

### **Statement of Coal Resources**

PT. RungePincockMinarco ("RPM") was commissioned by PT. Bayan Resources Tbk. ("Bayan") to prepare independent coal Resources estimates (hereafter, referred to as the "Statement") for a number of its operations and properties namely:

- PT Teguh Sinar Abadi (TSA), operating coal mine, and
- PT Firman Ketaun Perkasa (FKP), operating coal mine.

The Statement reports the Coal Resources at 1 April 2022 in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition (The Joint Coal Reserves Committee Code -JORC 2012 Edition) (JORC).

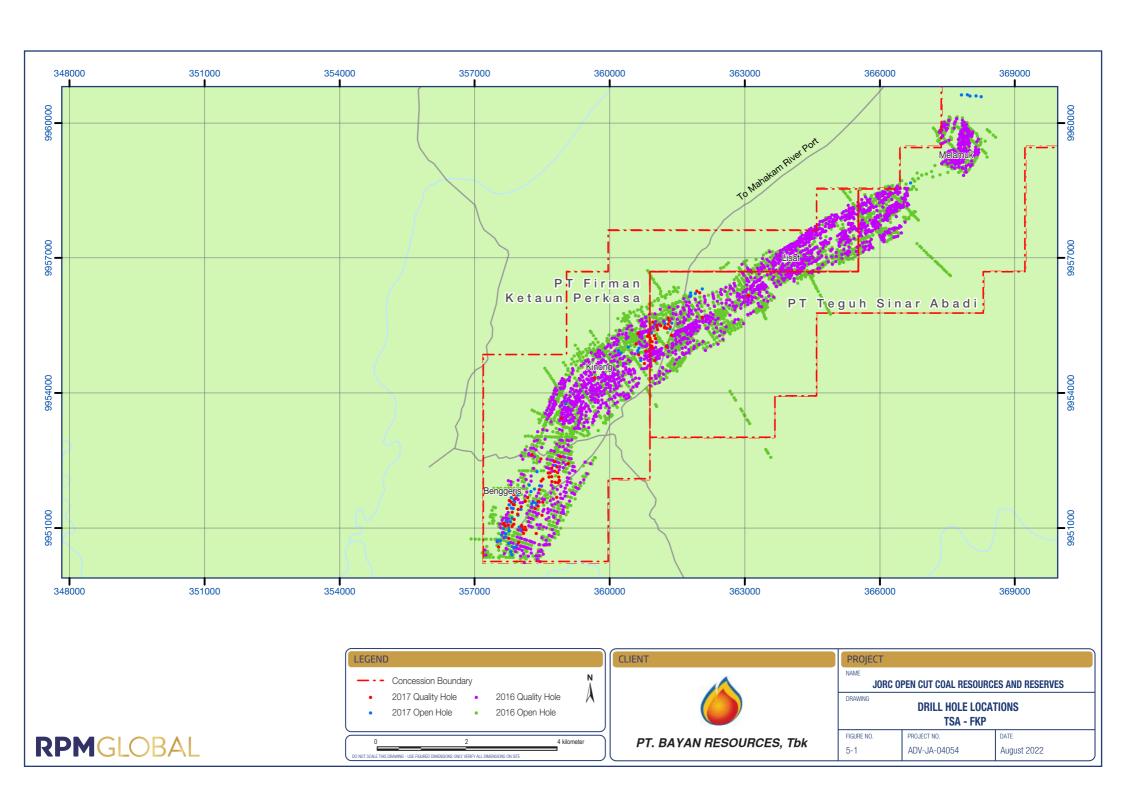
TSA and FKP are adjoining concessions and operated as a combined mine operation known as TSA-FKP Project.

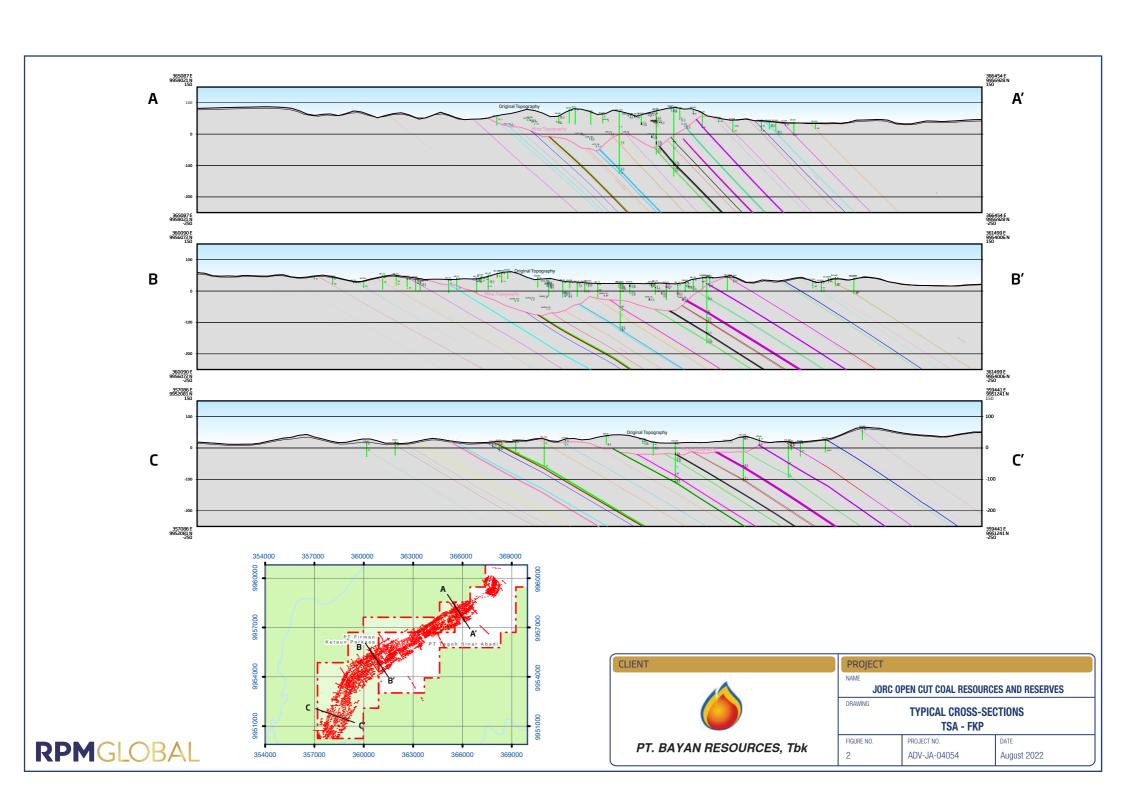
TSA-FKP project occurs in the Middle Miocene age Pulaubalang Formation. The geology is continuous across the TSA and FKP concessions and can be described as a southwest-northeast trending monocline structure. The dip is moderate to steep, ranging from 25 to 50 degrees to the southeast. The dip changes are gradational, with moderate dips identified in the southwest and steep dips located in the north-eastern part.

TSA-FKP Coal Resource area has been subject to drilling with typical drill spacing 50 m to 200 m. A total of 4,863 drill holes were completed, with the latest exploration was completed in 2017. There is no additional drilling since the previous JORC report, however, the geology has been updated by actual coal surveys and pit mappings during the intervening period.

The TSA-FKP drill plan that has been completed and is the basis for the geological model representing the deposits is outlined in **Figure 1**.

Typical cross sections through the deposit are shown in **Figure 2** to outline the occurrence of the coal seams in the TSA and FKP coal Resource area.







As at 1 April 2022 the total coal Resources of TSA-FKP are 180 million tonnes, with the details of the coal Resources of each property outlined in **Table 1** to **Table 2**. Notes common to **Table 1** through **Table 2** are shown following **Table 2**.

Example of Resource limits for the main seam of each concession in the TSA-FKP deposit are shown in **Figure 3** and **Figure 4**.

Table 1 TSA Coal Resources Summary as at 1 April 2022

		Resources (Mt)			TM	CV	Ash	TS	IM	RD
Area/Block		Resourc	es (IVII)		%	kcal/kg	%	%	%	
	Inferred	Indicated	Measured	Total	(ar)	(gar)	(adb)	(adb)	(adb)	In situ
Inferred Resource	es									
TSA	8	0	0	8	16.8	5,860	5.8	1.44	13.1	1.31
Indicated Resource	ces									
TSA	0	47	0	47	15.8	6,065	4.8	0.94	12.6	1.30
Measured Resour	ces									
TSA	0	0	13	13	16.0	6,045	4.7	0.70	13.0	1.30
Grand Total/Average	8	47	13	68	15.9	6,035	4.9	0.95	12.7	1.30

Table 2 FKP Coal Resources Summary as at 1 April 2022

		Pasaur	oos (Mt)		TM	CV	Ash	TS	IM	RD
Area/Block		Resour	ces (Mt)		%	kcal/kg	%	%	%	
	Inferred	Indicated	Measured	Total	(ar)	(gar)	(adb)	(adb)	(adb)	In situ
Inferred Resour	ces									
FKP	21	0	0	21	17.1	5,850	5.0	1.30	13.8	1.30
Indicated Resou	Indicated Resources									
FKP	0	71	0	71	17.5	5,840	4.8	0.83	14.5	1.30
Measured Reso	Measured Resources									
FKP	0	0	20	20	17.6	5,875	4.3	0.73	14.8	1.30
Grand Total/Average	21	71	20	112	17.4	5,850	4.7	0.90	14.4	1.30

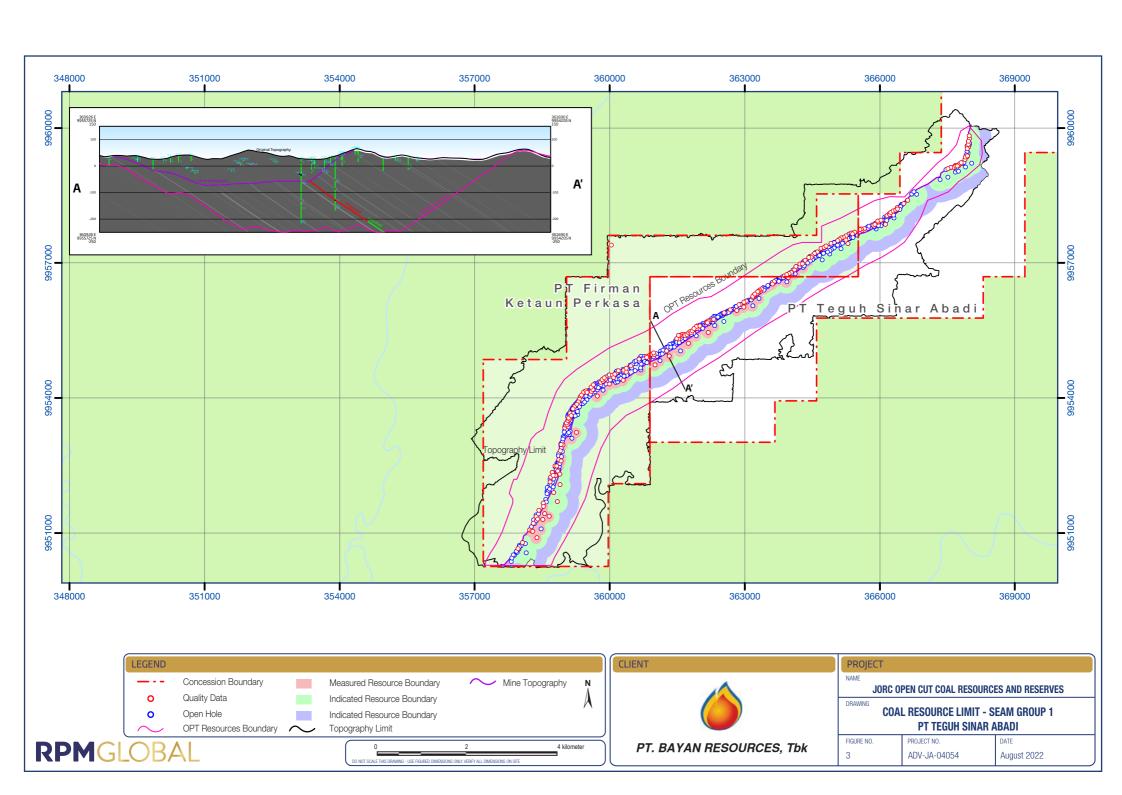
#### Notes for Table 1 to Table 2 inclusive:

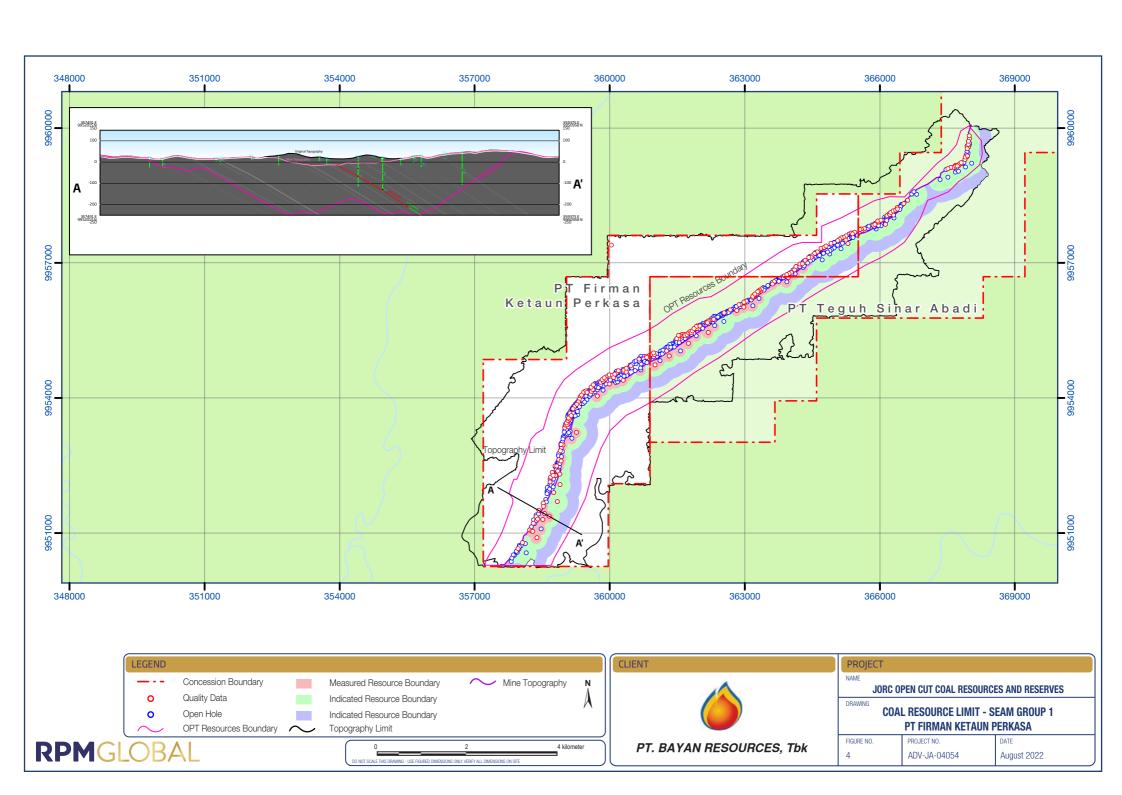
- 1. The Statement of JORC Coal Resources for TSA and FKP has been compiled by Mr. Gamet Nugroho who is a full-time employee of RPM and a Registered Member of the Australian Institute of Mining and Metallurgy. Mr. Nugroho has sufficient experience that is relevant to the style of Coal and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.
- 2. All Coal Resources figures reported in the table above represent estimates at 1 April, 2022. Coal Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results.
- 3. Figures reported are rounded which may result in small tabulation errors.
- 4. Resources are reported inclusive of Reserves.
- 5. Coal Resources have been estimated in accordance with the guidelines of the 2012 Edition of the JORC Code and the Australian Coal Guidelines 2014 edition.
- 6. Resources are reported on a 100% equity basis.
- 7. RPM evaluated the reasonable prospect for eventual economic extraction using open cut mining method for the Resources through a pit optimisation process. An economic pit shell was used to limit the reported Resources



based on operating costs as outlined in the Reserves estimate and a coal price of USD 151 per tonne for 6,322 kcal/kg gar energy, adjusted based on the coal quality estimated for the deposit. This price is based on a combination of historical realised prices and longer term forecast benchmark prices. An overall slope of 35 degrees was applied in the optimisation process for the high walls. The average depth of deep drilling was also used as a lower limit to the Resources limits, this to ensure the continuity of coal seams within the selected optimisation results. This resulted in an average SR of approximately 26.7:1 for the whole TSA-FKP area.

Please refer to the sections following the Competent Persons Statement (Resources) that include Table 1, Sections 1 to 3, copied directly from the current Statement of Coal Resources prepared by Mr Gamet Nugroho (RPM).







### **Competent Person Statement**

The information in the Report, to which this statement is attached, that relates to Coal Resources is based on information compiled and reviewed by the Client and RPM geologists under the supervision or Mr Gamet Nugroho, who is a Member of The Australasian Institute of Mining and Metallurgy and works full-time for PT. RungePincockMinarco (RPM).

I. Gamet Nugroho, confirm that I am the Competent Person for the Coal Resources stated in this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition);
- The estimates of Coal Resources presented in this Report have been carried out in accordance with the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (2012):
- I am a Geologist and Competent Person as defined by the JORC Code 2012 Edition, having over 17 years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity which I have undertaken in the preparation of this Report;
- I am a Member of The Australasian Institute of Mining and Metallurgy; and
- I have reviewed the Report to which this Consent statement applies.

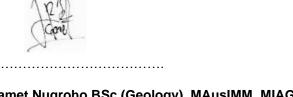
I confirm a full-time employee of PT RungePincockMinarco that has been engaged by PT. Bayan Resources Tbk. ("Bayan" or the "Client") to prepare an independent estimate (hereafter, referred to as the "Statement") of a number of its operations and properties namely:

- PT Teguh Sinar Abadi (TSA), operating coal mine, and
- PT Firman Ketaun Perkasa (FKP), operating coal mine.

The Statement reports the Coal Resources as at 1 April 2022.

I am not aware of any potential for a conflict of interest in relation to this work for the Client. I have no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this Coal Resource Statement. RPM will receive a professional fee for the preparation of this Statement. Accordingly, I have disclosed to the reporting company the full nature of the relationship between myself and the Client, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Coal Resources.



Gamet Nugroho BSc (Geology), MAusIMM, MIAGI



#### **Statement of Coal Reserves**

PT RungePincockMinarco (RPM) has completed an update of the previous coal Reserves for the PT Bayan Resources properties of:

- PT Teguh Sinar Abadi (TSA), operating coal mine, and
- PT Firman Ketaun Perkasa (FKP), operating coal mine.

As at 1 April 2022 the total coal Reserves of the 2 properties are 7.6 million tonnes, with the details of the coal Reserves of each property outlined in **Table 3** and **Table 4**. Also outlined in is the representation of the pit limits that contain the coal Reserves as presented in this Statement. Notes common to **Table 3** and **Table 4** are shown following **Table 4**.

Please refer to the sections following the Competent Persons Statement (Reserves) that include Table 1, Section 4, copied directly from the current Statement of Coal Reserves prepared by Mr Gusti Sumardika (RPM).

					•		•		
	Date	(N/4)		TM	IM	Ash	TS	CV	RD
Area/Block	Res	erves (Mt)		%	%	%	%	kcal/kg	
	Probable	Proved	Total	(ar)	(adb)	(adb)	(adb)	(gar)	In situ
Probable Reserves									
TSA	0.6	0.0	0.6	12.8	10.5	6.3	1.36	6,220	1.29
Proved Reserves									
TSA	0.0	0.4	0.4	15.0	12.5	6.7	1.09	5,940	1.30
Grand	0.6	0.4	1.0	13.7	11.3	6.5	1.25	6,110	1.30

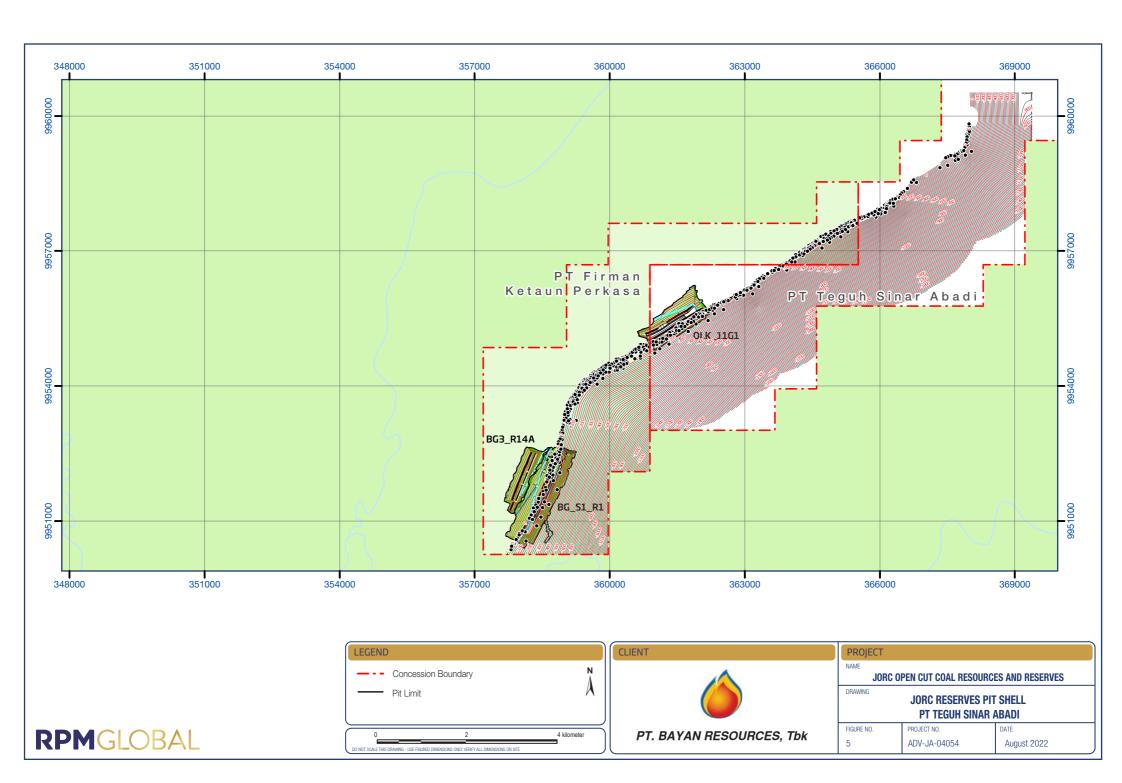
Table 3 TSA Coal Reserves Summary as at 1 April 2022

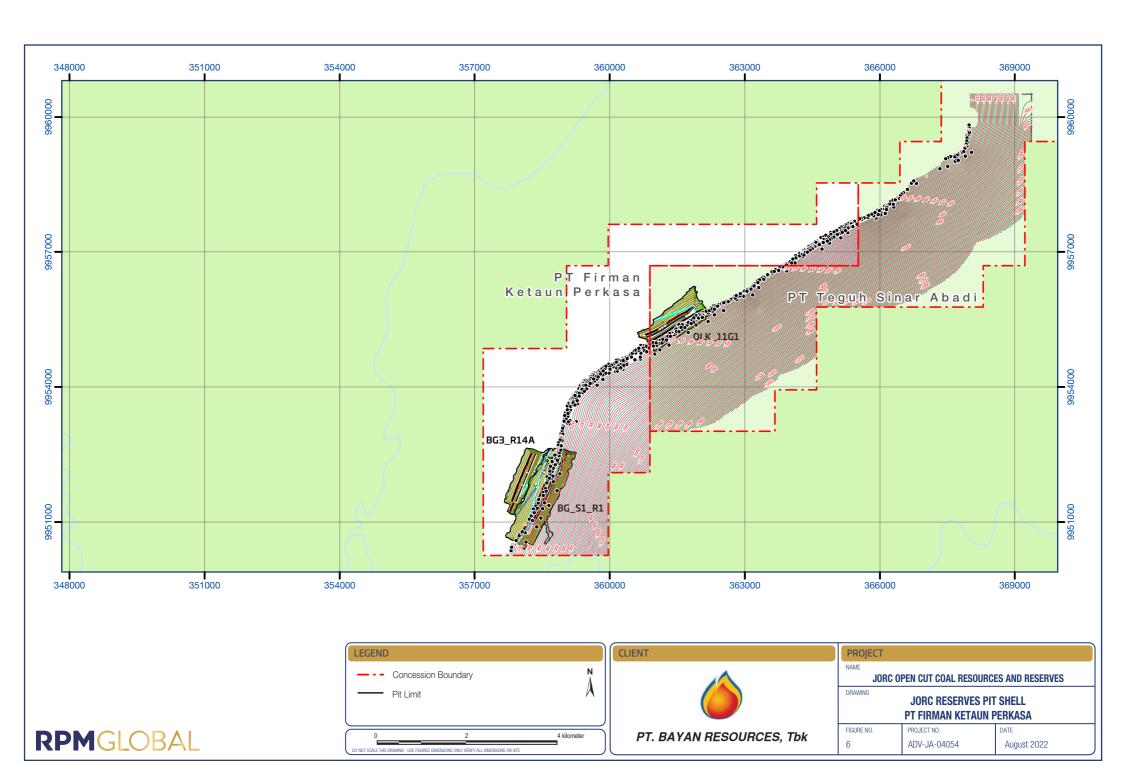
	Re	serves (Mi	:)	TM	IM	Ash	TS	CV	RD
Area/Block		•		%	%	%	%	kcal/kg	
	Probable	Proved	Total	(ar)	(adb)	(adb)	(adb)	(gar)	In situ
Probable Reserv	es es								
FKP	4.1	0.0	4.1	18.5	15.3	6.7	0.93	5,610	1.30
Proved Reserves									
FKP	0.0	2.5	2.5	18.9	16.2	6.0	0.66	5,620	1.31
Grand Total/Average	4.1	2.5	6.6	18.6	15.6	6.4	0.83	5,610	1.30

Notes for Table 3 and Table 4:

Total/Average

- 1. The Statement of JORC Open Cut Coal Reserves has been compiled under the supervision of Mr. Gusti Sumardika who is a full-time employee of RPM and a Registered Member of the Australian Institute of Mining and Metallurgy Mr. Gusti Sumardika has sufficient experience which is relevant to the style of Coal and type of deposit under consideration to qualify as a Competent Person as defined in the JORC Code.
- 2. Tonnages are metric tonnes.
- 3. Coal Reserve estimates are not precise calculations. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
- 4. Coal Reserves have been estimated in accordance with the guidelines of the 2012 Edition of the JORC Code and the Guidelines 2003 Edition.
- 5. Coal Reserves have been estimated on a 100% ownership basis.
- 6. Marketable Reserves are the same as Coal Reserves. Product is sold as a crushed coal product with no coal washing activity undertaken.
- 7. Marketable Reserves and Coal Reserves are inclusive and not additional to the Coal Resources.







### **Competent Persons Statement**

The Statement reports the coal Reserves as at 1 April 2022 and has been undertaken in accordance with the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

The coal Reserve estimate is based on information compiled and reviewed by the Client and RPM mining engineers under the supervision of Mr Gusti Sumardika, who is a Member of The Australasian Institute of Mining and Metallurgy and works full-time for PT. RungePincockMinarco (RPM). Mr Gusti Sumardika is a qualified Mining Engineer who has more than 18 years of relevant mining and engineering experience in coal, working for major mining companies and as a consultant. During this time, Mr Gusti Sumardika has either managed or contributed significantly to numerous mining studies related to the estimation, assessment, evaluation and economic extraction of coal in Indonesia.

The appended JORC Code, 2012 Edition – Table 1 sets out all the information material to understanding the estimate of the coal Resources and Reserves.

I, Mr Gusti Sumardika, confirm that I am the Competent Person for the Coal Reserves stated in this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition);
- The estimates of Coal Reserves presented in this Report have been carried out in accordance with the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (2012);
- I am a qualified Mining Engineer and Competent Person as defined by the JORC Code 2012 Edition, having over 18 years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity which have undertaken in the preparation of this report;
- I am a Member of The Australasian Institute of Mining and Metallurgy; and
- I have reviewed the Report to which this Consent statement applies.

I confirm I am a full-time employee of PT RungePincockMinarco that has been engaged by PT. Bayan Resources Tbk. ("Bayan") to prepare an independent estimate (hereafter, referred to as the "Statement") of a number of its operations including specifically for the purposes of this report, the Open Cut Coal Reserves for:

- PT Teguh Sinar Abadi (TSA), and
- PT Firman Ketaun Perkasa (FKP).

The Statement reports the Coal Reserves as at 1 April 2022.

The Statement reports the Coal Reserves as at 1 April 2022.

I am not aware of any potential for a conflict of interest in relation to this work for the Client. I have no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this Coal Reserves Statement. RPM will receive a professional fee for the preparation of this Statement. Accordingly, I have disclosed to the reporting company the full nature of the relationship between myself and the Client, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Coal Reserves.

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I Gusti Made Sumardika BSc (Mining), MAusIMM, MPerhapi



# PT. Teguh Sinar Abadi

# JORC Code, 2012 Edition – Table 1 Report Template

The text presented in Table 1, Sections 1 to 3 has been copied directly from the current Resources Statement prepared by Mr Gamet Nugroho (RPM).

The text presented in Table 1, Section 4 has been copied directly from the current Reserves Statement prepared by Mr Gusti Sumardika (RPM).



## **Section 1 Sampling Techniques and Data**

Criteria	JORC Explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Open hole drilling was also used with chip samples or cuttings logged by the rig geologist. These chip samples were not analysed.</li> <li>A suite of downhole geophysical surveys, including Density, Gamma, and Calliper, were typically run in the majority of geophysically logged holes. No drill hole deviation was completed due to vertical drilling. The geophysical logging was carried out by an external contractor and subject to their internal calibration, quality assurance and quality control procedures. Geophysical logs were used whenever available to supplement the geologist's lithological description of the cores to:</li> </ul>
Drilling techniques	<ul> <li>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.).</li> </ul>	<ul> <li>PCD bits using air and water are used to complete the open hole sections of drill holes.</li> <li>Use of NQ and HQ follows Industry accepted Standards for the acquisition of bore core.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	Linear drill hole core recovery was measured for all coal quality drill holes on a run-by-run basis. Actual recovered core lengths were measured with a tape



Criteria	JORC Explanation	Commentary
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>measure and any core loss is recorded in geological logs, coal quality sample intervals and in the run-by-run drilling record field sheets.</li> <li>Core holes were redrilled when poor core recovery had the potential to materially affect the coal quality models (in general, this is where recovery was less than 90%).</li> <li>No sample bias was identified in the current model dataset.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul><li>drilling operations.</li><li>Preliminary core logs were derived from lithological logging of open hole chip "cuttings" and logging of</li></ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all cores taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split,</li> </ul>	<ul> <li>No splitting of core is undertaken in the field. Sample preparation was done in PT Geoservices laboratory at Balikpapan and site.</li> <li>Coal samples were wrapped and sealed</li> </ul>



Criteria	JORC Explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF</li> </ul>	<ul> <li>immediately once core logging was completed to minimise moisture loss to ensure the samples were representative of the in-situ moisture.</li> <li>The coal samples collected for quality modelling were from NQ core size (47.6mm) and HQ core size (63.5mm). This core size provides sufficient sample mass for testing of raw coal parameters.</li> <li>The samples were submitted to PT Geoservices laboratory for analysis. The laboratory is internationally accredited, and all analyses were conducted in accordance with appropriate international standards.</li> </ul>
	<ul> <li>instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>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.</li> </ul>	<ul> <li>Most of coal plies have been subjected to a proximate analysis (which includes IM, Ash, VM, FC), TM, TS and CV.</li> <li>No QAQC was performed directly by the Client. It is expected that such a thorough QAQC was</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical</li> </ul>	The logging and sampling were conducted by TSA geologists. The majority of core samples were acquired using the "touch cored" method. The samples depths were adjusted using geophysical log data where it was available. There are also several geotechnical holes which were drilled as



Criteria	JORC Explanation	Commentary
	and electronic) protocols.	fully cored holes.
	Discuss any adjustment to assay data.	<ul> <li>The protocols for sample acquisition, data entry, and data verification were developed internally by TSA. The assaying was completed by external accredited laboratory.</li> </ul>
		<ul> <li>No adjustment was made to the assay data. A more detail discussion is available in Section 5.6 and Section 6.7.</li> </ul>
Location of data points	<ul> <li>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.</li> </ul>	<ul> <li>All of drill hole collars were surveyed by Total Station. The topography was derived from combination of high precision ground and aerial survey (LIDAR).</li> </ul>
	<ul> <li>Specification of the grid system used.</li> </ul>	<ul> <li>The Project is using UTM 50S grid system.</li> </ul>
	<ul> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The benchmarks were derived from high precision Geodetic GPS which tied to the Government survey control.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill hole line spacing is typically 50 – 200 m in most of the areas.</li> <li>This is considered adequate for classification of Coal Resources to Measured and Indicated category with due consideration for the variance in coal seam thickness, coal quality and structural complexity.</li> <li>Sample compositing to a seam basis has been applied whenever the samples were based on plyby-ply basis.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and</li> </ul>	The geological data including samples, was gathered based on vertical drilling with some being supported with geophysical logging.



Criteria	JORC Explanation	Commentary
	the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	<ul> <li>All core and cuttings were geologically described by qualified field geologists.</li> </ul>
		<ul> <li>Coal samples were stored in core trays on site.</li> <li>Samples were taken from the core boxes, bagged in plastic bags with hole and sample numbers, and sent to the external laboratories once the instructions were completed.</li> </ul>
		<ul> <li>All sampling and sample labelling was undertaken by or supervised by the field geologist.</li> </ul>
		<ul> <li>Samples were packed, handled and transported with normal care, documentation and chain of custody</li> </ul>
		<ul> <li>Coal is a bulk commodity so no high-level security measures are deemed necessary since it is very unlikely to be subject to systematic material impact from sample tampering, theft or loss.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Coal sampling method adopted was on a "ply-by- ply" basis and samples were plastic wrapped and sealed in PVC "splits" to minimise any moisture loss.</li> </ul>
		<ul> <li>In the previous work, quoted core recoveries were crosschecked against the corresponding core photographs.</li> </ul>
		<ul> <li>Sampling and data acquisition procedures were reviewed by RPM at the time of the 2022 site visit, which confirmed that the exploration approach being used is acceptable for Resource reporting purposes.</li> </ul>



## **Section 2 Reporting of Exploration Results**

Criteria	JORC Explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>TSA concessions has valid IUP (mining lease), documentation. No material issues were identified regarding this matter.</li> <li>The project is in the operating stage with a valid license. RPM is unaware of any issues with operating in the area.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The TSA exploration was completed by TSA. A more detail discussion is shown in <b>Section 5.1</b>.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The Project concessions are within multi-seam deposits that occur within the Pulaubalang Formation of the Kutai Basin. The deposit is adjoining with FKP concession. The structure of the deposit area is a monocline with dip ranges from 25 to 50 degrees to the southeast.
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 reported.	<ul> <li>Samples are composited by weighting by mass if the samples were taken on ply-by-ply basis. No maximum and/or minimum cut-off were used in the modelling and estimation process.</li> </ul>
	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.	
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	



Criteria	JORC Explanation	Commentary
Relationship between mineralisation widths and intercept length	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only down hole lengths are reported, there should be a clear statement to this effect e.g. 'down hole length, true width not known)</li> </ul>	<ul> <li>The geometry of the deposit is reasonably understood. This was based on the drill hole data and other geological information (regional and local mapping results).</li> <li>Detail seam thicknesses are reported in apparent thickness and provided in the Appendix D.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>A total of 4,863 drill holes, including 2,162 drill holes from TSA, were used for modelling which cover TSA and FKP area. The majority the holes were not geophysically logged with coring as the most reliable method for investigating the coal seams. Core recoveries must exceed 90% to be used in modelling and sampling of the coal.</li> <li>A more detail drill holes information, including location, seam thickness, depth and quality were provided in a separate file.</li> </ul>
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.	<ul> <li>Drill hole map and typical sections of TSA-FKP are provided in the Report.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of</li> </ul>	<ul> <li>All information provided by Client including exploration results has been reviewed. This report references all</li> </ul>



Criteria	JORC Explanation	Commentary
	both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	available exploration results from the Client up to the commencement date of the Resource estimation.
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.	<ul> <li>Geotechnical and hydrogeological studies were completed, with the results of those studies being incorporated for mine planning purposes.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological</li> </ul>	<ul> <li>Future drilling could be undertaken within the target area (LOM area) to increase the confidence level and model accuracy. This work is currently not planned.</li> </ul>
	interpretations and future drilling areas, provided this information is not commercially sensitive.	



## **Section 3 Estimation and Reporting of Mineral Resources**

Criteria	JORC Explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The Client is using Microsoft Excel as the mair geological dataset storage. To minimise errors in the dataset, several main steps were applied:         <ul> <li>coal seam data entered into the geological datase was reconciled against the logs wheneve available.</li> <li>There are a number of underlying "business rules built into the dataset that help insure consistency and integrity of data including, but not limited to:</li></ul></li></ul>



Criteria	JORC Explanation	Co	mmentary
		•	Some errors may still pass through to the geological and coal quality models, considering that coal is a bulk commodity of relative consistency and the large number of drill holes on which the resource is based, such errors are unlikely to have a material impact on the resource estimate.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	•	RPM completed a site visit to the TSA-FKP Project which were represented by Mr. Oki Wijayanto and Mr. Gusti Sumardika in May 2022. Both are permanent employees of RPM (and its related entities) and Competent Persons. The site visit confirmed that all necessary infrastructure are in place and in good condition. It is also noted that mine operation are carried out and supervised professionally by Thiess and Bayan. No major issues were identified.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>		Geological interpretation was based on the drilling data with limited support of geophysical log information.  The Client also used the regional and local mapping results to support the geological interpretation of the deposit.  The confidence level of the deposit was determined based on the data distribution and geological complexity.  All necessary constraints which affect continuity of the coal seams were considered.
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 deposit covers an area of 3,505 ha, with an approximate strike length of 8.5 km and approximate width of 2.1 km. A set of plans are also provided in the report.
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	•	A three-dimensional computer models were built by Client and reviewed by RPM using Datamine MineScape software version 8.1. The summary of model parameters is as below.



Criteria	JORC Explanation	Commentary
	extrapolation from data points. If a computer assisted estimation method was chosen include a description of	
	computer software and parameters used.	Parameter TSA-FKP
	The availability of check estimates, previous estimates	Software Datamine Minescape Version 8.1
	and/or mine production records and whether the Mineral	Grid/ Block Size 25 x 25 m
	Resource estimate takes appropriate account of such data.	Structure Interpolator Thickness: FEM (0)
		Surface: FEM (1)
	The assumptions made regarding recovery of by- products.	Trend: FEM (0)
	·	Extrapolation Distance 2,000
	<ul> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid</li> </ul>	Quality Interpolator Inverse
	mine drainage characterisation).	Distance Power 3
	<ul> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> </ul>	Check estimates were undertaken by Client's competent geologist to ensure the validity of the result.
	<ul> <li>Any assumptions behind modelling of selective mining</li> </ul>	The models were based on gridded modelling approach.
	units.	<ul> <li>No selective mining unit assumptions were used for</li> </ul>
	<ul> <li>Any assumptions about correlation between variables.</li> </ul>	modelling processes.
	<ul> <li>Description of how the geological interpretation was used to control the resource estimates.</li> </ul>	<ul> <li>Model validation was undertaken by visually inspecting the model sections, structure and quality contour, etc. against drill hole data.</li> </ul>
	<ul> <li>Discussion of basis for using or not using grade cutting or capping.</li> </ul>	agamet ann nois data.
	<ul> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated on in situ basis based on in situ density derived from the Preston Sanders formula which uses the total moisture and air dried moisture that were derived from laboratory analysis.
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>No cut-off grade has been used. A pit limit optimisation was applied.</li> </ul>



Criteria	JORC Explanation	Commentary
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>A Minimum thickness of 0.2 m has been applied.</li> <li>No mining losses and dilution factor was used for Resources estimation.</li> <li>An economic pit shell was used to limit the reported Resources based on operating costs as outlined in the Reserves estimate and a coal price of USD 151 per tonne for 6,322 kcal/kg gar energy, adjusted based on the coal quality estimated for the deposit. This price is based on a combination of historical realised prices and longer term forecast benchmark prices.</li> <li>An overall slope of 35 degrees was applied in the optimisation process for the high walls.</li> <li>The average depth of deep drilling was also used as a lower limit to the Resources limits. The definition of a lower limit is to ensure the continuity of coal seams is within the selected optimization results. This resulted in an average SR of approximately 26.73:1 for the whole TSA-FKP area.</li> </ul>
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.	Coal is mined and sold as raw material, therefore no washing or metallurgical factors are required.
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	A selected mine optimisation has been used to limit Resource estimation, and it is assumed environmental factors has been considered during mine optimisation process, such as rehabilitation and reclamation costs, as well as well any physical constraints (major river, etc).



Criteria	JORC Explanation	Commentary
	determination of potential environmental impact particularly for a greenfield project, may not always well advanced, the status of early consideration of the potential environmental impacts should be reported. Where these aspects have not been considered to should be reported with an explanation of the environmental assumptions made.	be se ed.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the bat for the assumptions. If determined, the method use whether wet or dry, the frequency of the measurement the nature, size and representativeness of the sample.</li> <li>The bulk density for bulk material must have be measured by methods that adequately account for vespaces (vugs, porosity, etc), moisture and difference between rock and alteration zones within the deposit.</li> </ul>	being adjusted using the Preston-Sanders (1993) formula. Coal samples were analysed for Total Moisture, Inherent (air dried) Moisture.
	Discuss assumptions for bulk density estimates used the evaluation process of the different materials.	
Classification	<ul> <li>The basis for the classification of the Mineral Resource into varying confidence categories.</li> <li>Whether appropriate account has been taken of relevant factors (i.e., relative confidence tonnage/grade estimations, reliability of input da confidence in continuity of geology and metal value quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competer Person's view of the deposit.</li> </ul>	Classification of Coal Resources do not contain specific or prescriptive guidance for the Competent Person for estimation of coal Resources. The RPM Competent Person has developed an approach which is based on the Indonesian Coal Guidelines (SNI: 5015 2019). The CP also used geostatistics to define the PoO spacing for Resource estimate. It is in the Competent Person's view that the guideline is reasonable for classification of Indonesian coal deposits.  The Indonesian Coal Guideline classifies coal deposits
		<ul><li>by a number of criteria into three levels based on the geological complexity that are described below:</li><li>Simple:</li></ul>



Criteria	JORC Explanation	С	omme	ntary
			-	The deposit is not significantly affected by folding, faulting and intrusion.
			-	Strata dip is in general shallow.
			-	Coal seam continuity can be traced over thousands of metres.
			-	Coal seams have limited and simple splitting.
			-	No material variability on both quality and coal lateral thickness observed.
		-	Mod	derate:
			-	The coal was deposited within a more fluctuating sedimentary environment resulting in moderate levels of splitting, and lateral seam thickness variability.
			-	Seam continuity can be traced over hundreds of metres.
			-	The strata have been tectonically affected after deposition and are folded and faulted. Strata dips are moderate. However the continuity can be traced over hundreds of metres.
			-	The coal quality variability is directly related to the increased variability due to seam thickness changes and seam splitting
			-	In some places, igneous intrusion affects seam structure and quality.
		-	Con	nplex:
			-	In general, coal was deposited within a complex sedimentation environment resulting in;
				<ul> <li>Seam splitting is common and forms complex splitting and coalescing patterns.</li> </ul>
				· Seam wash out, shale out.
				· Coal quality is highly variable.



Criteria	JORC Explanation	Commentary
		<ul> <li>Coal lateral distribution is limited and can only be traced over dozens of metres.</li> </ul>
		<ul> <li>Has been tectonically and extensively deformed resulting in steep strata dips and structurally induced seam thickness variability.</li> </ul>
		<ul> <li>Folding, with some overturned bedding.</li> </ul>
		Steep seam dips.
		<ul> <li>Coal seams are difficult to be constructed and correlated.</li> </ul>
		RPM considers that the Project can be categorised is a simple deposit due to the following:
		<ul> <li>Dips are gentle, with the majority of the Resource has a dominant shallow dip at less than 5 degrees.</li> <li>This indicates that the deposit is not significantly affected by folding.</li> </ul>
		<ul> <li>The coal quality is relatively consistent across the project and no significant anomalies were identified.</li> </ul>
		<ul> <li>The coal seams, particularly the main seams, can be easily recognised and correlated from their geophysical signatures and thickness. The main seams also maintain total thickness throughout the Resource area.</li> </ul>
		<ul> <li>A simple seam split commonly occurred within the seam groups, and</li> </ul>
		<ul> <li>No faulting was identified across the deposit based on the existing data.</li> </ul>
		<ul> <li>The PoO Spacing that been used for TSA-FKP is shown in table below.</li> </ul>



Criteria	JORC Explanation	(	Comment	ary			
			Block	Seam	PoO Radii (m) Quantity		
				Group	Measured	Indicated	Inferred
				All Seams	125	250	500
			TSA	Seam	PoO	Radii (m) Qu	ality
			ISA	Group	Measured	Indicated	Inferred
				All Seams	250	500	1,000
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	•		Resources ved by the Cli			
Discussion of relative accuracy/confidence	<ul> <li>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.</li> <li>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.</li> </ul>		Comples comples for the applies accurate A commonth provides	dence levels letent Person lexity. The Cresian Coal Relian Coal Greather confider letence before the confider lete	n's view of ompetent Persources Guidelines 201 nce limit. Reference estimates to global numbers to glo	the deposit rson was alsuideline (SNI) 4 as the re M is of the considering Rounding hattion to reflect the estimates.  I reconciliate made by the	geological so used the 1 2011) and ferences to opinion that I the nature is also been ect relative ion for 12 e Client and
	<ul> <li>These statements of relative accuracy and confidence of the estimate should be compared with production</li> </ul>						



Criteria	JORC Explanation	Commentary
	data, where available.	

## **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 Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>This JORC Reserve is derived from JORC Code compliant Coal Resources Statement signed by Mr Gamet Nugroho. The Competent Person, Mr. Nugroho, has sufficient expertise that is relevant to the style of mineralisation and type of deposit and activity to qualify as a Competent Person as specified under the JORC Code and is a member of the Australian Institute of Mining and Metallurgy. This Statement and the geological model associated with it formed the basis of the subsequent coal Reserve estimate.</li> <li>Coal Resources are reported inclusive of the Coal Reserves.</li> </ul>
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	A site visit to the TSA-FKP Project was completed by Mr. Oki Wijayanto and Mr. Gusti Sumardika in May 2022. Both Mr. Wijayanto and Mr. Sumardika are permanent employees of RPM with Mr. Sumardika being a Competent Person for the purpose of this report. The site visit confirmed that all necessary facilities and infrastructure are. It is also noted that the mine operations are carried out and supervised professionally by PT. Thiess Contractors Indonesia and Bayan. No major issues were identified.
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>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.</li> </ul>	production since 2007 and as of the end of March 2022 approximately 4.3 Mt ROM has been mined from TSA-FKP, since January 2021.

Criteria	JORC Explanation	Commentary
		The process used in converting the coal Resources into coal Reserves includes defining viable pit limits and applying mining, cost, revenue and other modifying factors to the Coal Resources to estimate Coal Reserves.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>All seams that have been modelled have used the quality information obtained from the coal Resources, with an allowance for dilution and loss based on assumed rock qualities.</li> <li>Minimum coal seam thickness defined as mineable was 0.2 m.</li> </ul>
		<ul> <li>Minimum separable parting thickness defined at 0.1 m.</li> </ul>
Mining factors or assumptions	<ul> <li>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).</li> <li>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.</li> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>Any minimum mining widths used.</li> </ul>	<ul> <li>The practical pit designs were developed as the basis of the reported quantities. These pits were designed based on a selected optimisation shell which was cross checked against the BESR for the Project.</li> <li>The mining method utilizes appropriately sized excavator and truck fleets to achieve the waste removal and coal uncovering, coal selection, mining and hauling.</li> <li>Geotechnical studies of the rock strength and other characteristics based on local TSA-FKP parameters formed the basis of the pit design.</li> <li>Coal loss from roof of 70mm and floor of 70mm was modelled.</li> <li>Dilution total of 70 mm (35 mm from roof and 35 mm from floor).</li> <li>Mining Global recovery of 96%.</li> <li>Dilution relative density of 2.0 t/m³ and ash of 75%.</li> <li>ROM moisture assumed to be similar with insitu moisture with no adjustment applied.</li> </ul>

Criteria	JORC Explanation	Commentary
	<ul> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods. `</li> </ul>	<ul> <li>The Inferred coal was identified in the seams with insufficient Points of Observation to be classified with Indicated Resource confidence, within the both the geological model and the pit designs. Within the TSA and FKP pit shells, the Inferred classification represents about 10% of the total planned LOM mineable quantity. This mineable coal has been included in the LOM mining studies and the sensitivity of Project outcomes to the inclusion of this coal is discussed in the Economic section of this Table 1.</li> <li>Facilities and infrastructure required for the operation is already in place and is fit for purpose.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> </ul>	
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	
	<ul> <li>Any assumptions or allowances made for deleterious elements.</li> </ul>	<ul> <li>There is a contribution to global coal losses (applied as a mining factor) from the coal handling activities of coal haulage, coal sizing and stockpile handling.</li> </ul>
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.	TSA has an approved AMDAL and as it is in production, there will be an annual update to the government regarding the environmental report.
Infrastructure	<ul> <li>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk</li> </ul>	support the TSA-FKP production schedule are in place

Criteria	JORC Explanation	Commentary
	commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and coproducts.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	on the current contracted rates and these rates have been reviewed by RPM and are believed to be reasonable and in line with contractor mining rates that would be expected in the Indonesian coal mining industry. Cost estimates include transport costs to arrive at a free on board (FOB) cost estimate for the Project. The cost estimates provided by Bayan are considered by RPM to be at least equivalent to a Prefeasibility level of confidence.  As all the infrastructure and facilities are in place as the Project is in operation as a contractor managed operation, the quantum of capital required over the LOM is sustaining capital only and is not significant.
Revenue factors	<ul> <li>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.</li> </ul>	<ul> <li>Forward coal pricing for revenue in the economic model is based on USD100/t product long term, for product coal quality with a benchmark specification of 6322 kcal/kg gar Calorific Value (CV). The benchmark price is adjusted to reflect the actual product coal quality being produced.</li> <li>All costs and revenues in the economic model are expressed in USD dollar terms so there is no exchange rate variation applied in the Project economic model.</li> </ul>
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and</li> </ul>	<ul> <li>No studies have been undertaken for this Project, for market analysis.</li> </ul>

Criteria	JORC Explanation	Commentary
•	<ul> <li>factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> </ul>	<ul> <li>It is expected the current coal sales agreements will be rolled over and continued or renegotiated in line with movements in the benchmark coal price, as production continues over the LOM period.</li> </ul>
	<ul> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	RPM has received from the Client (refer to Client's file:     "Optimiser Input Sheet     TSA_USD100_MOPS100_29Aug2022.xls")     information related to the mining costs and product     coal price estimates for this Project. These parameters     have been used by the Client as inputs for the pit     optimisation process and estimating the Breakeven     Stripping Ratio (BESR).
		The pit optimisation coal price assumption is based on the long term benchmark thermal coal price adjusted for actual TSA_FKP product coal CV, ash, sulphur and moisture. RPM is of the opinion that a benchmark product coal price of USD100/tonne based on CV of 6,322 kcal/kg gar, is reasonable and acceptable to be used for this study.
Economic	<ul> <li>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.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	■ The inputs to the economic analysis of the TSA_FKP mine are derived capital and operating cost estimates outlined in the "Costs" section of this Table 1. The source of the inputs is real and the confidence satisfactory. The economic modelling is in real terms and a range of discount rates between 8%, 10% and 12% have been used in assessing NPV. The economic modelling produced positive and acceptable cashflow over the remaining mine life and a positive NPV at a discount factor of 10% which is commonly used to evaluate Indonesian coal projects.
		■ The NPV at 10% discount rate has been assessed for variations of +/- 10% in the key value drivers of revenue, operating costs and capital costs. In all cases a positive NPV was estimated for the mine. Sensitivity to the exclusion of Inferred Resources has been

Criteria	JORC Explanation	Commentary
		completed with resulting positive cashflow and NPV resulting.
Social	<ul> <li>The status of agreements with key stakeholders a matters leading to social licence to operate.</li> </ul>	<ul> <li>All of the necessary permits are in place to support the production stage of the Project.</li> </ul>
Other	<ul> <li>To the extent relevant, the impact of the following the project and/or on the estimation and classificat of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements a marketing arrangements.</li> <li>The status of governmental agreements a approvals critical to the viability of the project, so as mineral tenement status, and government a statutory approvals. There must be reasonal grounds to expect that all necessary Government approvals will be received within the timefrant anticipated in the Pre-Feasibility or Feasibility stuffighlight and discuss the materiality of a unresolved matter that is dependent on a third part on which extraction of the reserve is contingent.</li> </ul>	from its operations for the last 15 years and RPM is of the opinion that TSA FKP will be able to continue to sell its product coal into the markets that have been developed.  The TSA and FKP Project consist of one geological model named as "TSA2203_R4". Bayan operates the TSA and FKP project as one integrated mining operation supported by one mining operation management team, utilising the same mining contractor and common infrastructures facilities.  The project has been developed without any boundary constraint that separates the TSA and FKP concession boundaries. However the mineable quantities and coal Reserves have been divided based on the concession limits of TSA and FKP.  All mining projects operate in an environment of geological uncertainty, RPM is not aware of any potential technical factors, legal, marketing or otherwise that could affect the operational viability of the Integrated Project.
Classification	<ul> <li>The basis for the classification of the Ore Reservinto varying confidence categories.</li> <li>Whether the result appropriately reflects Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that he been derived from Measured Mineral Resources any).</li> </ul>	the the considering the Measured and Indicated coal Resources and the level of mine planning.  For the TSA concession, Measured coal Resources are classified as Proved coal Reserves and Indicated coal Resources classified as Probable coal Resources

Criteria	JORC Explanation	Commentary
		<ul> <li>The Inferred coal Resources have been excluded from the coal Reserve estimates.</li> </ul>
		<ul> <li>The result reflects the Competent Persons view of the deposit.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	<ul> <li>Internal review has been undertaken by RPM senior staff and the outcome of the coal Reserve estimate has been confirmed.</li> </ul>
Discussion of relative accuracy/confidence	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>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</li> </ul>	<ul> <li>The coal Reserve estimate is most sensitive to the prevailing long term coal price used to determine the pit limits and the BESR.</li> <li>The cost factors used in determining the pit limits and BESR are well-known and understood from contractor mining operations being currently carried out at the Project.</li> </ul>



### PT. Firman Ketaun Perkasa

### JORC Code, 2012 Edition – Table 1 Report Template

The text presented in Table 1, Sections 1 to 3 has been copied directly from the current Resources Statement prepared by Mr Gamet Nugroho (RPM).

The text presented in Table 1, Section 4 has been copied directly from the current Reserves Statement prepared by Mr Gusti Sumardika (RPM).



#### **Section 1 Sampling Techniques and Data**

Criteria	JORC Explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Core sampling for coal quality work prior to 2011 was using NQ (47.6mm) core. The 2011-2017 drilling utilised HQ core size (63.5mm). Coal core samples were sent to the laboratory with chain of custody paperwork.</li> <li>Open hole drilling was also used with chip samples or cuttings logged by the rig geologist. These chip samples were not analysed for coal quality.</li> <li>A suite of downhole geophysical surveys, including Density, Gamma, and Calliper were typically run in the majority of geophysically logged holes. No drill hole deviation was completed due to vertical drilling. The geophysical logging was carried out by external contractor and subject to their internal calibration, quality assurance and quality control procedures. Geophysical logs were used whenever available to supplement the geologist's lithological description of the cores to:         <ul> <li>assist with ensuring that the core recoveries were satisfactory (&gt; 90%); and,</li> <li>assist with correlation of the various seams and to demonstrate continuity of seam character.</li> </ul> </li> </ul>
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.).	<ul> <li>PCD bits using air and water are used to complete the open hole sections of drill holes.</li> <li>Use of NQ &amp; HQ follow Industry accepted Standards for acquisition of borecore.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul> <li>Linear drill hole core recovery was measured for all coal quality drill holes on a run by run basis. Actual recovered core lengths are measured with a tape measure and any core loss is recorded in geological logs, coal quality sample intervals and in the run by run drilling record field sheets.</li> </ul>



Criteria	JORC Explanation	Commentary
	<ul> <li>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.</li> </ul>	<ul> <li>Core holes were redrilled when poor core recovery had potential to materially affect the coal quality models (in general, this is where recovery was less than 90%).</li> </ul>
		<ul> <li>No sample bias was identified in the current model dataset.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>A drill site geologist was present at all times during drilling operations.</li> <li>Preliminary core logs were derived from lithological logging of open hole chip "cuttings" and logging of drill core.</li> <li>All holes were lithologically logged. The logging of the chip/cuttings and core samples is qualitative and detailed which includes a record of the recovery of the total length and the cored length, rock type, stratigraphic unit and numerous adjectives to describe the sample in terms of colour, grain size, bedding etc. all of which is entirely sufficient to describe the various lithologies and coal samples to support the coal resource estimation from a geological, geotechnical and coal quality consideration.</li> <li>Field drill logs and field coal sample depths were subsequently reconciled against the geophysical logs whenever available. Barren holes were also used to limit</li> </ul>
		coal continuity.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split,</li> </ul>	<ul> <li>No splitting of core is undertaken in the field. Sample preparation was done in PT Geoservices laboratory at Balikpapan and site.</li> </ul>
	<ul> <li>etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul> <li>Coal samples were wrapped and sealed immediately once core logging was completed to minimise moisture loss to ensure the samples were representative of the in situ moisture.</li> </ul>
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half</li> </ul>	The coal samples collected for quality modelling were from NQ core size (47.6mm) & HQ core size (63.5mm). This core size provides sufficient sample mass for testing of raw coal parameters.



Criteria	JORC Explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The samples were submitted to PT Geoservices laboratory for analysis. The laboratory is internationally accredited and all analyses were conducted in accordance with appropriate international standards.</li> <li>Most of coal plies have been subjected to a proximate analysis (which includes IM, Ash, VM, FC), TM, TS and CV.</li> <li>No QAQC was performed directly by FKP. It is expected that such a thorough QAQC was performed by PT. Geoservices as accredited external laboratories.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The logging and sampling was conducted by FKP geologists. The majority of core samples were acquired using the "touch cored" method. The samples depths were adjusted using geophysical log data where it was available. There are also several geotechnical holes which were drilled as fully cored holes.</li> <li>The protocols for sample acquisition, data entry, and data verification were developed internally by FKP. The assaying was completed by external accredited laboratory.</li> <li>No adjustment was made to the assay data. A more detailed discussion is available in Section 5.6 and Section 6.7.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> </ul>	<ul> <li>All of the drill hole collars were surveyed by Total Station. The topography was derived from a combination of high precision ground and aerial survey (LIDAR).</li> <li>The Project is using UTM 50S grid system.</li> <li>The benchmarks were derived from high precision Geodetic</li> </ul>



Criteria	JORC Explanation	Commentary
	<ul> <li>Quality and adequacy of topographic control.</li> </ul>	GPS which tied to the Government survey control.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill hole line spacing is typically 50 - 200 m in most of the areas.</li> <li>This is considered adequate for classification of Coal Resources to Measured and Indicated category with due consideration for the variance in coal seam thickness, coal quality and structural complexity.</li> <li>Sample compositing to a seam basis has been applied whenever the samples were based on ply by ply basis.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	The geological data including samples, was gathered based on vertical drilling with some being supported with geophysical logging.
Sample security	The measures taken to ensure sample security.	<ul> <li>All core and cuttings were geologically described by qualified field geologists.</li> </ul>
		<ul> <li>Coal samples were stored in core trays on site. Samples were taken form the core boxes and bagged in plastic bags with hole and sample number, and sent to the external laboratories once sampling instructions were completed.</li> </ul>
		<ul> <li>All sampling and sample labelling was undertaken by or supervised by the field geologist.</li> </ul>
		<ul> <li>Samples were packed, handled and transported with normal care, documentation and chain of custody</li> </ul>
		<ul> <li>Coal is a bulk commodity so no high-level security measures are deemed necessary since it is very unlikely to be subject to systematic material impact from sample tampering, theft or loss.</li> </ul>



Criteria	JORC Explanation	Commentary
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Coal sampling method adopted was on a "ply-by-ply" basis and samples were plastic wrapped and sealed in PVC "splits" to minimise any moisture loss.</li> </ul>
		<ul> <li>In the previous work, quoted core recoveries were crosschecked against the corresponding core photographs.</li> </ul>
		Sampling and data acquisition procedures were reviewed by RPM at the time of the 2022 site visit, which confirmed that the exploration approach being used is acceptable for Resource reporting purposes.



#### **Section 2 Reporting of Exploration Results**

Criteria	JORC Explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ow including agreements or material issues with third partias joint ventures, partnerships, overriding royalties, na interests, historical sites, wilderness or national paenvironmental settings.</li> <li>The security of the tenure held at the time of reportin with any known impediments to obtaining a licence to in the area.</li> </ul>	documentation. No material issues were identified regarding this matter.  The project is in operating stage with valid license. No issue to operate in the area.  g along
Exploration done by other parties	Acknowledgment and appraisal of exploration by other	parties. The FKP exploration was completed by FKP. A more detail discussion is shown in <b>Section 5.1</b> .
Geology	Deposit type, geological setting and style of mineralisation	The Project concessions are within multi seam deposits that occur within the Miocene Age Pulaubalang Formation of the Kutai Basin. The concession is adjoining with TSA concession. The structure of the deposit area is a monocline with dips ranges of 25 to 50 degree to SE.
Data aggregation methods	In reporting Exploration Results, weighting av techniques, maximum and/or minimum grade truncatio cutting of high grades) and cut-off grades are usually and should be reported.	ns (e.g. samples were taken on ply by ply basis. No maximum
	Where aggregate intercepts incorporate short lengths grade results and longer lengths of low grade resu procedure used for such aggregation should be some typical examples of such aggregations should be in detail.	ults, the ted and
	The assumptions used for any reporting of metal equal values should be clearly stated.	uivalent
Relationship between mineralisation widths and intercept length	<ul> <li>These relationship are particularly important in the reportant in the reportat</li></ul>	orting of  The geometry of the deposit is reasonably understood. This was based on the drill hole data and



Criteria	JORC Explanation	Commentary
	<ul> <li>If the geometry of the mineralisation with respe hole angle is known, its nature should be reporte</li> </ul>	
	<ul> <li>If it is not known and only down hole lengths a there should be a clear statement to this effect e.glength, true width not known)</li> </ul>	
Drill hole Information	<ul> <li>A summary of all information material to the und the exploration results including a tabulation of information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> </ul> </li> <li>If the exclusion of this information is justified on the information is not Material and this exclusing detract from the understanding of the report, the Person should clearly explain why this is the case.</li> </ul>	FKP, were used for modelling. The majority of the holes were not geophysically logged with coring for the representative holes and potential seams.  A more detail drill holes information, including location, seam thickness, depth and quality were provided in a separate file.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) an of intercepts should be included for any signification being reported These should include, but not be plan view of drill hole collar locations and appropriately views.</li> </ul>	nt discovery provided in the Report.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration not practicable, representative reporting of both grades and/or widths should be practiced to avoid reporting of Exploration Results.</li> </ul>	ow and high exploration results has been reviewed. This report
Other substantive exploration data	Other exploration data, if meaningful and materi reported including (but not limited to): geological of the second s	



Criteria	JORC Explanation	Commentary
	geophysical survey results; geochemical survey results samples – size and method of treatment; metallurgica results; bulk density, groundwater, geotechnical and characteristics; potential deleterious or contamir substances.	I test rock
Further work	<ul> <li>The nature and scale of planned further work (e.g. tes lateral extensions or depth extensions or large-scale ste drilling).</li> </ul>	
	<ul> <li>Diagrams clearly highlighting the areas of possible extensincluding the main geological interpretations and future dareas, provided this information is not commercially sensitive.</li> </ul>	rilling



#### **Section 3 Estimation and Reporting of Mineral Resources**

Criteria	Commentary
Criteria  Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> <li>The Client is using Microsoft Excel as the main geological dataset storage. To minimise errors in the dataset, several main steps were applied:         <ul> <li>coal seam data entered into the geological dataset was reconciled against the logs whenever available.</li> <li>There are a number of underlying "business rules" built into the dataset that help insure consistency and integrity of data including, but not limited to:</li></ul></li></ul>
	and, basic coal quality integrity checks such as ensuring data is within normal range limits, that
	proximate analyses add to 100 percent etc.  - Seam and stratigraphic picks and correlations were independently checked and rechecked by senior geological staff of RPM. After modelling, anomalous seam and interburden structure and thicknesses were interrogated and errors iteratively corrected from the dataset.
	It is highly unlikely that there is significant corrupt data in the dataset, given the validation procedures above.
	<ul> <li>Some errors may still pass through to the geological and coal quality models, considering that coal is a bulk commodity of relative consistency and the large number</li> </ul>



Criteria	Commentary
	of drill holes on which the resource is based, such errors are unlikely to have a material impact on the resource estimate.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> <li>RPM completed a site visit to the TSA-FKP Project which were represented by Mr. Oki Wijayanto and Mr. Gusti Sumardika in May 2022. Both are permanent employees of RPM (and its related entities) and Competent Persons. The site visit confirmed that all necessary infrastructure are in place and in good condition. It is also noted that mine operation are carried out and supervised professionally by Thiess and Bayan. No major issues were identified.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> <li>Geological interpretation was based on the drilling data with limited support of geophysical log information.</li> <li>The Client also used the regional and local mapping results to support the geological interpretation of the deposit.</li> <li>The confidence level of the deposit was determined based on the data distribution and geological complexity.</li> <li>All necessary constraints which affect continuity of the coal seams were considered.</li> </ul>
Dimensions	<ul> <li>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.</li> <li>The deposit covers area approx. 2,490 ha, with an approximate strike length of 8.4 km and approximate width 1.8 km. A set of plans are also provided in the report.</li> </ul>
Estimation and modelling techniques	<ul> <li>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</li> <li>A three-dimensional computer models were built by Client and reviewed by RPM using Datamine MineScape software version 8.1. The summary of model parameters is as below.</li> </ul>



Criteria	Commentary	
	computer software and parameters used.  Parameter  TSA-FKP	
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such	on 8.1
	data.  Grid/ Block Size  25 x 25 m	
	■ The assumptions made regarding recovery of by-products.  Thickness: FEM (0)	
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).  Structure Interpolator  Surface: FEM (1)	
	In the case of block model interpolation, the block size in	
	relation to the average sample spacing and the search employed.  Extrapolation Distance 2,000	
	<ul> <li>Any assumptions behind modelling of selective mining units.</li> </ul> Quality Interpolator Inverse	
	<ul> <li>Any assumptions about correlation between variables.</li> </ul> Distance Power 3	
	<ul> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or</li> </ul> Check estimates were undertaken by Client's congeologist to ensure the validity of the result.	mpetent
	<ul> <li>capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data and use of</li> <li>No selective mining unit assumptions were used.</li> </ul>	
	comparison of model data to drill hole data, and use of reconciliation data if available.  • No selective mining unit assumptions were u modelling processes.	360 IOI
	<ul> <li>Model validation was undertaken by visually instance the model sections, structure and quality conto against drill hole data.</li> </ul>	
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> <li>Tonnages are estimated on in situ basis based or density derived from the Preston Sanders formulated uses the total moisture and air dried moisture the derived from laboratory analysis.</li> </ul>	la which
Cut-off parameters	■ The basis of the adopted cut-off grade(s) or quality ■ No cut-off grade has been used. A pit limit opting	misation

# **RPMGLOBAL**

Criteria		Commentary			
		parameters applied.	was applied.		
Mining factors assumptions	or	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.	<ul> <li>A Minimum thickness of 0.2 m has been applied.</li> <li>No mining losses and dilution factor was used for Resources estimation.</li> <li>An economic pit shell was used to limit the reported Resources based on operating costs as outlined in the Reserves estimate and a coal price of USD 151 per tonne for 6,322 kcal/kg gar energy, adjusted based on the coal quality estimated for the deposit. This price is based on a combination of historical realised prices and longer term forecast benchmark prices .</li> <li>An overall slope of 35 degrees was applied in the optimisation process for the high walls.</li> <li>The average depth of deep drilling was also used as a lower limit to the Resources limits. The definition of a lower limit is to ensure the continuity of coal seams is within the selected optimization results. This resulted in an average SR of approximately 26.7:1 for the whole TSA-FKP area.</li> </ul>		
Metallurgical factors assumptions	or	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.	Coal is mined and sold as raw material, therefore no washing or metallurgical factors are required.		
Environmental factors assumptions	or	<ul> <li>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</li> </ul>	<ul> <li>A selected mine optimisation has been used to limit Resource estimation, and it is assumed environmental factors has been considered during mine optimisation process, such as rehabilitation and reclamation costs, as</li> </ul>		



	Co	ommentary		
	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.	well as well any physical constraints (major river, etc).		
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>No Bulk density data was provided. Coal Resources were reported on an In Situ basis with the RD (In Situ) being adjusted using the Preston-Sanders (1993) formula. Coal samples were analysed for Total Moisture, Inherent (air dried) Moisture.</li> </ul>		
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. 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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The JORC 2012 Code and The 2014 Australian Guidelines for The Resource Estimation and Classification of Coal Resources do not contain specific or prescriptive guidance for the Competent Person for estimation of coal Resources. The RPM Competent Person has developed an approach which is based on the Indonesian Coal Guidelines (SNI: 5015 2019). The CP also used geostatistics to define the PoO spacing for Resource estimate. It is in the Competent Person's view that the guideline is reasonable for classification of Indonesian coal deposits.</li> <li>The Indonesian Coal Guideline classifies coal deposits by a number of criteria into three levels based on the geological complexity that are described below:</li> </ul>		



Criteria	Commentary
	<ul> <li>The deposit is not significantly affected by folding, faulting and intrusion.</li> </ul>
	· Strata dip is in general shallow.
	<ul> <li>Coal seam continuity can be traced over thousands of metres.</li> </ul>
	· Coal seams have limited and simple splitting.
	<ul> <li>No material variability on both quality and coal lateral thickness observed.</li> </ul>
	Moderate:
	<ul> <li>The coal was deposited within a more fluctuating sedimentary environment resulting in moderate levels of splitting, and lateral seam thickness variability.</li> </ul>
	<ul> <li>Seam continuity can be traced over hundreds of metres.</li> </ul>
	<ul> <li>The strata have been tectonically affected after deposition and are folded and faulted. Strata dips are moderate. However the continuity can be traced over hundreds of metres</li> </ul>
	<ul> <li>The coal quality variability is directly related to the increased variability due to seam thickness changes and seam splitting.</li> </ul>
	<ul> <li>In some places, igneous intrusion affects seam structure and quality.</li> </ul>
	■ Complex:
	<ul> <li>In general, coal was deposited within a complex sedimentation environment resulting in;</li> </ul>
	<ul> <li>Seam splitting is common and forms complex splitting and coalescing patterns.</li> </ul>
	· Seam wash out, shale out.
	· Coal quality is highly variable.



Criteria	Commentary
	<ul> <li>Coal lateral distribution is limited and can only be traced over dozens of metres.</li> </ul>
	<ul> <li>Has been tectonically and extensively deformed resulting in steep strata dips and structurally induced seam thickness variability.</li> </ul>
	· Folding, with some overturned bedding.
	· Steep seam dips.
	<ul> <li>Coal seams are difficult to be constructed and correlated.</li> </ul>
	<ul> <li>RPM considers that the Project can be categorised is a simple deposit due to the following:</li> </ul>
	<ul> <li>Dips are gentle, with the majority of the Resource has a dominant shallow dip at less than 5 degrees. This indicates that the deposit is not significantly affected by folding,</li> </ul>
	<ul> <li>The coal quality is relatively consistent across the project and no significant anomalies were identified,</li> </ul>
	<ul> <li>The coal seams, particularly the main seams, can be easily recognised and correlated from their geophysical signatures and thickness. The main seams also maintain total thickness throughout the Resource area,</li> </ul>
	<ul> <li>A simple seam split commonly occurred within the seam groups, and</li> </ul>
	<ul> <li>No faulting was identified across the deposit based on the existing data;</li> </ul>
	<ul> <li>The PoO Spacing that been used for TSA-FKP is shown in table below.</li> </ul>
	Block PoO Radii (m) Quantity



Criteria	Co	omi	mentary					
				Seam Group	Measured	Indicated	Inferred	
				All Seams	125	250	500	
			FKP	Seam	PoO	PoO Radii (m) Quality		
			FKP	Group	Measured	Indicated	Inferred	
				All Seams	250	500	1,000	
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	•			estimations ent and no fa			
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	•	Composition complete complete composition	etent Person exity. The Consist Coal Rulian Coal Rulian Coal Guithe confidence aches are reaction of the dinto Resonate.  The confidence aches are reaction of the dinto Resonate.  The confidence aches are reaction of the dinto Resonate.  The confidence aches are reaction of the dinto Resonate.	were detern's view of ompetent Peresources Guidelines 201 ce limit. RPM asonable controlled deposit. Resurce estimates to global enteresults in 104%).	the deposites on was also ideline (SNI 4 as the registering the bunding has tion to reflect the stimates.  I reconciliate made by the	geological so used the 2011) and ferences to also been ect relative ion for 12 e Client and	



#### **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 Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	compliant Coal Resources Statement signed by Mr
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> </ul>	A site visit to the TSA-FKP Project was completed by Mr. Oki Wijayanto and Mr. Gusti Sumardika in May 2022. Both Mr. Wijayanto and Mr. Sumardika are permanent employees of RPM with Mr. Sumardika being a Competent Person for the purpose of this report. The site visit confirmed that all necessary facilities and infrastructure are in place. It is also noted that the mine operations are carried out and supervised professionally by PT. Thiess Contractors Indonesia and Bayan. No major issues were identified.
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>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.</li> </ul>	production since 2007 and as of the end of March 2022 approximately 4.3 Mt ROM has been mined from TSA-FKP, since January 2021. 10.2 Mt ROM has been mined from TSA-FKP (4.2 Mt from TSA and 6.0 Mt from FKP), since January 2019.



Criteria	JORC Explanation	Commentary
		considered by RPM to be at least equivalent to a Prefeasibility study mine plan.
		The process used in converting the coal Resources into coal Reserves includes defining viable pit limits and applying mining, cost, revenue and other modifying factors to the coal Resources to estimate coal Reserves.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>All seams that have been modelled have used the quality information obtained from the coal Resources, with an allowance for dilution and loss based on assumed rock qualities.</li> </ul>
		<ul> <li>Minimum coal seam thickness defined as mineable was 0.2 m.</li> </ul>
		<ul> <li>Minimum separable parting thickness defined at 0.1 m.</li> </ul>
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	The practical pit designs were developed as the basis of the reported quantities. These pits were designed based on a selected optimisation shell which was cross checked against the BESR for the Project.
	<ul> <li>detailed design).</li> <li>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.</li> </ul>	<ul> <li>The mining method utilizes appropriately sized excavator and truck fleets to achieve the waste removal and coal uncovering, coal selection, mining and hauling.</li> </ul>
	<ul> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre- production drilling.</li> </ul>	<ul> <li>Geotechnical studies of the rock strength and other characteristics based on local TSA-FKP parameters formed the basis of the pit design.</li> </ul>
	<ul> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> </ul>	<ul> <li>Coal loss from roof of 70mm and floor of 70mm was modelled.</li> </ul>
	<ul> <li>The mining dilution factors used.</li> </ul>	Dilution total of 70 mm (35 mm from roof and 35 mm
	The mining recovery factors used.	from floor).  Mining Global recovery of 96%.
	<ul> <li>Any minimum mining widths used.</li> </ul>	<ul> <li>Dilution relative density of 2.0 t/m³ and ash of 75%.</li> </ul>
		- Dilution relative density of 2.0 viii and astrol 73%.

# **RPMGLOBAL**

Criteria	JORC Explanation	Commentary
	<ul> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods. `</li> </ul>	moisture with no adjustment applied.  The Inferred coal was identified in the seams with
		represents about 1% of the total planned LOM mineable quantity. This mineable coal has been included in the LOM mining studies and the sensitivity of Project outcomes to the inclusion of this coal is discussed in the Economic section of this Table 1.
		<ul> <li>Facilities and infrastructure required for the operation is already in place and is fit for purpose.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> </ul>	produce product coal at minus 50mm. The ROM coal is planned to be dumped into designated ROM stockpiles or directly to the ROM crusher. The ROM coal fed to the ROM crusher will be sized and stockpiled ready to be loaded to barge.  Where necessary the sized product coal will be blended at the Balikpapan Coal Terminal (BCT) or the Kalimantan Floating Transfer Stations (KFT's) to
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.	production, there will be an annual update to the government regarding the environmental report.



Criteria	JORC Explanation Commentary
Infrastructure	<ul> <li>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.</li> <li>All of the facilities and infrastructure required to support the TSA-FKP production schedule are in place and fit for purpose.</li> </ul>
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining costs have been supplied by Bayan are too the current contracted rates and these rates have been reviewed by RPM and are believed to be reasonable and in line with contractor mining rates that would be expected in the Indonesian coal mining industry. Cost estimates provided by Bayan are considered by RPM to be at least equivalent to a Prefeasibility level of confidence.</li> <li>As all the infrastructure and facilities are in place as the Project is in operation as a contractor managed operation, the quantum of capital required over the LOM is sustaining capital only and is not significant.</li> <li>Royalties are based on Government statutory royalties.</li> <li>Product coal pricing, benchmark specification and any required discounts were provided by Bayan.</li> </ul>
Revenue factors	<ul> <li>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.</li> <li>.</li> <li>.</li> <li>Forward coal pricing for revenue in the economic model is based on USD 100/t product long term, for product coal quality with a benchmark specification of 6,322 kcal/kg gar Calorific Value (CV). The benchmark price is adjusted to reflect the actual product coal quality being produced.</li> <li>All costs and revenues in the economic model are expressed in USD dollar terms so there is no exchange rate variation applied in the Project economic model.</li> </ul>



Criteria	JORC Explanation	Commentary
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<ul> <li>No studies have been undertaken for this Project, for market analysis.</li> <li>It is expected the current coal sales agreements will be rolled over and continued or renegotiated in line with movements in the benchmark coal price, as production continues over the LOM period.</li> <li>RPM has received from the Client (refer to Client's file: "Optimiser Input Sheet TSA_USD100_MOPS100_29Aug2022.xls") information related to the mining costs and product coal price estimates for this Project. These parameters have been used by the Client as inputs for the pit optimisation process and estimating the Breakeven Stripping Ratio (BESR).</li> <li>The pit optimisation coal price assumption is based on the long-term benchmark thermal coal price adjusted for actual TSA_FKP product coal CV, ash, sulphur and moisture. RPM is of the opinion that a benchmark product coal price of USD100/tonne based on CV of 6,322 kcal/kg gar, is reasonable and acceptable to be used for this study.</li> </ul>
Economic	<ul> <li>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.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>The inputs to the economic analysis of the TSA_FKP mine are derived capital and operating cost estimates outlined in the "Costs" section of this Table 1. The source of the inputs is real and the confidence satisfactory. The economic modelling is in real terms and a range of discount rates between 8%, 10% and 12% have been used in assessing NPV. The economic modelling produced positive and acceptable cashflow over the remaining mine life and a positive NPV at a discount factor of 10% which is reasonable to evaluate Indonesian coal projects.</li> <li>The NPV at 10% discount rate has been assessed for variations of +/- 10% in the key value drivers of</li> </ul>

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Criteria	JORC Explanation	Commentary
		revenue, operating costs and capital costs. In all cases a positive NPV was estimated for the mine. Sensitivity to the exclusion of Inferred Resources has been completed with resulting positive cashflow and NPV.
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul> <li>All of the necessary permits are in place to support the production stage of the Project.</li> </ul>
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> </ul>	- The TOA and TRE Troject consist of one geological
	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.	model named as "TSA2203_R4". Bayan operates the TSA and FKP project as one integrated mining operation supported by one mining operation management team, utilising the same mining contractor and common infrastructures facilities.  The project has been developed without any boundary constraint that separates the TSA and FKP concession boundaries. However the mineable quantities and coal Reserves have been divided based on the concession limits of TSA and FKP.
		All mining projects operate in an environment of geological uncertainty, RPM is not aware of any potential technical factors, legal, marketing or otherwise that could affect the operational viability of the Integrated Project.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.  Whather the result appropriately reflects the Competent.	<ul> <li>Classification of Ore Reserves has been derived by considering the Measured and Indicated coal Resources and the level of mine planning.</li> </ul>
	<ul> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>For the FKP concession, Measured coal Resources are classified as Proved coal Reserves and Indicated coal Resources classified as Probable coal Reserves, as the mine is currently operating and the level of mine</li> </ul>



Criteria	JORC Explanation	Commentary
		planning is considered adequate to support this level of certainty in the coal Reserves estimate.
		<ul> <li>The Inferred coal Resources have been excluded from the coal Reserve estimates.</li> </ul>
		<ul> <li>The result reflects the Competent Persons view of the deposit.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	<ul> <li>Internal review has been undertaken by RPM senior staff and the outcome of the coal Reserve estimate has been confirmed.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>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</li> </ul>	prevailing long term coal price used to determine the pit limits and the BESR.
	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	<ul> <li>The cost factors used in determining the pit limits and BESR are well-known and understood from contractor mining operations being currently carried out at the Project.</li> </ul>
	<ul> <li>confidence of the estimate.</li> <li>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.</li> </ul>	■ The TSA and FKP coal Project has been operating for a period of 15 years and the reconciliation of actual ROM coal mined of + 4% when compared with the modelled ROM coal tonnes based on January 2021 – December 2021 actual production, gives confidence in the 5.9 Mt of coal Reserves estimated for the remaining life of the Project.
	<ul> <li>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.</li> </ul>	<ul> <li>The level of accuracy will continue to be dependent on the ongoing update of the geological model and monitoring of the Modifying Factors affecting the coal Reserve estimate.</li> </ul>
	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.	