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09 December 2015

ASX RELEASE

MRV TARONG BASIN COAL ANNOUNCES SOUTH BURNETT COAL RESOURCE OF 912 MILLION TONNES WITH SIGNIFICANT UPGRADE IN RESOURCE CONFIDENCE

MRV Tarong Basin Coal Pty Ltd has declared a material increase in its Coal Resource estimate and classification for its Thermal Coal Project in the South Burnett, located in South East Queensland, compared to the previous estimates reported in its parent Company's 2015 Annual Report, and that of recent investor presentations issued in late October 2015.

The update is reported under the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (JORC Code) as set out in Figure 1 following.

The Coal Resource estimate for MRV Tarong Basin Coal Pty Ltd, reported on an in-situ basis, has increased by 691million tonnes (Mt), from 221.2Mt to 912Mt across its fully owned MDL 385 and EPC 882, from the original estimate reported by Moreton Resources for its fully owned MDL 385, prior to the aquisition of EPC 882. Within these total estimates the following categories have been identified; **33.2 Mt Inferred**, **712.6 Mt Indicated** and **166.2 Mt Measured**.

Moreton Resources Limited's (MRV) Managing Director, Jason Elks said "The coal assets that are now being progressed within the South Burnett in scale; contiguous footprint; potential strip ratio; calorific values; and location, with regard to domestic power generation and also potential future transport infrastructure for export considerations, make this project in my opinion truly world class."

"This JORC Coal Resource update validates the last 15 months of hard work that went into securing EPC 882. Based upon this latest JORC Coal Resource, the Company has secured on **EPC 882** an **estimated 377.8 Mt of coal**, which equates to a purchase price of $0.0008 per tonne. This compares extremely favorably with transactions of similar, if not inferior coal qualities in 2010 fetching approx. 100 times that, with additional large trailing royalties agreed. This is a significant outcome for the Company, based upon the strategic location and footprint we now have acquired, being close to major infrastructure and in a supportive mining region, along with a very low strip ratio as reported and expected to confirmed by the current Pre-Feasibility Study (PFS) that is being undertaken by AMC Consultants, whom are regarded as one of Australia's top consulting firms."

"An indication of the significant potential value being unlocked by MRV Tarong Basin Coal Pty Ltd, is the historical divestment attempts of Metallica Minerals in December 2004 at a **value of $6 million** with a trailing royalty of 40c a tonne for the 181 Mt Coal Resource reported at the time, which we feel is a fair indication of the value of this asset prior to our current release. This was further validated by Internickel Ltd whom put a valuation, undertaken by consulting mining engineers Tennent Isokangas Pty Ltd, at a preferred **independent valuation of $7 million** on 24 March 2005 in a public release. Later the asset did transact as a collective with other tenements at a total of approx. $10 Million. Moreton Resources Limited has a view that with the extensive work undertaken by MRV, and the significant outcomes in this announcement, those valuations have been far surpassed now by multiples, which will be tested in the coming months as we continue to advance these assets. Approx 40% of EPC 882 still remains un-evaluated for potential upside, in which minor Coal inventories have already been identified, however further substantive increases would be unlikely".

"Access to and use of extensive drilling data collected from exploration programs over many decades in this region, means we have increased confidence in our understanding of our coal assets in the South Burnett and their quality, which is largely characterized by shallow, thick seams with little structural complexity, with over 72% of the Assets falling into a lower than 3:1 (bcm/t) strip ratio in-situ".

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Mr. Elks commented "This outcome for MRV Tarong Basin Coal, of increased Coal Resources is the result of more than a year's work to secure the additional tenement and more than six months of geological analysis that forms part of our wider efforts, to deliver greater value to our shareholders, with significant potential to deliver positive economic and social impacts to the South Burnett community and potentially significant operating costs reductions, for our target off take options."

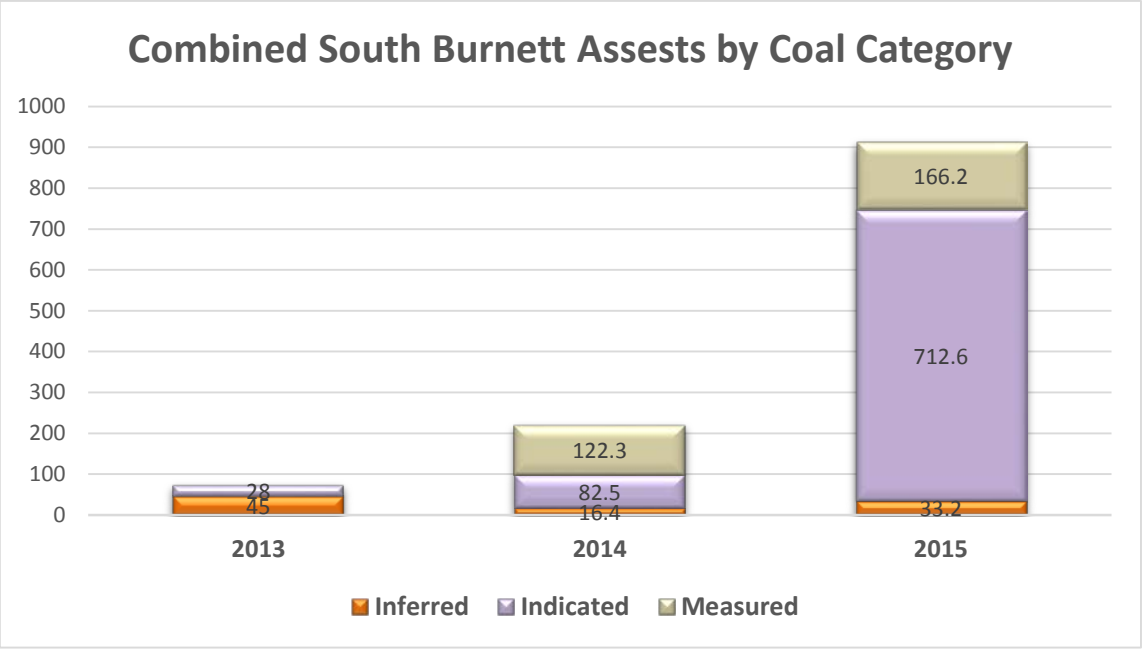
"We continue to examine our asset base for further opportunities and believe based upon this result, the PFS which is due to be finalised in the coming weeks, will have a significant basis for what we believe will be a positive economic evaluation, and potential decision for advancement."

"We expect that this significant increase in our Resource base, will open further options to the Company as it looks to develop and grow a potentially profitable Coal business in the South Burnett for decades to come. We would also expect should an extremely favorable PFS be delivered, that the prospect would be viewed positively, by various interested parties including elected Local, State and Federal Government, policy making bodies, Government Owned Corporations (GOC) and other regulatory bodies. This opinion is brought about by the focus upon economic growth by all forms of Government; seeking to gain efficiencies in our State owned Assets; and the overarching mandate and principles to which such GOC's were brought about."

This update involved a rigorous examination of a target area, having regard to:

- Analysing a legacy dataset of 499 drill holes combined with 79 more recently drilled holes
- Transforming the historic data, some from hard copy reports into a state of the art geological model used to estimate the Resources and utilizing more advanced estimation technologies

Figure 1 – Thermal Coal Resource upgrades (Million tonnes)



The references in the above chart to years is an aggregation of estimates, as at Nov 2013, Nov 2014 that were reported in accordance with the JORC Code in the 2015 MRV Annual Report. The final stack is a current 2015 summary of the tonnes in situ as per the context of this release. As outlined in the Company's strategy with the latest Mackenzie JORC Resource release and our AGM presentations, the company seeks to increase its levels of confidence in its assets, which is a significant achievement against this outcome in this latest announcement.

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SNAP SHOT OF CRITICAL DATA

Figure 2 – Thermal Coal Resource (Million tonnes)

Tenement	Seam	JORC Cat.	Mt	ST (m)	RAW (average)				F2.00 (average)				
					RD(is)	AS(ad)	CV(ad)	TS(ad)	YLD	AS (ad)	CV (ad)	TS (ad)	MO (ad)
EPC882	GD		9.85	4.99	1.80	53.0	3041	0.69	46.2	26.4	5402	0.28	4.6
	KN		134.58	11.37	1.63	39.3	4227	0.29	73.3	23.2	5585	0.30	5.1
	SW		34.92	3.97	1.74	49.2	3351	0.40	64.9	25.7	5496	0.25	3.7
	GG		198.48	12.76	1.61	37.9	4618	0.25	73.4	23.0	5753	0.18	4.4
MDL385	GD		67.56	10.06	1.90	59.6	2463	0.69	39.0	27.2	5277	0.28	4.4
	KN		171.08	14.52	1.67	41.3	4129	0.26	77.0	21.7	5849	0.24	4.9
	SW		56.21	4.80	1.67	42.2	4058	0.23	75.2	21.5	5895	0.25	3.7
	GG		239.35	18.17	1.71	44.1	3942	0.23	64.5	22.0	5857	0.16	4.7
Subtotal EPC882			***377.83***		***1.63***	***39.8***	***4321***	***0.29***	***71.9***	***23.4***	***5661***	***0.23***	***4.6***
Subtotal MDL385			***534.19***		***1.72***	***45.0***	***3827***	***0.30***	***66.4***	***22.5***	***5785***	***0.21***	***4.6***
Total			***912.02***		***1.68***	***42.9***	***4032***	***0.30***	***68.7***	***22.9***	***5734***	***0.22***	***4.6***
Breakdown by Resource Classification													
EPC882	GD	I	8.42	5.10	1.83	54.5	2910	0.69	46.5	26.4	5407	0.28	4.6
EPC882	GD	F	1.43	4.36	1.65	44.1	3809	0.69	44.5	26.6	5372	0.28	4.5
EPC882	KN	M	33.29	13.13	1.61	37.4	4383	0.32	78.2	22.2	5731	0.27	5.1
EPC882	KN	I	98.33	10.91	1.63	40.0	4172	0.28	71.8	23.5	5541	0.31	5.0
EPC882	KN	F	2.95	6.70	1.60	38.2	4305	0.27	70.5	24.5	5422	0.35	5.1
EPC882	SW	M	1.59	2.84	1.78	51.6	3007	0.62	69.8	24.3	5632	0.25	3.7
EPC882	SW	I	26.40	3.92	1.74	49.2	3355	0.39	65.0	25.7	5495	0.25	3.7
EPC882	SW	F	6.93	4.44	1.74	48.6	3417	0.41	63.3	25.9	5471	0.25	3.7
EPC882	GG	M	14.88	13.84	1.63	37.9	4712	0.23	78.9	25.3	5558	0.17	4.4
EPC882	GG	I	182.18	12.70	1.60	37.9	4610	0.25	72.9	22.9	5770	0.18	4.4
EPC882	GG	F	1.43	8.79	1.62	38.4	4759	0.24	74.6	24.2	5655	0.17	4.4
MDL385	GD	I	50.23	9.44	1.92	60.4	2393	0.69	38.5	27.3	5269	0.28	4.4
MDL385	GD	F	17.33	11.83	1.87	57.3	2668	0.69	40.4	27.1	5302	0.28	4.4
MDL385	KN	M	46.20	14.76	1.68	41.6	4109	0.26	76.1	21.4	5888	0.24	4.9
MDL385	KN	I	124.88	14.44	1.67	41.2	4136	0.26	77.4	21.9	5834	0.24	4.9
MDL385	SW	M	4.85	6.09	1.62	38.2	4414	0.21	67.1	18.5	6160	0.25	3.7
MDL385	SW	I	48.26	4.74	1.68	42.6	4020	0.23	75.9	21.8	5866	0.25	3.7
MDL385	SW	F	3.10	3.75	1.67	41.8	4095	0.26	76.4	21.1	5934	0.25	3.7
MDL385	GG	M	65.40	21.70	1.71	44.7	3885	0.23	62.9	22.4	5824	0.16	4.8
MDL385	GG	I	173.95	16.84	1.70	44.0	3963	0.23	65.1	21.8	5870	0.16	4.7
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GD – Glyder Seam
KN – Kunion Seam
SW – Swain Seam
GG - Goodger Seam

AS – Ash Content (%)
CV – Calorific Value (GJ)
TS – Total Suphur (%)

YLD – Yield (%)
MO - Moister (%)

Thermal coal calorific value ranges for domestic use represent normal ranges of 4,300 to 6,950 as quantified by the Qld Coals 14th Edition guide. The fact that Moreton Resources in-situ and product outcomes are all in the higher range of Calorific Values, is a significant outcome for the Company and certainly offers a compelling consideration for any potential off take discussion due to the economic value of such Calorific Values.

A key outcome for the Company, is that target domestic power generation is operated on a minimum of 28% ash. MRV has indicated a substantial resource that has the capacity to meet or better that specification on an air dried basis. Also the Company is confident on its ability to produce a superior product of 20% ash as outlined in the above tables for potential alternate offtake interest. This includes potential for a high energy value product, when compared to that of the Queensland Coals 14th Edition supply specification of 19.6Gj for Tarong, our target of an approx 21.8Gj value, if achieved would offer an **11% increase in energy per tonne**, thereby offering a superior product and less required tonnes, to produce effectively the equivalent outcome in power generation.

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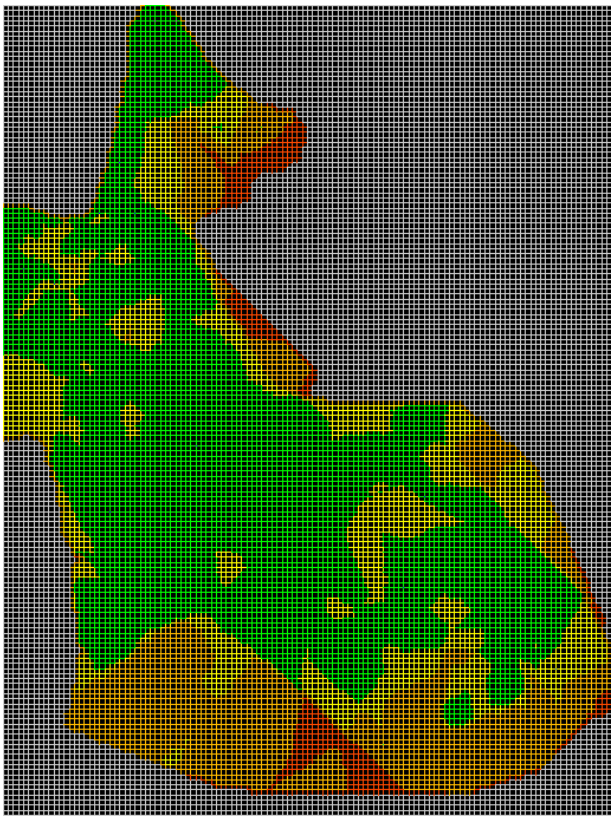
Figure 3 – Strip Ratio Across Assets (MDL385 – EPC882 limited to max 8 BCM:1 Tonne Coal)



Project In-Situ Strip Ratio	
BCM : 1 Tonne Coal	**Total (Mt)**
0.00 / 1 - 3.00 / 1	**669Mt***
3.01 / 1 – 4.99 / 1	**171Mt***
5.00 / 1 – 8.00 / 1	**81Mt ***

*1% error rate identified in modeling of resource strip ratio

*Of important note is that the above tabled matrix is not an average strip ratio, this is in-situ Coal and therefore Tonnes are represented throughout the range. Eg the average is lower than the highest reference point within the range, showing majority of the resource sits in-situ at an average lower that 3:1 for 670Mt

*With reference to our Industry Benchmark Survey released upon 2 December 2015, it validated that if we could achieve a lower than a 4:1 in mining, we will sit within the lowest cost quartile for the industry. Given 72% of the entire deposit in-situ sits below 3:1 with an average lower again, this indicates an exceptional opportunity for the Company moving forward.

*Some additional tonnages which have been identified will not form part of the PFS, giving further opportunity to optimize the PFS outcome, with expected lower strip ratio's in mine planning.

Very few operations in Australia can for Life of Mine operate lower than a 3:1-4:1 strip ratio.

The above data goes to complement the above statements and analysis of this opportunity within the South Burnett that in today's mining terms, has the potential to operate within the lowest quartile of operating parameters, based upon the information we have to date, that would therefore make this a more efficient, economical and environmentally more sustainable option, than seeking to continue a high costs, low efficiency operation. Of further interest is an applied modifying factor to this JORC Resource release, which is a total cut off of 8:1 strip ratio, thereby further validating its high potential and significant merit of all total announced tonnes, falling at or below that 8:1 cut off.

The Company now has significant confidence in this asset and will move into Technical Presentations for interested parties, to whom the Company has been in talks in the last three months, ranging from potential off take, financing and also operating partners, of such a substantial asset. The Company will rapidly progress its next steps, pending a favorable outcome from the anticipated PFS which is due in the coming weeks.

WHAT'S NEXT

A primary focus of the Company is to continue with its high level of Community and Stakeholder engagement, which given the outcome of this release has provided a clearer and more compelling case for the Company's advancements. As such our social licence to operate is critical and the co-existence of the South Burnett community as a whole, being landowners, business owners, broader community and government services, all being recognised by MRV as critical to this project, and as such we will continue to meet, liaise and inform these groups as the process advanced.

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The Company is currently investigating the setup of a Community Mine Development Committee concept, with a focus on assisting with the consultation process in the community, made up of primarily community members and potentially Government stakeholders.

MRV Tarong Basin Coal Pty Ltd fully understands that without that overt support of the South Burnett community, this project will struggle to proceed. However, in saying that the Managing Director and Board believe the support and backing of the South Burnett community is there, and we will continue to enhance our presence, and consultation as the project advances.

In addition to this effort, the Company has undertaken several other programs of work which will all be released at the appropriate times, which are but are not limited to –

- A Cultural Heritage Management Plan Agreement process in progress currently
- A PFS outcome, that will lead to a high level release in the coming 2-4 weeks with a full market update later in January or February 2016.

This JORC Coal Resource update will form the basis of the imminent PFS. Based on incorporating this updated JORC Resource, it is expected that the PFS will establish a maiden JORC Reserve for the Project and demonstrate the potential to establish a long life thermal coal project in the South Burnett, that will have significant positive impacts across the Wide Bay Region.

Of note is the Companies work upon transport corridors, given the substantial coal resources in the region. The Company is looking toward the possibility of alternate domestic and export potential. However, given this release and what is expected to be the outcome of the PFS, the Company believes its prime objective is to provide a superior cost effective alternative, which in turn will provide ***Qld Coal to Qld Power Generators, to ultimately benefit the rate payers of Qld***. A detailed analysis of this belief, will be an ancillary outcome to our PFS, and the basis for these opinions will be outlined to the market, as to why we believe there is a genuine market for this Coal and on what basis.

Jason Elks
Managing Director
Moreton Resources Limited

Att – TABLE 1 in compliance with the JORC Code

Competent Persons Statement

The information pertaining to the reported Coal Resource in relation to the South Burnett Project (EPC 882 and MDL 385) is based on information compiled by Mr. David Arnott who is a full-time employee of Moreton Resources and holds the position of Geological Lead. David is a qualified Geologist and Member of the AusIMM and Chartered Professional (Geology). He possesses the necessary qualifications, professional membership and has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person in reporting the tabled Coal Resources included in this release as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves"

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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 (e.g. cut channels, random chips, or specific specialized 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.*	Direct sampling of coal seams for coal quality across the Project was achieved through the drilling of 63mm cored boreholes. Sampling theory was undertaken by a variety of methods over the exploration history; including individual full seam sampling, collection of multiple samples within seams, and selected sampling for characteristic working section designations. Sampling of the boundaries of coal seams and surrounding rocks was achieved through direct logging of chip and fully cored borehole sections. Indirect measurement through downhole wireline geophysical logging was undertaken on many boreholes to supplement and support lithological logging in both open and cored boreholes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All sample data used in this report has been taken from previous lease holders. Analysis of this data has been completed which has taken into account core losses throughout holes and individual seams to ensure the data utilized has not been skewed by poor sample recovery. Geophysical wireline logging largely incorporates gamma-gamma logging supported by gamma-density, caliper and to a lesser extent neutron, sonic, acoustic scanner, resistivity, verticality and spontaneous potential logs. Historical boreholes without supportable evidence of downhole wireline logging (e.g. LAS data or hardcopy profile) were treated as not having been corrected to geophysics. Historical lithological logs appear to be corrected to downhole wireline geophysical traces.
	Aspects of the determination of mineralization that are Material to the Public Report.	Coal intervals have been determined through a combination of lithological logging of chip and core samples combined with downhole geophysical wireline data. Where geophysical logs are available boreholes coal seams have been corrected to geophysics. Where chip data is only available without geophysics the data has only been used for referencing the seams approximate position.
	In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized 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 mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information.	Predominately analysis was undertaken on RAW samples to provide in-situ coal qualities. Analysis largely includes proximate analysis measurement of ASH, CV, RD, VM, and FC on an air dried basis. Additional test work has been carried on both a subset of the RAW analyzed samples and other borehole intersections to provide WASH coal quality data at a variety of float density cut points ranging between F1.45 and F2.00. A smaller set of product analysis was undertaken in areas of the deposit targeting a 28% ash considered suitable for supplying domestic power generation. Some size distribution test work is available in the dataset compiled.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	Drilling over the Project area is a combination of open hole, core and partially cored drilling. All core samples are non-orientated, although some later drilling includes sonic logs.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	All samples have been collected from previous lease holder drilling programs. Where sample intervals are not obtained the corresponding interval has been logged as "KL". No direct measurement of recovery has been

Criteria	JORC Code explanation	Commentary
		recorded in recovered intervals logged, however notations in logging indicates if instances of poor recovery occurred and the borehole was subsequently abandoned. This sample recovery data (through use of the KL lithology interval logged) been analyzed along with sampling data. Core recoveries are above 95 percent in the majority of boreholes.
	Measures taken to maximize sample recovery and ensure representative nature of the samples.	No understanding exists of methodologies employed historically to maximize sample recoveries.
	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.	Coal seams sampled were composited to maximize the thickness of the seam. In instances where working sections had been defined the model limits were modified to reduce the seam thickness by a corresponding amount to avoid creation of a data bias.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	Historical logging provides a mixture of detailed and rudimentary logging information. Logs generally consist of lithology, shade, hue, color and grainsize information with a relative description of coal brightness in cored boreholes and to a lesser extent some chip holes. To a lesser extent information is also recorded on weathering; estimated strength; mechanical state; sedimentary features; mineral and fossil types and their relative abundance; bedding dip angles; basal contacts; texture; core state; defect types, spacing and dip; and lithological interrelationships.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Boreholes have been logged lithologically via direct observation of chipped and cored intervals. Many boreholes have supportive information in the form of downhole wireline logging. Recent drilling includes photographic records of cored sections and some geotechnical test work data.
	The total length and percentage of the relevant intersections logged.	Some historical exploration programs undertaken as chip holes provide insufficient information in terms describing the internal makeup of the seam (i.e., description of the individual thickness of coal plies and parting bands) and rather report the entire interval as one with relative percentages of the constituent lithologies. This still provides sufficient detail to determine roof and floor position of the main seam group, however it will not allow in its own right to define possible working section intervals within the main seam, unless geophysical wireline logs are available also. Insufficient information in the some areas of the subcrop exists to establish the depth of weathering in some historical boreholes.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Coal samples have been derived from full core. Where seams were selectively sampled the data was either omitted from being used for quality calculations or a smaller working section defined to avoid data basis in the quantity to coal quality relationship.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable to this style of mineralization.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Historic borehole sampling in the field and storage cannot be verified. More recent drilling by MTM and CXY recorded sampling dates and analysis process times. These samples were double bagged to retain moisture.
	Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	Historical samples was crushed and sized (largely -12.7 mm) prior to RAW analysis. Some historical WASH analysis records report screening at -12.7 mm and -31.5, +0.10 mm size fractions. Historical boreholes samples were analyzed by ACIRL in their North Ryde laboratory. Testing was conducted to the relevant Australian Standards.

Criteria	JORC Code explanation	Commentary
		Recent borehole samples were analyzed by Bureau Veritas in their Mayfield West and Brendale laboratories using the relevant Australian Standards.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Borehole sampling has been undertaken throughout the Project area in order to achieve representative coal seam quality data. Entire coal seams have been sampled or the data has been omitted in order to prevent skewed quality results.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	A number of holes had samples crushed to -12.7 mm with analysis of Ash, Moisture and Specific Energy undertaken (AS1038). Relative density was determine using the ACIRL method (?). Other bore cores were crushed to -31.5 mm and screened at 25.4, 19.1, 12.7, 9.5, 6.35 and 3.18 mm (AS1016). The minus 6.35 mm fraction was analysed for moisture and ash. The plus 6.35 mm was wet tumbled (AS1661) and screened at 0.10 mm. The +0.10 mm fraction was float sink tested at 1.60, 1.70, 1.80, 1.90 and 2.00 relative densities (AS1038). Core samples all appear to be 63 mm in diameter with no large diameter test work available.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Historical coal analysis is largely fit for purpose. Some regression analysis was undertaken to develop CV data when only ASH and RD information was available from laboratory results in selected samples. A range of wash data exists and differing float densities to enable testing of the performance of coal seams to provide a variety of product specifications.
	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.	Not applicable to this style of mineralisation and test work undertaken.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Coal quality analysis undertaken at the time was carried out by reputable laboratories reportedly to relevant Australian Standards. No further information could be determined from historical reports on quality control procedures carried out.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Historical borehole intersections cannot be verified by independent personnel, however where boreholes did undertake downhole geophysical wireline logging the intersection position of coal seams can be verified.
	The use of twinned holes.	There are a large number of sites that included twinned drill holes, either drilled later by subsequent tenement holders or includes coring over or near too an original open hole site by the same explorer.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All primary data has been entered into a Microsoft Access database using the CoalLog (v2.0) template. Descriptive information was recoded using appropriate translations and English Logs reproduced then compared against original QDEX reports for consistency. Coal quality analysis results have been transcribed into the Access database. Validation tests have been carried out to access coding compliance with the template, along with measures such as increasing depth, hole location and survey elevation comparison, location position to historic plans and parish map descriptions, summation of key analysis variables, regression analysis of test work results.
	Discuss any adjustment to assay data.	Correlation of ASH, RD and CV data on a RAW basis enabled development of a regression equation to compute CV values in samples only analyzed for ASH (ad). The ACIRL in-situ moisture calculation was used to interpolate values into the database.

Criteria	JORC Code explanation	Commentary
		Preston and Sanders formula was used to calculate an in-situ density value for samples.
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.*	Historical data is largely located by relative distance and direction to identifiable boundary positions on parish maps. The accuracy of surveying (X,Y) is expected to be ~10 m given most boreholes were drilled on public road access areas between adjacent land holdings. Recent drilling (T50?? Series) are surveyed X,Y and Z using certified surveyors with differential GPS.
	Specification of the grid system used.	All data has been converted into MGA Zone 55 with GDA94 datum.
	Quality and adequacy of topographic control.	Topographic surface across the Project area is predominantly derived from SRTM data with a average level of accuracy of ±7 m.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Borehole location spacing for historical drilling over the Project area is largely confined to accessible public land (i.e. road reserves). More random spacing occurs within MDL385. Boreholes range in depth from approximately 30 m in the subcrop area on the western side of the deposit to almost 380 m where depth of cover is greatest in the eastern part of MDL 385.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Close spaced drilling is generally confined to east-west oriented roads allowing for testing of the down dip orientation of coal seams and the prior UCG area developed by CXY.
	Whether sample compositing has been applied.	Compositing of samples has been applied on both a seam and working section basis.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The Tarong Basin Coal measures have a gentle dip with a geological strike approximately NNW. Boreholes have been drilled in a variety of locations from surface vertically into the target seams. No downhole survey data exists for historical boreholes, with only recent drilling undertaking verticality surveys. Deep boreholes (> 200 m) show lateral displacement through strike swing, yet the high angle of dip in the boreholes appears to be maintained. Sample positions have used displacement vector data where downhole survey information was available.
	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.	No sample bias is expected with sample intersections expected to be approximately normal to the seams dip.
Sample security	*The measures taken to ensure sample security.*	No detailed understanding is available on the chain of custody for historical coal samples analyzed. It is evident that some historical data is missing from the QDEX website and further work will be required to complete the retrieval of all available data over the Project area. Sampling and analysis of boreholes drilled by Metallica Minerals and Cougar Energy processed and dispatched field samples by a documented methodology. Follow-up was required to ensure all laboratory reports were issued as final.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	MRV has undertaken its own internal audit of both historical and recent drilling data and associated coal quality analysis. The purpose of this was to develop a robust data set from all available information that could be used in the development of the geological model and Resource estimate. Where anomalous data or errors were identified this has been corrected at the base level or the data flagged for exclusion from the geological model were information could not be substantiated.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	Tenements EPC 882 and MDL 385 are100% owned and held by MRV Tarong Basin Ltd. EPM 25992 is under application by Moreton Resources Ltd. Native title representative for Project is QLD Sth Native Title Services Ltd. Wakka Wakka people have regional area under application ref:QC2012/004. ILUA ref:QI2008/027 covers project area.
	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.	The Project area comprises a mixture of agriculture (grazing and mixed cultivation), urban (residential and industrial) land use. Project area is largely classified as comprising non-remnant vegetation. Scattered areas of Category B endangered regional ecosystems and areas of concern regional ecosystems largely across western fringe and southern portions of EPC 882. 4 sub-blocks along northern margin of EPC 882 are covered by RA384. Part of the RA384 area also contains the Kingaroy Airport.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Historical exploration has been carried out by a number of parties including CRA Exploration, New Hope Collieries and Pacific Australia Coal. More recent drilling was completed by Metallica Minerals and Cougar Energy.
Geology	*Deposit type, geological setting and style of mineralization.*	The Project area is located with the Tarong Basin which has been described previously by others as a narrow, elongate structure, approximately 70 km long and 10 km wide. The basin trends in a NNW-SSE direction and stretches from Kingaroy in the north to a point 20km south-southwest of Yarraman in the south. The Tarong Coal Measures lie unconformably on the Palaeozoic basement of the Yarraman Block. The basin is bounded on the east by units of the Middle Palaeozoic Yarraman Block which consists mainly of the Devonian-Carboniferous aged Maronghi Beds comprising of weakly metamorphosed mudstone, shale, arenite, jasper and acid to basic metavolcanics. The western side of the basin is bounded predominately by the Late Permian-Early Triassic Boondoomba Igneous Complex. This unit is comprised of granodiorite, adamellite, granite, tonalite, diorite and gabbro. The Tarong basin is filled with Triassic aged sediments which have a preserved thickness of approximately 450 m and consist of sandstone, conglomerate, siltstone, mudstone, claystone and coal. The coarse clastic beds in the sequence consist of labile, arkosic to sub-arkosic, fine to very coarse grained, poorly sorted sandstones and generally matrix supported polymictic conglomerates (Pegrem, 1995 and Jell, 2012).
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth*	A proportion of the data used in the estimation of Coal Resources is freely available from the QDEX website from relinquishment reports. Other reports are not publically available and can only be accessed by the tenement holder. MRV have undertaken a deal of work converting both hardcopy lithological logs and analytical reports into an up to date electronic format of a consistent nature and form. This information is considered to now hold a greater commercial value than its previous format and is such is considered by the Competent Person to be commercial in confidence.

Criteria	JORC Code explanation	Commentary
	• *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.*	
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	Density is weighted by length, with other analyses for RAW coal types composited by mass weighting. Washed coal quality composites are aggregated using a Yield/Mass weighting. No data cutting exists.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Composited samples have been weighted by length for RD. Other proximate analyses were weighted use length and RD to derive a mass weighting for variable sample lengths. Wash quality analysis was composited using a mass and yield weighting. Washed samples were only composited if of the same float density (eg F2.00, F1.80, etc.).
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable to this style of mineralisation.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Boreholes were sampled for both waste and coal within coal seams. If parts of coal seams were deemed to be of a quality insufficient to mine and not sampled these areas have not been calculated as part of the coal inventory and subsequent Resource. As such coal seam quality and tonnage results are mutually representative.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Seam dips are generally shallow and the expectation is that boreholes are largely normal in intersection orientation to the seam.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	True width not known, although expected to be similar to down hole length based on interpreted seam orientation and borehole angle of drilling.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	The current reported Coal Resource is not considered a discovery but rather a refinement of information made available through the work undertaken by previous parties such as Cougar Energy, Metallica Minerals, Cockatoo Coal, New Hope, Pacific Australia Coal and CRA Exploration. Detailed plans and cross sections are included in the main body of the JORC report, however have not been included in this report due to their commercial nature.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Details of depth and thickness ranges for each seam is included in the main body of the JORC report. The following details provide a statistical summary of the Point of Observation (Quantity) data used. Horizon : GD located in 23 out of 412 holes : Minimum Maximum Average Samples Easting : 382887.000 388757.270 385052.547 23 Northing: 7043290.320 7057450.000 7054709.503 23 Collar : 375.050 547.920 458.782 23 SR : 314.390 424.500 385.577 23 SF : 310.090 422.320 382.512 23 TK : 0.100 10.000 2.777 23 DR : 19.300 176.580 73.205 23 DF : 23.200 176.890 76.270 23 MD : 0.000 57.000 2.478 23 PT : 0.000 2.570 0.287 23 OB : 0.000 176.580 67.597 23 ST : 0.100 10.000 3.065 23

Criteria	JORC Code explanation	Commentary

Horizon : GDU located in 9 out of 412 holes

	Minimum	Maximum	Average	Samples
Easting	383243.280	386518.800	385466.253	9
Northing	7054590.800	7056521.600	7055610.387	9
Collar	446.330	524.500	484.457	9
SR	318.453	416.330	375.436	9
SF	313.883	415.330	373.294	9
TK	0.090	4.000	1.523	9
DR	30.000	159.000	109.021	9
DF	31.000	163.000	111.163	9
MD	0.000	0.000	0.000	9
PT	0.000	2.180	0.619	9
OB	30.000	159.000	109.023	9
ST	0.400	5.000	2.142	9

Horizon: GDL located in 9 out of 412 holes

	Minimum	Maximum	Average	Samples
Easting	383243.280	386518.800	385466.253	9
Northing	7054590.800	7056521.600	7055610.387	9
Collar	446.330	524.500	484.457	9
SR	310.140	409.330	361.950	9
SF	309.260	408.330	360.868	9
TK	0.160	2.000	0.808	9
DR	37.000	169.610	122.506	9
DF	38.000	170.490	123.589	9
MD	0.810	31.310	11.343	9
PT	0.000	1.440	0.274	9
OB	0.000	0.000	0.000	9
ST	0.200	2.000	1.082	9

Horizon: KN located in 122 out of 412 holes

	Minimum	Maximum	Average	Samples
Easting	381501.000	389380.040	384497.493	122
Northing	7043290.320	7059019.640	7054728.570	122
Collar	368.960	547.920	462.116	122
SR	270.240	438.500	378.825	122
SF	251.740	427.230	367.817	122
TK	0.610	21.260	8.757	122
DR	14.400	209.500	83.291	122
DF	17.400	228.000	94.299	122
MD	0.000	62.700	4.936	122
PT	0.000	24.180	2.252	122
OB	0.000	209.500	62.594	122
ST	0.610	28.400	11.008	122

Horizon: KNU located in 18 out of 412 holes

	Minimum	Maximum	Average	Samples
Easting	382887.000	386574.610	384575.378	18
Northing	7054086.850	7058892.000	7055915.279	18
Collar	435.370	535.420	467.972	18

Criteria	JORC Code explanation	Commentary

SR	297.880	418.430	376.966	18
SF	283.650	416.890	371.319	18
TK	0.380	13.950	4.642	18
DR	24.100	216.720	91.005	18
DF	28.160	222.980	96.652	18
MD	0.000	61.360	11.718	18
PT	0.000	2.500	1.005	18
OB	0.000	162.480	47.703	18
ST	0.590	16.450	5.647	18

Horizon: KNL located in 18 out of 412 holes

	Minimum	Maximum	Average	Samples
Easting	382887.000	386574.610	384575.378	18
Northing	7054086.850	7058892.000	7055915.279	18
Collar	435.370	535.420	467.972	18
SR	282.680	413.490	368.618	18
SF	279.300	412.050	364.253	18
TK	0.110	10.670	3.373	18
DR	32.640	223.100	99.354	18
DF	32.840	227.000	103.718	18
MD	0.000	8.000	2.702	18
PT	0.000	4.260	0.991	18
OB	0.000	0.000	0.000	18
ST	0.180	14.750	4.364	18

Horizon: SW located in 58 out of 412 holes

	Minimum	Maximum	Average	Samples
Easting	381712.000	388927.370	384336.726	58
Northing	7043748.100	7059555.630	7054926.489	58
Collar	389.310	547.920	460.048	58
SR	229.050	432.500	362.728	58
SF	226.050	432.000	359.859	58
TK	0.150	12.700	2.559	58
DR	7.500	250.770	97.319	58
DF	8.000	253.700	100.188	58
MD	0.000	68.330	16.571	58
PT	0.000	4.140	0.310	58
OB	0.000	156.500	20.705	58
ST	0.150	12.700	2.869	58

Horizon : SWU located in 20 out of 412 holes

	Minimum	Maximum	Average	Samples
Easting	382664.000	386694.650	384558.884	20
Northing	7055109.960	7058892.000	7056569.260	20
Collar	435.370	530.350	466.642	20
SR	219.429	400.500	338.797	20
SF	217.439	396.500	336.647	20
TK	0.014	5.940	1.662	20
DR	44.960	256.871	127.845	20
DF	46.160	258.861	129.995	20
MD	3.300	59.530	21.931	20

Criteria	JORC Code explanation	Commentary

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  PT      :          0.000          2.749          0.487             20
  OB      :          0.000          0.000          0.000             20
  ST      :          0.070          7.910          2.149             20

Horizon : SWL located in 20 out of 412 holes
          :        Minimum        Maximum        Average        Samples
  Easting :     382664.000     386694.650     384558.884             20
  Northing:    7055109.960    7058892.000    7056569.260             20
  Collar  :        435.370        530.350        466.642             20
  SR      :        217.439        394.500        334.664             20
  SF      :        213.349        393.500        333.114             20
  TK      :          0.060          4.900          1.205             20
  DR      :         46.160        258.861        131.978             20
  DF      :         51.060        262.951        133.528             20
  MD      :          0.000          6.750          1.984             20
  PT      :          0.000          1.960          0.344             20
  OB      :          0.000          0.000          0.000             20
  ST      :          0.060          4.900          1.549             20

Horizon : GG located in 103 out of 412 holes
          :        Minimum        Maximum        Average        Samples
  Easting :     380696.660     388634.900     383146.014            103
  Northing:    7043982.570    7061232.000    7055217.138            103
  Collar  :        368.700        547.920        442.914            103
  SR      :        241.140        429.880        363.758            103
  SF      :        235.220        426.530        353.698            103
  TK      :          0.800         20.000          7.744            103
  DR      :         19.300        306.780         79.156            103
  DF      :         24.200        312.700         89.216            103
  MD      :          0.000        101.700         18.082            103
  PT      :          0.000         24.922          2.316            103
  OB      :          0.000         98.500         22.590            103
  ST      :          0.800         30.200         10.061            103

Horizon : GGU located in 27 out of 412 holes
          :        Minimum        Maximum        Average        Samples
  Easting :     381462.000     386694.650     384790.974             27
  Northing:    7054086.850    7058892.000    7056319.908             27
  Collar  :        435.370        530.350        479.156             27
  SR      :        166.521        411.860        297.211             27
  SF      :        164.291        409.110        292.992             27
  TK      :          0.240          7.790          2.982             27
  DR      :         61.870        309.779        181.945             27
  DF      :         64.620        312.009        186.164             27
  MD      :          0.000        133.500         41.117             27
  PT      :          0.000          7.000          1.237             27
  OB      :          0.000         65.890          4.732             27
  ST      :          0.310         11.497          4.219             27

Horizon : GGM located in 13 out of 412 holes
          :        Minimum        Maximum        Average        Samples
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Criteria	JORC Code explanation	Commentary
		Easting : 381462.000 386694.650 384055.553 13 Northing: 7055109.960 7058892.000 7056764.841 13 Collar : 435.370 530.350 474.398 13 SR : 164.291 409.110 323.209 13 SF : 149.071 406.670 317.818 13 TK : 0.100 2.440 1.018 13 DR : 64.620 312.009 151.188 13 DF : 67.060 327.229 156.580 13 MD : 0.000 14.000 3.999 13 PT : 0.000 22.839 4.373 13 OB : 0.000 0.000 0.000 13 ST : 0.100 24.269 5.391 13 Horizon : GGL located in 23 out of 412 holes : Minimum Maximum Average Samples Easting : 381462.000 386694.650 384725.372 23 Northing: 7054086.850 7058892.000 7056345.737 23 Collar : 435.370 530.350 482.301 23 SR : 149.071 405.150 292.401 23 SF : 146.651 402.340 286.544 23 TK : 0.380 10.000 3.648 23 DR : 68.580 327.229 189.901 23 DF : 71.390 329.649 195.757 23 MD : 0.000 25.700 4.252 23 PT : 0.000 9.219 2.208 23 OB : 0.000 0.000 0.000 23 ST : 0.960 14.859 5.856 23
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Details of washability results (F1.6-F2.0) is included in the main body of the JORC report. Rock characteristics including weathering and tertiary zones as well as igneous (both basalt and basement) is also discussed. Structural data including faulting, dip and strike, basin limits have mainly been interpreted through seam correlations with the aid of historical reports.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Additional investigative work is required to ensure all available historical data is incorporated. Further work is required to establish the true limits of the western basement contact in EPC 882. Further work is required to adequately position the weathering profile in areas of the Project were seam placements are relatively shallow. The area that comprises the five sub-blocks at the southern margin of EPC 882 (namely BRIS2326 – P; BRIS2327 – Q, R, S and W) has been presently excluded from any Coal Resource estimate on the basis that further work is required to develop a more detailed understanding. Further work is required to establish the limits of coal seam extent in the northern portion of EPC 882. Large diameter test work is required to provide adequate information into practical sizing distributions and yield expectations from ROM coal.

Criteria	JORC Code explanation	Commentary
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Future exploration drilling is presently considered commercial in confidence.

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 spanning the time period from the 1960's to near present was compiled in a Microsoft access database. The data from various previous companies was converted into CoalLog (vers2.0) to create a homogenous database free from conflicting coding practices. References to original reports have been maintained in the new database. Copies and extracts of all available historical reports have been incorporated into an electronic project filing system as well as hardcopy outputs to populate a physical library. Validation testing was carried out on survey, lithological and analytical data.
	Data validation procedures used.	Due to the data being sourced from previous companies the quality of data including lithological logging, sampling techniques, sample testing, collar surveys (and coordinate systems) is variable. A Point of Observation matrix has been created in order to grade holes and seam intersections based on their data quality. Collar surveys have been converted into GDA94. Descriptive survey positions were tested against historical maps and QDEX available plans of borehole locations. Collar survey elevations when available were tested against SRTM topographic model. Lithological logs were recoded into CoalLog format and hardcopy logs produced and tested against previous English log listings for compatibility. Wireline profiles were compared when available against lithological logs. Regression analysis of sample analysis and statistical testing of key proximate and wash data was carried out.
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.*	David Arnott who is the Competent Person for reported Coal Resources has visited the Project site in May and September 2015. Visits involved an initial familiarization with the site and area on a localized basis, with a second visit to establish validity of historical borehole locations. No direct viewing of exploration drilling or samples generated to physically verify sampling methodology has been made by the Competent Person.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	A reliability matrix was developed for each borehole and associated seam intersections. This was then modelled to provide an indication of the robustness of data used in the geological interpretation over a defined area.
	Nature of the data used and of any assumptions made.	Seam intersections, wireline logs, coal quality.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	No alternative interpretation
	The use of geology in guiding and controlling Mineral Resource estimation.	Correlations based on seam intersections and wireline geophysics
	The factors affecting continuity both of grade and geology.	Sand channels, oxidation, and overlying unconformity

Criteria	JORC Code explanation	Commentary
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Coal Resources has been calculated within the confines of EPC 882 and MDL 385 extending over a polygonal area from 381500 E 7053500 N to 387500 E 7061500 N. The Resource is limited to reporting the following seams: • Glider • Kunioon • Swain • Goodger The Coal Resource is reported on an in-situ basis and is limited to the above seams that have an accumulated stripping ratio of less than 8:1 (bcm/t). Reporting divisions have been made in the JORC Report that breakdown the Coal Resource by tenement, road area (Bunya Highway and Kingaroy-Cooyar Road) as well as the Restricted area (RA384).
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	The geological model has been prepared using VULCAN geological software (vers 9.1.0). The estimation technique applied for coal quality used an IVD2 estimate with a maximum search radius between composite analysis points of 1,100m. Structural models were developed using FixDHD to determine interpolated seam positions in deeper sections only drilled to a shallow depth. The modelling technique employed a 1st order trending technique with a maximum search distance of 1,100m. Seams were limited to observed sections and only extended where geological interpretation allowed.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	No mine production records exist over the project area for comparison. Coal quality analysis for the project area compares with other historical data assembled for the wider Tarong Basin. Tabled Coal Resources completed by previous parties compare favourably when considered over similar areas. Classifications have been modified to reflect changes to the Coal Guidelines and greater rigour applied to dataset.
	The assumptions made regarding recovery of by-products.	Not applicable to mineralization style
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Total sulphur has been estimated on a RAW and WASHED (F2.00) air dried basis and is reported with the Coal Resource.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Grid modelling method employed with a cell spacing of 50 x 50 m.
	Any assumptions behind modelling of selective mining units.	No SMU applied
	Any assumptions about correlation between variables.	Correlation exists between ASH, RD and CV
	Description of how the geological interpretation was used to control the resource estimates.	Modelled on a seam basis
	Discussion of basis for using or not using grade cutting or capping.	Grade variability low – no cutting applied
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Direct visual checks applied

Criteria	JORC Code explanation	Commentary
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages have been calculated on a natural moisture in-situ basis. This has been calculated through use of the ACARP C10041 formula (Fletcher I. et al 2003). In-situ relative density was calculated using Preston and Sanders (1993) formula. Refer to the main body of the report for a detailed explanation.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The JORC report has been broken down by both accumulated overburden to coal stripping ratios and key areas with the tenement. Coal quality has been reported both on an in-situ RAW (ad) basis and with a theoretical WASH product of F2.00. Key parameters reported include RD, AS, CV, TS and YLD. Average values are reported (ad) with minimum and maximum values also tabled in main body of report.
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.*	Mining methods expected for this Coal Resource would comprise “truck and shovel” and possible dragline for deeper overburden removal. Draglines are the lowest cost solution for gently dipping, shallow deposits which are not structurally complex. The minimum area for a potential mining area was 100 m2 although areas larger than this were excluded when considered isolated and located in areas where a high likelihood of potential extraction was considered unlikely given the larger areas of material that were more contiguous and would enable development of a large tonnage open cut mining operation. Minimum mining thickness of seams is defined as 0.1 m. Minimum interburden thickness were seam splitting occurs is 0.3 m.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The Coal Resource is considered to be sold as a raw product blended with beneficiated material. . A variety of raw coal quality and density cut points have been tested, ranging between 1.40 and 2.00. By far the largest proportion of wash data has been collated around the F2.00 cut point and a target ash product of 28%. This would appear to provide a yield of approximately 75% with a target ash of around 20-25% and sufficient energy to be considered for suitable for domestic coal supply for thermal power generation.
Environmen-tal 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.*	Dry extraction with waste dumping back into the pit is the considered method of waste management.
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.*	Tonnages have been calculated on a natural moisture in-situ basis. This has been calculated through use of the ACARP C10041 formula (Fletcher I. et al 2003). In-situ relative density was calculated using Preston and Sanders (1993) formula. Refer to the main body of the report for a detailed explanation.

Criteria	JORC Code explanation	Commentary
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The reliability of POB has been graded for each seam intersection within each individual borehole. Factors that have been considered in the application of data reliability include: • drilling method, • detail applied in logging observations, • proximity to nearby boreholes and variability between adjacent lithological logs, • collar location surveying methodology, • downhole geophysical wireline logging, • sampling regime and • coal quality analysis undertaken. Combined with this assessment additional aspects were then considered in determining the limits of Coal Resource classification boundaries for each of the coal seams over the project area. Measured Coal Resources were generally required to have a minimum of 3 POB for both Quantity and Quality within approximately 250 m of one POB to another. Variability in the quality values, both on a RAW and washed basis was expected to be low. Where insufficient Quality POB data existed yet sufficient existed on a data spacing basis for Quantity the Resource classification confidence category was reduced to Indicated. Indicated Coal Resources were generally required to have a minimum of 3 POB for Quantity and 2 POB for Quality within approximately 1000 m of one POB to another. Variability in the quality values, both on a RAW and washed basis was expected to be also be low. Moderate to high variability between Quality POB adjacent to each other would downgrade the classification if Indicated to Inferred. Where insufficient Quality POB data existed with the distribution of POB spacing for Quantity being sufficient the Resource classification confidence category was also reduced to Inferred. However where closely spaced (~250 m) quantity POB were observed extending beyond the bounds of the maximum quality POB defined distance (~1,000 m) the Indicated Resource classification areas was extended to incorporate these regions up to a maximum of approximately 2,000 m from a Quality POB. Inferred Coal Resources were required to have a minimum of 2 POB for Quantity and 1 POB for Quality within approximately 2000 m of one POB to another. Variability in the quality values, both on a RAW and washed basis was expected to be at least moderate. Where insufficient quality POB data existed the Resource classification confidence category was removed and the area considered as Inventory requiring further exploration. Coal seams less than 0.1 m structural thickness were excluded from being categorised as a Coal Resource. An overburden to stripping ratio (bcm/t) was determined for the main seam groups (GD, KN, SW and GG) accumulated over the Project focus area. Ratios of greater than 8 bcm/t were excluded from the Resource classification. It should be noted that the seams modelled are inclusive of parting material which would convert to reject material during beneficiation.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	No audits or review have been conducted
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 approach applied to estimate the confidence in the Coal Resource employed modelling of the confidence in POB data using a reliability matric tool developed specifically for this data set in conjunction with an assessment of the density spacing of available information for POB (Quantity and Quality).

Criteria	JORC Code explanation	Commentary
	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 estimate provided is local. The tonnages provided are reported on a seam basis with associated average physical and coal quality parameters. Detailed discussion is provided in the JORC report on the methodology employed in the estimation and calculation of the Coal Resource.

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.*	Not applicable to level of estimate being reported
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.*	Not applicable to level of estimate being reported
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.*	Not applicable to level of estimate being reported
Cut-off parameters	*The basis of the cut-off grade(s) or quality parameters applied.*	Not applicable to level of estimate being reported
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.* *Any minimum mining widths used.* *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*	Not applicable to level of estimate being reported

Criteria	JORC Code explanation	Commentary
	The infrastructure requirements of the selected mining methods.	
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 as a whole.* *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	Not applicable to level of estimate being reported
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.*	Not applicable to level of estimate being reported
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.*	Not applicable to level of estimate being reported
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.*	Not applicable to level of estimate being reported
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.*	Not applicable to level of estimate being reported
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.*	Not applicable to level of estimate being reported
Economic	*The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	Not applicable to level of estimate being reported

Criteria	JORC Code explanation	Commentary
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	
Social	*The status of agreements with key stakeholders and matters leading to social licence to operate.*	Not applicable to level of estimate being reported
Other	*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.*	Not applicable to level of estimate being reported
Classification	*The basis for the classification of the Ore Reserves into varying confidence categories.* *Whether the result appropriately reflects the Competent Person's view of the deposit.* *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	Not applicable to level of estimate being reported
Audits or reviews	*The results of any audits or reviews of Ore Reserve estimates.*	Not applicable to level of estimate being reported
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* *The 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 should be compared with production data, where available.*	Not applicable to level of estimate being reported

Section 5 Estimation and Reporting of Diamonds and Other Gemstones

(Criteria listed in other relevant sections also apply to this section. Additional guidelines are available in the 'Guidelines for the Reporting of Diamond Exploration Results' issued by the Diamond Exploration Best Practices Committee established by the Canadian Institute of Mining, Metallurgy and Petroleum.)

Criteria	JORC Code explanation	Commentary
Indicator minerals	*Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.*	Not applicable to commodity type being reported

Criteria	JORC Code explanation	Commentary
Source of diamonds	*Details of the form, shape, size and colour of the diamonds and the nature of the source of diamonds (primary or secondary) including the rock type and geological environment.*	Not applicable to commodity type being reported
Sample collection	*Type of sample, whether outcrop, boulders, drill core, reverse circulation drill cuttings, gravel, stream sediment or soil, and purpose (eg large diameter drilling to establish stones per unit of volume or bulk samples to establish stone size distribution).* *Sample size, distribution and representivity.*	Not applicable to commodity type being reported
Sample treatment	*Type of facility, treatment rate, and accreditation.* *Sample size reduction. Bottom screen size, top screen size and re-crush.* *Processes (dense media separation, grease, X-ray, hand-sorting, etc).* *Process efficiency, tailings auditing and granulometry.* *Laboratory used, type of process for micro diamonds and accreditation.*	Not applicable to commodity type being reported
Carat	*One fifth (0.2) of a gram (often defined as a metric carat or MC).*	Not applicable to commodity type being reported
Sample grade	*Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume.* *The sample grade above the specified lower cut-off sieve size should be reported as carats per dry metric tonne and/or carats per 100 dry metric tonnes. For alluvial deposits, sample grades quoted in carats per square metre or carats per cubic metre are acceptable if accompanied by a volume to weight basis for calculation.* *In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive sample grade (carats per tonne).*	Not applicable to commodity type being reported
Reporting of Exploration Results	*Complete set of sieve data using a standard progression of sieve sizes per facies. Bulk sampling results, global sample grade per facies. Spatial structure analysis and grade distribution. Stone size and number distribution. Sample head feed and tailings particle granulometry.* *Sample density determination.* *Per cent concentrate and undersize per sample.* *Sample grade with change in bottom cut-off screen size.* *Adjustments made to size distribution for sample plant performance and performance on a commercial scale.* *If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples.* *The weight of diamonds may only be omitted from the report when the diamonds are considered too small to be of commercial significance. This lower cut-off size should be stated.*	Not applicable to commodity type being reported
Grade estimation for reporting Mineral Resources and Ore Reserves	*Description of the sample type and the spatial arrangement of drilling or sampling designed for grade estimation.* *The sample crush size and its relationship to that achievable in a commercial treatment plant.* *Total number of diamonds greater than the specified and reported lower cut-off sieve size.* *Total weight of diamonds greater than the specified and reported lower cut-off sieve size.* *The sample grade above the specified lower cut-off sieve size.*	Not applicable to commodity type being reported

Criteria	JORC Code explanation	Commentary
Value estimation	*Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples.* *To the extent that such information is not deemed commercially sensitive, Public Reports should include:* • *diamonds quantities by appropriate screen size per facies or depth.* • *details of parcel valued.* • *number of stones, carats, lower size cut-off per facies or depth.* *The average $/carat and $/tonne value at the selected bottom cut-off should be reported in US Dollars. The value per carat is of critical importance in demonstrating project value.* *The basis for the price (eg dealer buying price, dealer selling price, etc).* *An assessment of diamond breakage.*	Not applicable to commodity type being reported
Security and integrity	*Accredited process audit.* *Whether samples were sealed after excavation.* *Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones.* *Core samples washed prior to treatment for micro diamonds.* *Audit samples treated at alternative facility.* *Results of tailings checks.* *Recovery of tracer monitors used in sampling and treatment.* *Geophysical (logged) density and particle density.* *Cross validation of sample weights, wet and dry, with hole volume and density, moisture factor.*	Not applicable to commodity type being reported
Classification	*In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive grade (carats per tonne). The elements of uncertainty in these estimates should be considered, and classification developed accordingly.*	Not applicable to commodity type being reported