderick Macpherson is a full-time employee of BHP Pty Ltd and a shareholder in BHP Pty Ltd and is entitled to participate in BHP's employee share scheme. He is a member of the Australian Institute of Geoscientists. Mr Macpherson is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Macpherson consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.
- Nebo West and Wards Well Mr Craig Williams is a full-time employee of BHP Pty Ltd and a shareholder in BHP Pty Ltd and is entitled to participate in BHP's employee share scheme. He is a member of the Australasian Institute of Mining and Metallurgy (CP). Mr Williams is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Williams consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.
- **Poitrel Mr Scott Cutler** is a full-time employee of BHP Pty Ltd and has no real or perceived conflicts of interest. He is a member of the Australasian Institute of Mining and Metallurgy. Mr Cutler is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Cutler consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.
- South Walker Creek Mr Ranjan Saha is a full-time employee of BHP Pty Ltd and a shareholder in BHP Pty Ltd and is entitled to participate in BHP's employee share scheme. Heis a member of the Australasian Institute of Mining and Metallurgy. Mr Saha is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Saha consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.

The information in this report relates to Coal Reserves as at 30 June 2021 is based on and fairly represents information for the following operations compiled and reviewed by:

- **Poitrel Ms Kristen Nott** is a full-time employee of BHP Pty Ltd and a shareholder in BHP Pty Ltd and is entitled to participate in BHP's employee share scheme. She is a member of the Australasian Institute of Mining and Metallurgy. Ms Nott is a qualified Mining Engineer and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Ms Nott consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.
- South Walker Creek Mr Gerardo Bustos is a full-time employee of BHP Pty Ltd and has no real or
 perceived conflicts of interest. He is a member of the Australasian Institute of Mining and Metallurgy.
 Mr Bustos is a qualified Mining Engineer and has sufficient experience which is relevant to the style of
 mineralisation and type of deposit under consideration and to the activity which he is undertaking, to
 qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of
 Exploration Results, Mineral Resources and Ore Reserves." Mr Bustos consents to the inclusion in the
 report of the matters based on the information, in the form and context in which it appears.



Coal Resources as at 30 June 2021

As at 30 June 2021																				
	pq		Measu	Measured Resources				Indicated Resources				Inferred Resources					Total Resources			
Commodity Deposit (1)(2)(3)(4)(5)(6)(7)(8)	Mining Method	Coal Type	Tonnes (millions)	% Ash	W %	% S	Tonnes (millions)	% Ash	WN %	% S	Tonnes (millions)	% Ash	WN %	% S	Tonnes (millions)	% Ash	% VM	% S		
Queensland Coal, operating mines -																				
South Walker	OC	Met/PCI	201	10.2	13.3	0.31	119	9.4	14.3	0.30	71	10.4	15.7	0.40	391	10.0	14.0	0.32		
Creek	UG	Met/PCI	36	10.0	13.8	0.31	154	10.4	12.7	0.28	108	9.5	15.2	0.35	298	10.0	13.7	0.31		
Poitrel	OC	Met	42	7.9	23.9	0.35	49	8.0	24.1	0.35	59	8.0	24.1	0.36	150	8.0	24.0	0.36		
Queensland Coal Undeveloped Resources -																				
Nebo West	OC	Anth	-	-	-	-	-	-	-	-	71	10.0	7.2	0.67	71	10.0	7.2	0.67		
Bee Creek	OC	Met/Th	-	-	-	-	9.4	8.9	15.4	0.40	13	9.6	15.0	0.42	23	9.3	15.2	0.41		
Wards Well	UG	Met/PCI	-	-	-	-	1,164	8.9	20.9	0.52	149	9.2	20.0	0.52	1,313	8.9	20.8	0.52		

(1) Tonnages are reported on an in situ moisture basis. Coal qualities are for a potential product on an air-dried basis.

(2) Mining method: OC - opencut; UG - underground

(3) Coal Type: Met ~ Metallurgical Coal; PCI~ Pulverized Coal Injection; Anth ~ Anthracite; Th~ Thermal Coal

- (4) Ash ~ Ash ,VM ~ Volatile Matter, S ~ Sulphur Content
- (5) All Coal Resources and Coal Reserves presented are reported in 100 per cent terms.
- (6) All tonnes and grade/quality information have been rounded, so slight differences may be present in the totals.
- (7) Measured and Indicated Coal Resources are inclusive of those Coal Resources modified to produce the Coal Reserves.
- (8) Cut-off criteria:

Deposit	Mining method Coal Resources		Coal Reserves
South Walker Creek OC		\geq 0.5m seam thickness, core yield \geq 50%, <35% raw ash and 100m lease boundary buffer	≥ 0.3m seam thickness
	UG	≥ 2.0m seam thickness, core yield ≥ 50%, <35% raw ash	-
Poitrel	OC	\geq 0.3m seam thickness, core yield \geq 50% and <35% raw ash	≥ 0.3m seam thickness
Nebo West	OC	\geq 0.5m seam thickness, core yield \geq 50% and <150m below surface	-
Bee Creek	OC	\geq 0.5m seam thickness, <100m below surface, core yield \geq 50% and <35% raw ash	-
Wards Well	UG	\geq 2.0m seam thickness and core yield \geq 50% –	



Coal Reserves as at 30 June 2021

As at 30 June 2021

As at 30 June 2021																		
			Proved Reserve	Probable Reserve	Total Coal Reserve	Proved Marketable Reserves			Probable Marketable Reserves				Total Marketable Reserves				Reserve Life	
Commodity Deposit (1)(2)(3)(4)(5)(6)(8)(9)(10)(11)	Mining Method	Coal Type	Tonnes (millions)	Tonnes (millions)	Tonnes (millions)	Tonnes (millions)	% Ash	WN %	% S	Tonnes (millions)	% Ash	WN %	% S	Tonnes (millions)	% Ash	WN %	% S	
Queensland Coal, operating mines -																		
South Walker Creek	ос	Met/ PCI	87	36	123	69	9.2	13.6	0.29	29	9.2	13.2	0.29	98	9.2	13.5	0.29	15
Poitrel	OC	Met	24	24	48	20	7.9	23.0	0.31	19	8.4	23.3	0.31	39	8.1	23.1	0.31	8.5

(1) Moisture contents are: Poitrel - Standard ROM Moisture 4%; South Walker Creek - Standard ROM moisture 4%. Marketable moisture contents are: Poitrel - Product specification moisture 12% PTC and 10% PTPC; South Walker Creek - Standard Product Moisture 9%

(2) Approximate drill hole spacings used to classify the Coal Reserves were:

Deposit	Proved Reserves	Probable Reserves
South Walker Creek	400 to 800m spacing of geophysically logged, analysed, core holes with	650 to 1500m spacing of geophysically logged, analysed, core holes with
	greater than 95% recovery	greater than 95% recovery
Poitrel / Winchester	300 to 550m spacing of geophysically logged, analysed, core holes with	600 to 1050m spacing of geophysically logged, analysed, core holes with
	greater than 95% recovery	greater than 95% recovery

South Walker Creek	78%
Poitrel	79%



JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. 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 (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. 	 A number of different drilling and sampling methods are used depending on the purpose of the hole. These are most commonly: Conventional mud rotary circulation boreholes for structural definition and overburden characterization. Wireline PQ diameter or conventional 4" core holes for coal quality assessment. HQ for gas content and/or geotechnical evaluation; and Large diameter core holes (8" or larger) for specialist testing requiring bulk samples e.g., full washability, coke oven, CSI (Coke Strength Index) and CSR (Coke Strength after Reaction). The deposits (South Walker Creek, Poitrel, Bee Creek, Nebo West and Wards Well) coal seams are divisible into plies and are often interbedded with non-coal (stone band) zones. Accurately identifying these boundaries is important for coal quality testing and resource modelling. Sample intervals are to the nearest centimetre to match lithological logging accuracy, with a maximum length of 50 centimetres. For the deposits, the coal samples are generally greater than 10 centimetres (with some rare exceptions). Smaller samples are taken when approaching ply boundaries, zones of stone banding and when there is uncertainty in boundary position. Field geologists are encouraged to oversample when in doubt, as they can be composited once the depths are corrected to geophysical intervals. Field Geologists sample the coal seams and stone partings in accordance with the Company Coal Quality Sampling Procedures. Geotechnical samples are taken at, and near, non-coal rock mass units in contact with coal seams wherever possible. All cored zones within the coal quality program are fully logged for defects. Geotechnical rock mass units are sampled according to company procedures. For gas testing, initial field desorption measurements are undertaken using gas canisters and desorption apparatus, and upon completion of field testing, gas samples are sent to specialised gas testing laborat



Criteria	JORC Code explanation	Commentary
		Limit of oxidation (LOX) samples are the only coal quality analysis undertaken on non-cored intervals. The results are used to determine the location of the weathering crop lines.
		On occasion core samples are sent to other laboratories, such as for spontaneous combustion testing, where specialised analysis tests are undertaken.
		Contracted Downhole Geophysical logging companies use their internal QAQC and calibration processes. In addition a company Test hole is used to check the calibration of sondes on a regular basis
Drilling techniques	• 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	All drilling activities are undertaken using the company's standard exploration procedures. Core and non-core methods are used, and several sizes of coal and rock core are sampled for testing depending on borehole requirement.
	other type, whether core is oriented and if so, by what method, etc).	 Non-core drilling (rotary percussion/blade chip) is used for: Pilot holes (to derive depth intervals for conventionally cored holes); Structural definition (fault delineation, seam splitting intrusions etc.); and LOX definition.
		 Core drilling is used for: Coal quality analysis, including washability and coking properties analysis (HQ triple tube, 100mm conventional or PQ triple tube sized and when required 200mm conventional core); Gas testing (usually HQ sized), which is often combined with: Geotechnical testing (strata Geo-mechanical testing); and Other specialized testing as required (spontaneous combustion, paddle testing etc.).
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. 	All measured recovered thickness is reconciled to the driller's thicknesses reports. This ensures assignment of core loss to the correct intervals. PQ, conventional 4", and larger cores are drilled to ensure there is sufficient mass of sample to perform the required physical and chemical analysis. Further to this core recovery and core condition is monitored to ensure compliance with contract requirements of >95% recovery. Should core recovery fall below 95% or the core is excessively broken or crushed then, at the discretion of the company, the contractor will be required to redrill in full or part the drillhole.



Criteria	JORC Code explanation	Commentary
		All cored coal is photographed in half-meter intervals. Photographs are stored on a company's server. Core photographs are routinely used to validate the core (and subsequent sampled) intervals.
		In the Competent Persons opinions an acceptable level of recovery is >95%. However, in some instances, this recovery requirement is reviewed considering the amount of core loss and/or the results of any analyses undertaken and may be varied if, in the opinion of the Competent Person the results are representative of the intersection.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource	Lithological logging of exploration boreholes is undertaken in accordance with internal company standard procedures and guidelines.
	 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. 	Non-core borehole samples are logged to the nearest metre and cored intervals are logged to the nearest centimetre, and intervals are corrected to match subtle variations in lithological characteristics evident in geophysical logs. Geophysical logs include measurement of density variations and are used to accurately pick lithological boundaries but are used to qualitatively assess coal seams.
		 Since the early – mid 1990's, all exploration boreholes are geophysically logged, by a combination of borehole sondes. This account for approximately 55% of all holes drilled to date across all deposits, however, many of the non-geophysically logged holes are in mined out areas. The standard suite of tools run on all boreholes include: Caliper, Natural gamma,
		 Natural gamma, Dual density logs: long (45 centimetres) and short (15 centimetres) spaced, Multi-channel sonic (when allowed by the presence of water), and Verticality.
		Other sondes are used for specific purposes, including focussed electric (intruded holes), resistivity (suspected intrusions in coal seams), acoustic and optical televiewers, temperature, dip / dip direction, cement bond logs and magnetic susceptibility. It is the opinion of the Competent Persons that the logging is of sufficient quality to support the Coal Resource estimate.



Image: and sample sample sample for all core taken. mass of ply sub-sample is available for the analytical tests undertaken. When required non-core samples are non-core samples are non-core samples are non-core samples are non-core samples. Image: ima	Criteria	JORC Code explanation	Commentary
 split, etc and whether sampled wet or dy. split, etc and whether sampled wet or dy. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsamples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-holf sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. Quality of assay data and laboratory tests For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis instruments, etc, the parameters, sued in determining the analysis instruments, etc, the parameters used in determining the analysis instruments, etc, the parameters, sued in determining the analysis instruments, etc, the parameters, landheld XRF instruments, etc, the parameters used in determining the analysis instrument and analysis methods. For geophysical tools, spectrometers, landheld XRF instrument and analysis methods. For geophysical tools, spectrometers, landheld XRF instrument and analysis methods. For geophysical tools, spectrometers, landheld XRF instrument and analysis methods. For geophysical tools, appetrometers adopted for acurcy is instrument and a	techniques and sample	half or all core taken.	Analytical testing is done on whole cores sample to ensure a representative sample of sufficient mass of ply sub-sample is available for the analytical tests undertaken. When required non-core samples are only analysed for overburden characterisation purposes and are not used for resource the samples are only analysed for overburden characterisation purposes and are not used for resource test.
 Whether sample sizes are appropriate to the grain size of the material being sampled. Quality of assay data 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been 	preparation	 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 subsampling 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 	 estimation or classification. When ply samples are taken the sample is prepared by crushing to the required size and divided into 2 splits. One split is taken for the ply analysis and the remaining split is then composited wit other plies to make up a full seam composite for further testing. Rotary sample dividers (RSD) are used to divide samples at coal quality laboratories utilised by the company as per Australian Standard AS4264.1. When required for washability analysis plies or composites samples are drop shattered, dry and tumbled to simulate stockpile movements prior to analysis. These processes ensure that the samples analysed at the laboratories have comparable sizing to those in the coal handling
 data and laboratory tests 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been 		• Whether sample sizes are appropriate to the grain	
	data and	 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been 	Company personal performed a site visit and audit of the laboratory every six months. One of the main NATA requirements that is assessed in ISO17025 is that all coal physical and chemical testing undertaken must be to either an Australian or International standard. This includes all sample division, sizing, and analysis methods. The "Appendix A – Australian and International Standards for Coal Quality Analysis"; lists the pre- treatment and analysis methods undertaken and the associated Australian (AS) or International



Criteria	JORC Code explanation	Commentary
		In addition audit processes are performed on a 6 monthly basis. As well as the NATA assessment and re-assessment audits, contracts with the laboratories utilised by BMC include the provision for laboratory audits to be held on a 6 monthly basis. These audits include assessing the following: • Management: • Organisation structure/hierarchy; • Documented analysis procedures and/or testing methods; • Internal audit programs; • Corrective and preventative action processes; • Record keeping processes; and • Procedures for non-conforming testing results and customer complaints procedures. • Technical: • Adequate staffing levels with appropriate qualifications and training programs in place; • Test method validation processes in place; • Estimation of uncertainty of measurement; • Control of data; • Reference materials; • Equipment calibration; • Sampling; • Assuring quality of test results and reporting;
		 As well as this, the purpose of the laboratory audits is to: Discuss any issues that have arisen since the previous audit; Discuss the outlook for the future (job loads etc.); Review the laboratories compliance with NATA's scope of accreditation; Serve as a technical information sharing session; and Discuss any specialized sampling and testing services/strategies.
		The laboratory audit findings are stored and monitored. No issues identified and the data is considered fit for purpose for informing Coal Resource estimates.



Criteria	JORC Code explanation	Commentary
		Duplicate Analysis Methodologies
		All coal quality laboratory tests are performed in duplicate using National and International Standards (the average of the two individual testings is reported).
		If the duplicate analysis is outside of the accepted repeatability then the results are rejected, and the sample is re-analysed (in duplicate).
		NATA Accredited Laboratories must be able to demonstrate that they comply with the precision limits contained in these standards during NATA Technical Reassessments. Compliance with these limits are also included in technical audits.
		Quality Assurance (QA)
		Test facilities have a documented Quality Assurance Program to assure that they are in compliance with the ISO/IEC 17025. The NATA accreditation audits rigorously assess laboratories against compliance with ISO 17025. Once accredited technical re-assessments are undertaken yearly to ensure ongoing compliance with ISO 17025.
		NATA certification requires quality assurance programs to be carried out by an individual (or team) designated by and directly responsible to management (of the laboratory), and who must be familiar with the test procedures. The laboratories utilised by the company have an officer at each site (part time or full time depending on size of the laboratory) plus a national quality officer to co-ordinate the overall QA for the organisation i.e. corporate procedures/methods etc.
		 The responsibilities of the quality assurance personnel include: Maintain copies of all approved study plans and Standard Operating Procedures (SOP) in use in the facility; Have access to an up-to-date copy of the master schedule; Conduct inspections to determine if all studies/testing is conducted in compliance with the laboratories SOP's; Inspect final separate to confirm methods, precedures, and observation are accurately and
		 Inspect final reports to confirm methods, procedures, and observation are accurately and completely described, and that the reported results accurately and completely reflect the raw data of the study; and
		Record and archive all inspections performed by the QA personal for auditing purposes.



Criteria	JORC Code explanation	Commentary
		More information on the Quality Assurance aspects is contained within the ISO 17025; General Requirements for the competence of testing and calibration laboratories – Management Requirements section.
		Quality Assurance (QC)
		All laboratories utilised by the company undertake rigorous Quality Control measures. As well as testing strictly to the various standards (AS/ISO etc); Corrective and preventative action processes (CAR), blind samples, round robins, procedures for non-conforming tests and calibration regimes/schedules are in-place and undertaken by the laboratories to ensure quality control.
		Quality Control Charts
		One of the main ways that a laboratories internal quality control is managed is by Quality Control charts. These QC charts plot the difference between duplicates for a standard reference material each time it is analysed. The standard material is analysed as an unknown within a standard batch of jobs. QC charts are maintained for each test method in the laboratory (e.g. Ash, Volatiles, Sulphur, etc.). These are reviewed at the laboratory audits undertaken by NATA and the company.
		Proficiency Testing
		To further test the QC performance of the external laboratories used for coal quality analysis; blind samples and round robins are routinely requested to be undertaken by the company. Blind samples are sent monthly and the round robins are undertaken six monthly. These programs are run over multiple laboratories and are not restricted to only those laboratories that currently have a contract with the company. The function of these proficiency tests is to supplement the internal quality control procedures of facilities by providing an additional external audit of their testing capability. Robust <i>z</i> -scores are used to assess each result reported by the laboratories and how far away they are from the consensus value. These monthly/six monthly blind samples and round robin results are saved into Documentum.
		By reviewing z scores over periods of time the accuracy of the laboratories can be assessed. If any results are found to be outside of the acceptable limits, a Corrective Action is required to be completed.
		As well as the company's sanctioned proficiency testing, NATA encourages facilities to participate in broader industry wide NATA approved proficiency testing at least once every two years. A facility's



Criteria	JORC Code explanation	Commentary
		Proficiency testing results and any corrective actions that need to follow the investigation are reviewed by the company in laboratory audits. Additionally, NATA also reviews any CAR's at both their surveillance and reassessment visits. Currently the laboratories utilised by BMC conduct NATA approved proficiency round robins yearly.
		Calibration
		 To ensure that all the equipment utilised by the different laboratories satisfies the need to produce consistent, reliable, and traceable results; calibration checks have to be undertaken. The NATA accreditation and re-assessment audits assess the laboratories against the following standards: General Equipment – Calibration and Checks; and Reference Equipment – Calibration and Checks.
		These documents specify the calibration interval, checking intervals; general comments and details on any reference standards. The tables within these documents are extensive, at over 200 different individual items. Each laboratory keeps a record of these calibration results, charts etc. onsite for reference. Schedules for retesting are maintained for auditing purposes at each individual laboratory by QA personal.
		The calibration programs are detailed and testing schedules are variable; depending on the type of equipment. Part of the laboratory audits conducted by BMC involves reviewing (generally a spot check) the calibration records and charts of the facility.
		A facility performing its own calibrations will also be subject to technical assessment (and re- assessment) of these calibrations for NATA certification. The NATA assessment team will determine if the in-house calibrations are fit for purpose for which they are being used and that a reasonable estimate of the associated measurement uncertainty has been made. All NATA technical assessment records are kept on site by the QA personal.
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. 	1 Coal Seam Intervals Predicted coal seam to and from depths are provided to the geologist before commencement of drilling and sampling. The geologist uses the geophysical logs, ATV/OTV data to depth adjust and pick seams/plies and determine sample intervals.



Criteria	JORC Code expl

anation Commentary 2 Twinned Holes Twinned sample holes are rarely undertaken because quality variations in coal deposits tend to be small. Where quality variations are identified they are investigated by infill drilling programs. **3 Exploration and Coal Quality Database (Software and Architecture)** SQL Server is the current database server used to store exploration and coal quality data in the GeoBank system. Borehole data is stored in different tables, such as, collar, survey, lithology, sample, quality, geotechnical, gas, wireline geophysical logs and. There is a relational structure to database tables, with the collar table parent to all others, and the primary key for the collar table is project and drillhole name columns ensuring no duplicate names occur within a project. Lithology and sample tables have project and hole columns, which are referenced back to the collar table, and are a built-in database constraint. All holes require collar details before additional data can be loaded, and for coal quality data samples must exist in the sample table before coal quality data can be loaded. Core photos, geophysical seismic data, acoustic scanner, airborne and ground magnetic data is stored on a dedicated central server. Petrel and GoCAD is used to interpret and analyse seismic data and downhole wireline logs are used for time depth conversions and reference boreholes are used for seismic reference purpose to guide horizon interpretation and picking along seismic lines. All borehole reports are stored on the company's server and are linked to relevant boreholes so they can be viewed from GeoBank. **4** Database Verification The progress of exploration data from planning to finalisation of the borehole is tracked in the database via the status flag as follows: • I - in progress All coal quality core is measured and each core run recovery is recorded at the drill rig, the core is marked up with metre marks, photographed then wrapped in plastic and boxed for dispatch to central refrigerated core lab. • Downhole wireline geophysical logs are acquired from borehole.



	Criteria	JORC Code explanation
D S D		
D [S (

tion	Commentary
	• D - Drilled. At lab core is retrieved from cool rooms and reviewed against core photos and downhole geophysics and measured to confirm recovery.
	 L - Logged the core is then logged and sample intervals marked up and photographed before sampling. Sampling plan is based on review of borehole geophysical logs by Project geologist in accordance with mine site validation guide which outlines stratigraphy and mining plies to be sampled. Validation guide is approved by Project Geologist, Mine Geology and Modelling Geologist.
	• A - Adjusted the hole then is submitted for reviewed by supervising geologist and includes review of Lab sample photos and logged intervals.
	 V - Validated Hole then flows to Project Geo for final review and prepare Request for Analysis. Samples are reviewed by Project Geologist to confirm required test work and RFA generated and sent to analysing Lab and Geometallurgy team for review. Additional checks are undertaken by the analysing lab when Request for analysis (RFA) is received and each sample to check sample mass against reported sample intervals upon receipt of RFA and anomalies or insufficient sample mass issues reported to Project Geologist. In V status boreholes are made available for structural modelling. F - Finalised Lab analysis has been received and reviewed by Geomet and Project Geologist and hole can be Finalised in database and made available for Coal Quality and
	Washability modelling. All exploration data is rigorously validated prior to the borehole status being finalised. Procedures details the overall processes involved for each stage. Validations are built into the database. Validation includes borehole review in 2D and 3D interpretations by the project geologist.
	5 Analysis Data Validation
	Throughout the analysis process, and before the data is imported into the master SQL geological database, various checks are undertaken both by the testing laboratory and the company. This is to ensure that:



Criteria	JORC Code explanation

Commentary

- 1. No samples are misplaced
- 2. Correct analysis is undertaken, and
- 3. Results are within expected ranges.

6 Coal Quality Results Validation Checks

Preliminary analytical results from the laboratory are checked by the company's Principal Resource Geologist to ensure that they are correct. The checks that are undertaken include the following: •

- Raw Analysis Results;
 - Mathematical Checks;
 - Proximate analysis data add to 100%; and
 - All % values are realistic and not above 100%.
 - Sizing Data (through Rosin-Rammler Graphs);
 - Dry and Wet Tumble;
 - Ash Vs Calculated Relative Density (from the float/sink density cut point);
 - Ash Vs RD;
 - Ash Vs CV (where appropriate);
 - Ash fusion Temp Vs Basicity Index;
- Washability Analysis Results;
 - Inverse Mid-Point RD Vs Ash;
 - Mathematical Checks; •
 - Fractional mass % add to 100;
- Product Composite Analysis Results;
 - Mathematical Checks;
 - Proximate analysis data add to 100%;
 - All % values are realistic and not above 100%;
 - Maximum Dilation Vs Max Fluidity (where appropriate);
 - Hydrogen Vs Carbon;
 - Ash Vs CV (where appropriate);
 - Ash Fusion Temp Vs Basicity Index;

Once satisfied, the results are imported into the master SQL database.



Criteria	JORC Code explanation	Commentary
		7 Assay Data Adjustment
		Moisture and density are the only data adjusted for the company's Resource estimates. These variables are adjusted using Australian Coal Industry's Research Program (ACARP) industry standard techniques so that all Resources are estimated on an in-situ basis. Methods used for these calculations are provided in Section 3 below.
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. 	Borehole collars and geophysical survey locations are surveyed using differential GPS (Global Positioning System) with accuracy +/- 0.1m for east, north and elevation. There is less confidence in accuracy of borehole collar locations for older boreholes given methods and survey control used at the time, however, during the modelling process drillhole collars and downhole intercepts are checked and should a hole or intercept be deemed unreliable it is excluded from the modelling process. Some of these older boreholes are being systematically re-drilled to modern standards and old data eliminated from the dataset where necessary.
		Exploration surveys are undertaken by accredited Mine Surveyors or their accredited representatives. All mine surveying personnel are formally accredited mining surveyors. Methodologies, systems and databases are managed in accordance with proven and documented quality management system and all measurements and records are auditable to standards and sources respectively.
		Exploration sites are mapped on the Australian Mapping Grid (AMG), which is the standard Universal Transverse Mercator (UTM) Grid coordinate system derived from the Australian Geodetic Datum (AGD) and used for Australian national mapping (1966-1994). The unit of measure is the international metre. Surveying for borehole collars and geophysical survey locations is controlled by internal company procedure.
		Each project and mine have Digital Elevation models (DEM) created from the latest available aerial photography, and active mine sites have regular LIDAR surveys. Accuracy of DEM is typically +/-100mm and for LiDAR +/- 50mm. Mine site surveyors and / or BMA GIS provide geological modellers with latest data for topographic modelling.
		For downhole verticality (deviation) sonde the manufactures stated accuracy is:
		magnetic deviation sonde:



Criteria	JORC Code explanation	Commentary
		• Dip = +/- 0.5 degrees
		• Azimuth = +/- 2 degrees
		Gyroscopic deviation sonde:
		• Dip = +/- 1 degrees
		• Azimuth = +/- 2 degrees
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 	Data spacing for all deposits support classified Coal Resources and Coal Reserves. Drillhole spacing analysis, a geostatistical process, has been used to support the Coal Resource classification considering geological and grade continuity.
	Resource and Ore Reserve estimation procedure(s)	Ranges used to classify the Coal Resources are presented in Section 3 - Classification
	and classifications applied.Whether sample compositing has been applied.	Based on operational experience with the deposit coal seams, the data spacing is appropriate for the classification of Coal Resources and Ore Reserves.
Orientation of data in relation to geological	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the	Coal quality holes are drilled vertically and with the general flat dips of the strata across all deposit areas, sampling bias is not considered material.
structure	 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. 	Optical and Acoustic televiewers are routinely used on completed boreholes to provide detail on sedimentalogical and geotechnical characteristics of the strata, such as bedding dips, fracture orientation and nature, faulting and coal seam cleating.
		Where appropriate to do so 2D and 3D seismic is also used to better identify the location dip, throw, and orientation of faults with non-core drilling used to confirm the interpretations.
Sample security	• The measures taken to ensure sample security.	Borehole data is encoded directly into toughbook computers via Micromine's GeoBank software and rigorous validation is undertaken with only pre-defined values able to be entered. Standard company procedures are followed that define the sampling processes undertaken so that field exploration sample integrity is maintained:
		Once samples have been marked and data validated, as per procedure samples are given to the laboratory for onward testing.
		Once samples are dispatched, a chain of custody form is to be filled out and emailed to the laboratory; preferably before the samples arrive at the specified laboratory. The chain of custody



Criteria	JORC Code explanation	Commentary
		form is a check by both the laboratory and the geologists to confirm that all the samples dispatched have arrived or if there are any additional samples than those specified.
		1 Sample Movements During Analysis Processes
		During the various analysis steps undertaken by the laboratory, samples and/or sub samples may need to be dispatched to other laboratories for specialist testing. An example of this is the samples requiring petrographic analyses are sent to COPS (Coal and Organic Petrology Services). In these instances, the laboratory carrying out the test work has procedures and processes in place to track the samples from and to the various other laboratories.
		2 Sample Movements Post Analysis Processes
		The initial testing instructions sent to the laboratory specify what to do with the samples post analysis. Generally, they are stored at the testing facility for 12 months and then disposed of. This allows time for re-testing if any discrepancies are identified when validating the results. If samples are to be returned to site, instructions will be given in the initial analysis process flow chart.
Audits or review	<i>s</i> • The results of any audits or reviews of sampling techniques and data.	Internal reviews of core handling, sample preparation and assay laboratories were conducted on a periodic basis by company personnel.
		It is the Competent Person opinion that the sample collection, sample preparation, security and analytical procedures are consistent with current industry standards and appropriate to support Resource Estimates.



Section 2 Reporting of Exploration Results

Exploration Results are not being reported

(Criteria listed in th	e preceding section also apply to this section.)							
Criteria	JORC Code explanation	Commentary						
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	rd parties such as jointThe company ofulties, native title interests, park and environmentalLicences and Ex associated infra For Table 1 to 3 (MDL) is the act have been lodged	the company owns all tenements and manages Mining Leases, Mineral Development cences and Exploration Permits for the purposes of coal mining, exploration and the associated infrastructure requirements in the Bowen Basin of Central Queensland. For Table 1 to 3 the Total area of a Mining Lease (ML) and Mineral Development Licence MDL) is the actual survey area of the full extents of the area. Tenure for which renewals ave been lodged are awaiting ministerial approval. All tenure are in good stead and here are no expected impediments to granting. Table 1 Tenements – South Walker Creek					
		Mining Lease No 4750	Kemmis Walker	Coal, Gaseous Hydrocarbons	31-Jul-2020 (Renewal lodged)	(Conditional) YES	11390.00	
		Mining Lease No 4751 Mining Lease No 70131	Bee Creek Tootoolah	Coal, Gaseous Hydrocarbons Infrastructure	31-Jul-2020 (Renewal Iodged) 31-Jul-2020 (Renewal Iodged)	YES YES	1711.00 3788.788	
		TOTAL (ha)			20.0 2077		16889.79	
		Mineral	Nebo West	Coal Development and	30-Sep-2025	YES	8057.14	

Development

TOTAL (ha)

Licence No. 235

the South Walker Creek operation.

Resource Retention

ML4751 is an undeveloped mining lease authority with minor surface area adjacent to

8057.14



Criteria JORC Code explanation Commentary Table 2 Tenements – Poitrel **Expiry Date** Renewable Name (Conditional (Ha) 31-Jul-2041 Mining Lease Winchest Coal, Gaseous Hydrocarbons YES 843.90 No 1791 er 31-Jul-2041 Mining Lease Poitrel Coal, Gaseous Hydrocarbons YES 3360.00 No 4749 31-Dec-2034 Mining Lease Millenniu Infrastructure YES 290.90 No 70312 m East TOTAL (ha) 4494.80 ML 1791 is an undeveloped mining lease adjacent the southern boundary of ML 4749. Table 3 Tenements – Wards Well Local Name Expiry Date (Condition ML1790 Coal, Gaseous Wards Well 31 July 2020 Yes 4,392 Hydrocarbons (Renewal lodged) Coal, Gaseous 31 July 2020 ML4752 Lancewood Yes 2,363 Hydrocarbons (Renewal lodged) Wards Well East Mining for coal and ML70443 31 May 2038 Yes 868 **Industrial Facilities** Wards Well South 30 May 2038 ML70495 Mining for coal Yes 490 East MDL(A) 3048 Wards Well Retention Application 2134.2 Infrastructure (Infrastructure)

TOTAL (ha)

10,247.2



Criteria	JORC Code explanation

	ML4752 are ork programm	e undeveloped es only).	mining le	ease a	uthorities	(developme
Table 4 Tenements – Exploration Permits for Coal						
Tenement	Local Name	Minesite/Project	Area (ha)	Sub- block s	Holder	Expiry Date
EPC 928	Wards Well Infrastructure	Wards Well	2544	8	ВМС	20-Apr-2026
EPC 1016	Wards Well Infrastructure West	Wards Well	318	1	ВМС	27-Feb-2024
EPC 1646	Poitrel West	Poitrel	318	1	ВМС	03-Nov-2023
EPC 1647	Kemmis Creek Extended	South Walker Creek	1272	4	ВМС	28-Oct-2025
EPC 2071	Mulgrave	South Walker Creek	1590	5	ВМС	12-Oct-2020
EPC 2109	Kemmis North	South Walker Creek	954	3	вмс	21-Mar-2023
TOTAL (ha)			6996.00	22		

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	Criteria	JORC Code explanation
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Commentary

2 Mineral Resource Legislation

The company's development and mining authorities are governed and administered under the *Mineral Resource Act 1989 (Qld)* ("MR Act"). Renewal of authorities are conditional on satisfying the Minister that all the authority grant conditions have been complied with during the current grant term in accordance with the MR Act and the prescribed grant conditions (if applicable). The company is currently meeting all grant conditions.

3 Native Title and Cultural Heritage

There are no Native Title issues relating to Surface Areas held by the company at South Walker Creek and Poitrel. A new Surface Area Application on Mining Lease where Native Title may exist, will necessitate process under the Native Title Act.

Cultural Heritage management is regulated by the **Aboriginal Cultural Heritage Act 2003** and both South Walker Creek and Poitrel mines have Cultural Heritage Management Plans (CHMP).

The undeveloped projects of Wards Well, Bee Creek and Nebo West will require CHMP to be negotiated with the relevant Traditional Owners as and when required.

4 Environmental

Mining activities require an Environmental Authority (EA) under the provisions of the **Environmental Protection Act 1994** (EP Act) Queensland and granted by the Department of Environment and Science (DES).

EA's cover mining activities on areas of Mining Leases for which Surface Area rights are granted. EA conditions are set out to minimise environmental harm and can be altered by application.



Criteria	JORC Code explanation	Commentary							
		The EP Act requires propose periodically updated in a Pla to ensure EA conditions are Future Surface Area Applica to the EA and the EA of Waa addressed as and when req	an of Opera met and a tions at Sc ds Well, cu	ations, v mount outh Wa	which d of Finai Iker an	lescribe ncial As d Poitre	es the m surance el will re	neasures e require equire ar	undertake d. nendment
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Approximately 30% of all drilling on all tenements was undertaken by Thiess-Damp Mitsui Coal Pty Ltd in the 1960's-1970, lead to the initial granting of mining leases a Poitrel, South Walker Creek, Bee Creek and Wards Well. The remaining 70% of drillholes were logged by the Company. Although Drill company records are incomp in the Company's Database a review of drillhole historical statistics is tabulated in T 5 Below. Table 5 Historical drilling by decade					leases at 6 of incomple		
		Deposit	Pre 1960	197 0 to 198 0	198 0 to 199 0	199 0 to 200 0	200 0 to 201 0	2010 to 2020	Post 2020
		South Walker Creek		20%		9%	47%	20%	4%
		Poitrel Wards Well	2%	32% 25%	5%	7% 36%	15% 12%	34% 26%	3%
		Bee Creek		77%		50%	23%	20%	
		Nebo West		25%	35%	39%			
		Total	2%	25%	7%	14%	27%	22%	3%
		As can be seen from the tak drilling pre-dates the 1990 of commenced.	when routi	ne dow	nhole g	geophys	ical log	ging of h	oles
		Deposits geological modelli	ng incorpo	rated d	ata fror	n the p	ublic Ql	DEX syste	em,



Criteria	JORC Code explanation	Commentary
		including coal exploration and coal seam gas drilling, 2D seismic and airborne magnetics.
Geology	Deposit type, geological setting and style of mineralisation.	1 Regional Geology The deposits are located in the northern most part of the Permo-Triassic Bowen Basin containing principally fluvial and some marine sediments. The Bowen Basin is part of a connected group of Permo-Triassic basins in Eastern Australia, including Sydney and Gunnedah Basins, which have an axis orientation NNW-SSE roughly parallel to the Palaeozoic continental margin. Tectonically, the Bowen Basin can be divided into NNW-SSE trending platforms or shelves separated by sedimentary troughs. Units from west to east are the Springsure Shelf, Denison Trough, Collinsville Shelf / Comet Platform, Taroom Trough, Connors and Auburn Arches (interrupted by the Gogango Overfolded Zone) and Marlborough Trough (Figure 1). Basin development in the Early Permian was in the form of half grabens, which subsequently became areas of regional crustal sag. Variations in depositional patterns and deformation styles occur along strike, suggesting the possibility of NE trending deep-seated crustal transfer faults referred to as a transfer corridor by Hammond (1987).



Criteria	JORC Code explanation

	APUTED CE Image: Display and part sectors with a sector
-	I seams within the Rangal Coal Measures, leasures, and Bee Creek and Nebo West target spectively. Figure 2 and Figure 3 show northern
	n Stratigraphy (Bowen Basin Supermodel, 2000)



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Criteria	JORC Code explanation	Commentary
		JORTH SOUTH JORTH SOUTH REWAN OF PREMAN-TELESCE BOUNDAT REWAN OF PREMAN-TELESCE BOUNDAT BURNGROVE FM BLACK ALLEY SHALE PT COOPER FAIRBILL FM MORANBAH MACMELLIN FM MORANBAH MACMELLIN FM PEALEAN-TELESCE BOUNDAT



CANOZOIC QUATERNARY ALLUVUM CONTRACTOR Clips, servic, growth and basel. TRIASSIC REWAN REWA

'P' Tuff

MORANBAH COAL MEASURE

GERMAN CREEK

BACK CREEK GROUP PSFAMS

20m Labile sandstone, sillston mudstore and coal GOONYELLA MIDDLE SEAM

Figure 3 Generalised Stratigraphy of the Bowen Basin

2 Rangal Coal Measures

Rangal Coal Measures comprise light grey, cross-bedded, fine to medium-grained labile sandstones, grey siltstones, mudstones and coal seams. Cemented sections are common in the sandstones. The transition (upwards) from the Rangal Coal Measures to Rewan Formation is generally difficult to define and is often based on the change from green-grey colour of Rewan sandstones to blue-grey colour of Rangal sandstones. Transition between the formations is 15 to 60 metres above the Leichardt seam, the first major Rangal Coal Measures seam. The Leichardt (or Elphinstone) seam is the main economic coal seam mined at Poitrel and South Walker Creek, and at South Walker Creek the Leichardt seam is split into different mining horizons.

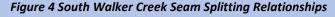


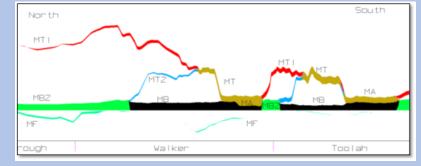
Criteria JORC Code explanation

Commentary

2.1 South Walker Creek

The South Walker deposit is situated within the Nebo Synclinorium on the eastern flank of the Carborough Syncline (Figure 1). Permian coal measures dip westerly at five to ten degrees, with dips steepening in the north in the Kemmis deposit. Locally the principal economic seam is the Main Seam, which splits to the north and south into Main Tops and Main Bottoms (Figure 4). The Main Seam is believed to be equivalent with the Elphinstone Seam (Leichardt) and upper part of the Hynds Seam, and extends over two kilometres in strike length in the south, comprising 10.5 to 14m of mainly dull to dull banded coal with minor mudstone partings. The Hynds Seam in South Walker has deteriorated to a sub-economic banded seam and displays seam splitting relationships present at South Walker Creek.





The Hynds Seam consists of three components: two coal seams (Upper & Lower); and the Yarrabee Tuff, and is equivalent to the Vermont seam, mined at the Poitrel Deposit. The Hynds Seam lies between 15 and 60 metres below the main seams, at an average of 32 metres, and varies in thickness across the deposit and tends to be heavily stone banded.



	Criteria	JORC Code explanation
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The Hynds Upper (HT) split is generally thin (one to two metres) and contains few stone bands. Underlying Yarrabee Tuff is commonly altered to clay and tends to be soft and puggy in nature with an average thickness of 0.5 metres and is problematic for coal washing if mined. Hynds Lower Seam (HB) tends to be substantially thicker (two to nine metres) than the upper seam, but contains multiple stone bands. The Hynds seam is only occasionally intersected, not because it is not present, but due to a lack of drill holes of sufficient depth.

Data indicates the Hynds Seam is uneconomic at South Walker but it is economic in parts of Kemmis. More data is required to make a final assessment on Hynds Seam economics.

2.2 Poitrel

The main economic target at Poitrel is the Leichardt Seam, which is typically five metres thick with a bright basal 0.5 metre section which splits off the seam floor in the north to form the Lower Leichhardt Split (L4 Ply). The Leichhardt Seam is divided into 6 plies:

- Ply 1: upper 0.2m is typically dull, very high ash coal;
- Ply 2: next 0.6m is low ash with a moderate Crucible Swell Number (CSN);
- Ply 3: next 1.0m is also low ash but has poor CSN. Base of Ply 3 is marked by a stone band, which is not always present across the deposit;
- Below the stone band are Plies 4 and 5 which have moderate CSN's of 2.5-3.0 and are 1.15 and 1.50 metres thick, respectively; and
- Ply 6 is the Leichhardt 4 seam (formerly the LB Seam) where it coalesces with the Leichhardt Seam. It has a moderate ash but good CSN of 6. Top of Ply 6 is identified by two thin stone bands over most of the deposit (remnants of the L3-L4 parting).

For economic assessment (modelling), Leichhardt Seam is broken into three sections L12, L3 and L4, with a reasonably persistent stone band marking base of L12. Studies indicate duller L12 is more suited to producing PCI / Thermal product than Coking. Brighter L3 is more suited to producing a Coking and PCI product. Previous exploration drilling near



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a JC	ORC Code explanation	Commentary
		the western boundary of the Mining Lease revealed Leichardt Seam splitting. L3 ply split into L31, L32, L33 and subsequent L312, L323 (Figure 5). Figure 5 Leichardt Seam Splitting Relationships North L12 L31 L32 L32 L32 L32 L32 L32 L32 L32
		In parts of the deposit, L4 splits off Leichhardt Seam floor in the north. It is typically 0.4 metres thick, characteristically bright, with raw ash averaging 14.6%. Leichhardt full seam raw ash is typically 17% air dried basis (adb). The Vermont sequence (Figure 6) is made up of the Vermont upper and lower seam sequence (V1, YT, V2, V3, VL and VLL).
		Figure 6 Vermont Seam Splitting Relationships



Criteria JORC Code explanation Commentary V1 V2 V23 V3 Yarrabee Tuff VL VLL The Vermont Upper 1 (V1) Seam is typically 1.6 metres thick, and like L4 is a bright seam with coking potential, with raw ash is typically 15%. Midburden between L14 and V1 varies in thickness from 15 to 20 metres, and averages 18.9 metres. The transition between Rangal Coal Measures and Fort Cooper Coal Measures is generally clearly marked by the Yarrabee Tuff, a basin-wide marker bed comprised of weak, brown tuffaceous claystone. At South Walker Creek the Yarrabee Tuff band divides Hynds Seam (HY-HB), and at Poitrel divides the Vermont Seam (V23 - VL). **3 Moranbah Coal Measures** 3.1Wards Well At Wards Well, the coal seams are contained within the Fort Cooper Coal Measures (FCCM) and Moranbah Coal Measures (MCM) of the Upper Permian Blackwater Group, a regressive sequence of non-marine sediments. The MCM typically contain some eight or so coal seams (Figure 7). Deep erosion has removed the FCCM across much of the western edge of the lease leaving a high relief Permian landform, later covered by Tertiary basalts and sediments.



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Criteria	JORC Code explanation	Commentary
		Figure 7 Stratigraphic Column of Moranbah Coal Measures at Wards Well Image: Stratigraphic Stratigraphicex Stratigraphic Stratigraphic Stratigraphi



Criteria	JORC Code explanation
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GU0 Seam ranges in thickness from 3.2 to 5.4 metres, thickening towards the northeast, and is located between 105 and 125 metres stratigraphically above GM0 Seam and dips at approximately 8 degrees to the east. GU0 cover thickness is 80 metres at sub crop and up to 490 metres at eastern Mining Lease boundary. GU0 broken into three distinct plies:

- Ply 1: usually up to 0.8 metres thick, heavily stone-banded dull coal, with its base determined by several thin mudstone bands;
- Ply 2: approximately 1 metre thick, comprised of dull-banded coal and several thin stone bands; and
- Ply 3: is 1.9 to 2.2 metres thick, low ash, banded-bright coal, with top of Ply 3 the base of a persistent stone band.

The GM0 Seam ranges in thickness from 4.5 to 8.5 metres, thickening towards the northeast, and is located 50 to 72 metres stratigraphically above GL8 Seam. GM0 cover thickness is 130 metres at sub crop in Wards Well Mining Lease and approximately 50 metres in Lancewood Mining Lease, and up to 610 metres at eastern Mining Lease boundaries. GM0 Seam is divided into 4 plies, based on increasing coal brightness and decreasing ash from top to bottom:

- Ply 1: is 0.5 to 1.5 metres thick comprising dull heavily stone-banded coal, which is distinctive from the remainder of the seam on density and natural gamma logs. A cream coloured Tonstein band five centimetres in thickness is present, and Ply 1 to Ply 2 boundary is a 3 centimetre thick persistent mudstone band;
- Ply 2: comprises up to two metres if dull-banded coal, is virtually free of stone bands and terminates at either a non-persistent thin mudstone band or where absent at a brightness change;
- Ply 3: is approximately 3 metres thick in the north, thinning to 1.5 metres thick in the south, and consists of bright-banded coal with several minor stone bands toward the base. Ply 3 to Ply 4 boundary is defined at a persistent 5 to 10 centimetre thick mudstone band; and



Criteria	JORC Code explanation
5	
Drill hole Information	 A summary of all information material to the understanding of a exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar

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Ply 4: is 1.4 metres thick in the south, thickening to 2.5 metres in the nor	th, and
comprises bright coal with several stone bands. Seam floor is sometimes in	distinct
due to a number of thin splits developing, which are generally sampled sep	parately
to Ply 4. Siderite bands are often encountered within this Ply.	
The GL8 Seam is the basal unit of the MCM, ranging in thickness in the west fr	om 5.5
metres to 7.5 metres in the east. GL8 Seam splits in the southeast with upp	er split
identified as GL9 and lower as GL7. GL8 cover thickness is less than 100 metres	at sub
crop in the Lancewood Mining Lease to 160 metres at sub crop in the Wards Well	Mining
Lease, and up to 690 metres at the lease boundary. GL8 Seam is divided into 4 pl	lies:

- Ply 1 and Ply 2: are 0.7 to 2.1 metres and 0.6 to 1.9m thick, respectively, consisting of mostly dull coal and a high percentage of stone bands, with a thick persistent stone band separating the plies from lower plies. Ply 1 and Ply 2 split off the lower plies in the southeast to form GL9 Seam;
- Ply 3: is normally 0.6 to 1.8 metres thick, however the upper portion deteriorates beyond the split line to carbonaceous mudstone with the thickness reducing to 0.3 metres. Stone bands present are highly variable and difficult to correlate;
- Ply 4: is approximately 1.8 to 3 metres thick comprising 90% bright coal, with only two persistent thin stone bands persistent, although lenticular siderite bands commonly occur. Ply 3 and 4 form GL7 Seam southeast of the split line.

The P-Tuff, a major regional stratigraphic marker, is present midway in the MCM sequence extending over a strike length of 250 kilometres in the Bowen Basin and is up to 5 metres thick, but is typically 1.5 metres thick at Wards Well. Distribution of P-Tuff reflects the geometry of the underlying depositional surface, and usually exhibits a characteristic high natural gamma response due to the presence of abundant bronze biotite grains.

As no Exploration Results are reported and the maturity of understanding of the deposit is high summary drillhole information is not considered material this information is not presented as:



	Criteria	JORC Code explanation
		 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.
DSD		
	Data aggregation methods	 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

, ception depth		0	ssifiec er 15,
tion is justified on the basis that the I this exclusion does not detract from t, the Competent Person should		Deposit	No
nse		South Walker	

0	All areas of interested	are covered by detailed	geological modelling
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- Resource confidence is high with approximately 74% of the Resource 0 d as Measured or Indicated.
- ,000 drillholes have been drilled across the deposits

Deposit	Non-cored Hole	Core Hole	Other ⁽¹⁾	Total
South Walker Creek	3,686	2,799	40	6,525
Poitrel	5,152	381	9	5,542
Wards Well	358	299	10	667
Bee Creek	125	54	0	179
Nebo West	2,015	199	0	2,214
Total	11,336	3,732	59	15,127

Drilling is also supported by downhole geophysics, Seismic and other 0 remote geophysical surveys, and in-pit surveys and mapping at the operating mines.

weighting averaging techniques, As Exploration Results are not reported Data aggregation is not done and no borehole intercepts are included.

> Coal Quality samples are either modelled as plies or composited to seam using appropriate sample weightings depending on the quality being composited.



Criteria	JORC Code expla
	results and lo for such aggr such aggrego The assumpt should be cle
Relationship between mineralisation widths and intercept lengths	 These relatio Exploration F If the geome angle is know If it is not know should be a c true width not
Diagrams	• Appropriate intercepts sh reported The drill hole coll
Balanced reporting	Where comp practicable, I and/or width Exploration F
Other substantive exploration data	Other explored inclusion of the second
Further work	The nature a extensions of

teria	JORC Code explanation	Commentary
	 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. 	
lationship tween neralisation dths and ercept ngths	 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 (eg 'down hole length, true width not known'). 	Majority of boreholes are vertical, aligned to the general flat dip of the stratigraphy including the coal seams. Downhole geophysics including verticality have been run since the early to mid 1990's. Verticality is used to analyse deviation of the drillholes in the modelling software to provide accurate horizontal and vertical location of lithological contacts.
agrams	 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. 	Exploration Results are not reported so no diagrams are presented
lanced porting	• 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.	Exploration Results are not reported
her ostantive oloration ta	• 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.	No other relevant exploration data at this stage.
rther work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Poitrel: Some drilling has been completed in the Winchester area, which is a possible southern extension of Poitrel. Further drilling will be required to further investigate the



Criteria	JORC Code explanation
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

structure of the area. Further drilling will also be required to bring much of the area
into Indicated Status and all the area into Measured Status. Further drilling in the
Poitrel lease will be required to further define the extents of fault structures and to
further investigate coal quality; specifically seam ash content.

South Walker Creek: Structural and coal quality infill drilling is planned and aligned with the 5 year plan and mine schedule and is based on geological risk and uncertainty in the plan.

Nebo West: Future work is planned to increase geological confidence in both structure and quality and upgrade Resource to Measured/Indicated in line with tenement requirements.

Bee Creek: Future work is required to increase geological confidence in both structure and quality and upgrade Resource to Measured/Indicated in line with the Life of Asset plan and mining requirements.

Wards Well: Future exploration drilling and 3D seismic is required and will be planned in line with the project development strategy.



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
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. 	During the modelling process the seam intervals and quality data is checked for anomalies and outliers by graphical (plan view and section views, contouring, etc.) and statistical means. If, after checking, the data is deemed unreliable it is excluded from the model. Data validation is covered in section 1 - <i>Verification of sampling and assaying</i>
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. 	Poitrel – Site visits have been made prior to the last fiscal year by the Competent Person to collaborate with stakeholders at the mine site. Additionally, site visits have been undertaken to understand geological structure, specifically fault structures; and to gain a better understanding of coal quality. No visits were undertaken in the last fiscal year because of COVID-19 restrictions.
		South Walker Creek – Site visits have been made by the Competent Person in the last fiscal year to understand geology (structure and coal quality) with the progression of mining and identify opportunities for improvement. Regular feedback session and collaboration meeting with mine Geologists, Geotechnical engineers, Planning Geologists and Mining Engineers have been completed to understand geology deviations, impacts and resolutions through risk assessments and required adjustment and improvement plan. Bee Creek, Nebo West and Wards Well – These areas are currently inactive and no recent site visits have been conducted.
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. 	There is a high degree of confidence in the geological interpretation for the coal deposits. The interpretations were completed using multiple data sets, drillholes, seismic (2D/3D)- where available, downhole and surface geophysical data sets, mine geology data involving high wall picks, top and floor of coal, measure while drill data, infill blast hole data etc. These data sets are cumulatively fed into the geological model process from life of asset



Criteria	JORC Code explanation
	• The use of geology in guiding and estimation.
	• The factors affecting continuity be
Dimensions	The extent and warishility of the
Dimensions	• The extent and variability of the (along strike or otherwise), plan upper and lower limits of the Min

ology in guiding and controlling Mineral Resource ffecting continuity both of grade and geology.	to short term and are continuously reconciled and updated as added information becomes available. Each data streams have robust QA/QC process and have confidence attributed supporting the interpretation spatially.
	Uncertainty of key parameters are mapped in SMU scale (selective mining unit) using conditional simulations to understand different geological domains for a given seam/parameter. The goal is to de-risk the production plan by optimizing infill data collection and improve stability in short term planning through increased understanding of confidences locally.
	Multiple factors affect the structure and grade of the coal deposits which are not limited to post and syn-tectonic events leading to regional and local extensional and compressional structures and discontinuities, along with its effect on depositional environment and diagenesis of coal. These factors cumulative or in isolation result in different seam/parameters trends like high and low ash pockets, varying phosphorous concentrations, calcite mineralization along faults etc. These features are proactively recorded and mapped to understand local geological domains and its effect on mine production and are also Geo-statistically correlated.
and variability of the Mineral Resource expressed as length or otherwise), plan width, and depth below surface to the ower limits of the Mineral Resource.	Poitrel: The main economic seams are L13, L4 and V1. These seams are consistent throughout the Poitrel lease but the L4 seam splits into L4U and L4L in central areas and the L3 component of the L13 splits into 3 plies in the far west of the lease. The L13 seam exists from 2-150m depth and is between 20-60m depth in general. The V1 seam exists from 15-195m and is between 50-90m depth in general. The deposit extends along strike for approximately 9.5km and has a maximum width of approximately 4km.
	South Walker Creek: The main economic seam is the Main Seam (Vermont Seam) and ranges in thickness up to 14m. The deposit has a strike length of approximately 35km and extends down dip approximately 3km. Seams subcrop at approximately 20m depth and reaches a maximum depth of approximately 150m in the southwest of the tenement area.



Criteria	JORC Code explanation
Estimation and modelling techniques	• The nature and appropriateness of the estimation to and key assumptions, including treatment of extrem domaining, interpolation parameters and maximum extrapolation from data points. If a computer assist was chosen include a description of computer softw used.
	• The availability of check estimates, previous estima production records and whether the Mineral Resourt appropriate account of such data.
	• The assumptions made regarding recovery of by-pro
	• Estimation of deleterious elements or other non-gro economic significance (eg sulphur for acid mine dra characterisation).
	 In the case of block model interpolation, the block s average sample spacing and the search employed.

	the horthyhorthwest.
	Nebo West: The main economic seams are in the Moranbah Coal measures (T40, T50, T60, T62, T80, T90) and occur as tight north to north west trending isoclinal folds. Total strike length is approximately 20km and extends down dip approximately 6km. the economic zone lies between subcrop of approximately 20m and 150m depth.
	Wards Well: The main economic seams are the Goonyella upper, Middle, and Lower seams and extend for approximately 20km along strike and extends down dip approximately 5 km. The area is overlain by 50 to 130m of Tertiary cover and dips to the east reaching a maximum depth to the Goonyella Lower seam of approximately 670m at the eastern tenement boundary.
d appropriateness of the estimation technique(s) applied ptions, including treatment of extreme grade values, erpolation parameters and maximum distance of from data points. If a computer assisted estimation method clude a description of computer software and parameters	Resource estimations are completed by nominated Competent Persons. Modelling is completed using Vulcan [™] geological modelling software package to create grid models using a series of modelling scripts (C shell scripts termed csh scripts). These scripts have subtle differences for each deposit with detailed descriptions stored for each deposit. The scripts are complex however they are justified for the following reasons:
	, , ,

Commentary

the north/northwest.

- of check estimates, previous estimates and/or mine rds and whether the Mineral Resource estimate takes ount of such data.
- s made regarding recovery of by-products.
- leterious elements or other non-grade variables of cance (eg sulphur for acid mine drainage
- ock model interpolation, the block size in relation to the spacing and the search employed.

Scripts provide a clear audit trail of the modelling process. The • scripting is modularised to allow focus on particular areas without having to re-run the entire process each time a change is required i.e. finessing fault modelling.

Bee Creek: the main economic seams are the Elphinstone and Hynds seams and extend approximately 8km along strike and approximately 2km down dip. The Seams subcrop at approximately 10m and approximately 160m to

Scripts deal with some complex splitting and some 'non-ideal' data

A number of different grid models are produced when creating resource estimations and typically have grid cell sizes between 20m x 20m and 100m x 100m. These include:

Structural Model – topography, horizons, seams, plies, work ٠



Criteria	JORC Code explanation	Commentary
	 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. 	 sections Coal Quality Model – Coal seam quality parameters Coal Washability Model – Preparation plant simulation are typically run using the LIMN Excel add-in to determine practical yield estimates which are then input into Vulcan and gridded. The general overview of the procedure followed for structural modelling is as follows: Create topography grid(s) Generate 'Base of Weathering', 'Base of Tertiary' mapfiles and grids Generate structure mapfiles for all daughter seams Define seam-splitting relationships Create / update seam mask limits (also for intrusions) Run FixDHD to generate 'fixed' mapfiles Analyse mapfiles statistics and investigate/correct anomalies Generate reference surface grids incorporating fault and survey information Validate reference surface grids Generate parent seam models Validate Structure Grids Quality models are generated in Vulcan modelling software using the Inverse Distance (ID) algorithm with a low power (typically 1 to 2). ID is the current coal industry standard method for grid-based quality modelling. Quality parameters of coal in the Bowen Basin generally show low spatial variability (strong spatial continuity) and so the method of estimation, be it inverse



Criteria	JORC Code explanation	Commentary
		distance or ordinary kriging produce very similar estimation results. This has been tested.
		Exploratory data analysis, scatter plots, histograms and descriptive statistics are used to understand the spatial variability of coal quality parameters, domaining and outlier values.
		Models of the rank related parameters (VM and Ro Max) are trended (Order 1) as their values are related to increases with increasing depth. It is suggested that Log Fluidity values be viewed as indicative only as values decrease with increasing sample oxidisation.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Resource are stated on an in situ basis. In situ moisture (Mis) is estimated from moisture holding capacity (MHC) models using formula 5.2 proposed in ACARP study C10041.
		• Mis = 1.1431 MHC + 0.348
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	Open Cut Resource Constraints
		Constraints applied are:
		• Minimum seam thickness of 0.5 metres, or thinner as determined by economic assessment;
		• Up dip limit is the mined out area, or if un-mined the full fresh lox line or a nominal fresh coal thickness line is used;
		Only calculated for coals having bore core yields of 50% or greater
		Maximum depth limit of 150 metres for Nebo West
		The following are the only exceptions to the standard constraints
		• Hynds seam in SWC for Floats 1.40, have lowered cut-offs used in yield.
		 The highly folded nature of the Nebo West deposit requires more stringent constraints to be applied compared to the other more flat lying deposits, in order to ensure that the reasonable prospects for



 JORC Code explanation	Comment	ary					
	e	ventual eco	onomic ext	raction exi	st.		
	Undergrou	und Resour	ce Constra	ints			
	Constraint	s applied a	re:				
		D seismic s naracterisa			-	id resource f	or
					am thicknes assessment	s of 2.0 meti ;	es unles
					is full seam LTCC) mininរូ	thickness as g methods;	suming
	• N	laximum se	eam dip of	10 degrees	5;		
	Table. Res	ource cons	traints per	deposit			
	Mine	Resource limit (Open Cut)	Resource limit (UG) If applicable	Cut-off parameter s	Mining factors	Mining factors	Metallurgi Factors
					OC	UG	
	South Walker Creek	O/C Economic Limit	Economic Limit , LOA Study	Min Seam Thickness 0.5m O/C, 2.0m U/G	Maximum parting thickness 0.5m 100m Lease boundary	Maximum parting thickness 0.5m 100m Lease boundary	Raw ash 35%, Yiel 50%
	Poitrel	LoA Study	-	Min Seam Thickness 0.3m	buffer Maximum parting thickness 0.5m	buffer -	Raw ash 35%, Yielo 50%
	Wards Well	-	Opportuni ty	Min Seam Thickness 2.0 m	-	Maximum parting	Yield 50



Criteria	JORC Code explanation
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.

		Assessmen ts			thickness 0.5m	
Bee Creek	Opportuni ty Assessmen ts, Depth Cut-off 100 m below Surface	-	Min Seam Thickness 0.5m	Maximum parting thickness 0.5m	-	Raw ash 35%, Yield 50%
Nebo West	Opportuni ty Assessmen ts, Depth Cut-off 150m below Surface	-	Min Seam Thickness 0.5m	-	Maximum parting thickness 0.5m	Yield 50%

Other Resource Constraints

Commentary

A 10 metre (approximate) exclusion zone applied around dykes indicated by magnetic surveys, and delineated sill areas are excluded.

Open Cut Resource Constraints

Limit of open cut resources is a site-specific economic strip ratio cut-off and is generated with input from the Coal Reserve Competent Persons. Constraints applied in open cut resource determination are:

- Minimum distance from external Mining Lease boundaries is calculated by leaving a 100 metres offset at ground level, projecting down at 45 degrees to the basal economic seam;
- Inclusion of narrow corridors and permanent bridges down dip of the current face as they could be mined by extending adjacent strips.



Criteria	JORC Code explanation
Metallurgical factors or assumptions	 The basis for assump amenability. It is alw reasonable prospect potential metallurgi metallurgical treatm Mineral Resources n

JORC Code explanation	Commentary
	For operating mines and projects in execution open cut reserve limits and open cut economic limits for each seam are provided by planning engineers. For other deposits where this data is not available, open cut economic limit is determined based on criteria supplied by planning engineers, which is usually a pre-defined cumulative coal thickness to overburden thickness ratio (strip ratio).
	Underground Resource Constraints
	Standard constraints applied are:
	 Minimum mining depth of 60 metres, with a minimum 20 metres below the Base of Weathering surface;
	 Minimum distance to external Mining Lease boundaries is a 20m buffer and where a longwall operation is defined, a 26.5 degree angle of draw is used from the Mining Lease boundary down to the lowermost economic seam roof. Modification of lease boundary limits for individual site requirements such as areas of potential water in-rush etc.
	No allowance to account for subsidence;
	 Impractical blocks of coal, for example, between the open cut limit and the Mining Lease boundary are excluded;
	 Pillars viewed as resources unless nil prospect of economic extraction due to mining and geotechnical constraints; and
	 Consideration of inter-burden thickness to ensure extraction of multiple seams is conceptually feasible.
• 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	South Walker Creek and Poitrel have well established processes for resource compliance hole testing and analysis regimes in line with the CHPP design configuration. In both the mines, the washability ash and yield data are simulated using LIMN ™to generate multiple scenarios for product coal quality to optimise mine planning and marketing decisions.

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Criteria	JORC Code explanation	Commentary
	should be reported with an explanation of the basis of the metallurgical assumptions made.	Product quality for Wards Well, Bee Creek and Nebo West are aligned with the company's Coal's operational and are based on washed coal analysis of coal quality parameters.
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.	The environmental factors in relation to active mining areas are all considered in the Reserves section of this report.It is currently expected that Nebo West and Bee Creek will be processed and managed through the existing South Walker Creek mine.For Wards Well it is expected that environmental factors and assumptions will be similar to other operations in the area.
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. 	Modelled Relative Density (RD (ad)) values are those from laboratory testing on an air-dried basis or values calculated from a site specific raw ash / RD regression. The Preston and Sanders formula is then used to estimate in situ relative density from inherent moisture (M(ad)) and in-situ moisture (M(is)) as follows: $RD(is) = (RD(ad) \times (100 - M(ad)) / (100 + RD(ad) \times (M(is) - M(ad)) - M(is))$ $RD_{(is)} = \frac{RD_{(ad)} \times (100 - M_{(ad)})}{100 + RD_{(ad)} \times (M_{(is)} - M_{(ad)}) - M_{(is)}}$ The calculated in-situ density is then used to calculate in-situ coal tonnes.



ria JORC Code explanation	Commentary
 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Create Resource polygons: a. Generate Points of Observation; and



	Criteria	JORC Code explanation
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ľsonal		

Interpretive data, such as seismic surveys, also provide evidence of continuity. Where the coal requires, or is likely to require washing, the analyses should include washed yield data. The recent update to the coal guidelines has subdivided points of observation further: "Points of Observation may be classed by Quantity or Coal Quality. Each class should be clearly tabulated and presented in plans on a seam by seam basis". The Points of observation plans and tables are to be included in appendix 5.

1.1 JORC Category Polygons

The classification of coal resources into Measured, Indicated or Inferred confidence categories is based on the distance from valid points of observation and was based on a geostatistical analysis of the coal quality.

The initial JORC classification polygons created based on the points of observation are reviewed by the Competent Person and modified (downgraded), where appropriate, to consider other potential sources of geological uncertainty, e.g. structure, intrusions and seam splits.

1.2 Confidence Classification Using Geostatistics

Coal resource classification is a multivariate analytical problem and the resource classifications assigned by the competent person need to encompass their confidence in a range of factors that affect the confidence in the resource. The drill-hole spacing analysis (DHSA) technique provides quantitative measures of the precision with which quality and volume variables can be estimated.

Geostatistical DHSA as a basis for resource classification has been employed across the company's mines and projects since 2004. Coal Seams and their quality variables have different continuity and variability across the deposit. DHSA helps in understanding the variations in estimation precision (uncertainty) across the deposit for different seam/variable/domain configurations. An example of the DHSA output is provided in Figure 1.

The different stages to arrive at DHSA involve the following broad steps:



 Commentary
Geological Data Processing
Domaining and Exploratory Data Analysis (EDA)
• ·Variography
• ·Drill-hole spacing analysis
single block/cell size. Global estimation precision values are calculated a average annual uncovered area of coal, which remains relatively static year to year. Figure 1 shows an example cross-plot output from DHSA of global estimat precision against borehole spacing.
Poitrel L3 TK over a nominal 1, 2, 5 & 10 year period (Yearly Mining Area of 450000 sq.m)
(Yearly Mining Area of 450000 sq.m)
(Yearly Mining Area of 450000 sq.m)
(Yearly Mining Area of 450000 sq.m)
(Yearly Mining Area of 450000 sq.m)
(Yearly Mining Area of 450000 sq.m)
(Yearly Mining Area of 450000 sq.m)
(Yearly Mining Area of 450000 sq.m)
(Yearly Mining Area of 450000 sq.m)



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	Criteria	JORC Code explanation
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Poitrel, South Walker Creek and Wards Well, have DHSA results tabulated and stored in a reference report. The intention is for this summary document to be a 'live' document which is updated as new results become available. This will enable it to be used as a reference for classification and reporting decisions.

2 Confidence Classification when Geostatistical Analysis not Available

In the absence of a geostatistical analysis, the classification of coal resources into Measured, Indicated or Inferred is conservative and based on criteria appropriate for the size/type of strata bound coal deposit present. The points of observation spacing's shall be reduced where there is more deposit variability, to an appropriate spacing dependent on the subjective judgement of the Competent Person. Note that support data is important in confirming coal seam continuity. Support data includes chip drill holes with down-hole logs, geophysical surveys, field mapping detailed geological reports etc.

A risk assessment is undertaken and the Competent Person is to be satisfied that any resource estimates are reported to realistic confidence levels (downgraded where appropriate).

The current Drill holes Spacings used for resource estimation are:

Deposit	Seam	Measured	Indicated	Inferred
Poitrel	L12	550	1050	2200
	L3	550	1050	2200
	L4	300	600	1500
	V1	450	800	1500
	MB2	800	1500	2900
	MB	500	1000	1900



Criteria	JORC Code explanation
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.

Commentary				
South Walker	MT1	500	1000	2200
Creek	MT2	400	650	1450
	MT	600	1100	2200
	HB	250	550	1300
Wards Well	GU0	-	1550	3250
	GM0	-	1550	3250
	GL7	-	1550	3250
	GL9	-	1550	3250
Nebo West	Т50	-	-	650
Bee Creek	EL	250	500	1150

The results of the classification appropriately reflect the respective Competent Persons view of the deposits reported.

Geological Model status

The geological models used for Resource estimation are the same models that are used for Reserve estimation. Table 3.2 shows the Resource Models used for Resource Estimation.

Resource estimates for the reported deposits are reviewed annually via the company's Risk Review assurance process. The review endorsed the estimates, as being completed in accordance with the JORC Code guidelines and suitable for public reporting.



	Criteria	JORC Code explanation
Aluo BSD	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 Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resource and Coal Reserves is used to guide its Competent Persons in the resource estimation process. Company practice for coal resource classification is to derive global estimation precision of the estimates for the variable thickness and raw ash over a five (5) year period and to apply the following Resource categories for classification:

- Measured is up to +/- 10 % error @ 95% confidence; •
- Indicated is from +/- 10% to +/- 20% error @ 95% confidence; and ٠
- Inferred is from +/- 20% to +/- 50% error @ 95% confidence. •

Details as to the quality/quantity of Coal for the deposits relate to global estimates. Tonnages and quality variability is investigated on the active operations via short term exploration activities.

Reconciliation of mine production data is completed at operating mines South Walker Creek and Poitrel, and confirms global accuracy of the resource estimates

No production data is available for Bee Creek, Nebo West and Wards Well

Downhole geophysical logging commence in the early 1990's and is an important contributor to confidence, and in particular volume. Both Nebo West and Bee Creek were predominantly drilled prior to this period. Table 3.3 outlines the percentage of geophysically logged hole for each deposit.

Table 3.3 Resource Model used in the LoM and Reserves Estimation Method

Mine/Deposit	Percent geophysically logged
South Walker Creek	73%
Poitrel	58%
Nebo West	44%
Bee Creek	5%
Wards Well	67%



	Criteria	JORC Code explanation
ELSON A		

For South Walker Creek and Poitrel the percentage geophysically logged hole used in modelling as a significant number of the unlogged holes are in mined out areas. For Nebo West, Bee creek, and Wards Well the percentages are reasonably representative. It is the opinion of the Competent Persons that the data used in generating the models, either geophysically logged or not, have been rigorously validated and unreliable holes have been excluded. It is also the opinion of the CP's that the classification of the Resource reflect the support data.

Commentary



Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, 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. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	Coal Reserves are estimated using the same Vulcan grid models that are used to estimate the Coal Resources. This ensures that the confidence in both the Resource and Reserve are at the same or equivalent level. Mineral Resources are stated inclusive of the Coal Reserve.
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. 	Poitrel and South Walker Creek. No visit has been undertaken during the last Fiscal year due the current COVID-19 restrictions.
Study status	 The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. 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. 	Poitrel and South Walker Creek are current in operation, only Measured and Indicated resources are converted into Proven and Probable reserves. The mine plan that supports Coal Reserves is technically achievable and economic viable with consideration of material Modifying Factors.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	The mining cut-off thickness is the minimum coal thickness included in the reserves. Anything less than minimum thickness will be wasted. Waste parting cut-off thickness is the maximum thickness that will be included in the aggregated coal reserves. Partings thicker than the cut-off will be included in the waste volume. Table 4.1 shows these parameters for South Walker Creek and Poitrel.



Criteria	JORC Code explanation	Commentary			
		Table 4.1 Mining Cut-Off Parameters			
		Mine	Coal Type	Minimum Cut-off Thickness (m)	Waste Parting Cut- off thickness (m)
		South Walker Creek(1)	Open Cut	0.3	0.3
		Poitrel	Open Cut	0.3	0.3
		(1) Limited aggregation geological model is sure applied is a minimum	pplied on a full	l seam basis. The m	ain parameter
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). 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 assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. 	 General activities undertaken in the mining process at both Creek and Poitrel Mines include: Land clearing and topsoil removal. Overburden / inter burden drilling and blasting. Excavator and truck stripping. Dozer stripping. Excavator and truck parting removal and post strip 			
	Any minimum mining widths used.	Reclamation		3,	
	• The manner in which Inferred Mineral Resources are utilised in mining				



Criteria	JORC Code explanation
	studies and the sensitivity of the outcome to
	• The infrastructure requirements of the selec
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	Commentary
to their inclusion.	
ected mining methods.	Mining Methods
	Geology and topography of both South Walker Creek and Poitrel mine area are such that the strip-mining technique has been adopted as the mining method. Initial mining operations commenced on the sub-crop of the Main seam in 1996 and 2006 respectively using fleets of excavators and trucks as the primary overburden removal tools to uncover coal in strips orientated along the strike of seam. Mining then progresses along strike and down-dip to the lease boundary or to a depth of maximum economic strip ratio, at which point a transition to underground mining may commence. Mining strips and blocks are aligned with current pit voids along strike and extended down dip to the lease boundaries. Allowances are made for permanent access corridors, major transport corridors and major creek corridors between pits. Coal mining is achieved by a fleet of large front end loaders and excavators loading onto bottom dump and rear dump haulers. The haulers run from the pit to the crushing and processing plant along a haul road network. For blending requirements, the haulers are required to stockpile the coal along designated locations. Overburden stripping at Poitrel will be primarily Cast and Dozer Excavate (CDX) operations. South Walker Creek will use a combination of methods, shallower pits in the North will use CDX and the deeper Southern pits will continue to use dragline to move a portion of the waste
	Mining Production Capacity Optimised Base Plan production rates for South Walker Creek and Poitrel
	were designed to treat the CHPP as the bottleneck. Geotechnical Parameters
	Site Geotechnical Pit Layout (GPL's) are used to guide the pit design geometry of long-term mining reserves supporting the LoA plans and JORC

reserve estimates. The GPL are assessed by Registered Professional Engineer



Criteria



Criteria

JORC Code explanation Commentary Table 4.3 Resource Model used in the LoA and Reserves Estimation Method **Resource Model** Last Full FY 2021 Reserve Published year used in Estimation **Estimation Method** Reserves Publication Resource Model Year South Walker 2017 FY17 Depletion 2017 Creek Poitrel 2017 2017 FY18 Depletion **Mining Loss and dilution** The mining process incurs a loss of in-situ coal and the addition of out-ofseam dilution to ROM coal. Loss and dilution assumptions applied to the model were derived from the LoA plan mining recoveries and calibrated based on actual mining performance. Coal losses and dilutions were assumed in different thicknesses from the low-wall edge, coal roof and coal floor. Table 4.4 below show the mine average losses and dilutions. Table 4.4 Open Cut Mining Coal Loss and Dilution Edge Mine Roof Floor Edge Roof Floor Dilution Dilution Dilution Loss (m) (m) (m) (m)

South Walker

Creek

Poitrel⁽¹⁾

0.19

0.10

0.14

0.05

(1) Loss and dilution for V1 seam, basal seam at Poitrel Mine.

1.43

0.50

0.10

0.00

0.10

0.07

0.24

0.02



Criteria **JORC Code explanation** Commentary **Inferred Resource for Mining Limit Definition** BMC Reserves were estimated within the resource economic mining plan. The mining plan was determined by assigning revenues to all resource categories including Measured, Indicated and Inferred Resource. Within the resources economic limit, only measured and indicated resource categories were included in the reserves reporting. Table 4.5 shows the amount of Inferred Resource within the mine plan. Table 4.5 Inferred Resource within the Mine Plan at the end of June 2021. Mine Mining Coal Type⁽²⁾ Inferred Resource Method⁽¹⁾ within the mine plan (Mt)⁽³⁾ South Walker Creek PCI 14.6 Met\PCI Poitrel 12.8 (1) OC – open cut, UG underground (2) Met – metallurgical coal, PCI – Pulverised Coal Injection (3) in situ moisture basis **Reserve generation / optimisation** Geology structure and quality grids used for the generation and reserving of mining blocks were sourced from the latest published and complete geological models available at the time of development of the Life of Asset plans. The geological models used were: South Walker Creek – February 2017 model. ٠ Poitrel – September 2017 model. •



Criteria	JORC Code explanation	Commentary
		Maptek's Vulcan software package is used for geological modelling for Coal Resource estimation purposes. DESWIK mine planning software package is used to generate mining blocks and calculate in-situ waste and coal volumes used in the Life of Asset. Appropriate high wall and end wall batter angles and bench off-sets are applied when developing the mining blocks model.
		The mining blocks data generated is then processed through a standard workflow in DESWIK where the modifying factors for loss, dilution, and yield are applied. The modified waste and coal quantities are used in the mine sequence optimiser program BLASOR Stratiform to provide an optimised Life of Asset schedule path. Quantities are determined for mining activities including waste drilling and blasting, waste removal and coal mining and haulage.
		The outputs from the mining schedules are costed using a Financial Model that estimate the Net Present Value and the economical limit.
Metallurgical factors or assumptions	 The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody. 	South Walker Creek and Poitrel Coal Handling & Preparation Plants (CHPP) consist of the ROM (Run of Mine) dump hopper and crusher, the coal processing plant, product stockpile and train load-out facilities. The CHPP's are consistent with current industry practice and are configured based on the size and density properties of the coal feed and are considered appropriate for the Poitrel operating mines. ROM coal is either direct fed or stockpiled prior to crushing on various ROM stockpiles. Coal is fed by front end loader or trucks from the ROM stockpiles into a hopper. The required blend of ROM coal is achieved by selecting coal from specific ROM stockpiles. The crushing stations crush all feed to the processing plants. The processing plants are heavy medium plants with fines circuits.
	• For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	Coal Handle Preparation Plant (CHPP) capacities are 8.4 Mt and 9.6 Mt for South Walker Creek and Poitrel, respectively. Coarse rejects are back hauled to reject disposal dumps. Plant tailings are hauled into the pit (sieves) in Poitrel and pumped into tailings dams at South Walker Creek. The decant



Criteria	JORC Code explanation

Product stockpile arrangement comprises an overhead tripper system which has access to all 4 bays of the stockpile area. Coal is reclaimed via reclaimers located in a reclaim tunnel. Dozers are used to manage coal on the stockpile. The standard moisture content of feed is 4%.
Metallurgical Coal and Pulverised Coal Injection (PCI) produced is processed and blended to meet product quality specifications. Each CHPP comprises variations in terms of processing systems, but the generic process of beneficiation employed is as follows.
• Raw coal from the operations is fed into hoppers and is crushed by
rotary breakers to -50mm. Oversize material from each of the rotary breakers contains mostly stone and tramp materials and is rejected

water is pumped back to the plant and used in the process water circuits.

New raw coal handling facilities reduce the size of raw coal into -٠ 50mm in a series of sizers. There are no rejects from this process.

and dumped at specific reject dumps.

- Raw coal at -50mm reports to the CHPP. All coal is distributed via ٠ desliming screens to coarse and fines circuits. In the coarse circuit, dense medium cyclones separate coal and the denser non-coal by passing the material through a dense medium via centrifugal force. Fine coal is cleaned through either classifying cyclones, froth flotation or spirals. In some CHPP, reflux classifiers were added into the fine circuits to further recover the coal fines.
- Coarse rejects are hauled back to disused ramps or pits for disposal. ٠ Fine rejects are thickened before being discharged into tailings disposal dams.

Commentary



Criteria	JORC Code explanation	Commentary
		The product specification for saleable coal produced by South Walker Creek and Poitrel need to comply with a total moisture, ash, phosphorous, sulphur and volatile matter content.
		The recovery factor (yield) expresses as a percentage of ROM for South Walker Creek and Poitrel are 78% and 79%, respectively.
		Large diameter cores were taken at several locations prior to construction of the CHPP's and detailed metallurgical testing performed including full size and density washability. This data was used for plant design. Since both, the South Walker Creek & Poitrel CHPP's have operated in a similar fashion as described above since mining commenced in 1996 and 2006, respectively. There is nothing to suggest that the continuations of these methods are not suitable. There are no downstream product losses expected for either Poitrel or South Walker Creek.
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.	Mining activities are listed under Schedule 1 of the Environmental Protection Regulation as an Environmentally Relevant Activity (ERA), requiring an Environmental Authority (EA) under the provisions of the Environmental Protection Act 1994 (EP Act) and granted by the Department of Environment and Science (DES).
		EA's cover mining activities on areas of Mining Leases for which Surface Area rights are awarded and listed on the EA (all granted leases at the date of issue). EA's include conditions to minimise environmental harm potentially caused by authorised mining activities. These conditions are set out in the EA schedules and originate from the Environmental Impact Study phase of Mining Lease approval and have been altered over time as legislation requires. Further conditions of the EA involve annual reporting and a Financial Assurance held by the Administering Authority equal to value of rehabilitating the Mining Leases until the Administering Authority is satisfied no claim on the assurance is likely.
		The EP Act requires proposed mining, disturbance and rehabilitation activities are reported in a Progressive Rehabilitation and Closure Plan



Criteria	JORC Code explanation	Commentary
		(PRCP), which must describe measures undertaken to ensure EA conditions are met. Sites are currently transitioning from the previous Plan of Operations to PRCPs. Operating consents are held in the form of Surface Area rights and environmental approvals (Environmental Authority).
		Expectation to comply with environmental requirements will be met with current strip-mining practises where waste material is capped and rehabilitated as per the EA requirements.
		The Environmental Authority hold by the company for South Walker Creek number EPML001712313 is taking effect since 26 September 2019. In the case of Poitrel Mine the document number is EPML00963013 is taking effect since 29 July 2020.
Infrastructure	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.	 South Walker Creek and Poitrel are operating open cut mines located on the eastern and central fringe areas of the Bowen Basin Coal filed in Central Queensland, 135Km and 175Km South –West from Mackay, respectively. Both mines have been in operation for many years and all key infrastructure required to support the operation and selected mining method are in place. The existing infrastructure includes: Mine offices for administration, technical and operations staff and operator deployment facilities; Maintenance workshop facilities; Warehousing facilities, including bulk materials and tyre storage; Change-house facilities for mine and maintenance production workers; Raw coal handling and crushing facilities;



Criteria	JORC Code explanation	Commentary
		handling systems;
		Product stockpile, stacking and reclaiming facilities;
		Train load-out facilities; and
		 Electrical power is supplied by ERGON 66kV line. On site distribution via South Walker Creek Mine 66kV Industrial Feeder own by the company.
		• The raw water pipeline includes the Braeside East Water, Eastern Water and Mallawa water systems.
		• Diesel fuel is supplied by road to the mine by one of the major fuel supply companies.
		 The Peak Downs Highway is the main access road for South Walker Creek and Poitrel mines that connect both assets with Mackay and Moranbah.
		 Labour and accommodation is readily available in the Bowen Basin which has a large regional population and there are a number of existing mining operations with skilled workforces. Camp accommodation is available for drive in drive out (DIDO) of fly in fly out (FIFO) workers at the nearby towns of Copabella and Nebo and is adequate for the size of workforce.
		The general mine infrastructure layouts for South Walker Creek and Poitrel are shown in Figure 4.1 and Figure 4.2 respectively. No additional CHPP infrastructure is required to sustain the production capacity at both sites. The coal crushing, coal processing and train load out facilities undergo a maintenance regime designed to ensure life-of-mine operation.



Criteria

JORC Code explanation Commentary The company's products are sold into the seaborne metallurgical coal market with the mines serviced by a rail system owned and operated by Aurizon Network. Individual trains haul 8,000 to 10,500 tonnes. Above Rail haulage is provided by commercial operators under appropriate long term commercial arrangements. The current infrastructure is suitable for the duration of the life of mine. Figure 4.1 South Walker Creek Mine Site Infrastructure 0 2 4 6 8 km EPC 207 MDL 235 Nebo West EPCA 2109 eral De COPPABELLA 5 Exploration Permit Coal ining area Future potential mining area



Criteria	JORC Code explanation	Commentary
		Figure 4.2 Poitrel Mine Site Infrastructure
Costs	 The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	The JORC Reserves are estimated in accordance with the JORC Code 2012, using forward looking unit revenues and costs. The operating costs are built up from calculated equipment hours using required production volumes and production rates. These are multiplied by the operating unit costs which are developed considering various factors including fuel, labour, maintenance, etc. which is aligned with historical costs and benchmarks as appropriate. Future waste and coal haulage costs are determined based on equipment hours required to move the scheduled production volumes. Production rates are based on current cycle times by pit for waste and coal haulage, adjusted for changes in average haul length by pit by year, where change in average haul length is estimated based on pit geometry factors (pit length, depth and average dump height) The operating units cost used in the life of mine is aligned to the more

The operating units cost used in the life of mine is aligned to the more detailed, company approved, operating budget and five year plan developed and reviewed annually by for each operating site.



Criteria	JORC Code explanation	Commentary
		 The Reserves Financial Model is based on the FY21 Life of mine quantities, operating cost, capital cost, commodity price and other economic assumptions. The Financial model utilises a price forecast and foreign exchange rate provided by and approved by the company. Mine schedule and blending considers deleterious elements with associated price penalties and premia included in the economic evaluation. Royalty payments are made to the Queensland Government at the rate of 7%, 12.5% and 15% (for equal to or less than AUS\$100/t, greater than AUS\$100/t yet less than AUS\$150/t, and greater than AUS\$150/t coal prices respectively) of FOB value less the cost of offload & stockpile of the Marketable coal.
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. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	The company utilises a standardised process for generation of commodity prices and foreign exchange (FOREX) rates used in the evaluation of the Life of mine plan. Commodity price assumptions take into account various product quality premiums and discounts in relation to generally traded coal index prices and quality specifications.
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. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	The company develops and/or secures (from independent third parties) forward-looking views of product demand and supply to inform the commodity price assumptions (including specific consideration to the product quality) utilised in the economic evaluation of the Life of mine plan and associated reserve estimations. The assessment includes reference to historic market dynamics, historical product price realisation compared to index prices, expected future supply/demand equilibrium and other macro-economic factors.



	Criteria	JORC Code explar
	Economic	 The inputs to t (NPV) in the st including estin NPV ranges an and inputs.
	Social	• The status of a social license t
LA O A L	Other	 To the extent n on the estimat Any identified The status of n The status of g viability of the and statutory all necessary G timeframes an and discuss the a third party o

1	JORC Code explanation	Commentary
nic	 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. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	The coal resources scheduled in the Life of mine plan must be economically mineable to be compliant for reserves inclusion. The economic valuation of the Life of mine plan is performed where positive cash flow determines the economic footprint of the Life of mine plan. Economic factors including projected inflation (Australian and US), exchange rates, benchmark operating cost (unit rates), energy and fuel costs (unit rates) and discount rates are supplied by the company to ensure constancy and a standardised approach is followed for economic evaluation.
	The status of agreements with key stakeholders and matters leading to social license to operate.	Cultural heritage and environmental agreements are describe in Section 2 - <i>Mineral tenement and land tenure status.</i> On Barada Barna country, the Company and the Barada Barna Aboriginal Corporation came together to recognise our new Native Title Project Agreement for South Walker Creek Mine. Signed in August, the Agreement will deliver intergenerational benefits for the Barada Barna people who are Traditional Owners of the land on which South Walker Creek Mine operates." - Published 21 Oct 2021 in Corporate News, Minerals Australia, Coal
	 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. The status of material legal agreements and marketing arrangements. 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. 	There are no identified naturally occurring material risks that will have a material impact on the reported Reserve. The status of Mineral Tenements is outlined in Section 3 Tenure. A twenty-one-year renewal application was lodged on the 28.01.2020 for ML4750, ML4751 and ML70131, these MLs continues without interruption whilst the application is assessed by the regulator. There are no expected impediments to their renewal



	JORC Code explanation
Classification	• The basis for the clas categories.
	• Whether the result a the deposit.
	• The proportion of Pro Measured Mineral Re
Audits or reviews	• The results of any au
Discussion of relative	• Where appropriate a level in the Ore Reser
accuracy/ confidence	appropriate by the Co statistical or geostati
))	the reserve within sto deemed appropriate, affect the relative ac
	• The statement should estimates, and, if loc
	relevant to technical include assumptions
	Accuracy and confide of any applied Modif
	Reserve viability, or f the current study sta
	 It is recognised that t circumstances. These the estimate should I

	JORC Code explanation	Commentary
n	 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). 	The Reserve classification is based on the geostatistical Drill Hole Spacing Analysis used for Resource classification (see section 3). With Measured converted to Proved and Indicated converted to Probable. If an underground prospect does not have reliable 3D Seismic survey coverage the Resource is downgraded from Measured to Indicated due to the uncertainty of drilling around identifying small scale geological structures that may disrupt mining.
views	• The results of any audits or reviews of Ore Reserve estimates.	Internal review to BMC completed in FY19. Annual reviews were completed prior submission of annual reports. External JORC RESERVE AUDIT – POITREL MINE by Deswik Mining Consultants in FY20.
f	 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 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. 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. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate is not of the estimate should be compared with production data, where available. 	The Reserve classification is based on the geostatistical Drill Hole Spacing Analysis used for Resource classification and carries the same relative accuracy/confidence as discussed in Section 3 above. There is a high level of confidence in the Coal Reserve estimate given these are both established operational mines and the supporting mine plans do not include unapproved capital projects. There is upside expected in Coal Reserves, as a result of the execution of approved projects, particularly for SWC. The process of assigning the confidence level to Coal Reserves within the Deswik Model is as follows. Geological Resource category polygons (Measured, Indicated & Inferred) are imported into Deswik and applied at a seam/ply level. The Resource category applied to each mining block within the mine layout is based on intersecting category polygons that intersects the mining block the ratios of Measured, Indicated and Inferred coal are written as attributes within Deswik. The coal tonnage for various categories is calculated by using the category ratio to the total tonnage of coal within the JORC solids. Proved and probable reserves are calculated based on derived measured and indicated resource categories respectively.



Criteria	JORC Code explanation	Commentary
		The assignment of reserves classification Proved and Probable must satisfy the reserve modifying factors as follows:
		Mining blocks must be economic to mine, and
		 Mining blocks must be within fully permitted mining lease.
		Deswik process of assigning resource to the mining blocks is as follows:
		Resource polygons are converted into solids,
		 Resource factors are assigned using the proportion of coal solid volumes within the resource categories i.e. Measured, Indicated a Inferred,
		 Filter the resources using the reserve modifying factors and then convert compliant coal resources into coal reserves after, and
		 Compliant Measured and Indicated Resources are assigned into Proved and Probable reserves respectively. Inferred resources are not counted as reserves.
		No Probable Coal Reserves have been derived from the Measured Coal Resources. The results are in line with the Competent Person's view of the deposit.
		Reconciliations are undertaken on a quarterly basis by the calculation of at least three critical factors - F1, F2 and F3:
		 F1: Tactical coal reserve (5 year plan) model to coal reserves (long term forecast) model
		 F2 is the process plant received mine production to tactical coal reserves 5year plan) model
		 F3: final product inventory and sales to coal reserves predicted.
		The reconciliation results for both the quantities and qualities showed that the variances were generally within +/- 10%. It is the view of the Competen Persons that these variances of factors are within the reasonable tolerance and the level of confidence in the Reserves.



