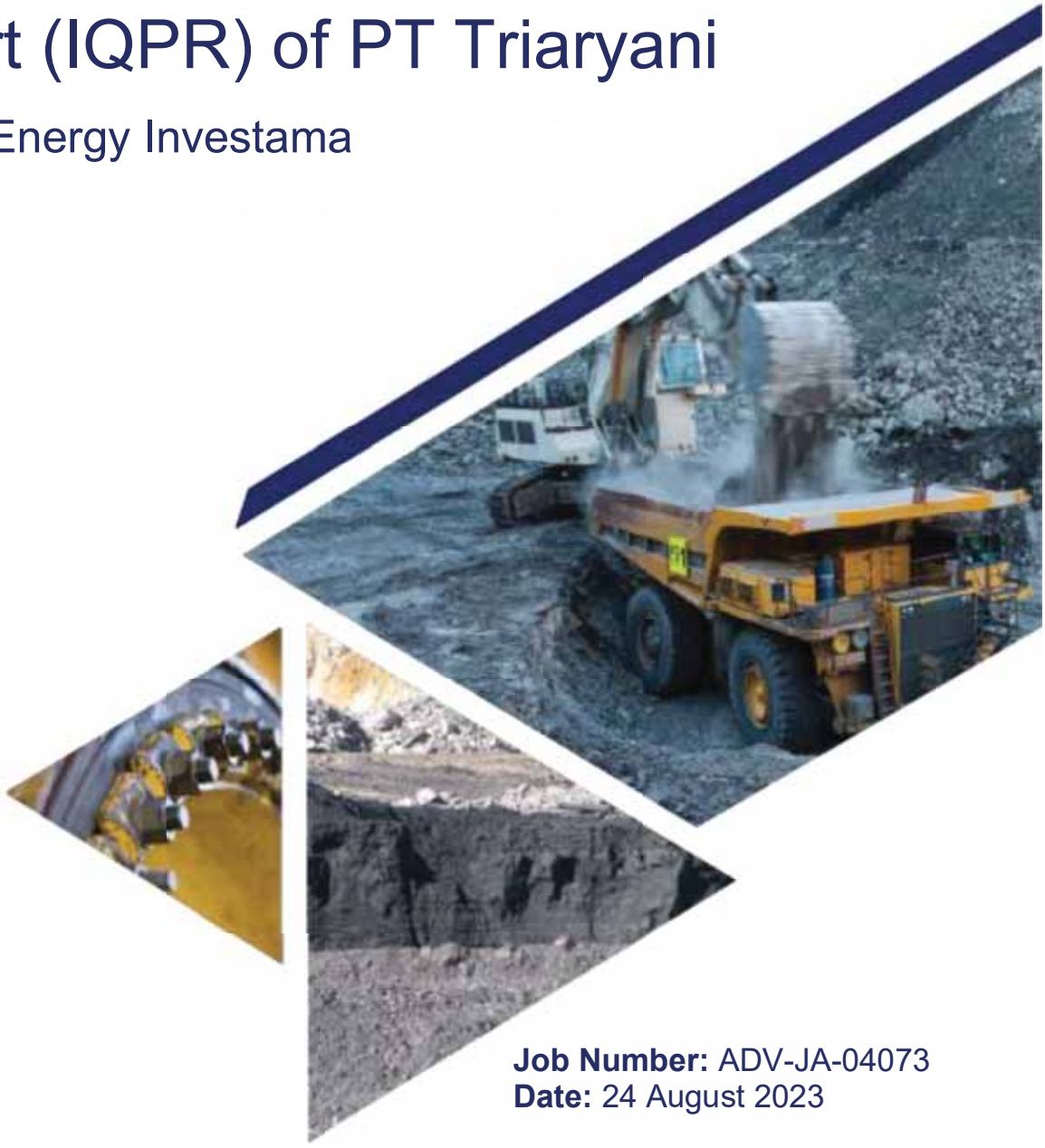
RPMGLOBAL

# Independent Qualified Person Report (IQPR) of PT Triaryani

## PT Geo Energy Investama



**Job Number:** ADV-JA-04073
**Date:** 24 August 2023

# IMPORTANT INFORMATION ABOUT THIS DOCUMENT

### *1. Our Client*

*This report has been produced by or on behalf of PT RungePincockMinarco ("RPM") solely for PT Geo Energy Investama (the "Client").*

### *2. Client Use*

*The Client's use and disclosure of this report is subject to the terms and conditions of the engaging Agreement under which RPM prepared the report. This report must be read in its entirety and this disclaimer must accompany every copy of this report. RPM has agreed to allow Geo Energy Resources Limited use and reliance of this report.*

### *3. Notice to Third Parties*

*RPM prepared this report for the Client only. If you are not the Client:*

- *RPM has prepared this report having regard to the particular needs and interests of the Client, and in accordance with the Client's instructions and in accordance with the terms and conditions of its engagement. It did not draft this report having regard to any other person's particular needs or interests. Your needs and interests may be distinctly different to the Client's needs and interests, and the report may not be sufficient, fit or appropriate for your purposes.*
- *Other than as expressly agreed by RPM in writing, RPM does not authorise, nor does it accept any liability to any party other than the Client who chooses to rely on this Report. Any such reliance is at the user's sole and exclusive risk.*
- *RPM does not make and expressly disclaims from making any representation or warranty to you – express or implied – regarding this report or the conclusions or opinions set out in this report (including without limitation any representation or warranty regarding the standard of care used in preparing this report, or that any forward-looking statements, forecasts, opinions or projections contained in the report will be achieved, will prove to be correct or are based on reasonable assumptions).*
- *RPM does not authorise you to rely on this report. If you choose to use or rely on all or part of this report, then any loss or damage you may suffer in so doing is at your sole and exclusive risk.*

### *4. Independence*

*RPM provides advisory services to the mining and finance sectors. Within its core expertise it provides independent technical reviews, resource evaluation, mining engineering, environmental assessments and mine valuation services to the resources and financial services industries.*

*RPM have independently assessed the subject of the report (the "Project") by reviewing pertinent data, which may include Resources, Reserves, existing approvals, licences and permits, manpower requirements and the life of mine plans relating to productivity, production, operating costs and capital expenditures. All opinions, findings and conclusions expressed in this report are those of RPM and specialist advisors.*

*Drafts of this report were provided to the Client, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in this report.*

*RPM has been paid, and has agreed to be paid, professional fees for the preparation of this report. The remuneration for this report is not dependent upon the findings of this report. RPM does not have any economic or beneficial interest (present or contingent), in the Project, in securities of the companies associated with the Project or the Client*

### *5. Inputs, subsequent changes and no duty to update*

*RPM has created this report using data and information provided by or on behalf of the Client, the Company, SJB or extracted from public sources. RPM accepts no liability for the accuracy or completeness of that data and information, even if that data and information has been incorporated into or relied upon in creating this report (or parts of it). Subject to the limitations referred to above, RPM has exercised all due care in the preparation of the report and believes that the information, conclusions, interpretations and recommendations of the report are both reasonable and reliable based on the assumptions used and the information provided in the preparation of the report.*

*The conclusions and opinions contained in this report apply as at the date of the report. Events (including changes to any of the data and information that RPM used in preparing the report) may have occurred since*

*that date which may impact on those conclusions and opinions and make them unreliable. RPM is under no duty to update the report upon the occurrence of any such event, though it reserves the right to do so.*

### *6. Inherent Mining Risks*

*Mining is carried out in an environment where not all events are predictable.*

*Whilst an effective management team can identify the known risks and take measures to manage and mitigate those risks, there is still the possibility for unexpected and unpredictable events to occur. It is not possible therefore to totally remove all risks or state with certainty that an event that may have a material impact on the operation of a mine, will not occur.*

*The ability of any person to achieve forward-looking production and economic targets is dependent on numerous factors that are beyond RPM's control and that RPM cannot anticipate. These factors include, but are not limited to, site-specific mining and geological conditions, management and personnel capabilities, availability of funding to properly operate and capitalize the operation, variations in cost elements and market conditions, developing and operating the mine in an efficient manner, unforeseen changes in legislation and new industry developments. Any of these factors may substantially alter the performance of any mining operation.*

### *7. Limitations and Exclusions*

*RPM 's report is based on data, information reports, plans and tabulations, as applicable, provided by the Company, SJB, and the Client or on behalf of the Client. The Company, SJB or the Client have not advised RPM of any material change, or event likely to cause material change, to the operations or forecasts since the date of assets inspections.*

*The work undertaken for this report is that required for a technical review of the information, coupled with such inspections as RPM considered appropriate to prepare this report.*

*Unless otherwise stated specifically in writing, the report specifically excludes all aspects of legal issues, commercial and financing matters, land titles and agreements, except such aspects as may directly influence technical, operational or cost issues and where applicable to the relevant Stock Exchange Rules and Practice Notes.*

*RPM has specifically excluded making any comments on the competitive position of the relevant assets compared with other similar and competing producers around the world. RPM strongly advises that any potential investors make their own comprehensive assessment of the competitive position of the relevant assets in the market.*

# Executive Summary

In April 2023, PT. RungePincockMinarco a fully owned subsidiary of RPMGlobal Holdings Ltd, ("RPM") was commissioned by PT. Satui Jasabara ("SJB") to prepare an Independent Qualified Person's Report ("IQPR") as defined in the Practice Note 6.3 of the Listing Manual of the Singapore Exchange Securities Trading Limited (SGX), for the PT. Triaryani coal mining concession ("TRA", the "Company", or the "Project"). The Project is located in Musi Rawas Utara Regency, South Sumatera Province, Indonesia. In August 2023, SJB novated the engagement with RPM to PT Geo Energy Investama ("PT GEI" or the "Client").

The TRA mining concession covers an area of 2,143 ha and is located approximately 200 km from the airport in Jambi City. TRA is an operating open cut thermal coal mine with a current production rate of 2.5 million tonnes per annum ("Mtpa") and is planned to be expanded to a peak production rate of 25 Mtpa by 2030 at an average mine strip ratio of 4.8 bank cubic meter per tonne of run of mine ("bcm/t ROM") and an average calorific value ("CV") of 3,872 kcal/kg over the projected 15 years mine life.

The process and conclusions of the review are presented in this IQPR and will be included in the SGX Circular prepared as part of an asset purchase transaction of the Project by PT GEI, a newly incorporated indirect wholly-owned subsidiary of Geo Energy Resources Limited (together with its subsidiaries, the "Group"). Geo Energy Resources Limited is a company listed on the SGX main board (Stock Code: RE4) since 2012 and is part of the Singapore FTSE index.

The statements of Coal Resources and Coal Reserves (as defined in **Appendix A and B**) have been independently reported by RPM for TRA to be in accordance with the recommendations of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves JORC Code (2012 Edition) ("JORC Code") and the Australian Guidelines for the Estimation and Classification of Coal Resources (2014).

The technical valuation of the Project as outlined in **Section 10** of this IQPR has been prepared in accordance with the Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets promulgated by the VALMIN Committee (VALMIN Code, 2015) ("VALMIN Code"), and SGX Mainboard Listing Rules.

RPM's technical team ("the Team") consisted of International and Indonesian Senior Consultants, Executive Mining Engineers and Consultant Geologists as well as environmental/social specialists with significant coal mining experience in Indonesia. RPM's Qualified Person, Mr Gregory Alan Eisenmenger, was responsible for compiling or supervising the compilation of the IQPR and the JORC reported Statements of Coal Resources and Coal Reserves, as well as VALMIN Code valuation stated within this IQPR. Throughout the preparation of this IQPR, Mr Eisenmenger has been supervised by Mr. Timothy Knight, President Director of PT RungePincockMinarco.

A site visit was conducted by members of the Team to the Projects' operations to familiarise themselves with the project characteristics. The site was undertaken by Mr Delvit Muhammad and Mr Gusti Sumardika from the 9-13 April 2023. During the site visits the Team inspected the mining operations, the existing coal handling and shipping facilities, the power distribution system, and conducted general inspections of the Project area. The visit was also used to gain a better understanding of the Projects' status. The Team had open discussions with TRA's personnel on technical aspects relating to the relevant issues. The TRA personnel were cooperative and open in facilitating RPM's work.

In addition to work undertaken to generate independent JORC Coal Resources and Coal Reserves estimates and VALMIN technical valuation, the IQPR relies largely on information provided by TRA and SJB, either directly from the sites and other offices, or from reports by other organizations whose work is the property of TRA, SJB or its holding or subsidiary companies. The data relied upon for the JORC Coal Resources and Coal Reserves estimates independently completed by RPM have been compiled primarily by TRA, and by or on behalf of the Client and subsequently reviewed and verified as well as reasonably possible by RPM. The IQPR is based on information made available to RPM as at 21 August 2023.

The Client, TRA or SJB have not advised RPM of any material change, or event likely to cause material change, to the underlying data, designs or forecasts since the date of Project inspection.

## Project Summary

### *Geology and Coal Resources*

The TRA concessions consist of the Malam and Betung blocks, which are located approximately 200 km from the airport in Jambi City.

Geologically, the Project is situated within the South Sumatra Basin, targeting the Late Miocene – Early Pliocene age Muara Enim Formation. Twenty seams and sub-seams (or seam splits) have been identified across the Project area, with one main seam (Seam S4) identified in both blocks. The seam S4 thickness in the Malam block ranges between 17 m in the north and thickening up to 33 m to the south. While in Betung, seam S4 thickness ranges between 12 and thickening up to 33 m in the south.

The coal rank in the deposit is classified as lignite coal according to the ASTM Standard. The coal is generally characterised by low ash (average 4.8 % adb), low total sulphur (average 0.19 % adb), and an average calorific value (CV) of 3,855 kcal/kg gross as received (gar).

The Project has been subject to detailed drilling, with a typical drill hole spacing of 100 m to 200 m in the Betung block and 450-600 m in the Malam block. Exploration in the TRA concessions has been conducted in several phases, with the last campaign completed in June 2023. The drilling covers the majority of the potential resource areas of the concessions. A total of 228 drill holes, including 59 quality holes, have been drilled inside the TRA concessions.

After independent review, RPM is of the opinion that the geological dataset and geological models prepared by TRA are adequate for Coal Resource estimates to be reported in accordance with the guidelines of the JORC Code. Coal Resources have been independently estimated by RPM from the TRA geological models based on the drill hole data available as of 6 June 2023.

The Coal Resources at the Project are estimated by RPM to total 388 Mt, of which 36 Mt are classified as Inferred, 241 Mt are classified as Indicated, and 111 Mt are classified as Measured as per the guidelines of the JORC Code.

A summary of the Coal Resources estimated by JORC Code category as of 31 May 2023 is provided in **Table ES**-1.

**Table ES-1 JORC Coal Resources Summary as of 31 May 2023**

| Area/ Block | Resources (Mt) | | TM (%) | CV (kcal/kg) | Ash (%) | TS (%) | IM (%) | RD |
|---|---|---|---|---|---|---|---|---|
| | | | (ar) | (gar) | (adb) | (adb) | (adb) | In situ |
| Malam | Inferred | 36 | 40.5 | 3,750 | 6.3 | 0.23 | 15.3 | 1.22 |
| | Indicated | 234 | 40.2 | 3,860 | 4.6 | 0.20 | 14.9 | 1.22 |
| | Measured | 102 | 40.1 | 3,865 | 4.4 | 0.16 | 14.4 | 1.22 |
| **Total/ Average Malam** | | **372** | **40.2** | **3,850** | **4.7** | **0.19** | **14.8** | **1.22** |
| Betung | Inferred | 0 | - | - | - | - | - | - |
| | Indicated | 7 | 39.2 | 3,900 | 6.3 | 0.22 | 12.8 | 1.22 |
| | Measured | 9 | 38.8 | 3,930 | 5.6 | 0.19 | 13.0 | 1.23 |
| **Total/ Average Betung** | | **16** | **39.0** | **3,915** | **5.9** | **0.20** | **12.9** | **1.23** |
| **Grand Total/ Average** | | **388** | **40.1** | **3,855** | **4.8** | **0.19** | **14.7** | **1.22** |

*Notes:*

1. *The Statement of JORC Coal Resources for TRA has been compiled by Mr Hengky Palysa, who is a full-time employee of RPM and a Registered Member of the Australian Institute of Mining and Metallurgy. Mr Palysa 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 as of 31 May 2023. 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. *The 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 JORC Code (2012) and Australian Coal Guidelines (2014).*
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 optimization process. An economic pit shell was used to limit the reported Resources based on operating costs as outlined in Section 8 and a benchmark coal price of USD 138 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 historical and future benchmark price. An overall slope of 30 degrees was applied in the optimization process. The average depth of deep drilling was also used as a lower limit to the Resources limits. This was to ensure the continuity of coal seams within the selected optimization results. This resulted in an average SR of approximately 3.8:1 for the whole TRA Coal Mine area.*

## *Mining and Coal Reserves*

The Project has been operating since 2011 and has ramped up to 2.5 Mtpa of ROM coal using traditional truck and shovel mining to remove overburden and recover coal.

Appropriate modifying factors were applied to the Coal Resources to determine the Coal Reserves. These modifying factors considered loss and dilution parameters applied to coal mining sections, geotechnical criteria and exclusion criteria such as lease boundaries, and the economics of the operations.

RPM completed Deposit Characterisation of the in-situ geological model coal and waste intervals. RPM concluded from this analysis that the deposit was suited to high volume production from thick waste intervals where 99 % of the waste is in intervals greater than 10m thick, which could be efficiently mined by large scale mining equipment (hydraulic excavators greater than 250t class).

The most significant coal seams are the S4, S4A, and S4B coal seams (Seam S4 Group). This seam group account for 88 % of the in-situ coal in the deposit. The S4 coal seam group (S4A, S4, and S4B) thickness ranges from 5 m to a maximum of 40 m thick. This indicates bulk coal excavation using excavators greater than 250t class is possible for the Project.

The average in situ model caloric value (CV) is low and in general ranges between 3,000 to 3,500 kcal/kg gar, with only a small part of the area consisting of a value greater than 4,000 kcal/kg gar. The ash content (Ash % adb) is generally low and ranges from 2 % up to a maximum of 10 %. The deposit has a low sulphur content (TS % adb) ranging from 0.1 % to max of 0.4 % across the deposit.

RPM used pit optimisation as a mine planning technique to investigate the relative economics of a coal deposit. It can help identify areas of higher and lower relative economic value over the deposit area.

A coal benchmark price of USD 41.42 per tonne at 3,800 kcal/kg gar calorific value was used as the long-term coal price input to pit optimisation based on McCloskey May 2023 forecast coal prices. After due care and careful enquiry, RPM is of the opinion that these long term forecast price are a reasonable outlook of the future forecast prices as at the time of reporting.

SJB provided the operating cost estimates for pit optimisation based on two operation schemes; an operation using the existing coal hauling road and port facility and an operation with a new coal hauling road and port facility. The operating cost provided were unit operating costs.

RPM completed the pit optimisation margin analysis of each shell to support the selection of the optimum shell. There is only a small increase in mineable quantities associated with an increase in the revenue factor between OPT080 and OPT100 pit shells. The pit shell OPT 080 was selected as the theoretical pit shell on which to base pit limits and a practical pit design be completed.

The mineable quantities and qualities in the practical pit shells that were designed are shown in **Table ES-2**.

**Table ES-2 Mineable Quantities and Qualities**

| Pit Name | Cut off Date Topography | Waste | Coal | SR | CV kcal/kg | Ash % | TS % | TM % | IM % | RD |
|---|---|---|---|---|---|---|---|---|---|---|
| | | (Mbcm) | (Mt) | (bcm/t) | (gar) | (ar) | (ar) | (ar) | (adb) | In situ |
| Malam | EOM March 2023 | 1,263 | 265 | 4.8 | 3,870 | 3.22 | 0.13 | 40.02 | 14.54 | 1.22 |
| Betung | | 49 | 10 | 4.9 | 3,900 | 4.33 | 0.13 | 38.69 | 13.05 | 1.22 |
| **Total** | | **1,312** | **275** | **4.8** | **3,870** | **3.26** | **0.13** | **39.97** | **14.49** | **1.22** |

*Note: Only seam S4 Group includes as Mineable quantity. Other seams have been transferred as waste.*

SJB informed RPM the target coal is only Seam S4 Group. Within this constraint, RPM developed and evaluated a Life of Mine (LOM) scheduling scenario to understand the mining result related to this seam target.

Within this scenario, mining starts simultaneously in the first year in Pit Malam and Pit Betung. Pit Malam mining direction generally is from south to north. Pit Betung mining direction remains from north to south. This scenario allowed a higher portion of production in the early stages of Pit Betung to provide mined out areas for use as in pit dumps.

In the early stages of development, Pit Malam and Pit Betung dump into an out of pit dump that will be located near the pit. As the box cut is established, the pit dumps will follow the box cut development of the pit into an IPD in the mined out areas, reducing the waste haulage distance.

The LOM production schedule is summarised per year and includes:

- 15 years mine life. This is comprised of:
  - 9 years of TRA commissioning coal quantity ramp up to a maximum of 25 Mtpa;
  - 6 years at the peak production rate of 25 Mtpa;
  - Final year 15 at 21.5 Mtpa as pits are depleted.
- an average mine strip ratio of 4.8 bcm/t ROM; and
- an average CV of 3,872 kcal/kg gar over the mine life.

The Measured Coal Resources within the economic and practical pit boundaries are converted to Proved Coal Reserves, and the Indicated Coal Resources are converted to Probable Coal Reserves. Open Cut Coal Reserves were estimated to total 275 Mt, of which 107 Mt are classified as Proved with the balance of 168 Mt classified as Probable (**Table ES-3**). The Coal Resources are reported inclusive of Coal Reserves (that is, Coal Reserves are not additional to Coal Resources).

**Table ES-3 Open Cut JORC Coal Reserves by Classification as of 31 May 2023**

| Area/Block | Reserves (Mt) | | CV kcal/kg (gar) | Ash % (ar) | TS % (ar) | TM % (ar) | IM % (adb) | RD In situ |
|---|---|---|---|---|---|---|---|---|
| Malam | Proved | 100 | 3,860 | 3.29 | 0.11 | 40.11 | 14.35 | 1.22 |
| | Probable | 165 | 3,880 | 3.18 | 0.14 | 39.96 | 14.65 | 1.22 |
| | Total | 265 | 3,870 | 3.22 | 0.13 | 40.02 | 14.54 | 1.22 |
| Betung | Proved | 7 | 3,910 | 4.37 | 0.13 | 38.67 | 13.07 | 1.23 |
| | Probable | 3 | 3,850 | 4.22 | 0.13 | 38.72 | 12.97 | 1.22 |
| | Total | 10 | 3,900 | 4.33 | 0.13 | 38.69 | 13.05 | 1.22 |
| **TRA** | Proved | 107 | 3,860 | 3.36 | 0.11 | 40.02 | 14.27 | 1.22 |
| | Probable | 168 | 3,880 | 3.20 | 0.14 | 39.94 | 14.62 | 1.22 |
| | **Grand Total/ Average** | **275** | **3,870** | **3.26** | **0.13** | **39.97** | **14.49** | **1.22** |

*Notes:*

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 Australian Coal Guidelines 2014 Edition.*
5. *Coal Reserves have been estimated on a 100 % ownership basis.*
6. *Marketable Reserves are the same as Coal Reserves. The 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.*
8. *The Coal Reserves figures reported in the table above represent estimates as of 31 May 2023.*

### *Facilities Infrastructure and Logistics*

The site facilities constructed near the mine currently consist of mine office, staff mess, workshop, fuel storage, raw water supply and water treatment, power generators and first aid and medical facilities.

Expanded facilities, infrastructure and services as mine production increases, will be the responsibility of the appointed mining contractors and other service providers.

The expansion of mining operations over time to 25 Mtpa will require a reconsideration of the ROM and sized product coal stockpiles. It is envisaged that the screening and sizing of coal will be relocated from the mine site to the port.

Current coal haulage is carried out on a mixed use road from site to a port facility The road is operated by PT Atlas Resources Tbk (“ATLAS”) and the port is operated by PT Sriwijaya Bara Logistic (“SBL”). The road has both forestry and mining haulage trucks operating on it. The haul distance from the mine site coal stockpiles to the barge loading point is approximately 140 km, the road is suitable for 30 tonne payload trucks with a typical operating speed of 40 km/h. Current coal haulage safety and productivity is severely impacted by the condition of the haul road and the mixed traffic using the haul road.

Future coal haulage is planned on a 92 km purpose-built haul road from the site to a new PT Marga Bara Jaya (“MBJ”) Port. Haulage is planned by B-Double 60 tonne capacity per trailer (total 120 tonnes per load) vehicles. The road width selected in the basis of design is 12 m excluding the road shoulders This is potentially a limiting factor in road speed which is currently set to 40 km/h.

Hydrology and flooding studies have been undertaken for the proposed road route and a flood immunity of 1:50 years has been selected, with supporting infrastructure of bridges and culverts to support this.

The current SBL port facility has a barging distance of approximately 183 km along the Lalan river to the transhipment point. The facility loads 7,500 t barges at a rate of 750 t/h.

The site for the future port facility to be operated by MBJ will be equipped to accept the B-Double vehicles side tipping onto a pad with the coal pushed into hoppers. The coal is sized and mechanically handled onto stockpiles. Reclaimed coal from the stockpiles is moved by conveyor to the barge loading conveyors of 2 x 1500 tph. The port is proposed to provide for a barge receiving jetty, turn around area and 2 sets of barge loader and dolphins The product stockpiles are sized for 2 weeks capacity and are a series of 12 x 75 kt stockpiles at the final phase. The barging distance from this port to the transhipment point is approximately 221 km.

The river study conducted for barging activities indicates that the complete barge cycle time will be in the order of 110 hours. The river has up to 35 km of single lane sailing. There are a number of other obstructions hindering barge operations including 13 berths operated by other companies, and 400 m tight radius turns. The least available depth constraints limiting the river to single lane traffic and 7,500 DWT barges are the most significant of the river constraints.

With improvement to traffic management for the single lane section this and further river training (dredging works will be required) the total feasible capacity of the proposed MBJ jetty may be able to increase up to 30 Mtpa.

The proposed haulage road and MBJ Port will be developed in two phases with a total throughput capacity up to 25 Mtpa. Construction of Phase 1 (15 Mtpa throughput) will commence in mid-2023 and will be completed by the end of 2024. Construction of Phase 2 (additional 10 Mtpa) is planned to commence in 2030.

### *Environmental and Social*

Based on the review of the available documentation, the studies of potential environmental impacts of the TRA and associated proposed road and MBJ port projects, and the associated environmental monitoring and management programs, have been completed and approved. RPM has not identified any E&S approvals, issues and risks that are considered to have a material impact on the performance of the TRA and proposed haulage road and MBJ port projects in the longer term. However, RPM has not sighted any information on the current E&S approvals compliance status for the proposed haulage road. RPM notes that the haulage road ANDAL Report is referenced in the Project Greek Information Memorandum, November 2022.

Based on the review of the available information for TRA, the Project is currently operating in compliance with the requirements of the TRA E&S approvals and permits.

RPM has not sighted a waste rock characterisation report for TRA. However, the review of the available documentation indicates that acid generation occurs within the mining area and that appropriate design, management and monitoring measures for surface water runoff have been approved and are in place.

RPM has not sighted any information in relation to the estimation of GHG emissions and the assessment of climate related risks for TRA and the proposed associated haulage road and MBJ port projects. However, RPM notes that the potential impact of future tariffs, taxes, or tradeable caps on carbon emissions from GHG emissions associated with the operations or product on a project valuation, has not been considered in this review.

The ongoing implementation of the PT Golden Eagle Energy Tbk (“SMMT”) community development plan (“CDP”) indicates a commitment by the company to manage any potential adverse effects from TRA and the proposed associated haulage road and MBJ port projects on the local social conditions. RPM recommends that TRA continue to document the ongoing implementation of the SMMT CDP to contribute to maintaining the projects’ social licence to operate.

RPM has not sighted a mine closure plan (“MCP”) for TRA and for the proposed haulage road and MBJ port, and there is no reference in the reviewed available documentation, that a MCP has been or is being produced. RPM recommends that TRA consider developing a MCP for TRA and the proposed haulage road and MBJ port, in accordance with the international standard ISO 21795:2021, Mine closure and reclamation planning. This would provide for a structured approach to identifying and managing the projects’ closure liabilities, and also provide the basis for the development of a mine closure cost estimate.

### *Economic Analysis*

Coal sales have been apportioned as 75 % to the seaborne export market and 25% to fulfil the domestic market obligation ("DMO") of the Government of Indonesia ("GOI"). The GOI regulation states that the DMO for each concession holder is to be set on an annual basis by the Ministry of Energy and Mineral Resources ("ESDM") based on the demands of domestic consumers.

The GOI Ministrial Decree of Ministry of Energy and Mineral Resource, 2018, sets a price cap for DMO use for public electricity generation of USD 70 /t. This price cap is applicable for coal with a calorific value of 6,322 kcal/kg gar, total moisture of 8 %, sulphur content of 0.8 % and ash of 15 %. For coals of any other specification, the applicable domestic price cap is to be calculated via a formula linked to this reference price of USD 70 /t. RPM used this price cap formula for estimating the DMO price for TRA coal.

Export coal price was estimated using the McCloskey forecast for May 2023.

Operating costs were estimated using the unit costs for the current situation, which is expected to prevail between 2023 and 2025, and for the expansion phase between 2026 and 2037.

There are no capital costs estimated for this Project as it will be operated under a contractor service delivery model. TRA has confirmed that there is no carried forward capital that will need to be included in the economic model.

The outcome from the TRA Project economic modelling is that positive cash flows and margins are generated throughout the mine life. Based on the current cost inputs and revenue assumptions, the mine returns a positive net present value ("NPV") of USD 809M, at a 12 % discount rate and indicates that the mine is economically viable from an NPV standpoint. It should not be construed to constitute the sole basis for a valuation of the Project.

The sensitivity of this project NPV was tested against variations in the following factors:

- Production rate;
- Operating costs;
- Sales price, and
- Discount rate.

These input factors were tested over a reasonable range of values (+20 % / -20 %) while keeping all other factors constant. The analysis shows the Project is most sensitive to variation in sales price, followed by operating costs, production rate, and real discount rate. These results show even if the coal price falls by 20 %, the Project NPV would remain positive. This highlights the strong cash margin of the TRA Project when coal prices are high.

### *Valuation*

RPM conducted an independent valuation of the project in accordance with the Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets promulgated by the VALMIN Committee (VALMIN Code, 2015) ("VALMIN Code"), and Singapore Exchange Securities Trading Limited ("SGX") Listing Manual. The VALMIN Code provides a classification of mineral assets that relate to the applicability of the Valuation approaches. These are Early-stage Exploration Projects, Advanced Exploration Projects, Pre-Development Projects, Development Projects, and Production Projects. The Valuation approaches applicable to these mineral asset classifications are shown on **Table ES-4.**

**Table ES-4 Comparison of valuation approaches**

| Valuation Approach | Exploration Projects | Pre-development Projects | Development Projects | Production Projects |
|---|---|---|---|---|
| Market | Yes | Yes | Yes | Yes |
| Income | No | In some cases | Yes | Yes |
| Cost | Yes | In some cases | No | No |

The Income Approach, using a Discounted Cash Flow (DCF) model, was used for the valuation of this Project. The Market Approach, assessing comparable transactions, was used to allow comparison against the DCF approach. RPM considers this a reasonable approach as the Project is a Production Project in accordance with Table ES-4.

Considering all the risk factors in the derivation of the DCF approach, RPM has undertaken a Monte Carlo simulation of the 4 individual variables tested for the sensitivity of the DCF outcome. For each of these independent variables, RPM has constructed a probability distribution curve to reflect the variability of each parameter based on the Competent Practitioners industry experience.

The distribution curves used in the Monte Carlo simulation are:

- Export thermal coal price, a normal distribution curve around the mean coal price over the life of the Project, where the export thermal coal price will vary be in the range of +/-20 % of the mean;
- Project operating costs, a left skewed distribution curve around the mean operating cost over the life of the Project, where the Project operating cost will vary in the range of +/-20 % of the mean;
- Project production rate, a right skewed distribution curve around the mean production rate over the life of the Project, where the Project production rate will vary in the range of +/-20 % of the mean; and
- Discount rate, a normal distribution curve around the mean discount rate over the life of the Project, where the Project discount rate will be in the +/-20 % range of the mean.

The results of the Monte Carlo simulation after 10,000 iterations, is that at a 90 % confidence level based on the probability distributions applied to the 4 key independent variables, the DCF Valuation NPV for the TRA project sits in the range of USD 360M to USD 1,225M with a most likely value of USD 809M.

For the Constant Price Scenario the results of the Monte Carlo simulation after 10,000 iterations, is that at a 90 % confidence level based on the probability distributions applied to the 4 key independent variables of this scenario, the Constant Price Valuation NPV for the TRA project sits in the range of USD 483M to USD 1,396M with a most likely value of USD 957M.

RPM has relied on the Company's information in deriving the inputs to the valuation presented within this report. As outlined in the section Important Information About this Document, 6. Inherent Mining Risk the accuracy and outcomes of the valuation are subject to change due to numerous Risk Factors that are beyond RPM's control and that RPM cannot anticipate.

## *Project Risks*

### Generic Mining Risks

(a) The operations of the TRA Coal Mine are susceptible to risks and hazards inherent in the mining industry

The operations of TRA Coal Mine may be affected by various factors and subject to risks and hazards inherent in the mining industry, including but not limited to, unanticipated variations in grade and other geological problems, operational and technical difficulties encountered in mining, insufficient or unreliable infrastructure, water conditions, surface or underground conditions, metallurgical and other processing problems, mechanical equipment performance problems, plant breakdowns, the lack of availability of materials and equipment or trained manpower, the occurrence of accidents, labour force disruptions, force majeure factors, unanticipated transportation costs, and weather conditions.

Any of these factors may materially and adversely affect the Groups business, financial condition, results of operations and the Group's ability to realise value from the Acquisition.

(b) The Coal Reserves and Resources and the net present value of the TRA Coal Mine are only estimates and are based on various key assumptions which may change

The Coal Resources and/or Coal Reserves estimates and the net present value of the TRA Coal Deposit included in this Circular and in the RPM Report are only estimates. Such estimates are expressions of judgment based on knowledge, experience and industry practice.

The Coal Reserve estimates included in this Circular and in the RPM Report are only estimates of the coal deposits that can be economically recovered. When estimating the size and value of Coal Reserves, assumptions are made regarding:

- geological conditions;
- confidence in the underlying Coal Resources and mining modifying factors;
- historical production from the mining area compared with production from other producing areas;
- the effects of regulations, including safety and environmental regulations and taxes by governmental agencies;
- future coal prices; and
- future operating costs, including increased reliance on independent third-party mining and project services providers.

The classification of Coal Reserves in line with the recommended guidelines of the JORC Code, as either Proved or Probable, carries a different level of confidence. Probable Reserves carry a higher risk and are estimated with a lower level of confidence than Proved Reserves, whereas Proved Reserves carry a lower risk and are estimated with a higher level of confidence than Probable Reserves.

Estimations and valuations of Coal Resources and Reserves, by their nature, cannot be made with complete certainty. The estimated Coal Resources and Reserves and the net present value of the TRA Coal Deposit included in this Circular and in the RPM Report are subject to changes to factors such as, but not limited to, actual production and operating costs of the TRA Coal Deposit and global coal prices, and may change significantly in the future if and when new information becomes available.

Actual factors may vary considerably from the assumptions used in estimating Coal Resources and Reserves and in determining the net present value of the TRA Coal Deposit. Actual production, costs, sales and expenditures of the TRA Coal Deposit may vary materially from the estimates used in the RPM Report and such estimates may not be indicative of the TRA Coal Deposit's future production, costs, sales or expenditures. For example, future material declines in global coal prices could reduce our Coal Resources and Reserves estimates due to operational costs associated with exploiting the coal in the concession.

The conclusions and opinions contained in the RPM Report should be read subject to the limitations, risks and assumptions set out in the RPM Report and apply only as of the date of the RPM Report. The RPM Report relies on information provided to RPM and changes to any of the data, information and assumptions, including assumptions on coal prices, that RPM used in the preparation of the RPM Report that may have occurred since the date of the RPM Report may impact the conclusions and opinions in the RPM Report, and the Coal Resources and/or Reserves estimates and the net present value of the TRA Coal Deposit.

**TRA Specific Project Risks**

- Geological structures or coal washouts that are currently not identified in the geological model may occur that will result in a reduction in the ROM coal quantities available to be mined.
- Any reduction in ROM coal quantities available to be mined will lead to an increase in waste removal requirements and hence also an increase in strip ratio to achieve the nominated annual ROM coal production rate.
- The performance of the selected mining contractor will be crucial to the delivery of the annual waste and coal production schedule.
- Timely land acquisition is necessary in advance of mining so that the planned mining and dumping sequence can be achieved.

- Existing surface infrastructure and facilities such as the provincial road must be moved and relocated in a timely manner so as not to impede mining progress.
- Adequate ex-pit dump space and area is required for initial mining operations before the transition to in-pit dumping occurs. The current ex-pit dumping areas are limited and any issues that affects this available space will adversely impact the mine plan.
- The construction of the new haul road will take longer than expected and the existing haul road will need to be used for a longer period of time resulting in a slowdown in the ramp up of coal production and an extended period of higher coal hauling operating costs.
- The new barge loading port will take longer than expected to construct and move into operation resulting in the need to use the existing port for a longer period of time resulting in a slowdown in the ramp up of coal production and an extended period of higher barge port operating costs.
- Whilst the estimate for both the road and port has been completed, the accuracy of the estimate is stated to be low. It was also noted that imported CBR80 road pavement materials may not be readily available in this area. It is recommended that the estimate is updated with current pricing and from known road base quarries able to supply the Project.
- The navigable river channel requires dredging to facilitate the forecast expansion of coal barging requirements. Such works may come at significant additional cost and also require complex approvals at the Provincial Government level. It is advised that further studies are completed to ascertain improvements in the barging operation including a fully defined scope and costs for river dredging, spoil disposal, barging and tug logistics, and river traffic control systems.

Based on the review of the available documentation, RPM considers that the key E&S risks for TRA and associated proposed haulage road and MBJ port are:

- TRA:
  - Dust emissions from coal handling and cleared areas have the potential to result in offsite amenity impacts.
  - Mining area surface water runoff – this is contaminated with AMD and requires treatment and monitoring prior to discharge to ensure the discharge quality meets the required permitted standards.
  - Mine land disturbance and rehabilitation – control of land clearing and erosion is required to minimise habitat and forest area disturbance, and cleared areas are required to be rehabilitated.
- Proposed Haulage Road and MBJ Port Projects:
  - Dust emissions from coal handling and cleared areas have the potential to result in offsite amenity impacts.
  - Surface water runoff from the MBJ coal terminal has the potential to result in quality impacts to surrounding surfaces water features. In particular, the potential for impacts to the water quality of Lalan River.
  - Haulage road land disturbance and rehabilitation – control of land clearing is required to minimise habitat and forest area disturbance, and temporary cleared areas are required to be rehabilitated.

The economic analysis risks are demonstrated in the results of sensitivity analysis of the economic model:

- Lower coal prices and revenue will reduce Project value;
- Long term market demand displacement for low energy coal from projects like TRA in exchange for higher energy, lower emission coal. This may be offset in part where product specification such as TRA's are required for boilers designed specifically to burn only this quality of coal;
- An increase in unit operating costs across any or all of the Project processes (mining, coal processing, coal hauling, barge loading) will reduce Project value; and
- A lower than planned ramp up in coal production will reduce Project value;
- Re-estimation of closure cost in accordance with the international standard ISO 21795:2021, Mine closure and reclamation planning may reduce Project value.

### *Project Opportunities*

The western portion of the concession currently has limited drilling coverage. Existing drilling data in the Malam block with quality analysis also needs additional closer spaced infill drilling that will improve both geological knowledge and the confidence level of waste and ROM coal quantities and qualities.

The high-wall pit of the western area Malam Block still has the potential to be evaluated and extended to add economically mineable ROM coal quantities, however, it will increase the incremental and total average stripping ratio.

The current Reserve estimate only includes the seam S4 group. There are other coal seams that are categorised as Indicated Resources inside the current practical pit design. The inclusion of these seams can be economically evaluated to increase the ROM coal quantities that can be mined, however the inclusion of these seams may decrease the average caloric value of the ROM coal that is mined.

The selected new coal haul road width could be widened to 16m (approximately 125 % increase in bulk earthworks) which will allow for an increase in truck haul speed and therefore reduce truck cycle times to and from the port.

Further investigation could be undertaken to evaluate using larger barges, or self-propelled barges to reduce barging unit costs.

Based on the review of the available documentation, RPM considers that the key E&S opportunities for TRA and the associated proposed haulage road and MBJ port are:

- Status with the Project land acquisition – this has been completed for the proposed haulage road and MBJ port and is 78 % complete for TRA. The acquisition of the remaining 22 % land within the TRA IUP, will not significantly impact on mine operations and development.
- Ongoing implementation of the TRA CDP – to demonstrate a commitment by the company to manage any potential adverse effects from the TRA and proposed haulage road and MBJ port projects on the local social conditions, and to maintain the projects' social licence to operate.

The economic analysis opportunities are demonstrated in the results of sensitivity analysis of the economic model:

- Higher coal prices and revenue will increase Project value;
- A decrease in unit operating costs across any or all of the Project processes (mining, coal processing, coal hauling, barge loading) will increase Project value; and
- A faster than planned ramp up in coal production will increase Project value.

### *RPM Qualifications and Experience*

RPM's advisory division operates as independent technical and ESG consultants providing services across the entire mining life cycle including exploration and Assets feasibility, resource and reserve evaluation, mining engineering and mine valuation services and ESG to both the mining and financial services industries.

RPM is the market leader in the innovation of advisory and technology solutions that optimize the economic value of mining Assets and operations. RPM has serviced the industry with a full suite of advisory services for over 50 years and is the largest publicly traded independent group of mining technical experts in the world having completed over 14,000 studies across all major commodities and mining methods, and worked in over 118 countries globally.

RPM has been paid, and has agreed to be paid, professional fees for its preparation of this report; however, none of RPM or its directors, staff or sub-consultants who contributed to this report has any interest or entitlement, direct or indirect in:

- Geo Energy Resources Limited, securities of Geo Energy Resources Limited or companies associated with Geo Energy Resources Limited; or

- The right or options in the relevant Assets.
- The work undertaken is an IQPR of the information provided by the Company, SJB and by or on behalf of the Client, as well as information collected during site inspections completed by RPM as part of the IQPR process. It specifically excludes all aspects of legal issues, marketing, commercial and financing matters, insurance, land titles and usage agreements, and any other agreements/contracts that the Client or SJB or the Company may have entered into.

RPM does not warrant the completeness or accuracy of information provided by SJB or TRA which has been used in the preparation of this report.

The title of this IQPR does not pass to the Client until all consideration has been paid in full.

Drafts of this report were provided to the Client, however only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in the report.

Generally, the data available was sufficient for RPM to complete the scope of work. The quality and quantity of data available, and the cooperative assistance, in RPM's view, clearly demonstrated the Company's assistance in the IQPR process. All opinions, findings and conclusions expressed in the report are those of RPM and its specialist advisors.

Yours faithfully,

**Mr Tim Knight**
**President Director**
**PT RungePincockMinarco**

# TABLE OF CONTENTS

## LIST OF TABLES

## LIST OF FIGURES

## LIST OF APPENDICES

# 1 INTRODUCTION

## 1.1 Commissioning

In April 2023, PT. RungePincockMinarco a fully owned subsidiary of RPMGlobal Holdings Ltd, ("RPM") was commissioned by PT. Satui Jasabara ("SJB") to prepare an Independent Qualified Person's Report ("IQPR" or the "Report") of the PT. Triaryani coal mining concession area code 1 1 1605 3 03 2014 001 ("TRA", the "Company", or the "Project"). The Project is in the Musi Rawas Utara Regency, South Sumatera Province, Indonesia. In August 2023, SJB novated the engagement with RPM to PT Geo Energy Investama ("PT GEI" or the "Client").

## 1.2 Aim of the Report

The aim of this report is to provide an IQPR covering the TRA coal mining concession. The TRA coal mining concession is the subject of an asset purchase transaction by PT GEI, a newly incorporated indirect wholly-owned subsidiary of Geo Energy Resources Limited (together with its subsidiaries, the "Group").

Geo Energy Resources Limited is a company listed on the Singapore Exchange Securities Trading Limited ("SGX") main board (Stock Code: RE4) since 2012 and is part of the Singapore FTSE index.

## 1.3 Scope of the Report

The scope of the report is to produce an IQPR for the TRA coal mining concession. The substance of the IQPR is as defined by Practice Note 6.3 of the listing manual ("Listing Manual") of the SGX.

The IQPR applies to the TRA coal mining concession and not the owning company of the concession, and thus the following factors were not accounted for in this report:

- existing assets and liabilities of the holding company;
- aspects relating to financing for the existing mine and infrastructure; and
- any legal issues affecting the holding company and not directly related to the validity of the tenement itself.

Additionally, RPM's scope has included review of associated planned infrastructure to be funded, built and operated through third party contractors including:

- a proposed 92km haulage road; and
- the MBJ port facility.

While this associated planned infrastructure is not part of the IQPR assets per say, their constructability and indirect funding through third party service providers are key to the Project achieving its expanded production target. RPM at a high level has reviewed the designs, costs and E&S approvals/permits and timelines for these associated proposed infrastructure projects.

## 1.4 Basis of the Report

The principal sources of information used in this study to support the IQPR for the TRA coal mining concession included site visits and reports and references which were provided in a virtual data room (VDR), the contents of which are provided in Chapter 11 References.

A site visit was undertaken to TRA by Mr Delvit Muhammad and Mr Gusti Sumardika on 9-13 April 2023. Both Mr Delvit and Mr Sumardika are permanent employees of RPM. The Qualified Person and Competent Practitioner has discussed the outcome of the site visit with Mr. Delvit and Mr. Sumardika as well as the Competent Person (CP) for JORC Coal Resources Mr. Hengky Palysa and the CP for JORC Coal Reserves Mr Gusti Sumardika.

The site visit completed by Mr Delvit Muhammad and Mr Gusti Sumardika confirmed that at the time of the site visit:

- In general, the geological features that were observed in the active pit are represented in the geological model interpretation;
- The Project is operational, with the mining carried out and supervised professionally by TRA and its Contractors; and
- There is sufficient infrastructure in place to support the mining operations.

VDR data and data gathered during the site visit, has been assessed and validated by experienced RPM technical staff under the supervision of the Qualified Person.

## 1.5 Reporting Standard Used

This IQPR has been prepared in accordance with:

- the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves promulgated by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia ("JORC Code");
- the Australian Guidelines for the Estimation and Classification of Coal Resources (2014);
- the technical valuation was undertaken in accordance with the guidelines of the Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets promulgated by the VALMIN Committee (VALMIN Code, 2015) (“VALMIN Code”); and
- the SGX Mainboard Listing Rules (Practice Note 6.3)

The Commissioning Entity is PT GEI whose parent company Geo Energy Resources Limited is listed on the main board of the SGX. Consequently, this report must comply with multiple jurisdictions and multiple relevant regulations, guidelines and listing rules. Where there is a conflict between the Singaporean jurisdiction and the JORC or VALMIN Code, the following regulatory hierarchy will apply in descending order of precedence:

- Singapore Law;
- SGX Mainboard Listing Manual and;
- JORC or VALMIN Code.

## 1.6 Responsibility and Context of Report

The contents of this IQPR have been created using data and information provided by the Company, SJB and by or on behalf of the Client. RPM does not warrant nor accept any responsibility for the accuracy or completeness of the data and information provided to it by, or obtained by it from, the Company, SJB, the Client or any third parties, even if that data and information has been incorporated into or relied upon in creating this Report. In respect of the information supplied by the Company, SJB or on behalf of the Client, the Qualified Person has made reasonable enquiries and exercised his judgement on the reasonable use of such information; and has found no reason to doubt the accuracy or reliability of the information.

The Report has been produced by RPM using information that was available to RPM as at the date stated on the cover page. RPM is under no obligation to update the information contained in the Report at any time.

The Client, the Company or SJB have not advised RPM of any material change, or event likely to cause material change, to the operations or forecasts since the date of asset inspections with the exception of depletion due to additional mining activities.

## 1.7 Information Sources

Several geology studies, feasibility studies, design reports, life of mine budgets and schedules were provided for the Project as well as recent operational data. This information was either supplied via an online data room or in a bulk information download for large packages of data.

Statements of Coal Resources and Coal Reserves in line with the recommended guidelines of the JORC Code, were independently estimated by RPM for the Project and reported in separate comprehensive reports compiled by RPM. Extracts from these reports are included in summary form within this IQPR along with 'JORC Table 1'.

## 1.8 Materiality

RPM has adopted the Australian Accounting Standards Board AASB 1031 which proposes that the materiality of information or data can be assessed in terms of the extent to which its omission or inclusion could lead to changes in total value:

- Equal to or less than five percent – immaterial.
- Between five and ten percent – discretionary.
- Equal to or greater than ten percent – material.

## 1.9 Qualified Person and Responsibilities

The Statements of Coal Resources and Coal Reserves have been reported in accordance with the recommended guidelines of the JORC Code. The technical valuation has been reported in accordance with the VALMIN Code. Both the Statement of Coal Resource and Coal Reserves and technical valuation are suitable for inclusion in an IQPR as defined by Practice Note 6.3 of the SGX Listing Manual.

### 1.9.1 Qualified Person

The Qualified Person of this report is Mr Gregory Alan Eisenmenger. Mr Eisenmenger has more than 45 years of international coal mining industry experience, with a strong technical and general management background. His general management capabilities are drawn from an operational career in Australia and Indonesia in the management of large mining contracts in open cut coal mining operations, and the management of integrated mine and logistics expansions. He has spent 12 years in Indonesia managing mining contractors, leading the annual dispute resolution process and played a lead role with external lawyers of prosecuting a dispute with the main mining contactor that found its way to the Supreme Court of Queensland before being resolved.

His technical capability has been developed in an operational and consulting career through Project Directorship and Project Management roles in completing Conceptual, Pre-Feasibility and Feasibility Studies. He has also undertaken technical reviews associated with due diligence evaluations and occupied Technical Services department management positions.

In recent years with RPM Advisory, he has managed the Independent Technical Reviews (ITR's) for various clients of: coking coal assets in Canada, coal supply to a coal to liquids plant (CTL) in South Africa and the sale of coal assets in Australia.

He is a 'Competent Person' as defined in the JORC Code and has significant experience as an 'Independent Technical Expert', having prepared or had input into many Due Diligence, Valuation and IPO reports. He has also been engaged as an Expert Witness in a Singapore International Arbitration Centre (SIAC) case.

He is employed by RPM Advisory Services Pty Ltd, a fully owned subsidiary of RPM, at the company head office address of. Level 14, 310 Ann St, Brisbane QLD Australia 4000. He is a member of the Australasian Institute of Mining and Metallurgy (AusIMM, Member Number 304702)

Throughout the preparation of this IQPR, Mr Eisenmenger has been supervised by Mr. Timothy Knight, President Director of PT RungePincockMinarco.

**Mr Gregory Alan Eisenmenger (IQPR Qualified Person) (MAUSIMM)**

### 1.9.2 Competent Practitioner VALMIN Code

Mr. Greg Eisenmenger meets the requirements of a Competent Practitioner, as defined in the VALMIN Code. His experience includes:

- Over 40 years of coal mining, management and consulting experience globally, including 6 years working in operations in the Bowen Basin as well as consulting in the region for over 20 years;
- Greater than 10 years' of recent and relevant experience in Technical Assessment of mining assets including coal assets as well as exploration, pre development and operating assets;
- Greater than 5 years' of recent and relevant experience in the Valuation of Mineral Assets;
- Member of the Australian Institute of Mines and Metallurgy ("AUSIMM"), which is a Recognised Professional Organisation as per the VALMIN Code;
- Does not have economic or beneficial interest (present or contingent) in any of the reported Relevant Assets;
- Has not received a fee dependent on the findings outlined in the Report;
- Is not an officer, employee or proposed officer for the Company or any group, holding or associated company of the issuer;
- Is familiar with the VALMIN Code, the JORC Code and the SGX Mainboard listing rules that may be relevant to the Report being prepared;
- Assumes overall responsibility for the Valuation Section of the Executive Summary of this IQPR and **Section 10** of the IQPR

**Mr Gregory Alan Eisenmenger (VALMIN Code Competent Practitioner) (MAUSIMM)**

### 1.9.3 Director Supervision

Throughout the preparation of this IQPR, Mr Eisenmenger has been supervised by Mr. Timothy Knight, President Director of PT RungePincockMinarco.

**Mr Timothy Knight (MAUSIMM)**

**President Director PT RungePincockMinarco**

### 1.9.4 Team Responsibility

The Qualified Person has relied on the assessment and findings of these RPM technical staff in producing this report. The RPM Technical staff comprised:

- Mr. Hengky Palysa Geological Consultant;
- Mr. Henson Saputro Senior Mining Engineer;

- Mr. Gusti Sumardika Practice Lead Coal;
- Mr. Oki Wijayanto Practice Lead Geology Coal;
- Mr. Peter Smith Executive Consultant Environmental;
- Mr Kenneth Maisey Executive Consultant Financials;
- Mr. Julian van der Riet Principal Engineer- Maintenance and Infrastructure; and
- Mr Philippe Baudry EGM Advisory – Peer Reviewer.

### JORC Competent Persons

The Competent Persons for JORC Coal Resources were responsible for review of the borehole database and estimation of the Coal Resources stated within this Report. The Competent Person for JORC Coal Reserves was responsible for review of the mining parameters, mine scheduling and estimation of the Open Cut Coal Reserves stated within this Report.

### 1.9.5 Coal Resources

The information in this report that relates to the Coal Resources of the Project is based on information compiled and reviewed by **Mr. Hengky Palysa**, who is a member of the Australasian Institute of Mining and Metallurgy and is a full time employee of RPM.

Mr Palysa has sufficient experience that is relevant to the style of mineralisation and types of coal deposits under consideration, and to the activity he is undertaking, to qualify him as a Competent Person (as defined in the 2012 Edition of the JORC Code). He has more than fifteen years of experience in the mining industry.

Mr Palysa has 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.

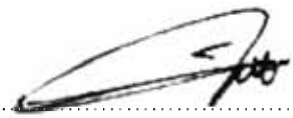
**Hengky Palysa BSc (Geology), MAusIMM, MIAGI**

### 1.9.6 Open Cut Coal Reserves

The information in this report that relates to the Coal Reserves of the Project is based on information compiled and reviewed by **I Gusti Made Sumardika,** who is a member of the Australasian Institute of Mining and Metallurgy and is a full time employee of RPM.

Mr Sumardika has sufficient experience that is relevant to the style of mineralisation and types of coal deposits under consideration, and to the activity he is undertaking, to qualify him as a Competent Person (as defined in the 2012 Edition of the JORC Code). He has more than fifteen years of experience in the mining industry and has visited the mine sites.

Mr Sumardika has no interest whatsoever in the mining Assets reviewed and will gain no reward for the provision of this Coal Reserve Statement. RPM will receive a professional fee for the preparation of this statement.



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

# 2 Property Description and Location

## 2.1 Location and Access

The Project is in Beringin Makmur II village, Rawas Ilir district, Musi Rawas Utara Regency, South Sumatera Province, Indonesia. The TRA mining concession covers an area of 2,143 ha and is located approximately 200 km from the airport in Jambi City. The regional location of the Project is shown in **Figure 2-1** and the site location is Shown in **Figure 2-2**.

The Project can be accessed from Jakarta through Jambi City, via commercial air flights which take approximately 1 hour. Land transportation is required to continue the trip from Jambi City to the site location in Rawas Ilir district via road, which takes approximately 6 hours. In general, the road is in good condition and mostly sealed. The Rawas Ilir district has a reported population of 28,423 people.

The Project area is characterised by the following general cultural environment factors:

- Ethnic groups - the indigenous Malays have a plurality in the general Project area, followed by the Javanese. The Malays are also often called Palembang people.
- Language - Indonesian is the official language in the general Project area. However, most of the Malays speak a dialect of the Malay language called the Palembang Malay or Musi. The Palembang people also have two other different languages, namely Baso Palembang Alus and Baso Palembang Sari-Sari.
- Religion – generally the main religion in the Project area is the Shafi'i School of Law of Sunni Islam, which is mainly adopted by the ethnic Malays, Javanese, Minangkabau, and Sundanese. However, the other minority religions are also practiced. For example, the Chinese primarily follow Mahayana Buddhism and Christianity.
- Culture – the main influencing culture is the Malay culture. In addition, there are some cultures that are influenced by Islam, and some that are influenced by the Srivijaya Kingdom (a Buddhist thalassocratic empire based in Sumatra). The Project area's cultural wealth includes traditional houses, traditional clothing, various types of dances, as well as typical food from the area.

The Tebing Tinggi Village in the Nibung District and Beringin Makmur II Village in the Rawas Ilir District, have been identified as the key areas where social conditions may be affected by the TRA Project. A Community Development Plan (CDP) is in place and is being initiated. The objectives of the CDP are to improve the standard of living and environment in the surrounding area, and to continue to grow and develop the local community. Community engagement is undertaken through the CDP. The CDP provides a summary of the other relevant cultural environment elements in the Project area. The CDP Implementation activities undertaken during 2022 were:

- Community Infrastructure – provision of street lighting, local road construction and improvements, and water supply wells and piping.
- Community Health – provision support and assistance for local health centres and COVID-19 vaccinations.
- Community Education – provision of funding and assistance of operation and development of local education facilities and activities.
- Religious - provision of financial assistance for local religious infrastructure and activities.
- Local Economy – provision of financial assistance for community service equipment and training.
- General Social and Community – funding assistance for local community groups and facilities, and for local tree planting/greening programs.

The TRA Project is located within two designated land use planning areas, Area for Non-Forest/Other Land Uses (Areal Penggunaan Lain - APL) and a forest use area with the function of a Permanent Production Forest (Hutan Produksi Tetap - HP). The vegetation within the APL comprises a combination of cultivated species (mainly rubber, oil palm, fruit tree plantations), and native shrubland species within riverbank and remnant forest areas. The vegetation within the HP comprises a combination of forest production species, cultivated species (within plantations) and native forest tree and shrubland species.

The key surface water features in the TRA Project area are the Air Putih River and Putih River (i.e. small rivers that traverse the TRA mining concession).

The dominant terrestrial fauna groups within the general project area are birds and mammals, with some reptiles and amphibian species. There is also diverse aquatic fauna within in the Air Putih River and Putih River, and associated tributaries.

## 2.2 Mining Tenure

The Project is undertaken by virtue of the Contract Agreement between the Government of Indonesia and PT. Triaryani, which was approved by both parties in 2011. The TRA project is operational status with mining activity having commenced in 2011 as outlined in **Table 3-2**.

A summary of the mining concession information is outlined in **Table 2-1**.

**Table 2-1 TRA Mining concession Summary**

| Asset name/ Country | Issuer's Interest (%) | Development Status | Licence Expiry date | Licence Area (ha) | Type of mineral, oil or gas deposit | Remarks |
|---|---|---|---|---|---|---|
| PT Triaryani/ Indonesia | 100 % | Operational | 22-May-2030 | 2,143 | Coal | |

The principal terms and conditions of the concessions have been provided in **Section 8.11.3**, and the associated E&S approvals in **Table 8-13** which constitutes the main licences applicable to the TRA project.

The asset name is PT Triaryani located in Indonesia. It is a coal deposit with the Issuer's interest being 100 %. The Project has operational status and has been in operation since 2011. Operational status provides Triaryani with the approval to explore and exploit Coal Resources. The Licence has an area of 2,143 ha and the Licence expiry date is 22 May 2030 and can be further extended for two 10-year periods.

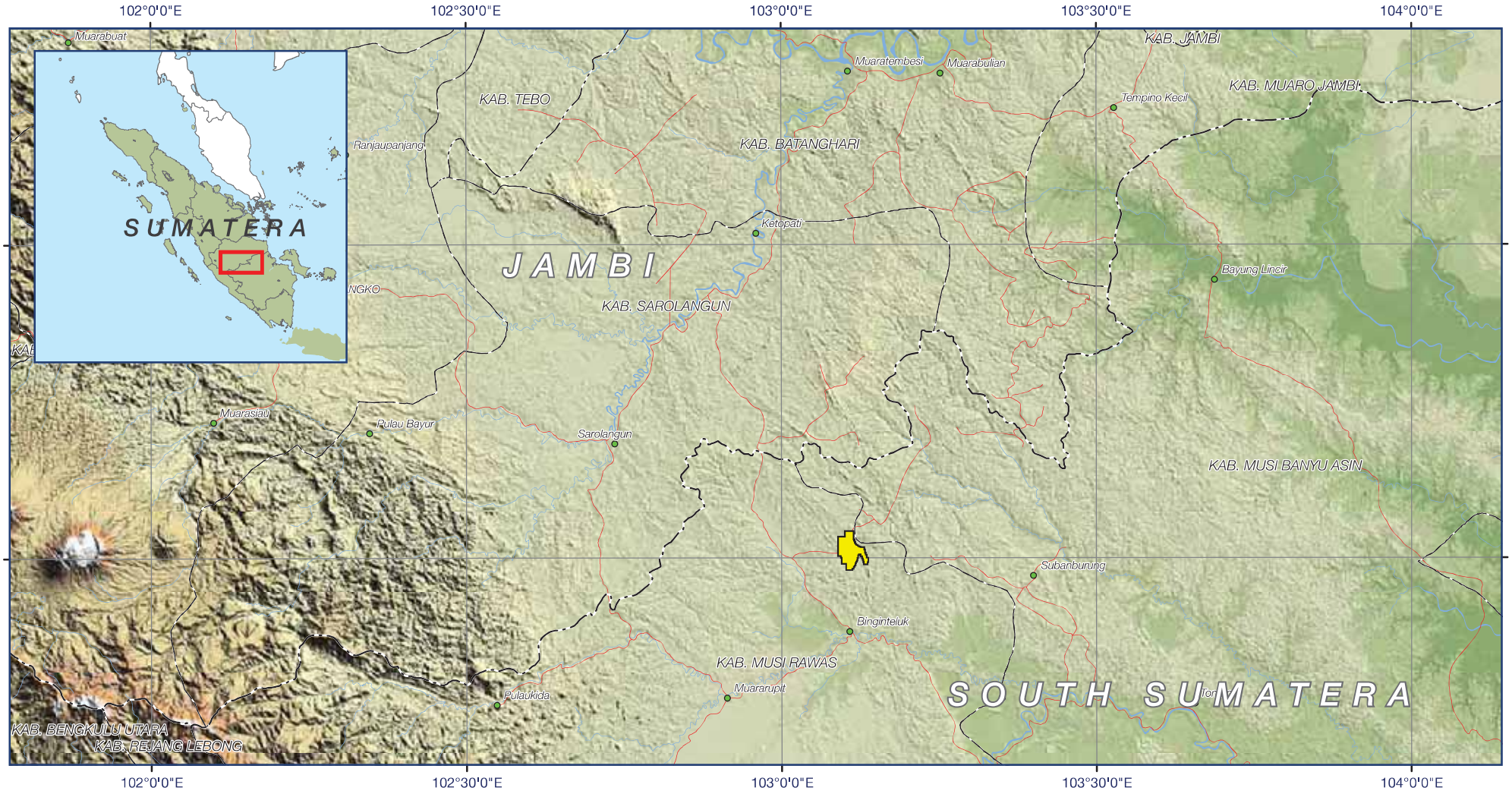
RPM has not completed a comprehensive review of site access, land acquisition, land compensation, or statutory or legal verification of the Mineral Licence status. TRA advised that it has all key necessary regulatory permits in place for its operation. RPM has relied upon the Client's legal due diligence and made reasonable enquiries and exercised professional judgement on all information provided and found no reason to doubt the accuracy or reliability of the information or data that was supplied.

TRA has Clean and Clear Status. A Feasibility Study and AMDAL have been approved by the Provincial Government. Borrow and Use Forestry permits are in place, and land compensation is an ongoing process ahead of the mining operation. A full description of the environmental, rehabilitation and closure requirements are contained in **Chapter 8.11**.

RPM provides this information for reference only and recommends that land titles and ownership rights be reviewed by legal experts.

## 2.3 Forestry Status

The IPPKH (forestry permit) for 968 ha is in place. TRA believes that the IPPKH needed will be in place in a timely manner so as not to impact mining operations.




**LEGEND**

- Town
- Road
- River
- Concession Boundary
- Political Boundaries

N

0 20 40 kilometres

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

**CLIENT**

GEO ENERGY GROUP

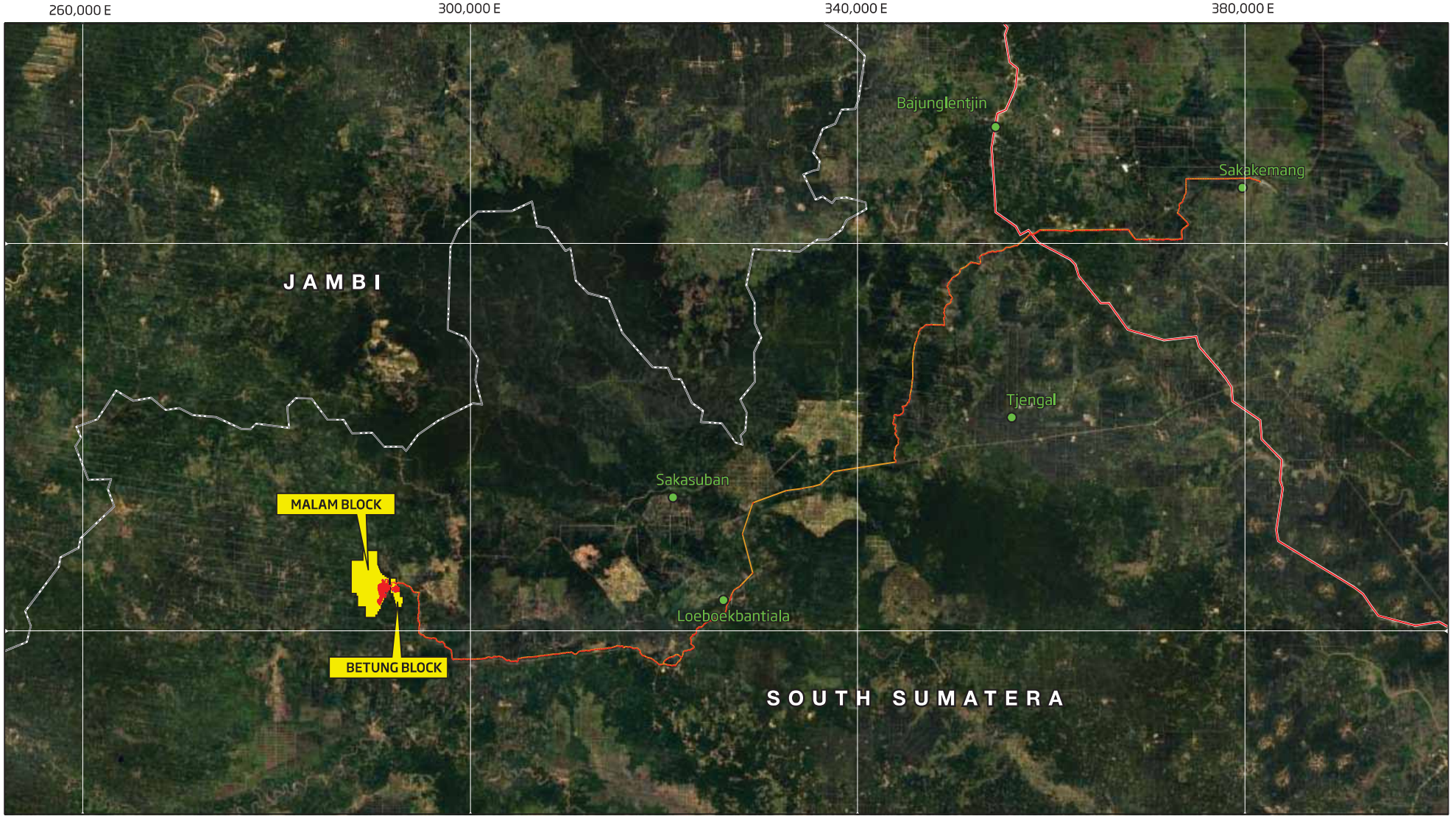
**PROJECT**

NAME: INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING: General Location Plan

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 2-1 | ADV-JA-04073 | August 2023 |

RPMGLOBAL




LEGEND

- Town
- Main Road
- Road
- Concession Boundary
- Political Boundaries

N

0 10 20 kilometres

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

Site Layout

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 2-2 | ADV-JA-04073 | August 2023 |

RPMGLOBAL

# 3 History

## 3.1 Exploration History

Exploration data collection at the Project has been conducted in several stages since 1985, when the Project first gained exploration status. The latest exploration completed by TRA was in 2023 when a total of 15 drill holes were drilled. A total of 228 drill holes have been completed in TRA.

Drilling type using PCD bits using air and water to complete the open hole sections of drill holes. They use NQ and HQ (triple tube barrel), which follows Industry accepted Standards for acquiring drill core.

The TRA Resource area has been subject to detailed drilling, with a typical drill hole spacing of 450-600 m in the Malam block and 100-200 m in the Betung block.

The drilling statistics are summarised in **Table 3-1** and drill hole locations are shown in **Figure 5-6**.

**Table 3-1 Exploration Drilling Statistics**

| Area | Year | Open holes | Quality holes | Geophysically logged holes | Surveyed holes | Total holes | Meterage |
|---|---|---|---|---|---|---|---|
| TRA | 1985 | 37 | 0 | 0 | 0 | 37 | 2,294 |
| | 2010 | 58 | 17 | 74 | 75 | 75 | 8,071 |
| | 2013 | 63 | 21 | 77 | 84 | 84 | 7,707 |
| | 2018 | 9 | 8 | 17 | 17 | 17 | 2,134 |
| | 2023 | 2 | 13 | 15 | 15 | 15 | 2,367 |
| **TOTAL** | | **169** | **59** | **183** | **191** | **228** | **22,573** |

## 3.2 Production History

The Project was acquired by PT Golden Eagle Energy Tbk (“SMMT") in 2012. In 2013 the Project obtained secure bank financing for construction and development. Additional exploration has been undertaken, and trial mining commenced in Q4 2014. The Project obtained exclusivity to operate a Coal Terminal in Palembang, South Sumatera Province, in 2015.

Since the time the Project gained exploration status in 1985, a range of planning studies have been completed, including geological modelling and estimates of coal Resources, geotechnical studies, and life of mine plan to a Pre-Feasibility Study (PFS) level of detail.

The production history of the Project since mining commenced in 2012 is outlined in **Table 3-2**. A total of some 6.5 Mt coal has been mined since of commencement of mining until May 2023 at a strip ratio (SR) of 1.48 bcm/t.

**Table 3-2 Production History**

| Year | Waste | Coal | SR |
|---|---|---|---|
| | (bcm) | (t) | (bcm/t) |
| 2012 | 32,049 | | |
| 2013 | 558,130 | 21,565 | 25.88 |
| 2014 | 384,078 | 195,542 | 1.96 |
| 2015 | 16,080 | | |
| 2016 | 9,609 | 101,378 | 0.09 |
| 2017 | 29,379 | 146,662 | 0.20 |
| 2018 | 177,872 | 489,542 | 0.36 |
| 2019 | 738,209 | 742,374 | 0.99 |
| 2020 | 555,487 | 621,979 | 0.89 |
| 2021 | 1,131,108 | 1,271,751 | 0.89 |
| 2022 | 3,502,092 | 2,343,384 | 1.49 |
| 2023 (to May) | 2,556,846 | 603,568 | 4.24 |
| **Total** | **9,690,939** | **6,537,747** | **1.48** |

# 4 Geological Setting and Mineralisation

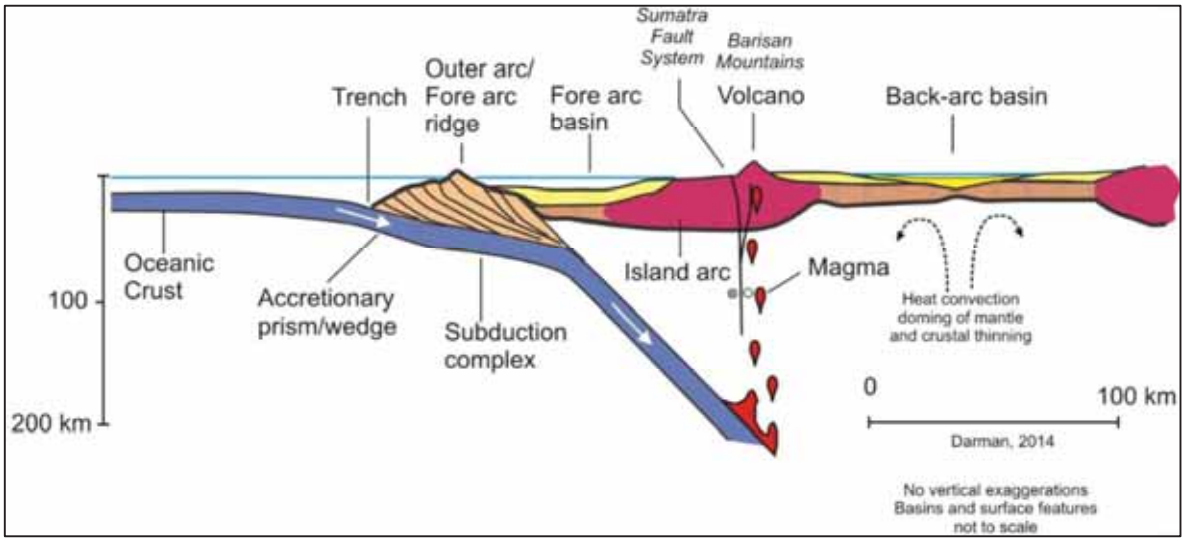
## 4.1 Regional Geology

Sumatra Island is the northwest oriented physiographic expression and lied on the western edge of Sundaland. The main geographical trendlines of the island is formed by the Barisan Range which runs along the western side. This region divides the west and the east coast. The Sumatra Island is interpreted to be constructed by collision and suturing of discrete microcontinents in late Pre-Tertiary times (Pulunggono and Cameron 1984, Barber 1985).

In general Sumatra can be divided into following regions (**Figure 4-1**):

1. Sunda outer-arc ridge, located along the active margin of the Sunda forearc basin and separate it from the trench slope.
2. Sunda forearc basin, lying between the accreting non-volcanic outer-arc ridge with submerged segments, and the volcanic back arc of Sumatra.
3. Sumatra back arc basins including North, Central and South Sumatra basin. The system developed as distinct depressions at the foot of the Barisan range.
4. Barisan mountain range, occupies the axial part of the island and is composed mainly of Permo-Carboniferous to Mesozoic rocks.
5. Sumatra intra-arc or intermontane basin, separated by subsequent uplift and erosion from this former depositional area, thus with similar lithologies to the fore-and back-arc basins.

**Figure 4-1 Schematic Cross Section of Sumatra**




*(After Herman Darman, 2014)*

The Project area occurring within the South Sumatra Basin. The basin is bounded by the Barisan Mountains to the southwest, and the pre-Tertiary Sunda Shelf to the northeast (*de Coster, 1974*).

The South Sumatra back arc basin was formed by three major tectonic phases:

1. Extension during late Paleocene to early Miocene forming north-trending grabens that were filled with Eocene to early Miocene deposits;
2. Relative quiescence with late normal faulting from early Miocene to early Pliocene and;
3. Basement-involved compression, basin inversion, and reversal of normal faults in the Pliocene to Recent forming the present northwest-southeast structural features and the depression to the northeast.

Generally, the sediments in South Sumatra basin were deposited in a transgressive-regressive cycle described in ascending stratigraphic order, as shown in **Figure 4-2**:

- Lahat Formation is a thick series of andesitic volcanic breccias, tuffs, lahar deposits and lava flows, with a remarkable quartz-sandstone horizon in the middle.
- Baturaja Formation, Early Miocene age, consist of massive reef facies and deeper water fine-grained well-bedded limestone with thin marl intercalations.
- Telisa / Gumai Formation is Early-Middle Miocene deep marine shales and marls.
- Air Benakat Formation remarked the beginning of regressive stage in the basin. It is Middle Miocene age, and generally consist of glauconitic sandstone. Clays in this formation also contain glauconite, carbonaceous material, shallow marine molluscs and foraminifera.
- Muara Enim Formation, Late Miocene – Early Pliocene age is the coal bearing formation.
- Kasai Formation is of Late Pliocene to Pleistocene age. The lower part is characterized by common fine-grained, rhyolitic tephra such as yellow-white pumice tuffs and tuffaceous sandstone. The upper part also contains common cross-bedded coarse sandstone and pumice-rich conglomerate beds.
- Quaternary, the youngest beds in the region that are not affected by the Plio-Pleistocene tectonic.

### 4.1.1 Muara Enim Formation

The TRA coal deposit occurs within the Muara Enim Formation. The top and bottom of the Muara Enim Formation are defined by the upper and lower occurrence of laterally continuous coal beds, referred to as the Niru and Kladi seams respectively. Thickness of the formation in the area around Muara Enim and Lahat is around 500-700 m, of which 15 % is coal.

The Muara Enim Formation has been subdivided into two parts known as the lower Member A and the upper Member B. Both members have been subdivided again into M1 – M4 (**Figure 4-3**). Coal beds within the lower member are generally thicker and more continuous compared to those in the upper member. Where the member is thin, coal beds become very thin or are absent; suggesting subsidence rates played an important role in coal deposition and preservation.

In most of the basin, the coal seams are low-grade lignites. Only around younger andesite intrusions, such as Bukit Asam, the lignites are altered to high-grade (anthracite) coal. In this area three coal groups are present: an upper (with 6-7 seams), a middle, and a lower group.

The roofs of coal beds may be silicified, especially where overlain by tuff beds (volcanic ash falls). At their base root horizons and in situ tree trunks may be found, indicating that the coal seams are autochthonous.

**Figure 4-2 General Stratigraphy of South Sumatra Basin, De Coster (1974)**

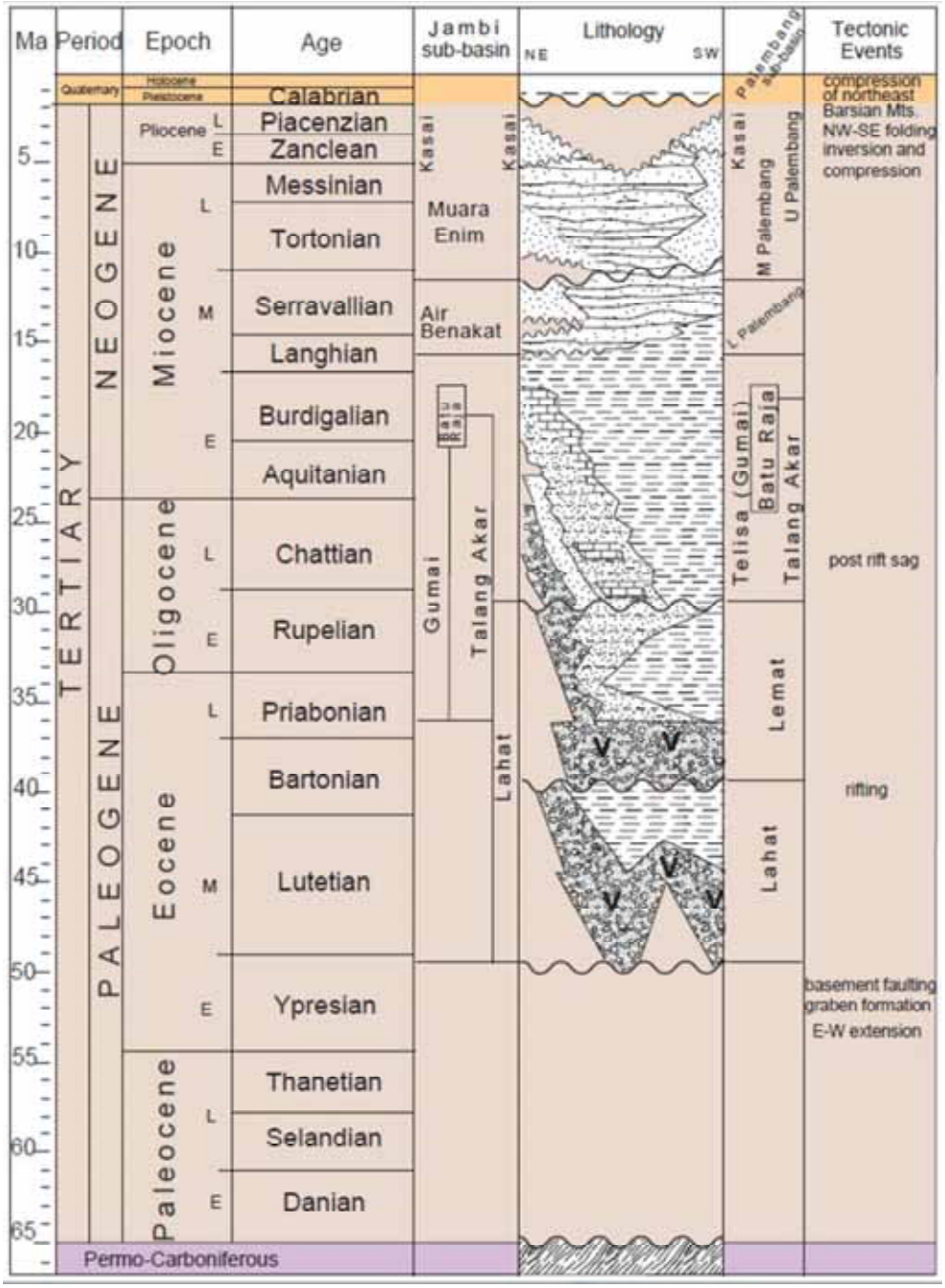
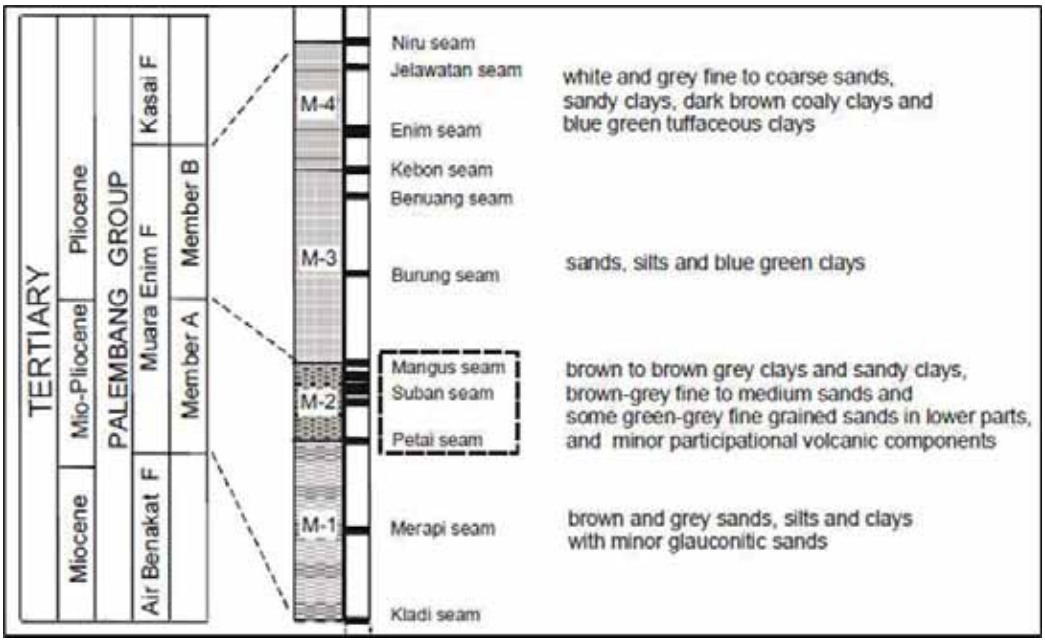


**Figure 4-3 General Stratigraphy of Muara Enim Formation**




*(After Shell Mijnbouw 1978)*

## 4.2 Local Geology

The geology of the entire Project is best described as a series of shallow plunging anticlinorium and synclinorium structures that trend northwest-southeast with moderate to shallow dips on their limbs. In the Malam block, coal occurs in a syncline structure with a dip of approximately 5 – 15 degrees. In the Betung block, coal occurs in a syncline structure with a dip of approximately 5 – 25 degrees. Multiple faults were identified with displacements between 70 m to 250 m that limit the continuity of coal seams in the project area. The coal seams in the Malam block are separated approximately 1 km from the Betung block. The coal seams in Malam and Betung blocks are comparable. A typical cross-section is shown in **Figure 4-4**.

Twenty seams and sub-seams (or seam splits) have been identified across the Project area, with one main seam (Seam S4) identified in both blocks. The general stratigraphy of the TRA deposit is shown in **Figure 4-5**.

Seam S4 thickness in the Malam block range between 10 m in the north and thickening up to 33 m to the south. While in Betung, seam S4 thickness ranges between 12 and thickening up to 33 m to the south also.

Seam 1 group is the upper seam group with a thickness that generally ranges from 2-4 m, with seam coverage of 3x1.5 km area in Malam block. No seam 1 group was present at Betung block.

Seam 7 group is the lowest seam identified in TRA concession and is only present at Betung block. Seam thickness ranges from 4-10 m and thickening to the east.

The seam groups thicknesses and interburden are summarized in **Table 4-1**. Note: thicknesses reported are apparent thicknesses, i.e., as intersected in the drill holes.

**Table 4-1 Average Seam and Interburdens Thickness**

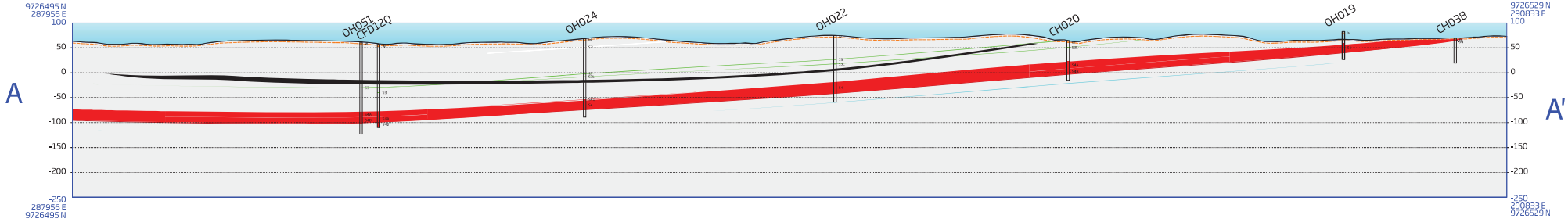
| Seam Groups | No. of Data Points | Apparent Thickness (m) | | | Interburden Above (m) |
|---|---|---|---|---|---|
| | | Average | Minimum | Maximum | |
| S1 | 14 | 3.7 | 2.9 | 4.4 | - |
| S2 | 6 | 0.5 | 0.2 | 0.9 | 72 |
| S3 | 47 | 1.1 | 0.3 | 2.6 | 48 |
| S3L | 8 | 0.8 | 0.4 | 1.2 | 5 |
| S4U | 32 | 1.6 | 0.6 | 2.3 | 58 |
| S4 | 40 | 22.3 | 3.8 | 33.0 | 3 |
| S5 | 9 | 1.5 | 1.1 | 2.3 | 22 |
| S6U | 4 | 1.1 | 0.8 | 1.6 | 39 |
| S6L | 4 | 1.2 | 1.0 | 1.3 | 3 |
| S7 | 10 | 7.9 | 5.8 | 8.6 | 20 |

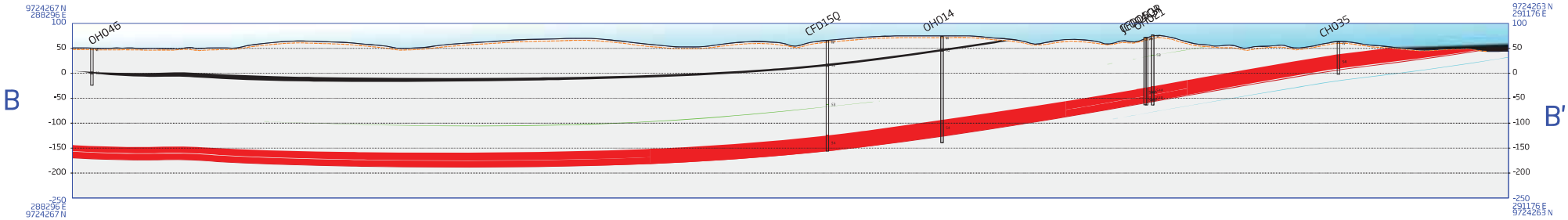
The coal rank in the TRA concession can be categorised as lignite to sub-bituminous coal accordi.ng to the ASTM Standard. The coal quality is low ash (average 3-8 % adb), low calorific value (CV) at an average of 3,600-4,100 kcal/kg gross as received (gar), and low TS (average 0.15-0.45 % adb). The overall coal rank increases with depth. There is a lateral CV trend increase to the west of the Malam block.

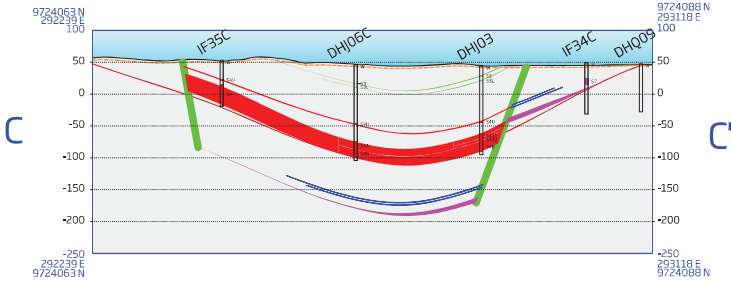
Seam 4 group as the main seam has ash ranges 4-8 % (adb) with CV 3,800-4,100 kcal/kg (gar), and TS ranges 0.2-0.45 % (adb). The lateral trend of rank increase for Seam 4 is to the west (downdip).

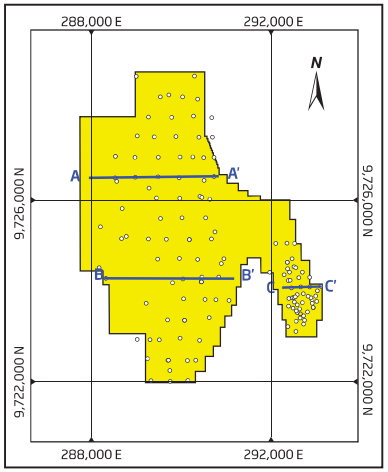
Seam 1 group ash ranges 4-5 % (adb) with CV 3,500-4,100 kcal/kg. TS ranges 0.2-0.3 % (adb). There is a lateral trend that CV gar increase to the north.

Seam 7 group, as the lowest seam, generally has ash between 6-7 % (adb) with CV of 3,800-3,900 kcal/kg (gar). TS is low, between 0.2-0.3 % (adb).




LEGEND

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

NAME

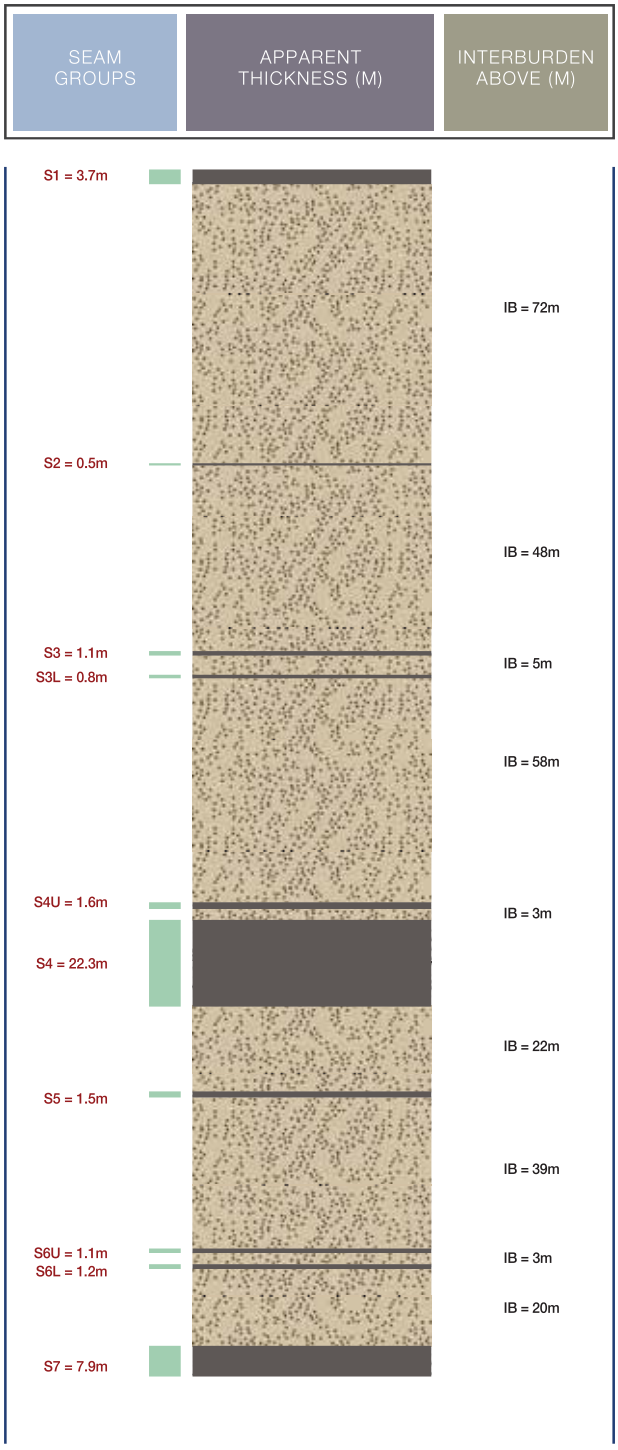
**INDEPENDENT QUALIFIED PERSON'S REPORT**

DRAWING

Typical Cross-Sections

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 4-4 | ADV-JA-04073 | August 2023 |

RPMGLOBAL




RPMGLOBAL

LEGEND

CLIENT

GEO ENERGY GROUP

PROJECT

NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

General Stratigraphy

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 4-5 | ADV-JA-04073 | August 2023 |

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

# 5 Exploration Data

## 5.1 Data Supplied

RPM independently reviewed geological data provided by SJB, including:

- Drill hole collar information, including total depth information;
- Drill hole lithology data, including coal seam picks;
- Drilling summary spreadsheet, which contains: drilling date, seam intercepts and core recovery etc., from all exploration;
- Downhole geophysical log data in LAS and PDF format;
- Coal sample table and associated raw qualities;
- Coal quality certificate from the laboratory;
- Core photos;
- 2019 Datamine's Minescape geology model named "TRA_2018_GXP_FIN";
- Updated topography data.

## 5.2 Lithological Dataset

A total of 138 holes were used to develop the 2023 geological model. The drilling statistics for the drill holes used to develop the geological model are summarised in **Table 5-1**. The drill hole location map for model development is shown in **Figure 5-6.**

A total of 90 drill holes were excluded from the model, especially the 37 drill holes during exploration in 1985 periods with insufficient supporting data. The other drill holes were the pilot holes during the twin hole, next to the quality drill holes. The drilling for these holes mostly stopped before the bottom of the main seams, so they are not fully intersected.

**Table 5-1 Drill Hole Dataset for Model Development**

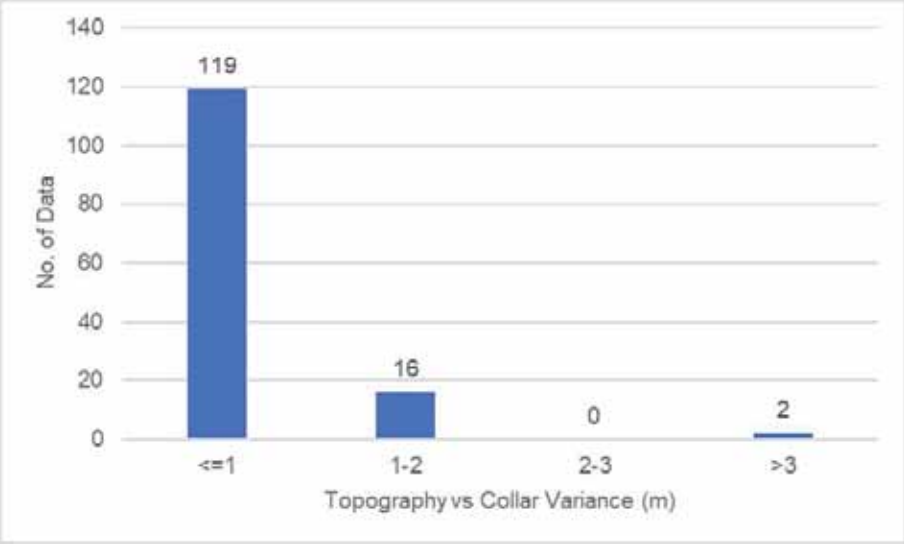
| Area | Year | Open holes | Quality holes | Geophysically logged holes | Surveyed holes | Total holes |
|---|---|---|---|---|---|---|
| TRA | 1985 | 0 | 0 | 0 | 0 | 0 |
| | 2010 | 43 | 17 | 60 | 60 | 60 |
| | 2013 | 28 | 19 | 47 | 47 | 47 |
| | 2018 | 9 | 7 | 16 | 16 | 16 |
| | 2023 | 3 | 12 | 15 | 15 | 15 |
| **TOTAL** | | **83** | **55** | **138** | **138** | **138** |

## 5.3 Topographic Survey and Base of Weathering

A topographic survey of the TRA concession has been acquired using LiDAR for the undisturbed areas. The disturbed areas and all the drill hole collars used for model development have been surveyed by a third-party surveyor by Total Station. All data is in UTM WGS84, Zone 48S. RPM has validated the drill hole collars against the topographic surface, and the results indicate that variance outside the mining area is predominantly less than 1 m. RPM concludes that the topography and the drill hole collars have been collected to a high standard and can be used for Resource evaluation (**Figure 5-1**).

A weathering limit was created for the geological model, primarily based on lithology log descriptions or a default value of 3 m below the original topography (whenever weathering data was not recorded in the drill hole). The 3 m default depth is common for the base of weathering in the deposit (confirmed during the site visit).

**Figure 5-1 Drill Hole Collars vs Topography Variance**




## 5.4 Geophysical Logging and Seam Interpretation

Contractors have performed geophysical logging. Various sondes have been used, including Gamma Ray, Density, and Calliper. These sondes are commonly used in coal exploration to correct lithological depth and define sampling horizons. LAS files containing the results of geophysical logging have been provided to the Client and RPM for electronic evaluation of the drill hole and confirmation of the coal seams' physical characteristics (e.g., seam roof/floor and thickness).

The geophysical logs data in LAS and Pdf files for the most recent drilling have been provided to RPM for review, as data from earlier drilling campaigns were revised in previous work. RPM has validated the geophysical logging data by:

- Visual inspection to check if the log has been affected by drill hole caving;
- Visual inspection to determine that the sonde was acquiring data correctly;
- Confirming the difference between geophysical logged depth and actual drilled depth and;
- Review that gamma and density data depths were coincident.

In the data provided to RPM, it was noted that the geophysical log depth was often less than the drill hole's total depth. RPM considers it normal for the geophysical logged depth to be at least 3 m less than the drill hole depth because the geophysical sondes usually extend up to 3 m deeper than the probe's detector. It is also a safety measure to 'hang' geophysical sondes above the drill hole bottom to prevent sondes from becoming stuck in the 'slimes' at the drill hole total depth.

RPM considers the geophysical logging data acquired by the independent third-party contractor to be completed to a good standard. There is sufficient accuracy to support geological modelling and Resource estimation.

Upon receipt of the geophysical logs from the Contractor, the site geologists made depth adjustments and seam name interpretation to the lithological logs to provide a corrected dataset for modelling. Seam interpretation was recorded in the lithological logs and supported by downhole geophysics and sampled coal quality intervals.

## 5.5 Core Sampling

Core sampling for coal quality work took place using NQ (47mm) and HQ (63mm) core sizes. Coal core samples were sent to the laboratory with a chain of custody paperwork. Core samples from TRA were

collected using the “twin holes” and “target coring” methods, commonly used in coal exploration throughout Indonesia. This method minimizes core loss during drilling.

The drill core sampling follows the contractor's protocols. RPM protocol was used during May 2023 drilling campaign. The sampling procedures followed are summarised below:

i. The drill core is recovered from the inner tube sample splits at the drill site to be logged and photographed;

ii. Ensure the lithology log description was completed to protocols, and contact between coal and other lithology was recorded;

iii. Drill core recoveries were measured at the drill rig by the geologist(s) on a run-by-run basis. The core length was compared to drilling penetration to acquire core recovery values;

iv. Coal intervals are wrapped and sealed in plastic to prevent contamination and moisture loss in the core box or PVC split;

v. The coal cores were transported to the campsite in boxes and put in temporary storage while waiting for the drill hole to be completed;

vi. Once a drill hole was completed and all cores were delivered to the campsite, plastic seals in coal intervals were opened and laid out in rows for detailed lithological logging and photographed. Appropriate sample intervals were determined by the geologists;

vii. Whenever available, coal seam intervals were identified in the printed downhole geophysical logs, and the original drill depth and thickness were reconciled to geophysical logs depths;

viii. No sample was taken for coal seam with thickness consistently <0.3 m, or depending on company policy;

ix. The core for each sample interval was then placed into separate sealed plastic sample bags. Each bag was numbered sequentially using a predetermined sample numbering system to ensure the integrity and unique identity of each sample. Put a marker on coal sample interval in the core box;

x. All samples were transported to the laboratory for analysis;

xi. A ‘Sample Submission Sheet’ listing the sample intervals for each drill hole was completed by the Client. This document was used to advise the laboratory of sample depths and determine the analysis testing requirements for each drill hole;

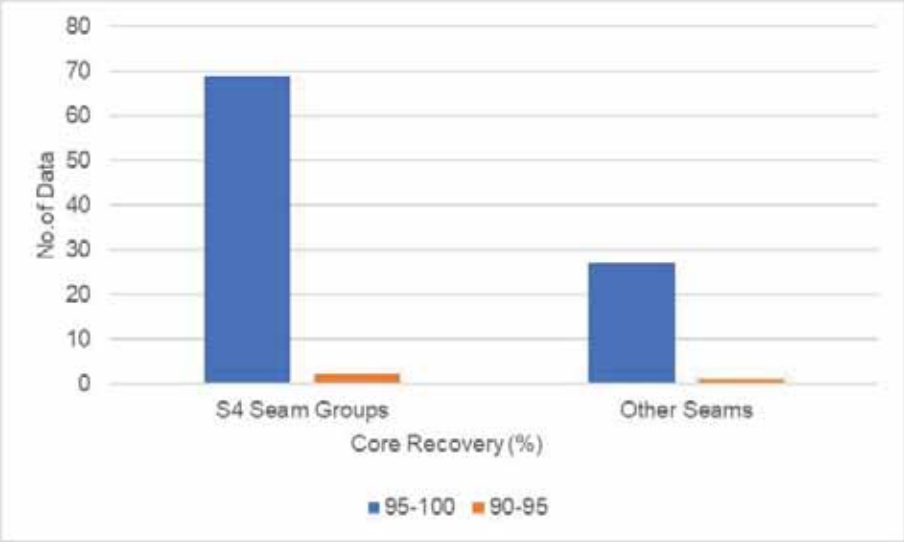
xii. Upon receipt of the results, the tested samples were verified against the instructions to ensure all requirements were adhered to by the laboratory and;

xiii. The core box should be stored in the storage or shed for future reference until a certain time before the core deteriorates.

RPM considers that it is likely that the total moisture reported by the laboratory is less than the in situ value due to wrapping the core in step (iv), unwrapping the core in step (vi), and placing the sample into plastic bags in step (ix). Some moisture loss is likely to have occurred when the coal samples were wrapped and unwrapped from the plastic, but the laboratory has not quantified this. However, RPM believes that it would not be significant. Based on this, RPM believes there will be no substantial deviation between TM and in situ moisture.

RPM assessed core recovery for TRA and reported that most holes had linear recovery greater than 95 %, with only minor seams affected by lower core recovery (less than 80 %). Holes with low core recovery have been excluded from the quality model. **Figure 5-2** shows the distribution of core recovery factors for all exploration programs located at TRA on a seam-by-seam basis. It is evident that most of the seams had a high recovery rate.

**Figure 5-2 Core Recovery Statistics**




Based on the data provided, RPM considers that, in general, the core recovery is suitable for coal quality analysis, geological modelling and Resource estimation.

## 5.6 Coal Quality Validation

The Company provided representative analytical testing data in Excel and PDF format to review the coal quality data tables they had compiled in MineScape. This review included selecting random samples to verify the sample intervals in the raw quality table against the seam pick intervals in the lithological dataset.

RPM has performed a range of data validation procedures for the coal quality data:

- Visual checking of data to ensure that the dataset was complete and that there were no obvious data errors identified;
- Confirm that IM is not higher than TM. No such issue was found;
- Ensuring that proximate analyses sum to 100 %. No such issue was found;
- Classical statistics for major parameters such as CV, Ash, and TS and;
- Creation of scatterplots, where certain relationships can be expected between two quality parameters, such as RD and ash and ash and energy.

After the coal quality data was composited and model surfaces were created, each coal quality variable was contoured in Stratmodel. Anomalous values within the dataset were identified by bullseyes in the contours or anomalous data trends. They were investigated regarding the geological context of the sample and the drill hole.

It is noted that the main seam has sufficient coal quality data; however, the number of data points available to evaluate coal quality trends in minor seams is insufficient. Data also indicates a slight vertical coal quality variation as coal rank increases with depth.

TRA completed Equilibrium Moisture (EQM) test work on limited samples. RPM compared the results with the TM value and noted that the variance is less than 5 %. Therefore, it is expected that the TM results from the laboratory can be used to approximate in situ moisture.

### 5.6.1 Scatterplots

RPM performed basic statistical analysis to validate the consistency and reliability of the coal quality dataset by using simple regressions. The samples were taken from the uncomposited quality model dataset for the TRA area.

The CV vs Ash regression for samples containing less than 50 % ash indicates a reasonable trend in the deposit, although minor outliers were identified (**Figure 5-3**). RPM believes this has occurred due to consistent low ash across all seams in the Resource area, even though there is an increase in CV vertically within the sequence. Further review has also revealed that moisture and ash play a significant role in the variability of CV (**Figure 5-4**). However, RPM has not recalculated any CV values on a dry basis.

**Figure 5-3 Cross Plot of Ash vs CV adb All Seams – TRA**

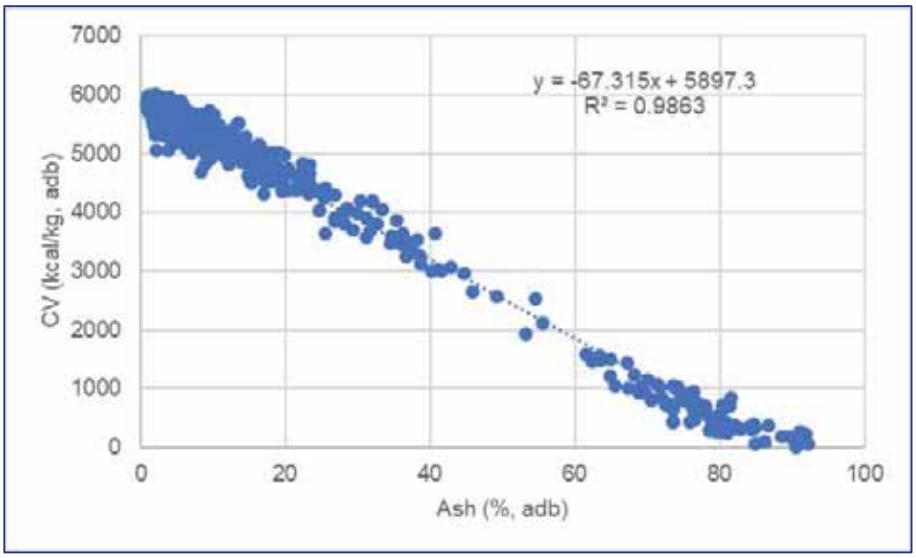
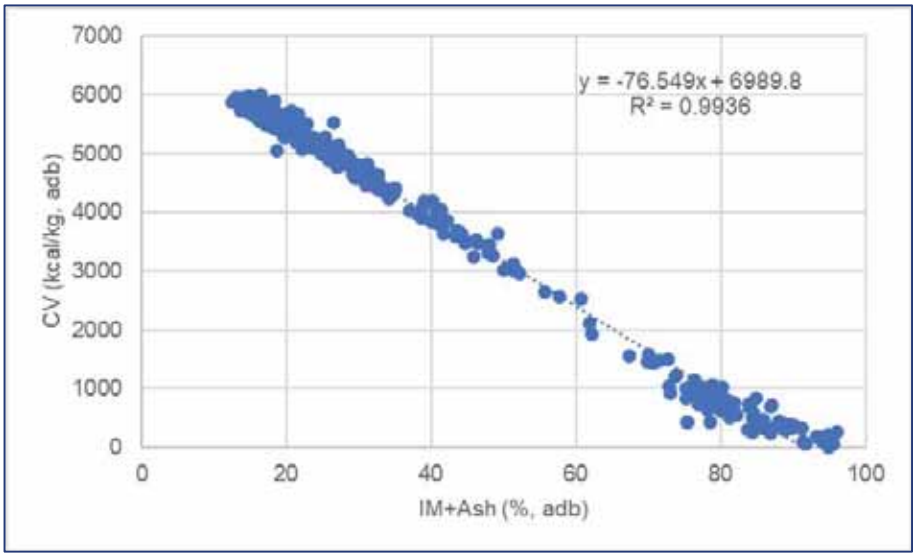


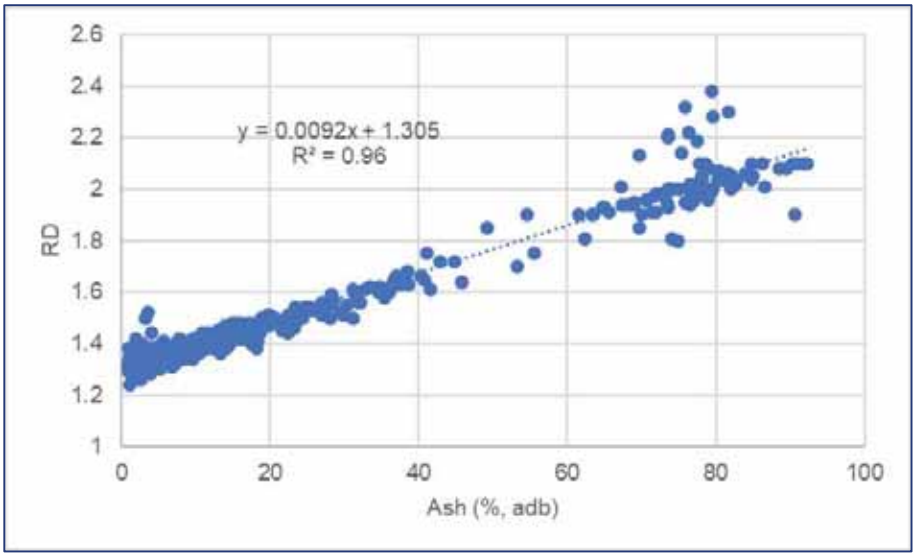

**Figure 5-4 Cross Plot of IM & Ash vs CV All Seams – TRA**



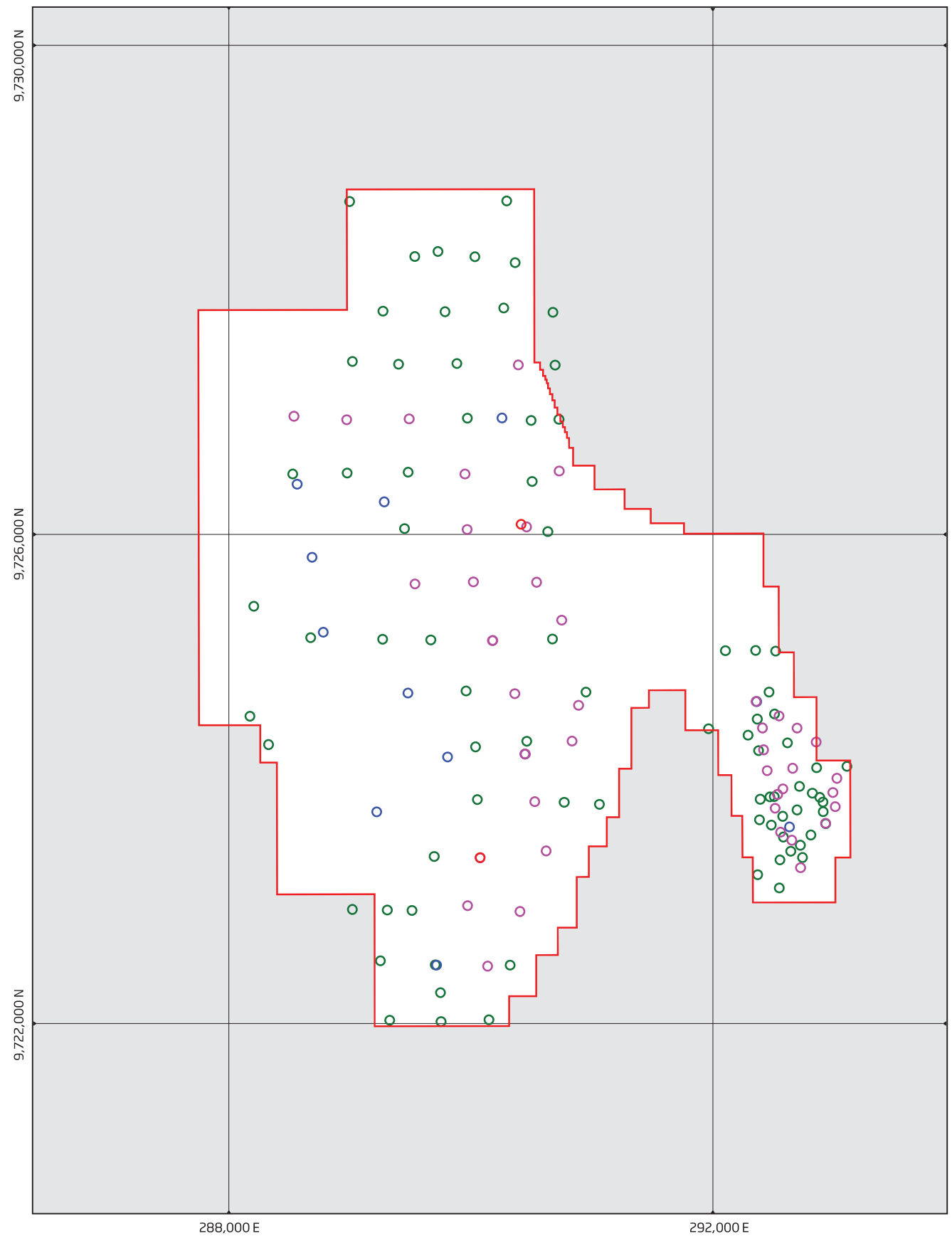

The Ash vs RD regression for all samples indicates a reasonable trend in the deposit, although minor outliers were identified (**Figure 5-5**). The minor outliers could be related to similar Ash content having significantly different RD values. It is understood that different maceral compositions may result in different

densities, particularly in lower-rank coal. Further investigation through coal grain analysis may assist in revealing the issue. No adjustments have been made to the dataset related to the minor outliers.

**Figure 5-5 Cross Plot of Ash vs RD All Seams – TRA**




RPM consider that the results can be used for quality modelling and support Resource estimation.




RPMGLOBAL

LEGEND

- Concession Boundary
- Quality Hole 2018
- Open Hole 2018
- Quality Hole 2023
- Open Hole 2023

N

0 1 2 kilometres

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

Drill Hole Locations

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 5-6 | ADV-JA-04073 | August 2023 |

# 6 Coal Processing and Coal Quality Testing

## 6.1 Coal Processing

The mineral processing that is required for TRA coal is very basic sizing of the ROM coal to product coal with a top size of -50mm.

## 6.2 Coal Quality Testing

The coal samples from the exploration work at TRA were sent to and analysed in the PT. Geoservices (Geoservices) laboratory, which is internationally accredited under ISO 9001:2015, ISO/IEC 17025:2017, and ISO/IEC 17020:2012. RPM understands that there is no relationship between the laboratory and the Client.

A total of 874 samples from 54 cored holes have been analysed for Proximate Analysis, TS, and CV. RPM notes that only 788 samples were processed for Total Moisture (TM) analysis. Representative samples were also analysed for Equilibrium Moisture (EQM), Hardgrove Grindability Index (HGI), Ultimate Analysis, Ash Analysis, Ash Fusion Temperature (AFT), and Trace Element on an individual seam basis.

Sample preparation and analysis were completed in accordance with the appropriate international standards, as listed in **Table 6-1.**

**Table 6-1 Laboratory Standards**

| Analysis | Standard |
|---|---|
| Total Moisture (TM) | ASTM |
| Proximate Analysis | ASTM |
| Total Sulphur (TS) | ASTM |
| Calorific Value (CV) | ASTM |
| Relative Density (RD) | AS |
| Equilibrium Moisture (EQM) | ASTM |
| Hardgrove Grindability Index (HGI) | ASTM |
| Ultimate Analysis | ASTM |
| Ash Analysis (General) | ASTM |
| Ash Analysis (P2O5) | AS |
| Ash Fusion Temperature (AFT) | ASTM |
| Trace Element (General) | ASTM |

# 7 Coal Resource and Reserve Estimates

## 7.1 JORC Coal Resources

The Coal Resource estimate has been independently prepared in accordance with the JORC Code (2012).

Coal Resource estimates are not precise calculations, dependent on the interpretation of limited information on the location, shape, and continuity of the mineralisation occurrence and the available sampling results. For a Coal Resource to be reported, it must be considered by the Competent Person to meet the following criteria:

- There are reasonable prospects for eventual economic extraction.
- Data collection methodology and record-keeping for geology, coal quality, density and other sampling information are relevant to the style of mineralization, and quality checks have been carried out to ensure confidence in the data.
- Geological interpretation of the Resource and its continuity has been well-defined.
- Estimation methodology that is appropriate to the deposit and reflects internal quality variability, sample spacing and selected mining units.
- Classification of the Coal Resource has considered varying confidence levels and assessments. Whether the appropriate account has been taken for all relevant factors, i.e., relative confidence in tonnage/quality, computations, confidence in the continuity of geology and quality, quantity and distribution of the data and the results reflect the view of the Competent Person.

### 7.1.1 Estimation Methodology

The estimation was completed based on the geological model developed by RPM's geologists using Datamine's MineScape "Stratmodel" software suite version 8.1 (2021) in June 2023. The surface model was built from individual layers, including topographic surface, weathering surface, seam roofs, and floors.

A weathering limit was created for the geological model, primarily based on lithology log descriptions or a default value of 3 m below the original topography (whenever weathering data was not recorded in the drill hole). The 3 m default depth is common for the base of weathering in the deposit (confirmed during the site visit).

The topography data was gridded with a 10x10 grid size, while weathering surface was generated with a 25x25 grid size, the same as the geology model grid size.

The model was built based on gridded seams which included seam splitting. The seam correlation between drill holes is derived from the drill hole information. A setting to "pinch out" seams where insufficient data exists and was used to ensure that coal was only modelled where there was sufficient support for this so as not to overestimate coal volume. The seams in the model also include 0.20 m parting as part of the Resources.

The quality model was developed from the core samples collected and analyzed in the drilling campaigns. The sample analyses were loaded to a Stratmodel table on a ply basis and composited to the coal seam intervals during the modelling process. An Inverse Distance interpolator with the power of 3 has been selected since this reasonably represents the coal quality trends compared to the other powers based on current deposit knowledge. RPM concluded that the geological models are fit for the purpose of Resource estimation. The summary of modelling parameters is shown in **Table 7-1** below.

**Table 7-1 Model Parameters**

| Parameter | Triaryani |
|---|---|
| Software | Datamine Minescape Version 8.1 (2021) |
| Grid/ Block Size | 25 x 25 m |
| Structure Interpolator | Thickness: Planar (0) |
| | Surface: FEM (1) |
| | Trend: FEM (0) |
| Extrapolation Distance | 2,500 |
| Quality Interpolator | Inverse |
| Distance Power | 3 |

### 7.1.2 Criteria Used for Classification

The classification of Coal Resource categories (Measured, Indicated, and Inferred) is based on the opinion of the Competent Person based on drill spacing, data collection methods, and geological complexity.

To support the deposit categorization and further assist in Coal Resource Classification, RPM also conducted the geostatistical analysis. RPM believes that the geostatistical analyses are integral to improving the geological confidence for any stratiform coal deposit.

A summary of drill hole radii for Resource classification based on geostatistics can be seen in **Table 7-2**. An example of the Coal Resource classification boundaries for the S4 seam group is shown in **Figure 7-1**.

**Table 7-2 Radii of Influence**

| Block | Seam Group | Radius of Influence (m) Quantity | | | Radius of Influence (m) Quality | | |
|---|---|---|---|---|---|---|---|
| | | Measured | Indicated | Inferred | Measured | Indicated | Inferred |
| **TRA** | All Seams | 300 | 625 | 1,400 | 250 | 500 | 1,000 |

### 7.1.3 Mining and Metallurgical Methods and Parameters

RPM has used the following parameters to assess “reasonable prospects for economic extraction”:

- TRA is an operating mine with sufficient infrastructure already in place;
- A minimum thickness of 0.5 m has been applied in the Resource estimation;
- The maximum non-coal parting thickness mined as part of the coal seam is 0.2 m. RPM believes that the assumption is reasonable and common in mining practice in Sumatera when producing a raw coal product;
- The Coal Resources have been delineated on tenure held by the Client with valid permits issued by the Indonesia Government. RPM is unaware of any material issues that will impede the coal extraction within these limits;
- Thermal coal continues to be pivotal to the energy mix as the second largest primary energy source globally (behind oil), according to the International Energy Agency;
- TRA completed a comprehensive environmental study (AMDAL). All major environmental and physical parameters that may impact the environment have been considered during pit optimization. RPM believes that no material issues were identified which could impede the mining operations and;
- RPM evaluated the reasonable prospect for eventual economic extraction using an open-cut mining method for the Resources through a pit optimization process.
  - An economic pit shell was used to limit the reported Resources based on a benchmark coal price of USD 138, which is higher than the Reserves base. The coal price has been adjusted accordingly based on the coal quality of the deposit**.** The coal price is based on average historical and future benchmark prices;

- An overall slope of 30 degrees was applied in the optimization process and;
- The average depth of deep drilling was also used as a lower limit to the Resources limits. This parameter ensured the continuity of coal seams within the selected optimization results, resulting in an average SR of approximately 3.8:1 for the whole TRA area.

- Coal is mined and sold as a raw material; therefore, no washing or metallurgical factors are required.

### 7.1.4 JORC Statement of Coal Resources

The Coal Resource estimate is based on the classification of the Resource according to its geological confidence and with the consideration of geological assumptions and the reasonable prospects for eventual economic extraction (RPEE). The Coal Resources were evaluated as being in one of three categories: Measured, Indicated, and Inferred. The categorizations relied on the structural (Quantity) and coal quality (Quality) Points of Observation (PoO) which were derived from drill hole information. The classification of the Coal Resource categories is based on an assessment of the seam characteristics, such as the variability of seam thickness, quality, and structural complexity. It is supported by a geostatistical study completed by RPM. The Resource and Reserve entities are the seam groups and not individual seams.

The air-dried relative density (RD) acquired from the analysis of coal cores was used to develop the RD-modelled grids. The air-dried RD from grid outputs has been converted to an in situ RD by the RPM by applying the Preston-Sanders equation to estimate Resources. The TM derived from the core analysis was used to represent the in situ moisture in this equation.

The Coal Resources at the Project are estimated by RPM to total 388 Mt, of which 36 Mt are classed as Inferred, 241 Mt as Indicated, and 111 Mt as Measured.

A summary of the Resources estimated by Resource Category as of 31 May 2023 is provided in **Table 7-3.**

**Table 7-3 JORC Coal Resources Summary as of 31 May 2023**

| Area/ Block | Resources (Mt) | | TM (%) | CV (kcal/kg) | Ash (%) | TS (%) | IM (%) | RD |
|---|---|---|---|---|---|---|---|---|
| | | | (ar) | (gar) | (adb) | (adb) | (adb) | In situ |
| Malam | Inferred | 36 | 40.5 | 3,750 | 6.3 | 0.23 | 15.3 | 1.22 |
| | Indicated | 234 | 40.2 | 3,860 | 4.6 | 0.20 | 14.9 | 1.22 |
| | Measured | 102 | 40.1 | 3,865 | 4.4 | 0.16 | 14.4 | 1.22 |
| **Total/ Average Malam** | | **372** | **40.2** | **3,850** | **4.7** | **0.19** | **14.8** | **1.22** |
| Betung | Inferred | 0 | - | - | - | - | - | - |
| | Indicated | 7 | 39.2 | 3,900 | 6.3 | 0.22 | 12.8 | 1.22 |
| | Measured | 9 | 38.8 | 3,930 | 5.6 | 0.19 | 13.0 | 1.23 |
| **Total/ Average Betung** | | **16** | **39.0** | **3,915** | **5.9** | **0.20** | **12.9** | **1.23** |
| **Grand Total/ Average** | | **388** | **40.1** | **3,855** | **4.8** | **0.19** | **14.7** | **1.22** |

*Notes:*

1. *The Statement of JORC Coal Resources for TRA has been compiled by Mr Hengky Palysa, a full-time employee of RPM and a Registered Member of the Australian Institute of Mining and Metallurgy. Mr Palysa has sufficient experience relevant to the style of coal and type of deposit under consideration and to the activity 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 as of 31 May 2023. Coal Resource estimates are not precise calculations, depending on the interpretation of limited information on the occurrence's location, shape, continuity, and available sampling results.*
3. *The 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 JORC Code (2012) and Australian Guidelines for Estimation and Classification of Coal Resources (2014).*
6. *Resources are reported on a 100 % equity basis.*
7. *RPM evaluated the reasonable prospect for eventual economic extraction using the open-cut mining method for the Resources through a pit optimization process. An economic pit shell was used to limit the reported Resources based on a benchmark coal price of USD 138 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 historical and future benchmark price. An overall slope of 30 degrees was applied in the optimization process. The average depth of deep drilling was also used as a lower limit to the Resources limits. This parameter ensured the continuity of coal seams within the selected optimization results, resulting in an average SR of approximately 3.8:1 for the whole TRA concession area.*

## 7.2 JORC Coal Reserves

The JORC Code defines a 'Coal Reserve' as the economically mineable part of a Measured and/or Indicated Coal Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Coal Reserves are sub-divided in order of increasing confidence into Probable Coal Reserves and Proved Coal Reserves. (JORC Code - Clause 28). Marketable Reserves allow for practical yields in a beneficiation plant, the result of processing commonly being known in the industry by the term "product coal".

*The terms 'Mineral Resource(s)' and 'Ore Reserve(s)', and the subdivisions of these as defined above, apply also to coal reporting, however if preferred by the reporting company, the terms 'Coal Resource(s)' and 'Coal Reserve(s)' and the appropriate subdivisions may be substituted. (JORC Code - Clause 43). As such RPM will refer to Ore Reserves as Coal Reserves in this Report.*

### 7.2.1 JORC Statement of Coal Reserves

As of 31 May 2023, the total open cut coal Reserves are 275 Mt. Coal Reserves were estimated within the practical economic TRA pit, of which 107 Mt are classified as Proved with the balance of 168 Mt classified as Probable in accordance with the guidelines of the JORC Code. The coal Reserves and weight averaged coal qualities are presented in **Table 7-4**.

The rounding of the Coal Reserve estimates is in accordance with the JORC Code, which states: Coal Reserve estimates are not precise calculations. Reporting of tonnage and grade figures should reflect the relative uncertainty of the estimate by rounding off to appropriately significant figures.

The Proved and Probable coal Reserves polygons are outlined in **Figure 7-2.**

Table 1 the JORC compliance checklist, associated with the JORC Coal Resources presented in Chapter 7.1 and the JORC Coal Reserves presented here in Chapter 7.2 is provided in **Appendix A.**

**Table 7-4 Open Cut JORC Coal Reserves by Classification as of 31 May 2023**

| Area/Block | Reserves (Mt) | | CV kcal/kg (gar) | Ash % (ar) | TS % (ar) | TM % (ar) | IM % (adb) | RD In situ |
|---|---|---|---|---|---|---|---|---|
| Malam | Proved | 100 | 3,860 | 3.29 | 0.11 | 40.11 | 14.35 | 1.22 |
| | Probable | 165 | 3,880 | 3.18 | 0.14 | 39.96 | 14.65 | 1.22 |
| | **Total** | **265** | **3,870** | **3.22** | **0.13** | **40.02** | **14.54** | **1.22** |
| Betung | Proved | 7 | 3,910 | 4.37 | 0.13 | 38.67 | 13.07 | 1.23 |
| | Probable | 3 | 3,850 | 4.22 | 0.13 | 38.72 | 12.97 | 1.22 |
| | **Total** | **10** | **3,900** | **4.33** | **0.13** | **38.69** | **13.05** | **1.22** |
| **TRA** | Proved | 107 | 3,860 | 3.36 | 0.11 | 40.02 | 14.27 | 1.22 |
| | Probable | 168 | 3,880 | 3.20 | 0.14 | 39.94 | 14.62 | 1.22 |
| | **Grand Total/ Average** | **275** | **3,870** | **3.26** | **0.13** | **39.97** | **14.49** | **1.22** |

*Notes:*

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 2014 Edition.*
5. *Coal Reserves have been estimated on a 100% ownership basis.*
6. *Marketable Reserves are the same as Coal Reserves. The 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.*
8. *The Coal Reserves figures reported in the table above represent estimates as of 31 May 2023.*

## 7.3 SGX Listing Rule Coal Resources and Reserves Summary

The Coal Resources and Coal Reserves Summary as required under the SGX listing rules and outlined in the form of Appendix 7.5 are shown in **Table 7-5**. In July 2019, PT GeoXP prepared a JORC Resources and Reserves Statement. This 31 May 2023 Coal Resources and Coal Reserves estimate is compared against this previous GeoXP Resources and Reserves Statement from 2019 in **Table 7-5**.

**Table 7-5 Summary Coal Resources and Reserves as of 31 May 2023**

| Category | Mineral Type | Gross Attributable to Licence | | Net Attributable to Issuer | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | Tonnes (millions) | Grade Calorific Value (CV kcal/kg gar) | Tonnes (millions) | Grade Calorific Value (CV kcal/kg gar) | Change from previous update (%) | |
| **Reserves** | | | | | | | |
| Proved | Coal | 107 | 3,860 | 107 | 3,860 | -57 % | |
| Probable | Coal | 168 | 3,880 | 168 | 3,880 | 137 % | |
| **Total** | **Coal** | **275** | **3,870** | **275** | **3,870** | **-13 %** | |
| **Resources**[9] | | | | | | | |
| Measured | Coal | 111 | 3,870 | 111 | 3,870 | -55 % | |
| Indicated | Coal | 241 | 3,860 | 241 | 3,860 | 277 % | |
| Inferred | Coal | 36 | 3,750 | 36 | 3,750 | 80 % | |
| **Total** | | **388** | **3,855** | **388** | **3,855** | 22 % | |

Notes:

1. *All Coal Resources figures reported in the table above represent estimates as of 31 May 2023. Coal Resource estimates are not precise calculations, depending on the interpretation of limited information on the occurrence's location, shape, continuity, and available sampling results.*
2. *The figures reported are rounded, which may result in small tabulation errors.*
3. *Coal Resources have been estimated in accordance with the JORC Code (2012) and Australian Guidelines for Estimation and Classification of Coal Resources (2014).*
4. *Resources are reported on a 100 % equity basis.*
5. *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.*
6. *Coal Reserves have been estimated in accordance with the guidelines of the 2012 Edition of the JORC Code and the Guidelines 2003 Edition.*
7. *Coal Reserves have been estimated on a 100 % equity basis.*
8. *Marketable Reserves are the same as Coal Reserves. The product is sold as a crushed coal product with no coal washing activity undertaken.*
9. *Coal Reserves are inclusive and not additional to the Coal Resources*

### 7.3.1 Commentary on Change from Previous Update

Explanation for the key drivers to the changes between the 2019 and 2023 Coal Resource and Coal Reserve as shown in **Table 7-5** are provided below.

#### Resource:

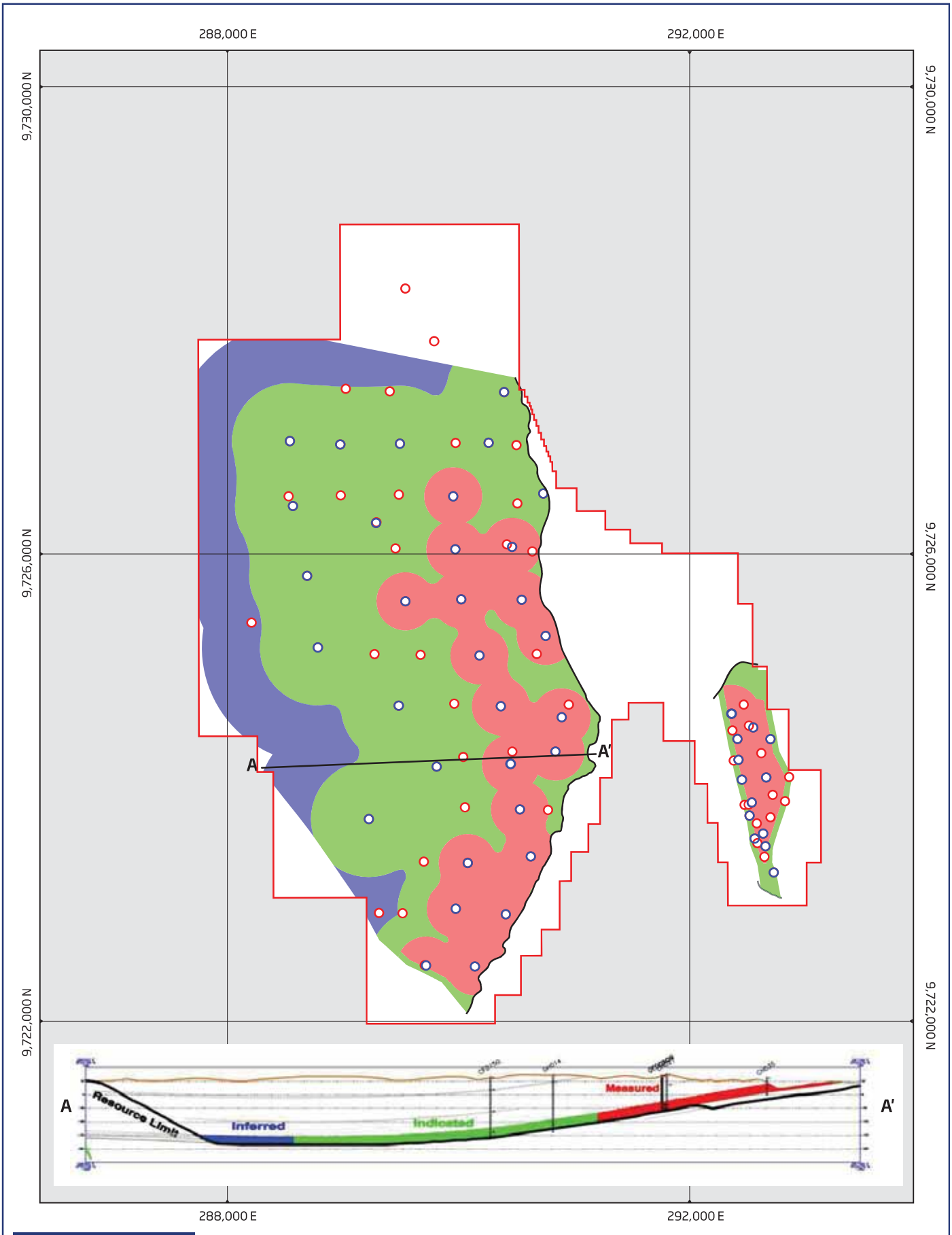
- Depletion due to actual production since 2019;
- Updated drilling down dip. This data allowed for an increase in confidence from RL -200 to RL -250. Seam S4 was also intersected at an elevation below RL -200 increasing the reported quantity;
- Resource for seam other than Seam S4 give additional 39 Mt. Previous JORC Resource only reported seam S4; and
- A change of Resource categorization process. RPM used a smaller radius based on RPM's geostatistical analysis (see **Table 7-6**) which reduced the Measured quantity.

**Table 7-6 Summary Resource Radii Comparison with Previous Coal Resources**

| Year | Radii of Influence (m) Quantity | | | Radii of Influence (m) Quality | | |
|---|---|---|---|---|---|---|
| | Measured | Indicated | Inferred | Measured | Indicated | Inferred |
| **2023 (RPM)** | 250 | 650 | 1,400 | 250 | 500 | 1,000 |
| **2019 (GeoXP)** | - | - | - | 600 | 1,200 | 1,800 |
| **Variance** | - | - | - | -350 | -700 | -800 |

**Reserve:**

- Impact from the changes in the Geological Model and Resource categorisation as outlined above.
- The changes in coal price and operating cost assumptions;
- Updated pit optimisation work;
- Updated pit and dump design;
- Updated production schedule; and
- Depletion due to actual production since 2019.




RPMGLOBAL

LEGEND

- Concession Boundary
- Quality Hole
- Open Hole
- Measured Resource Boundary
- Indicated Resource Boundary
- Inferred Resource Boundary

N

0 1 2 kilometres

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

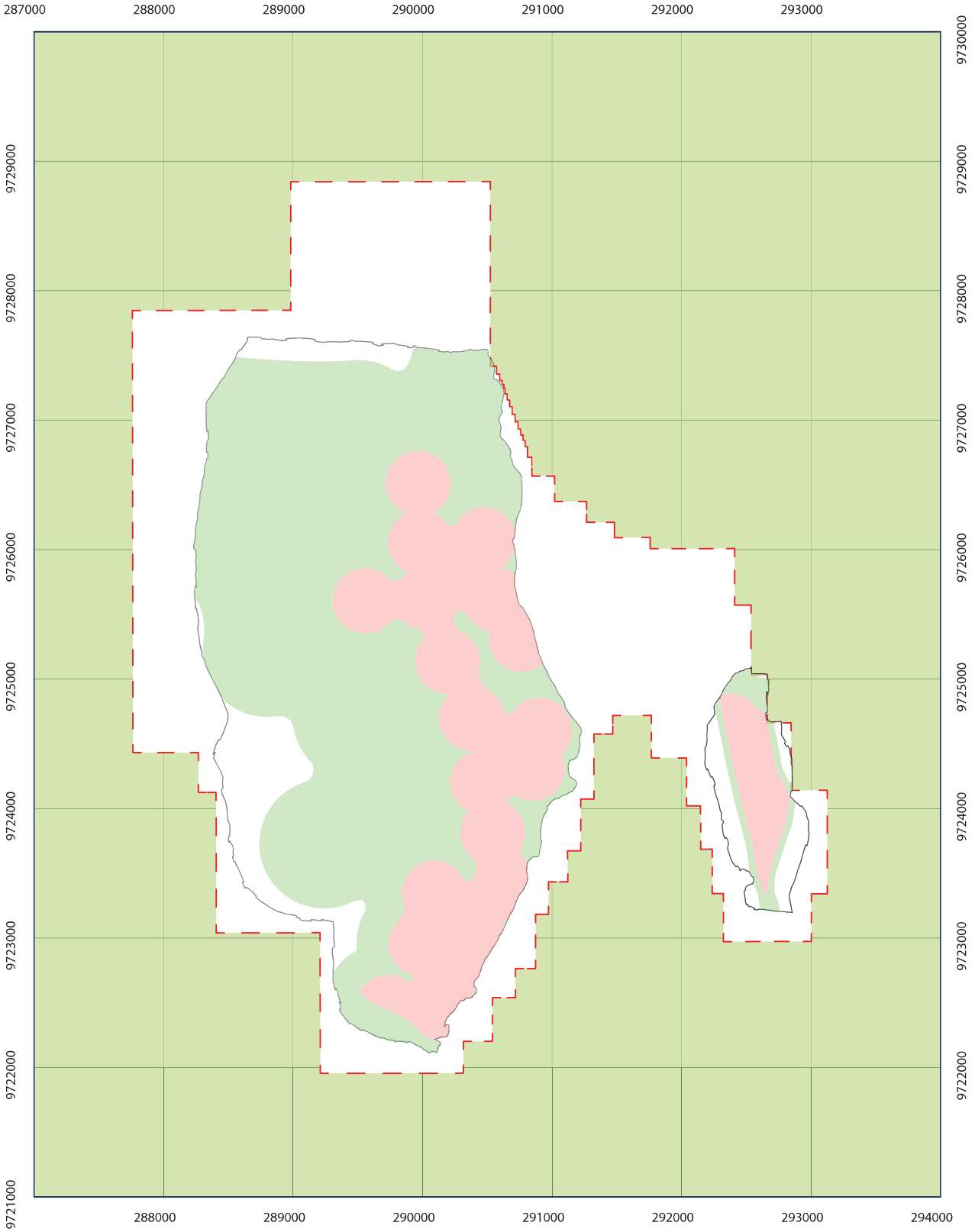
NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

Coal Resource Limit - Seam S4 Group

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 7-1 | ADV-JA-04073 | August 2023 |




RPMGLOBAL

**LEGEND**

- Concession Boundary
- Pit
- Proved
- Probable

N

0 4 8 kilometers

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

**CLIENT**

GEO ENERGY GROUP

**PROJECT**

NAME: INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING: TRA Coal Reserve Classification Polygons

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 7-2 | ADV-JA-04073 | August 2023 |

# 8 Mining, Processing and Other Factors

## 8.1 Overview

RPM has developed a Pre-Feasibility Study (PFS) standard mine plan for TRA. The development of the PFS standard mine plan has been carried out following the processes outlined in the RPM planning system.

## 8.2 Deposit Characterisation

### 8.2.1 Introduction

Deposit characterisation was carried out on the supplied geological model. The purpose of deposit characterisation, in general, is to help understand the key physical attributes of the deposit geology. Deposit characterisation often guides the selection of a mining method and subsequent design, mining, and economic assumptions for pit optimisation. RPM typically reports and analyses coal and waste ply attributes based on in situ model structures and qualities.

### 8.2.2 Block Data

A strip and block layout was generated across both the geological model's areas. A single bench on the basal seam floor was developed, and quantities were reported using the reserves reporting function in Minescape mine planning software. Blocks were designed on a 125 m x 125 m grid. The block size selected for deposit characterisation is aligned with the block dimensions used in mine planning.

The block data is then exported with waste, coal, and quality information into a Microsoft Excel worksheet for analysis.

### 8.2.3 Coal Characterisation

In situ coal thickness and quantity data were tabulated and graphed to differentiate seam ply characteristics. Coal thickness data can be used to identify possible bulk mining sections, equipment configuration, and sizing and is also considered in the selection of in situ to ROM mining modifying parameters.

**Figure 8-1** Illustrates that:

- The deposit consists of 22 modelled seam coal plies; however, the graph analysis indicates there are only eight (8) coal seam plies that have a reasonable quantity to be considered to mine.
- By tonnage, the most significant seams are the S4, S4A, and S4B coal seams (Seam S4 Group). This seam group account for 88 % of the in situ coal in the deposit.

**Figure 8-2** plots the in situ coal tonnage by coal ply thickness with:

- Coal plies were shown in descending stratigraphic order from left (highest) to right (lowest);
- Bar heights for each coal ply show the total coal quantity in millions of tonnes and;
- The colour coding of each seam ply bar shows the average ply thickness in the nominated thickness range bands;
- The S4 coal seam group (S4A, S4, and S4B) thickness ranges from 5 m to a maximum of 40 m thick;
- Whilst the other coal seam plies thickness are generally less than 5m thick.

**Figure 8-3** illustrates that:

- Less than 1.0 % of in situ tonnes present in thicknesses less than 0.5 m.
- About 11 % of in situ tonnes present in thicknesses less than 5 m, indicating that selective mining of thin coal seams is not required to achieve high coal recovery.

- Bulk excavation of coal using excavators greater than 250t class is possible for the Project.

**Figure 8-1 Coal Tonnage Percentages by Ply**

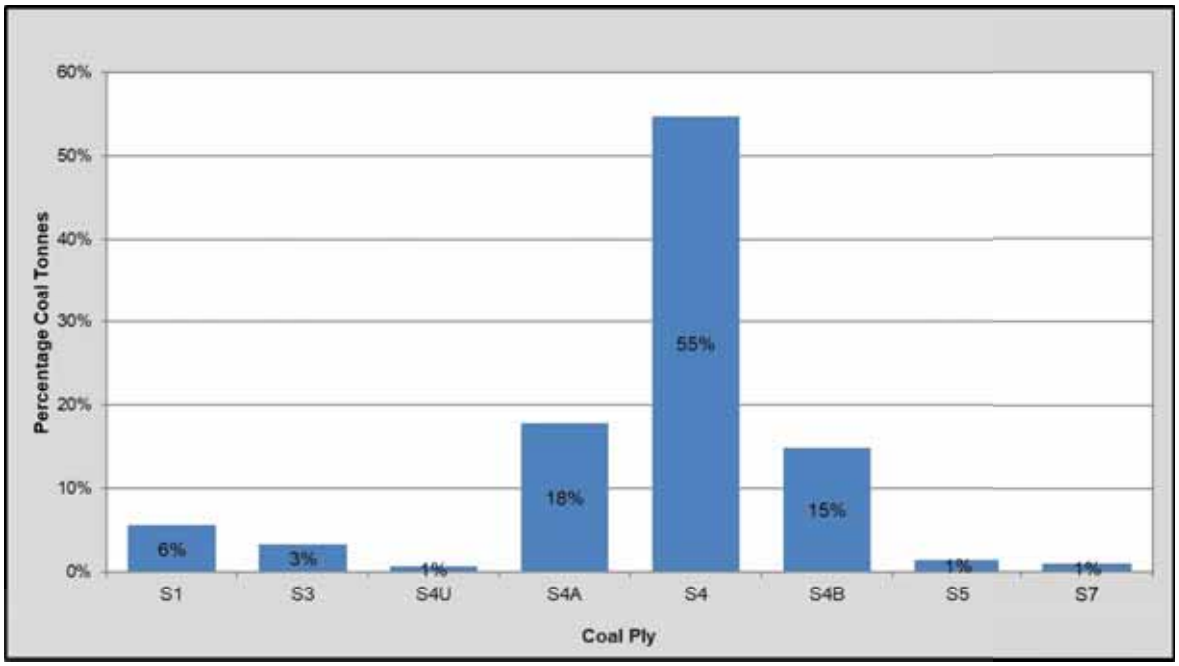



**Figure 8-2 Coal Tonnage by Ply Thickness Ranges**

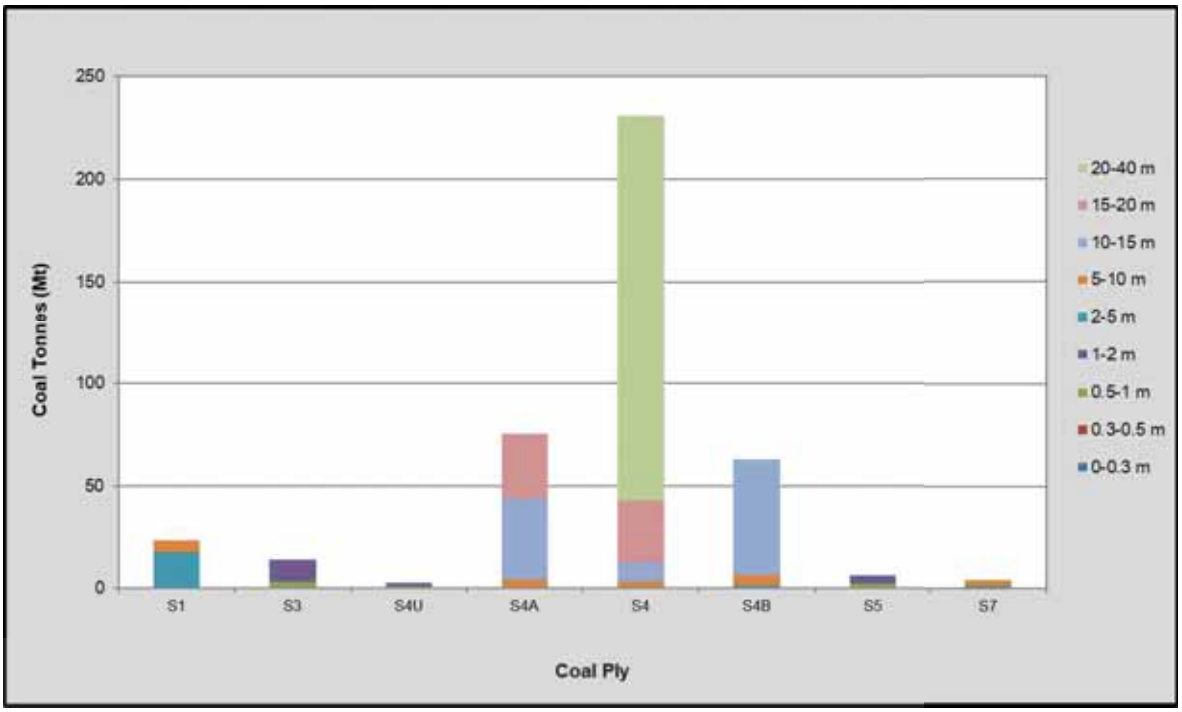
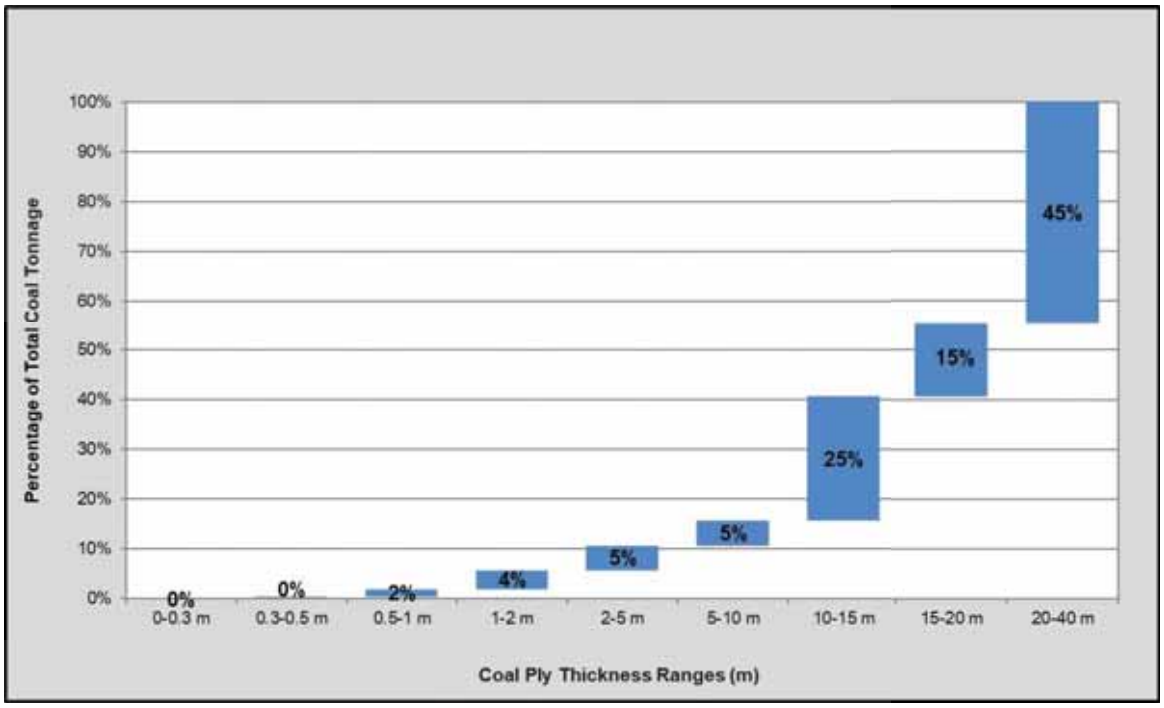


**Figure 8-3 Coal Tonnage Percentages by Thickness Intervals**




### 8.2.4 Waste Characterisation

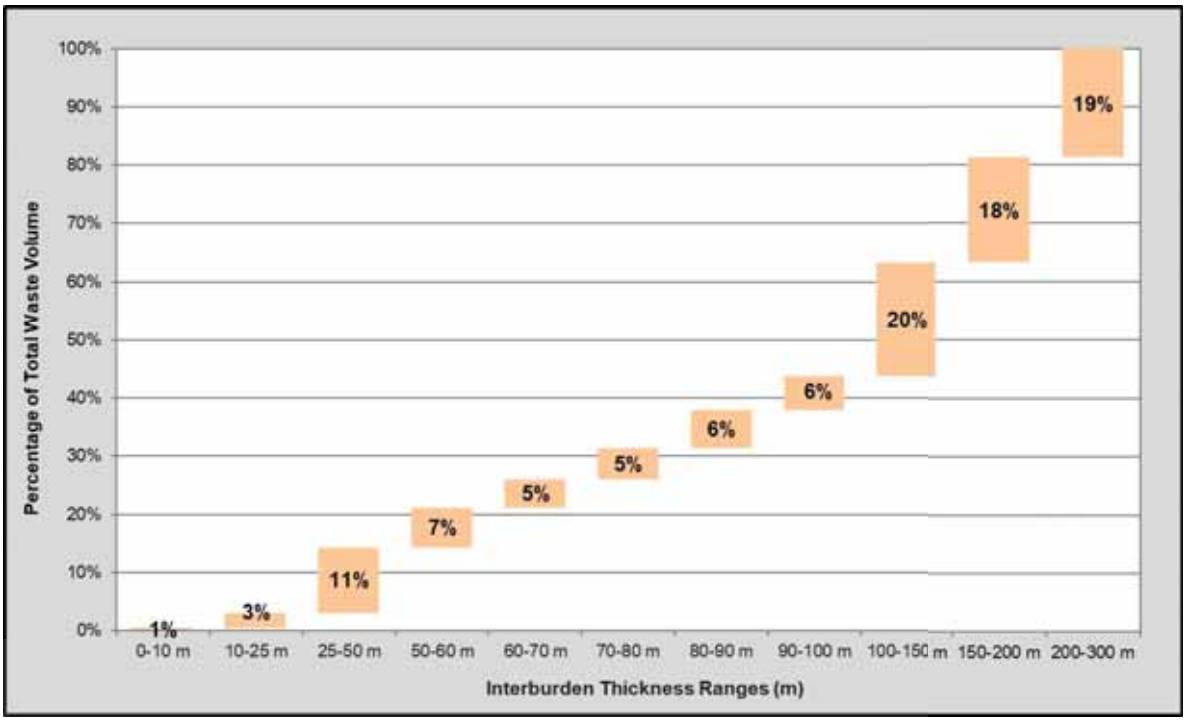
Waste thickness and quantity data were tabulated and graphed to differentiate seam group waste characteristics. The thickness data was used to identify possible seam aggregation potential (thinner waste plies) and the proportions of thicker waste amenable to excavation with larger equipment.

**Figure 8-4** shows the proportion of prime waste volumes by thickness ranges where:

- The thickness ranges increase from thinnest to thickest from left to right across the chart and;
- The percentage of waste volume in the thickness bands.

The Figure illustrates that 99 % of the waste is in intervals greater than 10 m, which could be efficiently mined by large scale mining equipment (hydraulic excavators greater than 250 t class).

**Figure 8-4 Waste Percentage Volume Distribution by Thickness**




## 8.3 Geotechnical Parameters

### 8.3.1 Overview

A number of geotechnical investigations have been completed for the site dating back to 2011. PT Britmindo, in cooperation with Geotechnics and Hydrogeology Study Center, Geotechnics laboratory, Bandung, published a report "Geotechnical and Hydrogeology Report, PT Triaryani, Sungai Malam Project, Musi Rawas, South Sumatera."

The report set the geotechnically safe operating angles for each area and required an update with any future updated geological models and exploration drilling. The recommended angles were taken into consideration in the detailed pit design.

### 8.3.2 Pit Design Parameter

Practical pit shells have been designed for each of the pits identified from the optimisation result. The designs considered projections to conform to the overall slope design advice from the geotechnical recommendation. The pit design criteria are shown in **Table 8-1**.

**Table 8-1 Practical Pit Slope Design Parameters**

| Description | Unit | Pit Malam | | Pit Betung | |
|---|---|---|---|---|---|
| | | Low-wall | High-wall | Low-wall | High-wall |
| Overall Slope | deg | 25 | 30 | 30 | 30 |
| Single slope | deg | | 50 | 50 | 50 |
| Berm wide | m | | 10 | 10 | 10 |
| Bench height | m | | 10 | 10 | 10 |

### 8.3.3 Dump Design Parameters

Out-of-pit (ex-pit) dump designs were based on the TRA dump designs and edited as required to meet the required ex-pit dumping capacity with an assumed 20 % swell. All ex-pit dumps are based on an average 15° overall slope. The dump design criteria are shown in **Table 8-2**.

**Table 8-2 Practical Dump Slope Design Parameters**

| Description | Unit | Dump |
|---|---|---|
| Overall Slope | deg | 15 |
| Single slope | deg | 35 |
| Berm wide | m | 30 |
| Bench height | m | 10 |

## 8.4 Pit Optimisation

### 8.4.1 Overview

Pit optimisation is a mine planning technique commonly used at the strategic planning stage of study to investigate the relative economics of a coal deposit. It can help identify areas of higher and lower relative economic value over the deposit area. The method is described as follows

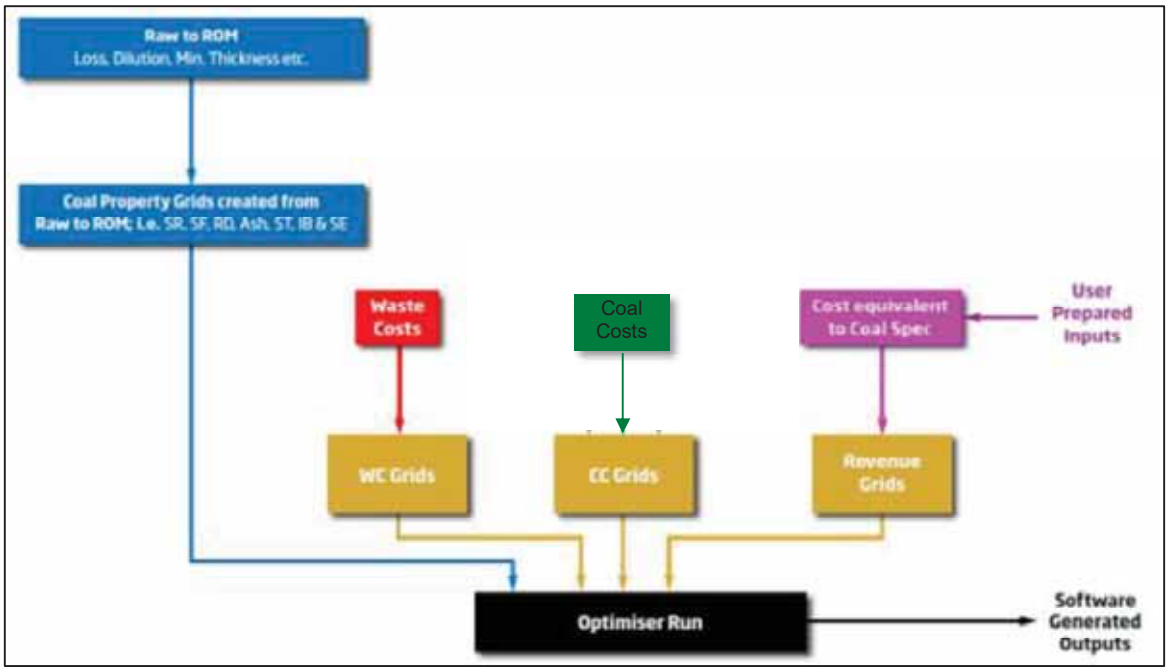
- Pit optimisation provides guidance for determining economic pit limits and development strategies;
- Pit optimisation uses only cash operating cost margin; no capital costs and no time value of money considered;
- Each 3D block in the ROM model is assigned a dollar value based on the total cost for removing, processing and transporting the block to the point of sale and the revenue derived from the coal;
- For a given product price, the optimisation determines the pit shell, including practical batters that can be “economically” mined with the final pit crest and floor representing the “break-even” limit;
- The optimisation applies a range of product prices from low to high to present a series of nested pit shells representing the break-even pit shell at increasing product prices and;
- The nested pit shells represent a sequence of pit development that progresses from highest to lowest value.

The technique allows for the application of practical pit batters in three dimensions and generates easily auditable graphical pit shell outputs.

RPM typically uses the Geovia Minex Pit Optimiser software, which is driven by the Lerchs Grossman algorithm for coal deposits. The generation of Minex optimiser outputs requires a specific sequence of planning steps to be undertaken, which are described below and summarised in **Figure 8-5**:

- Convert in situ geology model/s to a ROM model/s using agreed mining modifying parameters;
- Establish logic to calculate revenues and costs for each modelled block in the Pit Optimiser;
- ROM to marketable product logic to report saleable coal quantities and qualities;
- Pricing calculations;
- Cost inputs;
- Determine constraints;
- Existing physical constraints (e.g. lease boundary, topographical features);
- Overall pit slopes (end wall slopes) and;
- Run Pit Optimiser.

**Figure 8-5 Optimiser Process Flow**




### 8.4.2 In Situ to ROM Model

The in situ geological models need to be adjusted prior to mine planning. A level of practicality must be applied to the modelled data to simulate the processes undertaken in mining operations. The following mining parameters are used to convert the “in ground” or in situ geological model to an as mined or ROM representation of the geological model.

- **Minimum mining thickness** - there is a minimum coal and waste thickness depending on equipment size and the strength of the coal / waste interface, which can be practically mined. Below this thickness cut-off value, the effort required to recover the coal is not economically viable. By applying these limits, the model is altered to become a working section model.
- **Coal Loss and Dilution** - Once a coal mining section has been deemed realistically thick enough for mining, a practical and economic limit to the amount of effort to recover all the coal in the ground is applied. Some coal is always left behind due to the irregular shape and properties of the coal waste interface. Conversely, some waste is mined with the coal and becomes coal dilution.
- **Dilution Characteristics –** For this deposit, the parting qualities have not been modelled, and hence default dilution qualities have been assumed and used.

The parameters RPM has used in converting the in situ geology model to a ROM model for mine planning are given in **Table 8-3**.

**Table 8-3 In Situ to ROM Assumptions**

| Description | Units | Assumption |
|---|---|---|
| Roof and Floor Loss (total) | cm | 20 |
| Roof and Floor Dilution | cm | 5 |
| Minimum Coal Thickness | cm | 50 |
| Minimum Parting Thickness | cm | 20 |
| Geological Loss | % | 2 |
| Mining Loss | % | 2 |
| Dilutant RD | t/cu.m | 2.1 |
| Dilutant Ash | % | 75 |
| Dilutant SE | kcal/kg | 500 |
| Dilutant TS | % | 1.0 |

A comparison of the ROM model and in situ model shows that ROM coal decreases due to the exclusion of thin seams application of mining section loss and dilution, global loss, and merging process. The tonnage figures are for the deposit, irrespective of economic viability, and do not represent economically recoverable coal or pit quantities. **Table 8-4** summarises the in situ and ROM model quantities and qualities.

**Table 8-4 In Situ and ROM Model Comparison**

| Parameter | Unit | TRA | |
|---|---|---|---|
| | | In Situ Model | ROM Model |
| Waste | (Mbcm) | 1,929.0 | 1,915.4 |
| Coal | (Mt) | 463.6 | 434.4 |
| Strip Ratio | (bcm/t) | 4.16 | 4.41 |
| Average Energy | (kcal/kg gar) | 3,856 | 3,831 |
| Average Ash | (% ad) | 4.81 | 3.69 |
| Average TS | (% ad) | 0.20 | 0.14 |
| Average TM | (% ar) | 40.12 | 40.14 |
| Average IM | (% ad) | 14.72 | 14.77 |
| Average RD | (t/cu.m ar) | 1.22 | 1.22 |

### 8.4.3 Optimisation Assumptions

RPM has used the following assumptions for Revenue and Operating costs in pit optimisation.

#### Revenue

Revenue applied in the pit optimisation model is based on a third party long term forecast price of coal product at 3,800gar (FOB Indonesia) It has been provided by the third party, McCloskey's May 2023 update directly to the Company and is shown in **Table 8-5**.

The McCloskey May 2023 forecast coal price update was carefully considered by the Qualified Person and after due and careful enquiry and comparison with other publicly available coal price forecasts such as the Energy, Metals & Agriculture Consensus Forecasts published by Consensus Economic Inc, the Qualified Person is of the opinion that the McCloskey May 2023 forecast coal price forecast reflects their opinion of a reasonable outlook for the future at the time of the report.

RPM used the average of years 2028 to 2043 forecast price (in real terms) as the basis for determining the long term price input for the pit optimisation process and the determination of ultimate pit limits. The price input is 41.42 USD/t. Revenue grids were generated in Minex using the above long term price. Prices were energy adjusted spatially across the deposit on a pro-rata basis.

## Operating Costs

The Company provided the operating cost estimates based on two operation schemes; an operation using the existing coal hauling road and port facility and an operation with a new coal hauling road and port facility. The operating cost structures are tabulated in **Table 8-6**. Costs grids were generated in Minex using the new logistics costs which represent the long term cost estimates for the optimisation input.

**Table 8-5 Long Term Coal Price Forecast**

| McCloskey Annual Average Thermal Coal Prices CV 3,800 kcal/kg (gar) FOB Indonesia (updated 24 May 2023) | | |
|---|---|---|
| **Year** | **Nominal (USD/t)** | **Real (USD/t)** |
| 2023 | 56.57 | 54.58 |
| 2024 | 42.40 | 40.00 |
| 2025 | 38.50 | 35.59 |
| 2026 | 39.47 | 35.71 |
| 2027 | 41.09 | 36.36 |
| 2028 | 42.78 | 37.01 |
| 2029 | 44.59 | 37.73 |
| 2030 | 44.36 | 36.73 |
| 2031 | 47.54 | 38.49 |
| 2032 | 50.94 | 40.32 |
| 2033 | 53.45 | 41.39 |
| 2034 | 55.94 | 42.40 |
| 2035 | 57.36 | 42.56 |
| 2036 | 58.80 | 42.72 |
| 2037 | 60.27 | 42.86 |
| 2038 | 61.79 | 43.02 |
| 2039 | 63.35 | 43.18 |
| 2040 | 64.95 | 43.34 |
| 2041 | 66.59 | 43.49 |
| 2042 | 68.28 | 43.66 |
| 2043 | 70.03 | 43.84 |
| 2044 | 71.83 | 44.03 |
| 2045 | 73.68 | 44.21 |
| 2046 | 75.59 | 44.41 |
| 2047 | 77.56 | 44.61 |
| 2048 | 79.58 | 44.81 |
| 2049 | 81.67 | 45.02 |
| 2050 | 83.82 | 45.22 |

**Table 8-6 Operating Costs Structure**

| Cost Item | Unit | Existing Infrastructures | New Infrastructures (After 2 Years) |
|---|---|---|---|
| Overburden (1km) | $/bcm | 1.77 | 1.77 |
| Overburden distance >1km | $/bcm | 0.04 | 0.04 |
| Coal Getting | $/t | 0.81 | 0.81 |
| Land (remaining land acquisition) | $/t | 0.02 | 0.02 |
| Additional Disposal Area | $/t | 0.01 | 0.01 |
| Re-allocation road | $/t | 0.01 | 0.01 |
| Pelebaran sungai Lalan 20 km | $/t | 0.00 | 0.00 |
| Sinar Mas Road | $/t | 0.00 | 1.19 |
| Reiki (Carbon Area) Fee | $/t | 0.00 | 0.00 |
| PBB, Jamrek, Jamtup, Iuran Tetap | $/t | 1.01 | 1.01 |
| CSR & RIPPM | $/t | 0.07 | 0.07 |
| Royalty | % | 8 % | 8 % |
| Coal Hauling (trucking) | $/t | 0.12 | 0.05 |
| Hauling Road (Atlas) | $/t | 2.50 | 0.27 |
| Maintenance cost jalan Atlas | $/t | 0.00 | 0.01 |
| Jetty (stockpile & crushing) | $/t | 2.24 | 1.58 |
| Intermediate stockpile & Pit stockpile | $/t | 0.41 | 0.00 |
| Barging & stevedoring | $/t | 6.00 | 5.00 |
| Insurance | $/t | 0.10 % | 0.10 % |
| Surveyor | $/t | 0.15 | 0.15 |
| Others & GA | % | 1 % | 1 % |

### Mining Constraints

The following mining considerations are applied in the optimisation model with the aim of producing a more practical outcome:

- Overall pit slopes based on the most recent geotechnical assessments for each area. **Table 8-7** shows the applied overall pit slopes.
- Pit depth – optimisations were completed with and without a depth constraint. The recommended optimisation results are based on a depth constraint of RL -200m.
- Surface constraints – the optimisation was limited to a distance 50 m from the lease limits with no other surface constraints applied.

**Table 8-7 Geotechnical Assumptions**

| Area | Lowwall (degrees) | Highwall (degrees) |
|---|---|---|
| Malam | 30 | 30 |
| Betung | 30 | 30 |

### 8.4.4 Exclusion of Coal Seams Other Than S4 Group.

Following the review process of the optimisation result, the Client suggested only including seam S4 Group, which are: seam S4, S4A, and S4B, within the optimisation shell that has been estimated as the coal quantity. The others coal seams were excluded from the estimation, and their volume was transferred to waste. The Company has informed RPM that their internal focus is only to estimate the S4 Group seams, even though both RPM and the Company are aware of the existence of the other coal seams in the geological model.

Therefore from this section forward, all the coal estimates in terms of quantity and quality refer to the S4 Group only.

### 8.4.5 Optimisation Results

RPM completed pit optimisation to understand the impact of revenue and operating cost impacts on the pit limits of the Project. Each pit shell is validated in the ROM model, with the quantity and quality of each shell tabulated to highlight the key results, including coal tonnes, coal quality results, and stripping ratio on an overall and incremental basis.

It should be noted that the pit coal quantity estimates reported below are for theoretical pit shells and do not make allowance for many of the practicalities of mining. **Table 8-8** shows the quantity and quality of each theoretical optimisation shell.

**Table 8-8 Optimisation Result**

| Name | Cumulative | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Waste | Coal | SR | CV | TM | TS | Ash | IM |
| | Mbcm | Mt | bcm/t | kcal/kg (gar) | % ar | % ar | % ar | % adb |
| OPT 055 | 63.2 | 43.8 | 1.44 | 3,816 | 40.66 | 0.12 | 3.31 | 14.29 |
| OPT 060 | 166.1 | 78.8 | 2.11 | 3,810 | 40.84 | 0.12 | 3.26 | 14.18 |
| OPT 065 | 265.6 | 104.3 | 2.55 | 3,810 | 40.75 | 0.12 | 3.24 | 14.16 |
| OPT 070 | 983.6 | 226.8 | 4.34 | 3,870 | 39.91 | 0.13 | 3.24 | 14.43 |
| OPT 075 | 1,105.6 | 249.4 | 4.43 | 3,880 | 39.89 | 0.12 | 3.23 | 14.46 |
| OPT 080 | 1,511.8 | 300.5 | 5.03 | 3,860 | 40.05 | 0.13 | 3.32 | 14.58 |
| OPT 085 | 1,566.8 | 309.2 | 5.07 | 3,860 | 40.05 | 0.13 | 3.32 | 14.60 |
| OPT 085 | 1,592.4 | 311.6 | 5.11 | 3,860 | 40.04 | 0.13 | 3.32 | 14.61 |
| OPT 095 | 1,599.8 | 312.2 | 5.12 | 3,860 | 40.04 | 0.13 | 3.32 | 14.61 |
| OPT 100 | 1,646.5 | 316.8 | 5.20 | 3,860 | 40.03 | 0.13 | 3.32 | 14.62 |
| OPT 105 | 1,652.4 | 317.2 | 5.21 | 3,860 | 40.03 | 0.13 | 3.32 | 14.62 |

*Note: This result represents the Seam S4 group only.*

### 8.4.6 Optimisation Margin

The quantities and qualities of each shell are tabulated to highlight the key results, including coal tonnes, coal quality results, and stripping ratio, on an overall and incremental basis to understand and validate the selected optimum shell. **Figure 8-6** reports the key outcome of the optimisation result.

RPM completed the pit optimisation margin analysis of each shell to support the selection of the optimum shell. The margin of each optimisation shell is shown in **Figure 8-7**. There is a small increase in quantities associated with an increase in the revenue factor between OPT80 and OPT100. The pit shell OPT 080 shown in **Figure 8-8** was selected as the theoretical pit shell on which to base pit limits and a practical pit design be completed.

**Figure 8-6 Selected Optimisation Result**

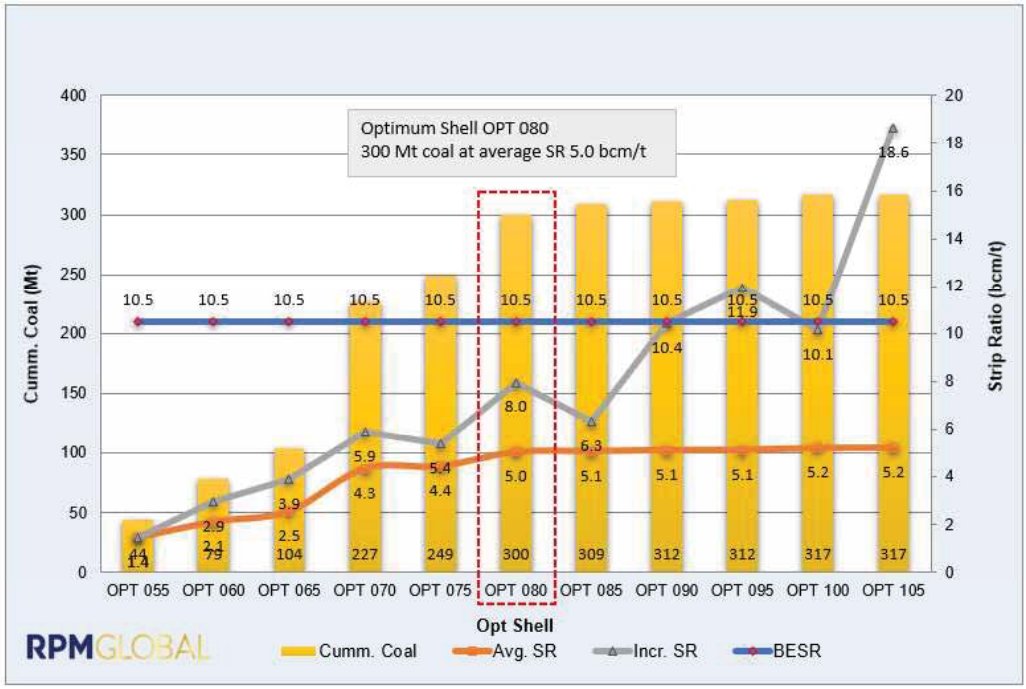
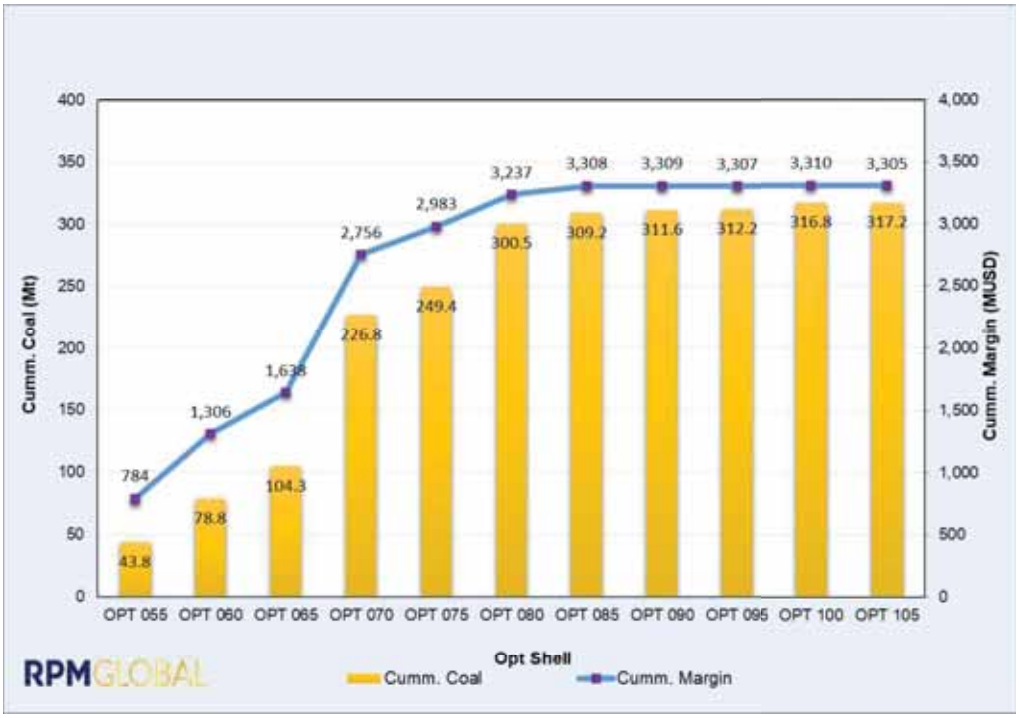
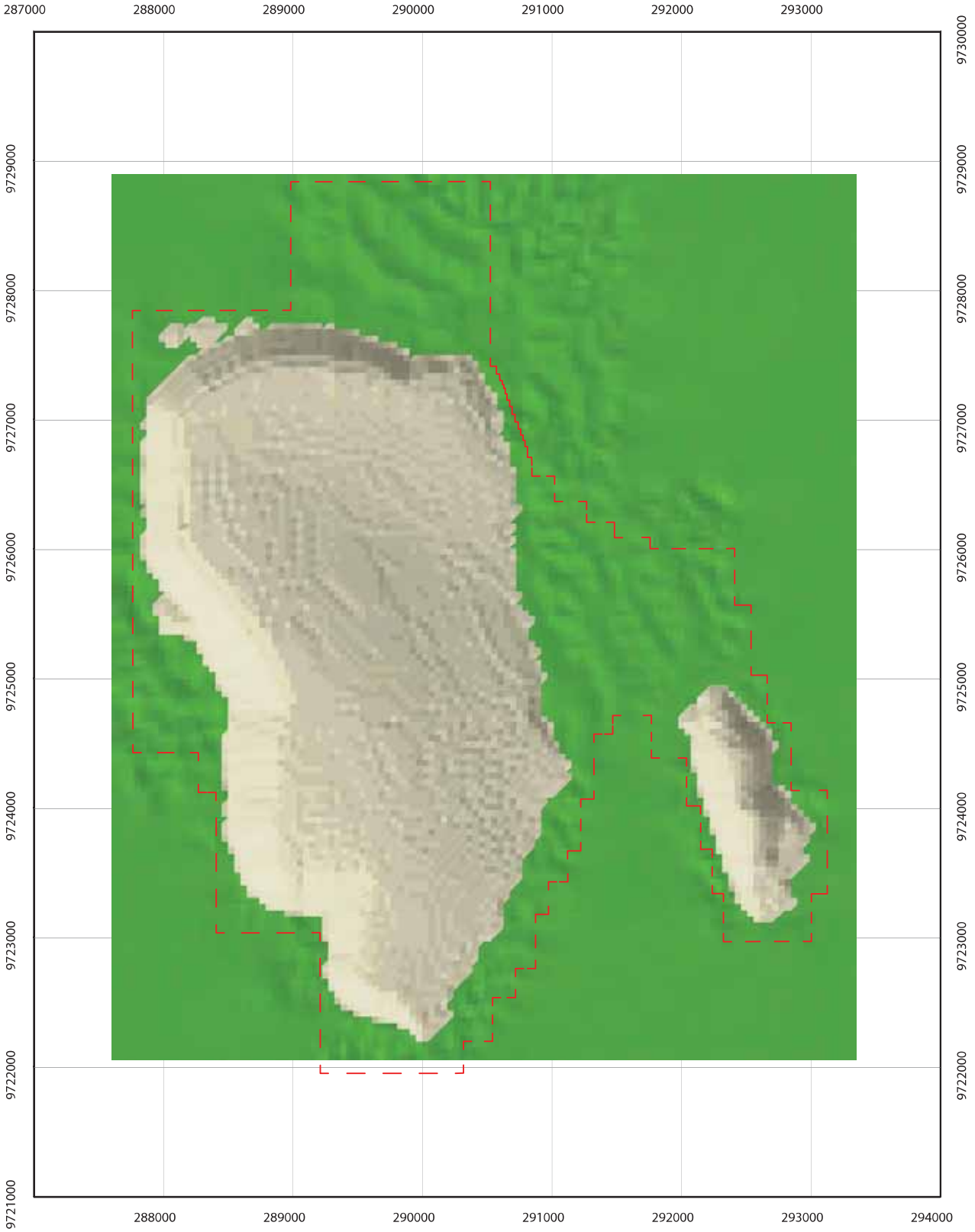



**Figure 8-7 Optimisation Shell Margin**






RPMGLOBAL

LEGEND

Concession Boundary

OPT Shell

N

0 1 2 kilometers

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

OPT 80 Selected Pit Shell

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 8-8 | ADV-JA-04073 | August 2023 |

## 8.5 Mining Method

There are two types of operating coal mines, open cut and underground. As the seams in the Project deposit are near-surface in soft overburden and of variable dip and strike, it is better suited to open pit mining. This will provide not only the lowest cost mining and also the highest coal recovery. Therefore, underground mining is not considered in this report.

A combination of block mining and haul back mining has been selected for the Project due to the deposit dip, pit depth characteristic, dump area availability and generated haul distance.

The terminology haul back refers to overburden being 'hauled back' from the mining face to Inpit Dumping ("IPD"). Initially, a box cut is established in an area where the block mining has been complete. This box cut opens up a mining face that will advance along the strike of the deposit mining the remainder of the coal deposit. This method will reduce the overburden haulage cost at the deepest portion of the pit; reduce equipment noise to surrounding areas and help restore original ground surface within the mining area in preparation for rehabilitation. Haul back mining will progress along strike from one end of the deposit to the other.

Block mining will create an initial box cut with an allowance as an effective working space for the fleets. The working width will reach to the final Highwall ("HW") and get to the final pit depth as fast as possible. The progress to the depth will get balance with the progress along the strike to allow the equipment and progress access.

Practically, waste and coal mining will be by a combination of hydraulic excavators working in tandem with dump trucks (Truck and Shovel method). Large mining equipment, backhoes, excavates the Overburden, ("OB") and Interburden ("IB") to near the interface between the waste and coal. Large equipment does not clean the interface between coal and waste as this would significantly increase both coal losses and waste dilution. Smaller excavators then clean the waste materials from the coal and waste interface. The care taken in this method determines the amount of both loss and dilution. Finally, excavators dig the cleaned off waste material which has been heaped. Coal is then mined with hydraulic excavators. As the floor of the coal is reached, smaller excavators and dozers once again clean the interface between the coal and the waste in order to minimise floor losses and dilution.

## 8.6 Mining Strategy

Company informed RPM the confirmed seam target is only Seam S4 Group Within this information RPM developed and evaluated a LOM scheduling scenario to give an understanding of the mining result related to the seam target.

Within this scenario, mining starts at the first year in Pit Malam and Pit Betung simultaneously. Pit Malam mining direction generaly is from south to north. Pit Betung mining direction remains from north to south. This scenario allowed a higher portion of production in early stages of Pit Betung to provide mined out areas to be used as IPD.

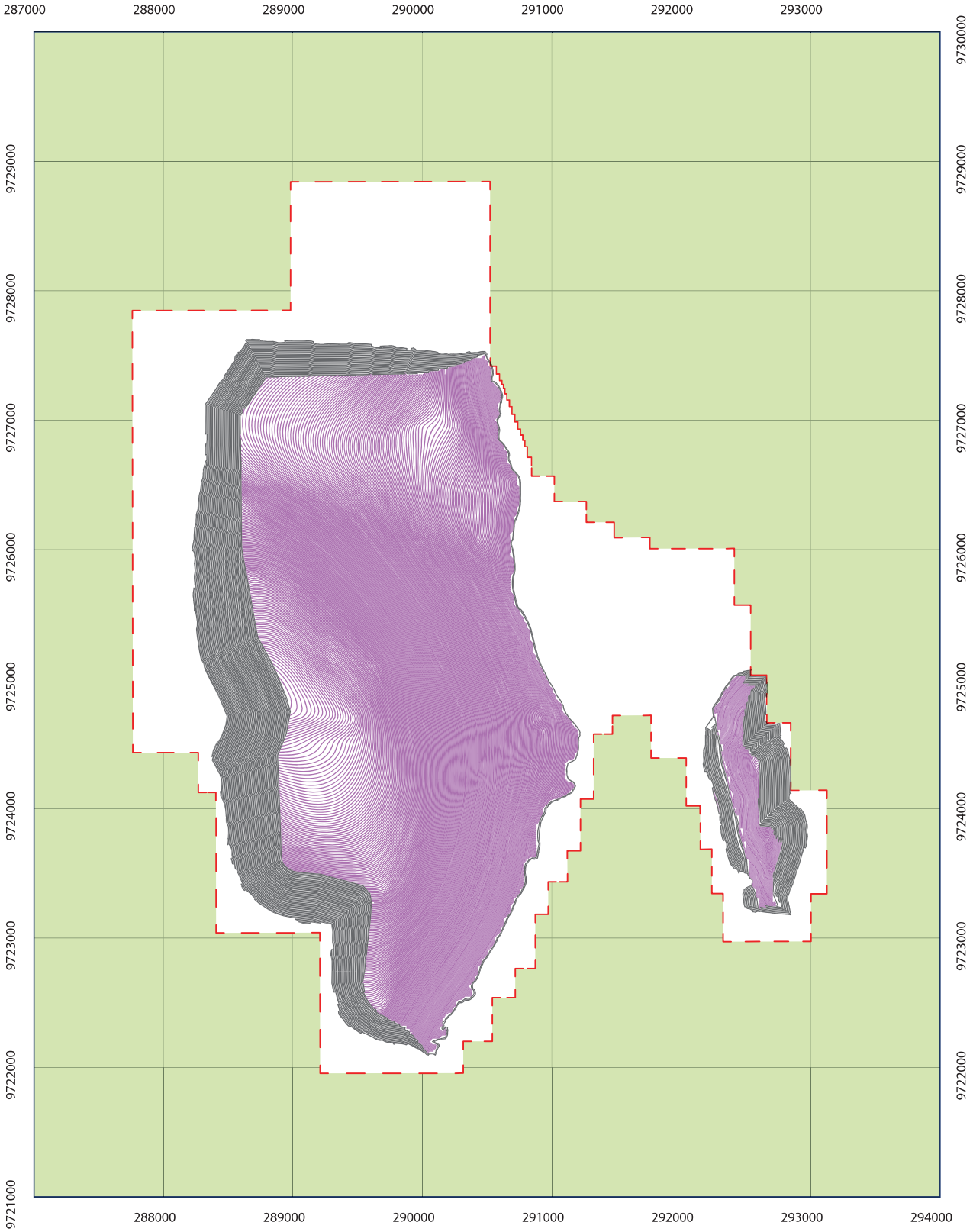
In the early stages of development, Pit Malam and Pit Betung dump into an OPD that will be located near the pit. As the box cut is established, the pit dumps will follow the box cut development of the pit into an IPD in the mined out areas, reducing the waste haulage distance.

## 8.7 Mine Plan

### 8.7.1 Mine and dump design

Practical pit shells and out-of-pit (ex-pit) dump designs were based on Geotechnical Parameter which have been designed for each of the pits and dumps identified from the optimisation result.

The resultant of pit shells can be seen in **Figure 8-9** and for dump shells can be seen in **Figure 8-10**.




RPMGLOBAL

**LEGEND**

- Concession Boundary
- Pit

N

0 1 2 kilometers

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

**CLIENT**

GEO ENERGY GROUP

**PROJECT**

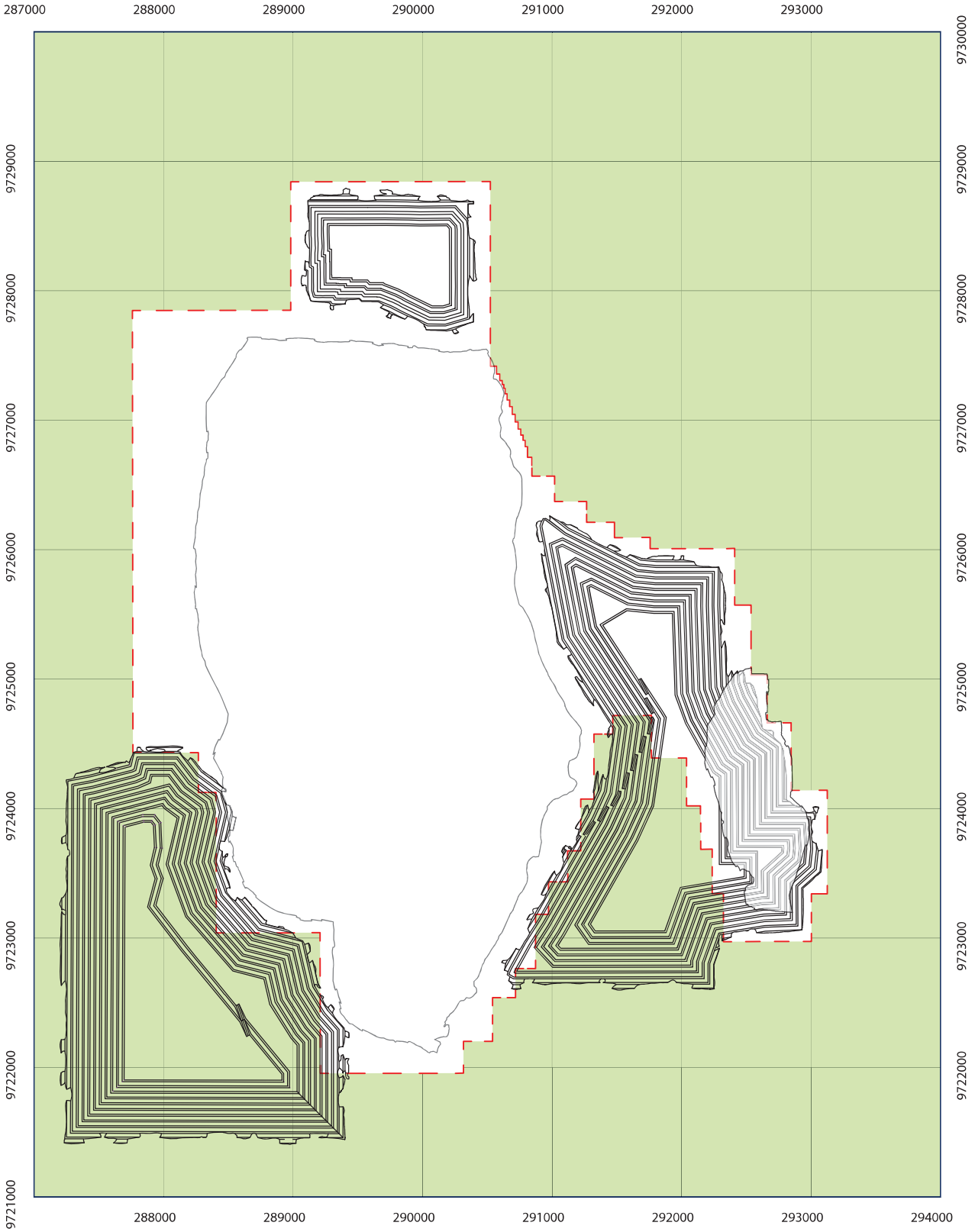
NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

Pit Design Layouts

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 8-9 | ADV-JA-04073 | August 2023 |




RPMGLOBAL

LEGEND

Concession Boundary

Pit

N

0 1 2 kilometers

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

Ex Pit Dump Design Layouts

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 8-10 | ADV-JA-04073 | August 2023 |

### 8.7.2 Mineable Quantities

The mineable quantities in each pit are shown in **Table 8-9**. These quantities include only the ROM coal of seam S4 Group (S4A, S4, and S4B), being the coal material modified from the geological model contained within the practical pits. All seams other than S4 Group have not been counted, and the volume is being transferred as waste. This is aligned with the Company strategy where the evaluation of the coal only includes seam S4 Group. The mineable quantity is the economically mineable coal defined in the geological model.

**Table 8-9 Mineable Quantities and Qualities**

| Pit Name | Cut off Date Topography | Waste | Coal | SR | CV kcal/kg | Ash % | TS % | TM % | IM % | RD |
|---|---|---|---|---|---|---|---|---|---|---|
| | | (Mbcm) | (Mt) | (bcm/t) | (gar) | (ar) | (ar) | (ar) | (adb) | In situ |
| Malam | EOM March 2023 | 1,263 | 265 | 4.8 | 3,870 | 3.22 | 0.13 | 40.02 | 14.54 | 1.22 |
| Betung | | 49 | 10 | 4.9 | 3,900 | 4.33 | 0.13 | 38.69 | 13.05 | 1.22 |
| **Total** | | **1,312** | **275** | **4.8** | **3,870** | **3.26** | **0.13** | **39.97** | **14.49** | **1.22** |

### 8.7.3 Dump Quantities

Expit dump is developed for each pit base on total waste quantities. The total quantities of expit dumping is 636.4 Mbcm, it is 48 % from the total waste quantities.

The remaining waste is dumped from the mining face to inpit dumping when a box cut is established in an area where the block mining has been completed.

### 8.7.4 Mine and Dumping Schedule

Mining starts at the first year in Pit Malam and Pit Betung simultaneously and dump into an Expit dump. As the box cut is established, the pit dumps will follow the box cut development of the pit into an Inpit dump in the mined out areas for reducing the waste haulage distance.

The LOM production schedule is summarised per year in **Table 8-10** and includes:

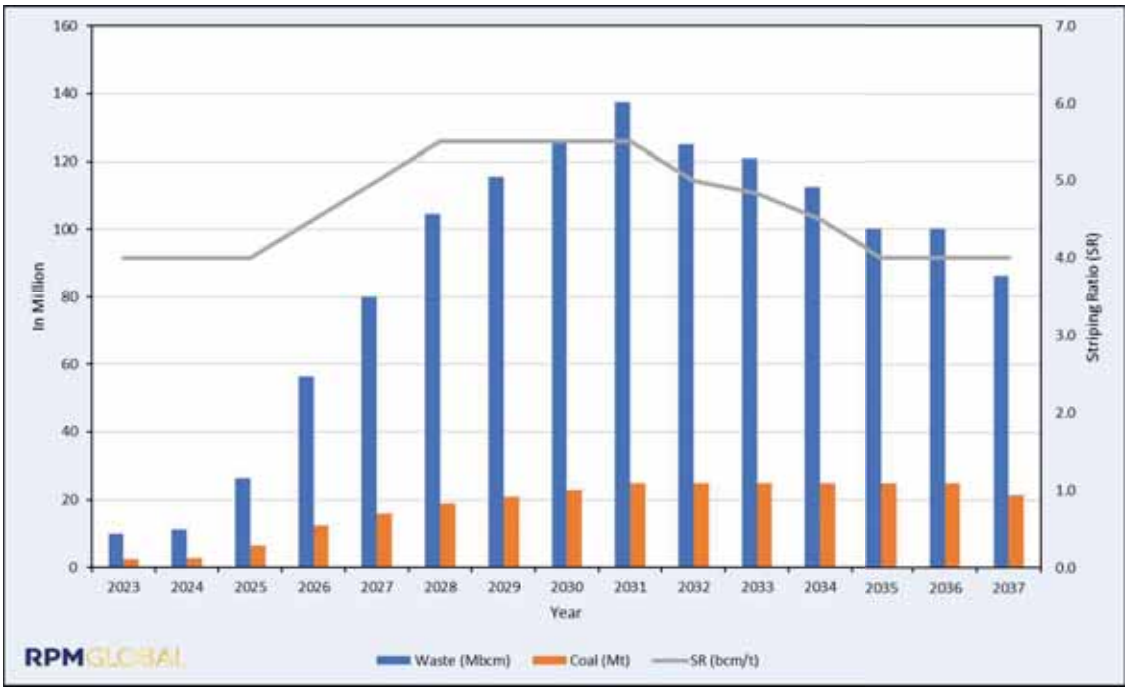
- 15 years mine life. This is comprised of:
  - 9 years of TRA commissioning coal quantity ramp up to a maximum of 25 Mtpa;
  - 6 years at the peak production rate of 25 Mtpa;
  - Final year 15 at 21.5 Mtpa as pits are depleted.
- an average mine strip ratio of 4.8 bcm/t ROM; and
- an average CV of 3,872 kcal/kg over the mine life.

The LOM production schedule plan starts in 2023. **Table 8-11** shows the ROM coal schedule over the life of the TRA Mine.

**Table 8-10 The LOM Production schedule**

| Stage | Year | Annual | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Waste | Coal | SR | CV | Ash | TS | TM | IM |
| | | Mbcm | Mt | bcm/t | kcal/kg (gar) | % ar | % ar | % ar | % adb |
| Y01 | 2023 | 10.0 | 2.5 | 4.0 | 3,897 | 3.74 | 0.12 | 39.08 | 13.43 |
| Y02 | 2024 | 11.2 | 2.8 | 4.0 | 3,871 | 3.95 | 0.12 | 39.21 | 13.48 |
| Y03 | 2025 | 26.4 | 6.6 | 4.0 | 3,889 | 3.96 | 0.12 | 38.96 | 13.12 |
| Y04 | 2026 | 56.3 | 12.5 | 4.5 | 3,826 | 3.50 | 0.13 | 40.28 | 14.04 |
| Y05 | 2027 | 80.0 | 16.0 | 5.0 | 3,823 | 3.15 | 0.11 | 40.44 | 14.53 |
| Y06 | 2028 | 104.5 | 19.0 | 5.5 | 3,867 | 3.07 | 0.13 | 40.17 | 14.43 |
| Y07 | 2029 | 115.5 | 21.0 | 5.5 | 3,913 | 3.09 | 0.12 | 39.64 | 14.67 |
| Y08 | 2030 | 126.5 | 23.0 | 5.5 | 3,942 | 2.95 | 0.16 | 39.22 | 15.49 |
| Y09 | 2031 | 137.4 | 25.0 | 5.5 | 3,960 | 2.96 | 0.16 | 38.96 | 14.82 |
| Y10 | 2032 | 125.0 | 25.0 | 5.0 | 3,951 | 2.96 | 0.11 | 39.07 | 14.57 |
| Y11 | 2033 | 120.9 | 25.0 | 4.8 | 3,933 | 3.21 | 0.10 | 39.02 | 14.54 |
| Y12 | 2034 | 112.5 | 25.0 | 4.5 | 3,901 | 3.52 | 0.10 | 39.39 | 14.88 |
| Y13 | 2035 | 100.0 | 25.0 | 4.0 | 3,838 | 3.51 | 0.12 | 40.36 | 14.68 |
| Y14 | 2036 | 100.0 | 25.0 | 4.0 | 3,772 | 3.35 | 0.14 | 41.42 | 14.19 |
| Y15 | 2037 | 86.1 | 21.5 | 4.0 | 3,675 | 3.59 | 0.16 | 42.54 | 13.40 |
| **TOTAL 2044** | | **1,312.3** | **274.9** | **4.8** | **3,872** | **3.26** | **0.13** | **39.95** | **14.49** |

**Figure 8-11 LOM Production Schedule**



Sequence of the dumping following LOM production can be describe below:

- Start on Year 2023 Pit Malam and pit Betung dump to Expit dumping on north Pit Betung.
- Year 2025 Inpit dumping start on Pit Betung to 2027.
- At the same year 2027 Expit dump and Inpit dump Pit Betung get connected continue to Year 2029.
- Pit Malam get Inpit dumping start on year 2028.
- Year 2029 Expit dumping at south Pit Malam is used to maintain the waste production from Pit Malam.
- Continue with Inpit dumping Pit Malam, south Expit dumping on Pit Malam final at Year 2031.
- Year 2031 to 2032 Expit dumping at north Pit Malam is used.
- Inpit dumping Pit Malam continue to the rest of LOM production schedule.

### 8.7.5 Stage Plans

The mine development of the TRA Mine has been scheduled to achieve the coal product of up to 25Mt of coal. The key criteria was to have a coal product energy of 3,800 to 3,900 kcal/kg (gar). The other schedule considerations were to find a suitable dumping area and optimise waste haulage distance, maintain a consistent waste production profile for each pit, and maintain sufficient working room for efficient mining equipment operation.

The mine development and stage plans are described below on an annual basis for the first five years of production and then five yearly for the remainder of the LOM plan.

#### 2023 Production

The 2023 sequence was developed to follow the current operating sequence both in Pit Malam and Pit Betung. A total of 2.5 Mt of ROM coal has been scheduled to be mined in 2023. Waste will be hauled to the Expit dumping in north Pit Betung.

#### 2024 Production

The Boxcut development of Pit Malam and Pit Betung, with the Pit Betung also expanding to the south while Pit Malam is mined to the east to west. Waste from both pits will be hauled to the Expit dumping on north Pit Betung. Waste production in 2024 has increased to 11.2 Mbcm, and ROM coal production is 2.8 Mt.

#### 2025 Production

By 2025, the development continues of Pit Malam and Pit Betung. Inpit dumping starts in north Pit Betung. Waste production in 2025 has increased to 26.4 Mbcm, and ROM coal production is 6.6 Mt..Waste from both pits will be hauled to the Expit dumping on north Pit Betung and Inpit of Pit Betung.

#### 2026 Production

In Year 2026, Pit Betung will be mine out, and used for Inpit dumping for Pit Malam. Pit Malam expanded to the south. Waste production for 2026 has increased to 56.3 Mbcm, and ROM coal production is 12.5 Mt. Waste from both pits will be continue hauled to the Expit dumping on north Pit Betung and Inpit of Pit Betung. Expit dumping will be expanded to the south outside the concession, and it's called project area Expit dumping.

#### 2027 Production

The box cut development of Malam continues to progress from south to the north respectively. This year, Expit dump and Inpit dump Pit Betung get connected. Waste production for 2027 is 80.0 Mbcm, and ROM coal production increases to 16.0 Mt. Waste on Pit Malam will be dumped to Expit dump on the Pit Betung and Inpit dump Pit Betung get connected. This year, dumping will start to Inpit dump on Pit Malam's south area.

### 2028 – 2032 Production

Between 2028 and 2032, production will continue at Pit Malam. Most of the waste continues to be placed into the Expit and Inpit waste dumps. By 2028 Expit dump will be developed in south Pit Malam to maintain the waste capacity. The average annual waste production in Pit Malam for this period is 121.8 Mbcm, with a peak of 137.4 Mbcm in 2031. Coal production will be maintained in 2032 at a constant 25.0 Mtpa per annum.

Waste in this period will continue to be dumped at Inpit dumping Pit Malam, Expit dump, and Inpit dump Pit Betung. In 2029 Expit dumping at south Pit Malam is developed to maintain the waste production from Pit Malam (outside concession) through the final in 2031. From 2031 to 2032, Expit dumping at north Pit Malam is developed.

### 2033 – 2037 Production

Mining continues at Pit Malam at a rate of 25.0 Mtpa until 2036, with all coal depleted from the pit in 2037. Mining is completed in the northern end of Pit Malam. Waste will be dumped to Inpit dumping on Pit Malam to continue the rest of the LOM production schedule.

Final rehabilitation and mine closure works will continue at the site beyond the end of mining operations in 2037.

## 8.7.6 Mining Risks and Opportunities

### Mining Risks

Geological structures or coal washouts that are currently not identified in the geological model may occur that will result in a reduction in the ROM coal quantities available to be mined.

Any reduction in ROM coal quantities available to be mined will lead to an increase in waste removal requirements and hence also and increase in strip ratio to achieve the nominated annual ROM coal production rate.

The performance of the selected mining contractor will be crucial to the delivery of the annual waste and coal production schedule.

Timely land acquisition is necessary in advance of mining so that the planned mining and dumping sequence can be achieved.

Existing surface infrastructure and facilities such as the provincial road must be moved and relocated in a timely manner so as not to impede mining progress.

Adequate expit dump space and area is required for initial mining operations before the transition to inpit dumping occurs. The current expit dumping areas are limited and any issues that affects this available space willa dversly impact the mine plan.

### Mining Opportunities

The western portion of the concession currently has limited drilling coverage. Existing drilling data in the Malam block with quality analysis also needs additional closer speced infill drilling that will improve both geological knowledge and the confidence level of waste and ROM coal quantities and qualities.

The high-wall pit of the western area Malam Block still has the potential to be evaluated and extended to add economically mineable ROM coal quantites; however, it will increase the incremental and total average stripping ratio.

The current Reserve estimate only includes the seam S4 group. There are other coal seams that are categorised as Indicated Resources inside the current pit design. The inclusion of these seams can be

economically evaluated to increase the ROM coal quantities that can be mined, however the inclusion of these seams may decrease the average caloric value of the ROM coal that is mined.

## 8.8 Facilities and Infrastructure

### 8.8.1 Site Facilities

The site facilities constructed near the mine currently consist of:

- Mine office;
- Staff mess;
- Workshop;
- Fuel Storage;
- Raw Water supply and water treatment;
- Power generators and;
- First aid and medical facilities.

Site facilities are depicted in **Figure 8-12**.


RPMGLOBAL

LEGEND

Road

N

0 200 400 metres

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

Site Layout

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 8-12 | ADV-JA-04073 | August 2023 |

## Mine office and Accommodation

The mine offices are located close to the operation as per **Figure 8-13**. The offices are currently suitable for the scale of the operation and will be increased in size to accommodate increased production and personnel numbers.

**Figure 8-13 Mine Office**

The mining contractor is responsible for constructing their own offices and mess facilities, in agreement with TRA, to support the operation over time. The current contractor messing facilities are shown in **Figure 8-14**.

**Figure 8-14 Contractor Messing and Office**

Accommodation has been constructed to house selected staff and includes the staff canteen. Additional facilities including Mosque **Figure 8-15**, and recreation and sporting facilities.

**Figure 8-15 Mosque**

The recreation facilities will be expanded as the mine expands aligned to the approved plan.

## Fuel

Diesel fuel storage is located in a secure compound on the mine site near the workshops as per **Figure 8-16**. The main fuel consumption is by mining and hauling equipment. Fuel is transferred into fuel service trucks for delivey to equipment.

**Figure 8-16 Fuel Storage Compound**

## Water

Raw water is sourced from the local river and is treated in a water treatment plant and stored in a 110,000 litre tank, from which it is distributed for use.

## Electricity

Grid power is not available on site and regardless is considered unreliable in the region. Site power is provided by diesel generator sets and reticulated to several submains and switchboards.

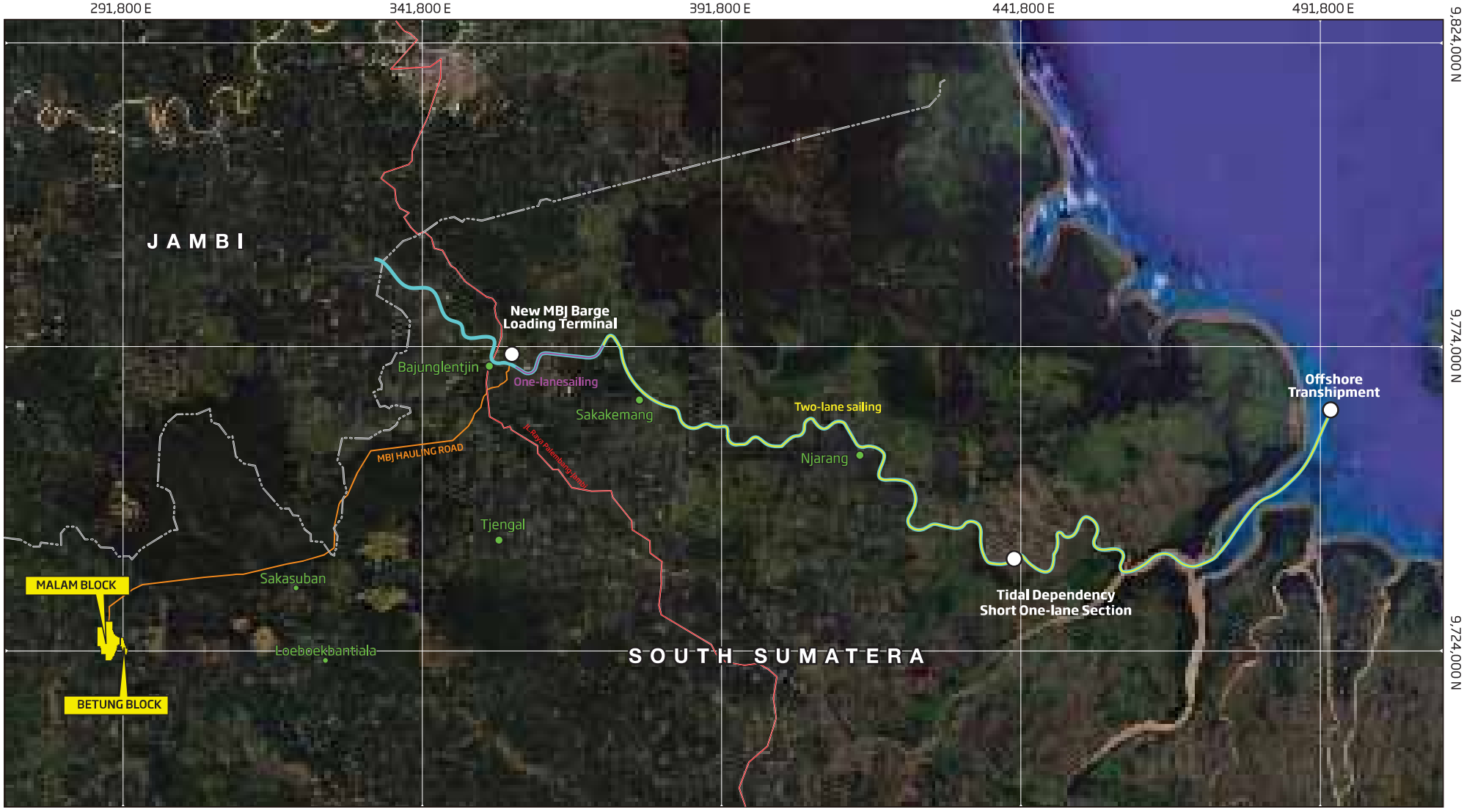
### Workshops

The workshops for maintenance of mining and haulage equipment are provided by the respective contractor as part of the delivery contract. An example of a contractor workshop currently on site is shown in **Figure 8-17.**

**Figure 8-17 Contractor Workshop**

## 8.9 Coal Logistics

The hauling and logistics plan for coal transport is presented in **Figure 8-18**.




LEGEND

- Town
- Road
- Lalan River
- Concession Boundary
- Political Boundaries

N

0 20 40 kilometres

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

NAME

INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING

Coal Hauling and Logistics

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 8-18 | ADV-JA-04073 | August 2023 |

RPMGLOBAL

### 8.9.1 Coal Handling and Processing Plant

The current production target is 2.5 Mtpa. Coal from the mine is loaded at the face and transported by truck to the Run of Mine (ROM) Stockpile where the coal is dumped either directly into the ROM tip or onto a stockpile. The dozer and loaders push and load coal from the stockpiles into the reclaim feeder for reduction in the size of coal utilising crushing. Coal is transferred to the truck load out for barging by conveyor as per **Figure 8-19** or onto the stockpile adjacent to the ROM tip as per **Figure 8-20**.

**Figure 8-19 ROM Tip, Screening and Sizing**

The ROM stockpile area includes 1 crushing and sizing facility capable of producing 500 tph.

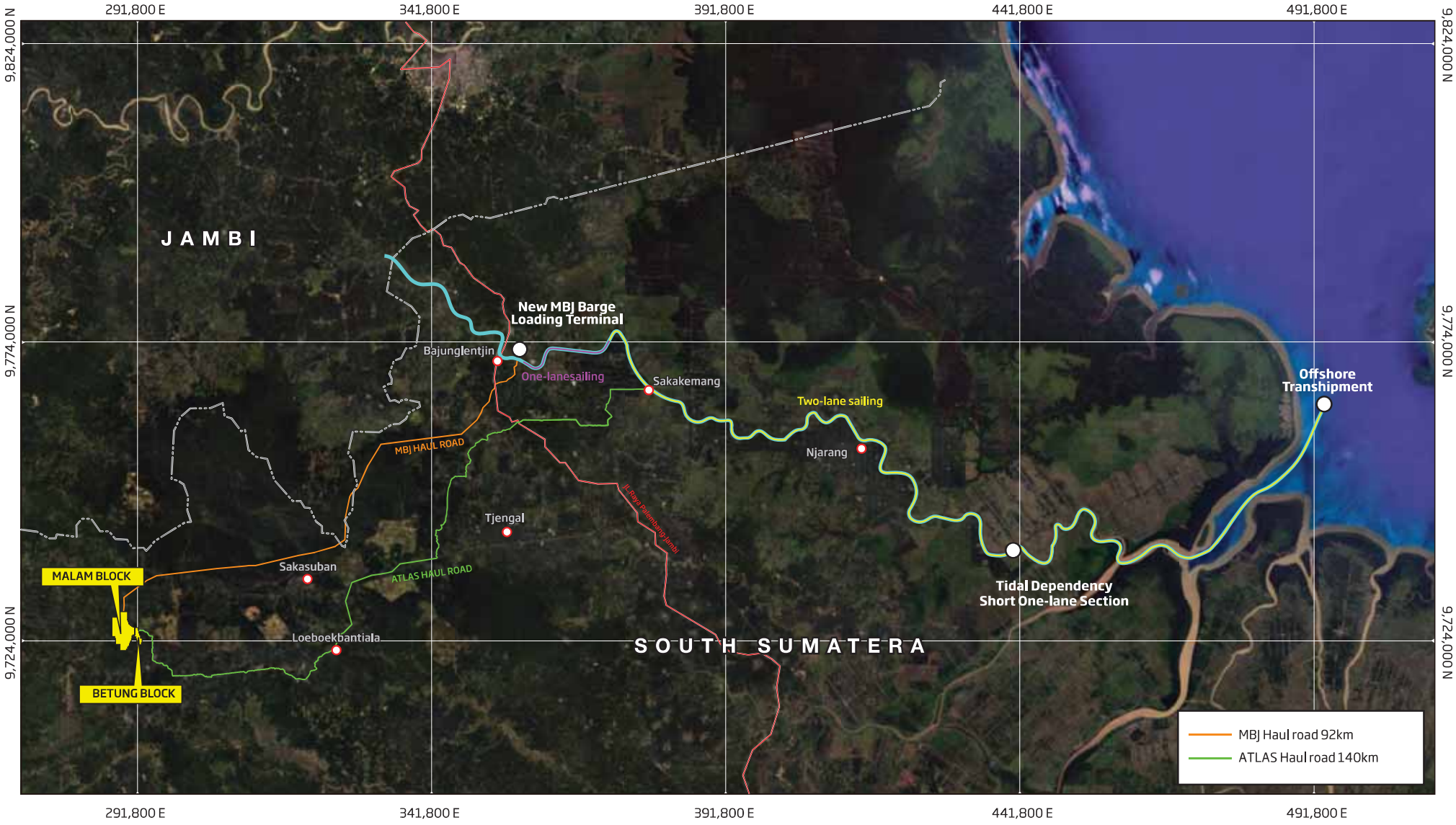
**Figure 8-20 ROM stockpile**

The expansion of mining operations over time to 25 Mtpa will require a reconsideration of the ROM and sized product coal stockpiles. It is envisaged that the screening and sizing of coal will be relocated from the mine site to the port.

### 8.9.2 Coal Hauling

#### Introduction

The current and future coal hauling arrangements are represented in **Figure 8-21**.




LEGEND

- Town
- Road
- Lalan River
- Concession Boundary
- Political Boundaries

N

0 20 40 kilometres

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

GEO ENERGY GROUP

PROJECT

NAME: INDEPENDENT QUALIFIED PERSON'S REPORT

DRAWING: Haulage and Barging Routes

| FIGURE No. | PROJECT No. | Date |
|---|---|---|
| 8-21 | ADV-JA-04073 | August 2023 |

RPMGLOBAL

The current coal haulage road is owned by PT Atlas Resources Tbk ("ATLAS") and the port infrastructure for loading barges is owned by PT Sriwijaya Bara Logistic ("SBL"). The future arrangement will primarily utilise the third party constructed, funded and operated proposed haulage road and PT Marga Bara Jaya (MBJ) port facility.

## Current Haulage

Coal haulage is carried out on a mixed use road from site to the port facility. The road is operated by ATLAS and the port is operated by SBL. The road has both forestry and mining haulage trucks operating on it.

The haul distance from the mine site coal stockpiles to Barge Loading Point is approximately 140km, the road is suitable for 30t payload trucks with a typical operating speed of 40km/h.

During the site visit maintenance works were underway, however there were several incidents and delays witnessed as per **Figure 8-22**. This reportedly represents a significant constraint to the movement of coal between site and the port.

**Figure 8-22 Delays on haul road**

Vehicles are currently weighed empty and full both during operations (coal face to ROM) and for haulage from stockpile to port, the weight bridge is presented in **Figure 8-23**.

**Figure 8-23 Weigh Bridge**

### Proposed Future Haulage

Coal is to be hauled 92 km on a purpose build haul road from the site to the MBJ Port **Figure 8-24**. Haulage will be by B-Double 60 tonne capacity per trailer (total 120 tonnes per load). The road width selected in the basis of design is 12m excluding the road shoulders. This is potentially a limiting factor in road speed which is currently set to 40km/h.

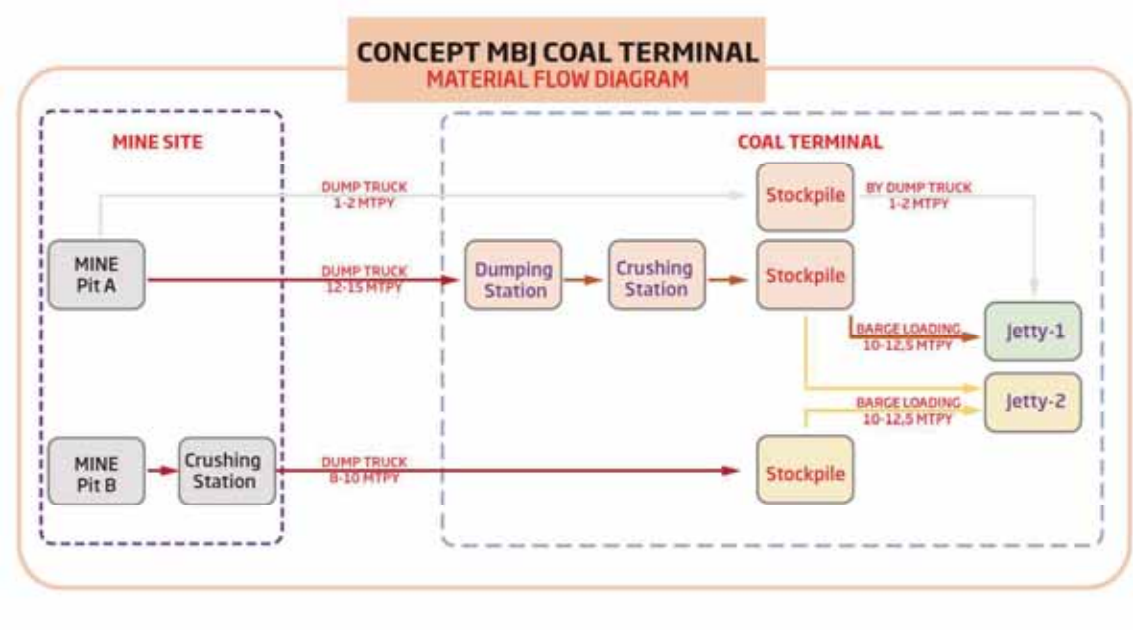
Hydrology and flooding studies have been undertaken for the proposed road route and a flood immunity of 1:50 years has been selected, with supporting infrastructure of bridges and culverts to support this. 3 Gas pipeline crossings are included in the study to be achieved by heavy concrete culverts.

The selected haulage contractor will be responsible for constructing the haulage road as well as providing their own infrastructure and workshops.

## 8.10 Coal Port

The proposed concept material flow from the mine site to the port and onto barges is shown in **Figure 8-24.**

**Figure 8-24 MBJ Coal Port Concept**




### 8.10.1 Current Port Facilities

The SBL port facility has a barging distance of approximately 183 km along the Lalan river to the transhipment point. The facility loads 7,500 t barges at a rate of 750 t/h. The operation supports up to 3.5 Mtpa throughput. The facility is depicted with a laden barge on the river in **Figure 8-25**.

**Figure 8-25 SBL Port**

### 8.10.2 Future Port Facilities

The site for the future port facility to be operated by MBJ is depicted in **Figure 8-26**. The barging distance from this port to the transhipment point is approximately 221 km.

The site will be equipped to accept the B-Double transport side tipping onto a pad with the coal pushed into hoppers. The port is planned to be constructed in accordance with parameters outlined in **Table 8-11**. The coal is sized and mechanically handled onto stockpiles. Reclaimed coal from the stockpiles is moved by conveyor to the barge loading conveyor 2 x 1500 tonnes per hour. The port is proposed to provide for a

barge receiving jetty, turn around area and 2 sets of barge loader and dolphins. The product stockpiles are sized for 2 weeks capacity and are a series of 12 x 75 kt stockpiles at the final phase. A temporary facility suitable for 1-2 Mtpa will be constructed with a 20 kt stockpile.

**Figure 8-26 Future Port Facility**

### 8.10.3 Coal Barging

The constraints in the river allows for operations up to 7.5 Mtpa without downstream traffic management and river training activities.

**Table 8-11 Current and Future Port Parameters**

| | Current SBL Port | Proposed MBJ Port |
|---|---|---|
| Weighbridge | 30-40 tonne trucks | Up to 120 tonne B-Double |
| Hoppers | 1 receiving | 2 receiving |
| Product Stockpile | 150 kt | 12 X 75 kt |
| Barge Loading | 1 x 750 tph | 2 x 1500 tph |
| Annual Capacity | 3.5 Mtpa | 20-25 Mtpa |

The river study conducted for barging activities indicates that the complete barge cycle time will be in the order of 110 hours. The river has up to 35 km of single lane sailing. There are several other obstructions hindering barge operations including 13 berths operated by other companies, and a 400 m tight radius turns. The least available depth constraints limiting the river to single lane traffic and 7,500 DWT barges are the most significant of the river constrains.

The projected throughput in barging is 7.5 Mtpa without any additional river works. With improvement to traffic management for the single lane section this and further river training (dredging works will be required) the total feasible capacity of the MBJ jetty and river should increase to about 30 Mtpa.

### 8.10.4 Infrastructure and Logistics Risks and Opportunities

#### Infrastructure and Logistics Risks

- The construction of the new haul road will take longer than expected and the existing haul road will need to be used for a longer period of time resulting in a slow down in the ramp up of coal production and an extended period of higher coal hauling operating costs.
- The new barge loading port will take longer than expected to construct and move into operation resulting in the need to use the existing port for a longer period of time resulting in a slow down in the ramp up of coal production and an extended period of higher barge port operating costs.
- Whilst the estimate for both the road and port has been completed, the accuracy of the estimate is stated to be low.It was also noted that imported CBR80 road pavement materials may not be readily available in this area. It is recommended that the estimate is updated with current pricing and from known road base quarries able to supply the Project.
- The navigable river channel requires dredging to facilitate the forecast expansion of coal barging requirements. Such works may come at significant additional costs and also require complex approvals at the provincial Government level. I It is advised that further studies are completed to ascertain improvements in the barging operation including a fully defined scope and costs for river dredging, spoil disposal, barging and tug logistics, and river traffic control systems.

#### Infrastructure and Logistics Opportunities

- The selected new coal haul road width could be widened to 16m (approximately 125 % increase in bulk earthworks) which will allow for an increase in truck haul speed and therefore reduce truck cycle times to and from port.
- Further investigation could be undertaken to evaluate using larger barges, or self-propelled barges to reduce barging unit costs.

## 8.11 Environmental and Social

### 8.11.1 Approach

This review comprises the desktop review of the Environmental and Social (E&S) management components of the following projects:

- PT Triaryani (TRA) Coal Mine – located in the Musi Rawas Regency, South Sumatra.
- Proposed Haul Road and MBJ Coal Handling Terminal – located in the Musi Rawas Regency to the Lalan River within the Musi Banyuasin Regency, South Sumatra.

TRA operates under a Production Operation Licence (IUP) which is valid until 2030 and can be extended by two 10 year periods. TRA commenced commercial production in 2012. Current operations throughput is about 2.5 Mtpa coal with future operations planned to 25 Mtpa once the proposed haulage road and MBJ port infrastructure is in place.

A 92 km all weather haul road from the TRA mine to the coal handling facilities (MBJ Port) situated within 50 ha on the bank of the Lalan River is proposed to be constructed as part of the expansion from the existing 2.5 Mtpa to 25 Mtpa over two separate phases (see below). Approximately 77 km (84 %) of the proposed haulage road is located within a Production Forest and Limited Production Forest area. MBJ has obtained a Forestry Borrow to Use Permit within a 60 m corridor of this Production Forest area, and a Road Construction Permit.

The MBJ Port will comprise a crushing plant, coal stockpile, and a river jetty with barge loading conveyor. The proposed haulage road and MBJ Port will be developed in two phases with a total throughput capacity up to 25 Mtpa. Construction of Phase 1 (15 Mtpa throughput) will commence in mid-2023 and will be completed by the end of 2024. Construction of Phase 2 (additional 10 Mtpa) is planned to commence in 2030.

This E&S review has been completed in line with the E&S criteria specified under Table 1 Checklist of Assessment and Reporting Criteria, Section 4 - Estimation and Reporting of Ore Reserves, in the JORC Code (2012), which states that such reviews should address:

- 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.
- The status of agreements with key stakeholders and matters leading to social licence to operate.

This E&S review has also been completed to be in conformance with the Practice Note 6.3 of the Listing Manual for the SGX., which states that the:

- Listing applicant's policies and practices are defined in relation to operating in a sustainable manner, including the:
  - Applicant's policy with regards to environmental and social issues.
  - Impact of the listing applicant's business practices on the environment and the communities in which it operates.
  - Environmental and social risks faced by the listing applicant.
- The conditions of the concessions are described including fiscal conditions, environmental and rehabilitation requirements, abandonment costs and any necessary licenses and consents including planning permission.

### 8.11.2 Key Project E&S Documentation Reviewed

The key Project E&S related documentation reviewed is presented in **Table 8-12**. This documentation was provided both in English and in Bahasa Indonesian. Targeted translation of the provided Bahasa Indonesian documentation was undertaken by RPM to an extent required to complete this E&S review.

**Table 8-12 Key Project E&S Documentation Reviewed**

| Date | Document Source/Title | Author | Document Type and Language |
|---|---|---|---|
| **TRA** | | | |
| January 2022 | PT Golden Eagle Energy Tbk (SMMT) Company Presentation | SMMT | Company Briefing Presentation - English |
| November 2022 | Project Greek Information Memorandum | PT BNI Sekuritas (BNIS) | Project Technical Information Memorandum – English |
| 2023 | SMMT Annual Report & Sustainability Report 2022 | SMMT | Public Annual E&S Report – English and Indonesian |
| Undated | TRA Company Profile | TRA | Company Briefing Presentation - English |
| 2011 | Geotechnical and Hydrogeological Study, TRA | PT. Britmindo and Geotechnics and Hydrogeology Study Centre, Geotechnics Laboratory Bandung | Technical Study Report - English |
| November 2015 | Coal Mining Activities in Nibung and Rawas Ilir Districts, North Musi Rawas Regency, South Sumatra Province | TRA and Government of North Musi Rawas | Feasibility Study Report - Indonesian |
| January 2016 | Environmental Impact Assessment (EIA) - Coal Mining Activities in Nibung and Rawas Ilir Districts, North Musi Rawas Regency, South Sumatra Province | TRA and Government of North Musi Rawas | EIA/ANDAL Report and approval - Indonesian |
| June 2018 | Decision of the Head of the Investment Coordinating Board Number 56/1/IPPKH/PMDN/2018 regarding the Permit for Borrowing Forest Areas for Coal Production Operations on behalf of TRA, covering approximately 606.40 ha in Limited Production Forest and Permanent Production Forest areas in North Musi Rawas Regency, South Sumatra Province. | Minister of Environment and Forestry of the Republic of Indonesia (MoEF) | Forestry Permit - Indonesian |
| July 2019 | Open Cut Coal Resources and Reserves Estimation of TRA, Reported in Accordance with the JORC Code | PT Geoxp | JORC Evaluation Report - English |
| 2022 | The Report of Environmental Monitoring and Management Program (RKL/RPL) for the First Semester of 2022 | TRA | RKL (Environmental Management Plan) and RPL (Environmental Monitoring Plan) Six Monthly Progress Report - Indonesian |
| December 2022 | Approval of Annual Work Plan and Budget (RKAB) for Mining Business License (IUP OP) Year 2023 of TRA | Minister of Energy and Mineral Resources - Director General of Minerals and Coal | Approval for Annual Work Plan under the IUP - Indonesian |
| **Associated Infrastructure (not owned by TRA)** | | | |
| August 2019 | Environmental Permit (Road) issued to MBJ | MoEF | Environmental Permit for construction - Indonesian |

| Date | Document Source/Title | Author | Document Type and Language |
|---|---|---|---|
| August 2019 | Decision Letter of MoEF<br>Regarding the Environmental Feasibility of the Development Plan for a Special Road for the Transportation of Coal, Plantation Products, and Forest Products in North Musi Rawas District and Musi Banyuasin District, South Sumatra Province, and Batanghari District, Jambi Province by MBJ | MOEF | MBJ Road ANDAL Approval - Indonesian |
| October 2019 | Decision of MoEF regarding the Forest Area Borrowing Permit (IPPKH) for the Construction of a Coal Transport Road on behalf of MBJ covering an area of approximately 424.41 hectares in the limited production forest and permanent production forest areas in North Musi Rawas District and Musi Banyuasin District, South Sumatra Province, and Batanghari District, Jambi Province | MoEF | MBJ Road Forestry Borrow to Use Permit - Indonesian |
| December 2019 | Operational/Commercial Permit for PT. Marga Bara Jaya - Commitment to obtain a commercial or operational permit required by business entities is a Special Terminal Permit (TUKS) | Government of the Republic of Indonesia | Coal Terminal Business / Operational Permit - Indonesian |
| February 2020 | Environmental Impact Assessment (EIA) for the Development of a Special Coal Terminal and Supporting Facilities on a 48.7 Hectare Area in Sungai Lalan, Mendis Village, Bayung Lencir Subdistrict, Musi Banyuasin Regency, South Sumatra Province | MBJ | EIA/ANDAL Report - Indonesian |
| February 2020 | Environmental Management Plan (Pengelolaan Lingkungan Hidup, RKL) and Environmental Monitoring Plan (Rencana Pemantauan Lingkungan Hidup, RPL) – Coal Terminal | MBJ | RKL and RPL - Indonesian |
| March 2020 | Hydrology Analysis and Design for MBJ Haul Road Design and Study | Tectoma Mitra Utama (TMU) | Technical Study Presentation – English |
| April 2020 | Decision Letter of the Head of the Investment and Integrated One-Stop Service Agency of Musi Banyuasin District (PTSP), Number: 113/2020, Regarding Environmental Feasibility of the Development Plan for a Special Terminal and Supporting Facilities on Approximately 48.7 Hectares of Land by MBJ, Located in Sungan Lalan, Mendis Village, Bayung Lencir Subdistrict, Musi Banyuasin District, South Sumatra Province | Regent of Musi Banyuasin Head of the Investment and PTSP | Coal Terminal Location Permit - Indonesian |
| April 2020 | Environmental Permit (Jetty) issued to MBJ | Environmental Bureau Regent of Musi Banyuasin Regency Ijin Lingkungan | Environmental Permit for construction - Indonesian |
| July 2020 | Letter of Determination of Compliance with the Commitments of the Special Terminal Development Permit (TERSUS) for Coal Transportation and Sales of PT Marga Bara Jaya in Mendis Village, Bayung Lencir District, Musi Banyuasin Regency, South Sumatra Province | Director General of Sea Transportation | Coal Terminal Construction Permit - Indonesian |
| March 2020 | Hydrology Analysis and Design for MBJ Haul Road Design and Study. | Tectoma Mitra Utama (TMU) | Technical Study Presentation – English |
| August 2020 | MBJ Haul Road Design and Hydrology Study | TMU | Technical Study Report – English |
| August 2020 | MBJ River Barging Study Prefeasibility Study, Final Report. | Royal Haskoning DHV | Technical Study Presentation – English |

| Date | Document Source/Title | Author | Document Type and Language |
|---|---|---|---|
| October 2020 | Decision of the MoEF on the Designation of Working Areas for Forest Area Borrowing Permit for the Construction of a Coal Transport Road on behalf of MBJ, covering an area of 420.73 hectares in the Limited Production Forest and Permanent Production Forest areas in North Musi Rawas District and Musi Banyuasin District, South Sumatra Province, and Batanghari District, Jambi Province | MoEF | MBJ Road Forest Area Borrowing Permit - Determination of Permit Area - Indonesian |
| December 2020 | Decision of the MoEF on the Designation of Planting Locations for the Rehabilitation of Upper Watershed Areas on behalf MBJ | MoEF | MBJ Road Forest Area Borrowing Permit - Determination of Watershed Rehabilitation Area - Indonesian |

### 8.11.3 Status with Project E&S Approvals and Permitting

The existing current key Project E&S approvals and permits for TRA and MBJ are presented in **Table 8-13**.

RPM has not completed a comprehensive review of the E&S approvals and permits. TRA advised that it has all key necessary regulatory permits in place for its operation. RPM has relied upon the Client's legal due diligence and made reasonable enquiries and exercised professional judgement on all information provided and found no reason to doubt the accuracy or reliability of the information or data that was supplied.

RPM provides this information for reference only and recommends that E&S approvals and permits be reviewed by relevant E&S approval and legal experts.

**Table 8-13 Existing Current Key Project E&S Approvals and Permits**

| Approval / Permit | Issuing Authority / Agency | Issuing Date | Expiry Date | Comments |
|---|---|---|---|---|
| **TRA** | | | | |
| Clear and Clean Permit | Director General of Minerals and Coal Mining, Ministry of Energy and Natural Resources | February 2015 | 2030 (with two by 10 year extensions) | Clear and Clean Permit indicates that a mining company has no outstanding royalty and other tax debts, fulfilled its exploration and environmental commitments, has no property delineation issues and has obtained the necessary forestry permits.<br>Copy of permit is provided in the TRA Company Profile (Undated). |
| ANDAL/ESIA | Approved by Minister of Environment and Forestry (MoEF) | January 2016 | Life of Mine (34 Years) | Covers the approved E&S activities within the TRA IUP/mining concession. |
| Forestry Borrow to Use Permit (IPPKH)<br>Decision of the Head of the Investment Coordinating Board Number 56/1/IPPKH/PMDN/2018 regarding the Permit for Borrowing Forest Areas for Coal Production Operations on behalf of TRA, covering approximately 606.40 ha in Limited Production Forest and Permanent Production Forest areas in North Musi Rawas Regency, South Sumatra Province. | Issued by MoEF | June 2018 | 2038 (Validity of 20 Years) | IPPKH is a permit granted to use forest area for development purposes other than forestry activities without changing the function and designation of forest area. |
| **Proposed Haul Road** | | | | |
| Ijin Lingkungan / Environmental Permit - Road | Issued by MoEF | August 2019 | Life of Project | Environmental Permit is granted for projects requiring the completion of an ANDAL and is issued as a pre-requisite to secure business and/or activity permits. |
| ANDAL/ESIA Approval | Approved by MoEF | August 2019 | Life of Project | Covers the MBJ Road |

| Approval / Permit | Issuing Authority / Agency | Issuing Date | Expiry Date | Comments |
|---|---|---|---|---|
| IPPKH / Forestry Borrow to Use Permit<br>Decision of MoEF regarding the Forest Area Borrowing Permit (IPPKH) for the Construction of a Coal Transport Road on behalf of MBJ covering an area of approximately 424.41 hectares in the limited production forest and permanent production forest areas in North Musi Rawas District and Musi Banyuasin District, South Sumatra Province, and Batanghari District, Jambi Province | Issued by MoEF | October 2019 | October 2039 | IPPKH is a permit granted to use forest area for development purposes other than forestry activities without changing the function and designation of forest area |
| **MBJ – Port (Copal Terminal)** | | | | |
| Coal Terminal Business / Operational Permit, Special Terminal Permit (TUKS) | Government of the Republic of Indonesia | December 2019 | Life of Project | Covers the MBJ Coal Terminal. |
| ANDAL/ESIA Approval | Issued by Regency Environmental Bureau | April 2020 | Life of Project | Covers the MBJ Coal Terminal.<br>Original ANDAL Report and approval not sighted, but approval is referenced together with the Environmental Permit in Project Greek Information Memorandum, November 2022. |
| Ijin Lingkungan / Environmental Permit - Jetty | Issued by Environmental Bureau Regent of Musi Banyuasin Regency Ijin Lingkungan | April 2020 | Life of Project | Environmental Permit is granted for projects requiring the completion of an ANDAL and is issued as a pre-requisite to secure business and/or activity permits. |
| Coal Terminal Location Permit | Issued by Integrated One-Stop Service Agency of Musi Banyuasin District (PTSP) | April 2020 | April 2023 | A Location Permit allows for the land acquisition process to be undertaken and is valid for three years from its effective date. However, may be extended for one year if the land acquisition has reached at least half of the target of initial acquisition. |
| TERSUS / Coal Terminal Construction Permit | Issued by Director General of Sea Transportation | July 2020 | 5 years from issuing date | Final approval required for construction of the MBJ Coal Terminal |

The key E&S approval conditions for TRA relate to the:

- Control of land disturbance and implementation of site rehabilitation.
- Control of site emissions (dust, noise and mining wastewater/mining area surface runoff), and the associated compliance monitoring.
- Implementation of a waste management program based on waste minimisation, segregation and recycling.
- Implementation of an E&S quality monitoring program, including biodiversity, surface water, groundwater and social factors.

The compliance status with existing E&S approvals is discussed in **Section 8.11.3** and the description E&S management and monitoring activities are discussed in **Sections 8.11.5** and **8.11.6**.

The TRA 2023 Approval of Annual Work Plan and Budget (RKAB), was received on 20 December 2022. The approved land clearing for 2023 is 66 ha, with a projected annual land rehabilitation area of 2.96 ha.

RPM notes that the TRA E&S operational costs and expenditure that are required to meet the E&S approval conditions for 2022 (Half Year to 30 June) is USD 27,000.

***RPM Comment – Status of Project E&S Approvals***

*Based on the review of the available information, the key Project E&S approvals are in place for TRA and proposed associated haulage road and MBJ Port. However, RPM has not sighted the haulage road ANDAL Report (this is referenced in the Project Greek Information Memorandum, November 2022).*

### 8.11.4 Compliance Status with Existing E&S Approvals and Permits

RPM has not sighted any original Project E&S regulatory non-compliances notices and associated external correspondence for both TRA and associated infrastructure.

The SMMT Annual Report & Sustainability Report 2022 states that the average compliance monitoring results for site emissions during 2022 met the relevant performance standards and limits. RPM notes these average compliance monitoring results appear to be focussed on mining operations, but they do not specify that they relate directly to TRA (i.e. as this report also includes the PT Internasional Prima [IPC] Coal Mine). In summary, these reported 2022 annualised average compliance monitoring results are as follows:

- Dust emissions (24 hour averages) – $PM_{10}$ – 6.45 µg/m$^3$ (permitted standard 75 µg/m$^3$), and Total Suspended Particulates (TSP) - 62 µg/m$^3$ (permitted standard 230 µg/m$^3$).
- Noise emissions (24 hour averages) - average for mining operation area 58 dBa (permitted standard 85 dBa).
- Mining wastewater (mining area surface runoff) – average discharge results for 2022 – pH 6.9 (permitted standard 6-9), Iron (Fe) 0.77 mg/l (permitted standard 7 mg/L), Manganese (Mn) 0.36 mg/L (permitted standard 4 mg/L), and Total Suspended Solids (TSS) 31 mg/L (permitted standard 400 mg/L).

There is a requirement under the ANDAL approval to provide six-monthly progress reports for the implementation of the RKL (Environmental Management Plan) and RPL (Environmental Monitoring Plan). RPM has not sighted an RKL/RPL six-monthly progress report for the MBJ construction activities. The TRA Semester 1 2022 RKL/RPL progress report covers Project E&S operational compliance from 1 January 2022 to the 30 June 2022, and provides the following summary information:

- The environmental management and monitoring activities (including land disturbance and rehabilitation requirements) have been implemented by TRA during Semester 1 2022 in accordance with the relevant criteria set out in the RKL/RPL and the approval conditions of the January 2016 TRA ANDAL.

- The ambient air quality within and around the TRA IUP area during Semester 1 2022, meets the environmental quality standards and does not exceed the prescribed limits set by government regulations. The highest recorded levels were as $PM_{10}$ - 26 µg/$m^3$ (permitted standard 75 µg/$m^3$), and TSP – 1,540 µg/$m^3$ (permitted standard 230 µg/$m^3$).
- The noise levels within and around the TRA IUP area during Semester 1 2022, were below the maximum threshold set by government regulations for production areas. The highest recorded level was 75 dBa (24 hour average), permitted standard is 85 dBa (24 hour average).
- The discharge quality of the TRA mining wastewater (mining area surface runoff), particularly Acid Mine Drainage (AMD), during Semester 1 2022 meets the environmental standards. The recorded pH ranged between 6 and 9, which was in accordance with the permitted standard. The highest recorded levels for monitored parameters, are as follows:
  - Fe – 4 mg/L (permitted standard 7 mg/L).
  - Mn – 0.15 mg/L (permitted standard 4 mg/L).
  - TSS – 110 mg/L (permitted standard 400 mg/L).

***RPM Comment – E&S Approvals Compliance Status***

*Based on the review of the available information for TRA, the Project is currently operating in compliance the requirements of the TRA E&S approvals and permits.*

*RPM has not sighted any information on the current compliance status with E&S approvals and permits for MBJ. However, the reviewed proposed haulage road and MBJ port project summary information did not state that there are any existing significant E&S non-compliance issues.*

### 8.11.5 Environmental and Social Management System

RPM has not sighted any information on the development of an Environmental and Social Management System (ESMS) for TRA and proposed haulage road and MBJ port. However, the February 2020 RKL/RPL for the MBJ port provides a summary of the MBJ Environmental Policy, which comprises the following company E&S commitments:

- To conserve natural resources and maintain sustainable development. Institutionally, MBJ will establish a division responsible for environmental issues, known as the HSE (Health, Safety, and Environment) Division.
- To achieve environmentally conscious and sustainable development at MBJ, policies and their implementation must be carried out to the best of their ability. With clear understanding and high-performance execution, it is expected that environmental issues can be effectively addressed.
- Waste minimization and recycling must be practiced by all employees working at MBJ with active participation in all owned facilities.
- The implementation of environmental management and monitoring of the MBJ Special Coal Terminal will cover both significant negative and positive impacts, minimizing or avoiding adverse effects, and enhancing positive impacts that provide greater benefits to the initiator and other parties, especially the community that benefits from these positive impacts.
- With the implementation of environmental management and monitoring, it is expected to ensure the preservation of social relations between the project stakeholders and the local and regional communities, while maintaining a safe and orderly environment. This will reduce the likelihood of social unrest and conflicts.

### 8.11.6 Environmental Management

RPM has sighted the ANDAL and Semester 1 2022 RKL/RPL reports for TRA. These reports provide the main source of environmental management information reviewed for TRA.

RPM has sighted the ANDAL and RKL/RPL reports for the MBJ Port. RPM has not sighted the ANDAL and RKL/RPL reports for the proposed haulage road. So, the environmental management information reviewed

for proposed haulage Road is limited to the review of the provided relevant Project summary information and technical studies.

The SMMT Annual Report & Sustainability Report 2022 provides the following general summary of environmental management activities for the SMMT projects (TRA, MBJ and IPC), undertaken in 2022:

- Regulatory compliance monitoring and reporting.
- Environmental training and participation programs for employees and stakeholders.
- Performance monitoring and maintenance of environmental management facilities and infrastructure.
- Control of land clearing activities.
- Maintaining the sustainability of areas outside of the operational areas through conservation and greening activities.
- Implementing programs for efficient of energy and water.
- Implementing programs for emissions monitoring and control (air/dust, and noise).
- Implementing programs for soil monitoring (slope stability/erosion and soil quality).
- Implementing waste management programs for:
  - Hazardous wastes – are stored in a designated facility for collection by a licensed external contractor for disposal off-site. Waste types and volumes are recorded and reported quarterly to relevant external agencies.
  - Non-Hazardous solid waste – all solid wastes are segregated and collected for off-site recycling.
  - Non-Hazardous liquid waste:
    - Mining wastewater (mining area surface water runoff) is collected in settling ponds, and treated with alum (to facilitate settling), lime (to increase pH), and palm fibre (for filtration). Treated mining wastewater is monitored to ensure quality meets permitted standard prior to discharge. Reported quarterly to relevant external agencies.
    - Domestic wastewater – the treatment/management for the domestic wastewater is not described in the report. However, the 2022 average treated domestic wastewater quality results presented and all parameters are reported as being within standards.
- River quality monitoring programs – quarterly monitoring undertaken and reported to relevant external agencies.
- Residential water quality monitoring - quarterly monitoring undertaken residents wells water quality to determine any effect from mining activities.

The SMMT Annual Report & Sustainability Report 2022 also states that the environmental management expenditure for the for the SMMT projects for 2022 was 3,900 M Rp (USD 258,000).

## Biodiversity, Flora and Fauna

The January 2016 TRA ANDAL provides the following a summary of the biological environment for the general TRA project area and surrounds:

- TRA is located within two designated land use planning areas, Area for Non-Forest/Other Land Uses (Areal Penggunaan Lain - APL) and a forest use area with the function of a Permanent Production Forest (Hutan Produksi Tetap - HP). The APL area includes plantations managed by the local community. The HP area is situated in the northern part of the TRA IUP.
- The vegetation within the APL comprises a combination of cultivated species (mainly rubber, oil palm, fruit tree plantations), and native shrubland species within riverbank and remnant forest areas.
- The vegetation within the HP comprises a combination of forest production species, cultivated species (within plantations) and native forest tree and shrubland species.
- The vegetation survey conducted for the of the APL and HP did not record any species designated as protected conservation status, under the Indonesian Law (UU), implemented through Government

Regulation No. 7 of 1999. However, two Conservation of Nature (IUCN) Red List species were recorded.

- The dominant terrestrial fauna groups are birds and mammals (32 and 31 species recorded respectively). Some reptiles and amphibian species were also recorded (13 and 3 species recorded respectively). The fauna survey recorded 11 terrestrial fauna species that are protected under the Indonesian Law No. 5 of 1990 on the Conservation of Biological Resources and their Ecosystems. There were also several terrestrial fauna species recorded that are listed as protected wildlife according to the IUCN and CITES (Convention on International Trade in Endangered Species).
- Aquatic fauna surveys were undertaken within the Air Putih River and Putih River, and associated tributaries. The aquatic fauna for the project area is diverse, with several plankton, benthic and fish fauna species recorded. None of the recorded aquatic fauna are designated as having a conservation significance.
- The TRA ANDAL states that operation of TRA will not disturb ecological entities that are key species or have ecological importance, nor will it disturb ecological entities that have economic importance.
- The management of potential impacts to flora and fauna comprises:
  - Control of land clearing and habitat disturbance.
  - Control and treatment of site surface water runoff discharges.
  - Progressive land rehabilitation during operations.
  - Final site rehabilitation upon closure.

The TRA Semester 1 2022 RKL/RPL progress report does not identify any significant flora and fauna issues for the TRA operations. TRA Semester 1 2022 RKL/RPL also states that the monitoring of aquatic biota at several points shows a satisfactory diversity of species living in the monitored rivers.

The February 2020 ANDAL Report for the MBJ Coal Terminal states that the development and operation of the MBJ Coal Terminal and supporting facilities will not disturb ecological entities that are key species and/or have ecological importance. Additionally, the development and operation of the MBJ Coal Terminal will not disrupt ecological entities with economic importance in the study area.

RPM has not sighted any information on biodiversity, flora and fauna for the MBJ Haul Road. However, RPM notes that provided project summary information did not identify any significant biodiversity related risks associated with the development of the MBJ Haul Road.

## Materials Characterisation

RPM has not sighted a materials characterisation report for TRA. However, the July 2019 TRA JORC report provides the following general statements in relation to the TRA soils and waste rock/overburden:

- Soils – may demonstrate some acidity and alkalinity, have poor nutrients, high aluminium content and low permeability. Fertilisation may be required to optimise regrowth.
- Waste rock/overburden – acid generation occurs within the TRA mining area surface water runoff, which requires treatment (by lime addition) to reduce acidity.

## Waste Rock/Overburden Management

The TRA 2011 Geotechnical and Hydrogeological Study and the July 2019 JORC Report, provides the following statements on the waste rock/overburden management:

- Mined out pit areas are backfilled with waste rock/overburden to target elevations then recontoured to allow for positive drainage topography (i.e. away from the backfilled areas) and to form stable slopes.
- The out of pit Waste Rock/Overburden Dump (WRD) is located in a valley on the northern side of the open pit, approximately 100 m away for the mining area. Ground surface slope is 10-20 degrees down to a valley slope. To manage potential surface erosion, waste/overburden materials are generally spread and compacted via the placement equipment and contoured/graded to the surrounding

topography. RPM notes that there is no mention of the construction of any upstream surface water diversion channels for the WRD.

- Final WRD height will be 50 m, with a width of 520 m and 10 m bench heights. The WRD location was chosen based on soil firmness for the base area to prevent subsidence and settlement from within the WRD.
- Mining area surface runoff is collected in a series of settling ponds. Lime is added to reduce acidity, then suspended solids are settled prior to discharge to public drainage systems. Acidity is monitored in the settling ponds, and these are designed to accommodate settlement of suspended solids via providing sufficient settling time. RPM notes that no specific details are provided for the surface water runoff management for WRD, only that settling ponds will be used throughout the mining area. RPM notes that no performance monitoring information on the mining runoff treatments and discharge is provided.

The SMMT Annual Report & Sustainability Report 2022, and the TRA Semester 1 2022 RKL/RPL progress report, also provide the following statements on the management of the mining area surface water runoff:

- Mining wastewater (mining area surface runoff) is collected in settling ponds, and treated with alum (to facilitate settling), lime (to reduce acidity), and palm fibre (for filtration).
- Treated mining wastewater is monitored to ensure quality meets permitted standard prior to discharge and this is reported quarterly to relevant external agencies.
- The discharge quality of the TRA mining wastewater (mining area surface runoff) during Semester 1 2022 meets the environmental standards. standard 400 mg/L).

***RPM Comment – Waste Rock Characterisation and Management***

*RPM has not sighted a waste rock characterisation report for TRA. However, the review of the available documentation, indicates that acid generation occurs within mining area surface water runoff and that appropriate design, management and monitoring measures have been approved and are in place.*

## Land Disturbance and Rehabilitation

The 2019 TRA JORC Report states that the mined out pit areas are backfilled with waste rock/overburden to target elevations then recontoured to drain away from the backfilled areas and to form stable slopes. The out of pit WRD is also progressively rehabilitated through recontouring to the surrounding topography.

Topsoil is stripped (to 0.3-1 m) as part of land clearing and stored in designated stockpiles, and then spread over the contoured areas with a minimum thickness of 0.5 m. This is then followed by replanting of designated local species.

The TRA Semester 1 2022 RKL/RPL progress report states that reclamation activities have not been carried out during Semester 1 2022, due to the lack of land available after the completion of mining activities, which hinders the planting process.

The SMMT Annual Report & Sustainability Report 2022 states as of the end of 2022, a total of 580 ha has been rehabilitated in the watershed area.

The TRA 2023 RKAB states that the approved land clearing for 2023 is 66 ha, with a projected annual land rehabilitation area of 2.96 ha.

## Water Resources Management

### *Surface Water and Drainage*

The information provided on the surface water management for TRA primarily comprises the management of mining area surface runoff..

RPM has not sighted any information on the flood assessment and management for TRA. However, RPM notes that a hydrology study has been completed to support the design for the MBJ Coal Terminal and MBJ Road, which have been designed to accommodate a 50 year flood level.

The MBJ Coal Terminal is situated on the bank of the Lalan River. The November 2022 Project Greek Information Memorandum states that to accommodate 50 year flood level the entire plant area will be filled to approximately 2 m height from surrounding topography.

RPM has not sighted any information on the management of surface water discharges from the MBJ Coal Terminal site. Based on previous experience, RPM would expect that treatment and monitoring of the surface water discharges would be required prior to discharge from site.

The August 2020 Haul Road Design Report Study provides the following on the flood management design for the MBJ Road:

- The main design criteria for flood management relate to the four river crossings. There are four bridges designed with around 40 m span height the road elevation is placed 500 mm higher than the 50 years flood level.
- Culverts will also be placed for all flood inundation areas and designed to accommodate 50 years flood event. areas and designed to accommodate 50 years flood event.

The SMMT Annual Report & Sustainability Report 2022 and the TRA Semester 1 2022 RKL/RPL progress report, provide the following statements on the river water quality monitoring program:

- Quarterly monitoring is undertaken and reported to relevant external agencies. The monitoring of the river water quality during 2022 shows that the overall condition is good. However, the are some parameters showing an increasing trend both upstream and downstream of the Sungai Putih River (located near TRA).
- The reported river water quality exceedances for 2022 are:
  - Dissolved Fe 1.9 mg/L (standard – 0.3 mg/L).
  - COD 13 mg/L (standard – 10 mg/L).
  - Free Cl 0.13 mg/L (standard – 0.03 mg/L).
  - Dissolved Zinc 0.09 mg/L (standard – 0.05 mg/L).
  - Dissolved Cu 0.07 mg/L (standard – 0.02 mg/L).

RPM notes that the reports do not state the possible causes for these river water quality exceedances, but also do not state that TRA site surface water discharges are a possible contributor to these exceedances.

### *Groundwater*

The TRA 2011 Geotechnical and Hydrogeological Study states that the site groundwater flows follow the surface topography to the lower western and eastern sides of the watershed and that the depth to groundwater is 15-16 mbgl. RPM notes no groundwater quality information is provided in this report.

The TRA 2011 Geotechnical and Hydrogeological Study also states that the dewatering requirement is low and estimated at a total of 1 L/s.

The 2019 TRA JORC Report states that the general fresh water supply for TRA is sourced from lagoons and dams which collect rainfall, while potable water sourced from groundwater wells. RPM has not sighted any information in respect to whether the abstraction of the groundwater from these wells is required to be licensed.

The SMMT Annual Report & Sustainability Report 2022 and the TRA Semester 1 2022 RKL/RPL progress report, provide the following statements on the site groundwater and residential water quality monitoring programs:

- TRA groundwater quality – the groundwater quality within and around the TRA IUP area during the Semester 1 2022 is suitable for bathing and sanitation purposes. However, treatment via pH adjustment and chlorination are undertaken to make the groundwater water quality potable.
- Residential water quality monitoring – quarterly monitoring undertaken at nearby residents' groundwater wells water quality to determine any effect from mining activities. RPM notes that the reports do not state if the residential water quality monitoring results are reported externally. There was one reported residential water quality exceedance for 2022, for Fecal Coliform 4.81 Jml/100 mL (standard 0 Jml/100 mL). The reports state that this exceedance was not attributed to the TRA mining activities.

The 2019 TRA JORC Report states that the general fresh water supply for TRA is sourced from lagoons and dams which collect rainfall, while potable water sourced from groundwater wells. RPM has not sighted any information in respect to whether the abstraction of the groundwater from these wells is required to be licensed.

RPM has not sighted any information on the management of groundwater for the MBJ Road and Coal Terminal.

### Site Dust and Noise Emissions

The SMMT Annual Report & Sustainability Report 2022 states that programs for monitoring and control of site emissions (dust and noise) were undertaken for the SMMT projects during 2022. These programs comprise standard dust and noise emission control measures. However, RPM has not sighted the detailed description of these programs. The SMMT Annual Report & Sustainability Report 2022 and the TRA Semester 1 2022 RKL/RPL progress report also state that the monitored emissions levels for dust and noise were within the permitted standards.

### Greenhouse Gas Emissions and Climate Related Risks

RPM has not sighted any information in relation to the estimation of Greenhouse Gas (GHG) emissions and the assessment of climate related risks for TRA and associated infrastructure (proposed haulage road and MBJ port). However, RPM notes that the potential impact of future tariffs, taxes, or tradeable caps on carbon emissions from GHG emissions associated with the operations or product on a project valuation, has not been considered in this review.

### Hazardous Materials

The management of hazardous materials for TRA and associated infrastructure comprise the storage and handling of hydrocarbons (fuels, oils and greases). All hydrocarbons are reportedly stored in designated facilities, in accordance with relevant local requirements and relevant industry standards (i.e. including secondary containment).

### Site Contamination

RPM has not sighted any information in relation to the identification, assessment, recording and remediation of any site contamination for TRA and associated infrastructure.

### Waste Management

The SMMT Annual Report & Sustainability Report 2022 states that the waste management programs for the for the SMMT projects comprise waste minimisation, segregation and recycling. The stated companywide waste generation figures for 2022 are:

- Waste Oils and Used Oil Filters – 67 t.
- Used batteries – 98.
- Solid wastes 3.6 t.

- Liquid wastes (effluent) – 301,000 $m^3$.

The hazardous wastes for TRA and MBJ comprise hydrocarbon wastes (ie waste oils and greases). The SMMT Annual Report & Sustainability Report 2022 states that the hazardous waste management programs for the SMMT projects comprise storage in a designated facility for collection by a licensed external contractor for disposal off-site. Waste types and volumes are recorded and reported quarterly to relevant external agencies.

The reviewed available information does not describe the treatment/management process for the TRA and MBJ domestic wastewater. However, the February 2020 ANDAL report for the MBJ Coal Terminal refers to domestic wastewater being treated through a wastewater treatment plant (Instalasi Pengolahan Air Limbah - IPAL), prior to being discharged into the Lalan River. The IPAL technology is used to eliminate non-degradable pollutants (both biological and chemical) in the wastewater so that the treated wastewater can be recycled for other uses.

The SMMT Annual Report & Sustainability Report 2022 states that the 2022 domestic wastewater quality results were within standards. The key domestic wastewater quality monitoring parameters reported for 2022 are:

- pH – 7 (standard 6-9).
- BOD – 11 mg/L (standard 30).
- COD – 48 mg/L (standard 100).
- Total Coliform – 1,600 Jml/100 mL (standard 3,000).
- TSS – 15 mg/L (standard 30).

***RPM Comment – Status of Environmental Studies and Management***

*Based on the review of the available documentation, the studies of potential environmental impacts of the TRA and associated proposed haulage road and MBJ port projects, and the associated environmental monitoring and management studies and programs, have been completed and approved.*

### 8.11.7 Social Management

### Community Development Plan

The 2019 TRA JORC Report and the SMMT Annual Report & Sustainability Report 2022 states that a SMMT Community Development Plan (CDP) has been prepared and is being initiated. The stated objectives for the CDP are to improve the standard of living and environment in the surrounding area and continue to grow and develop the local community. RPM has not sighted this CDP; however, it appears to be focused mainly on the TRA project area.

The 2019 TRA JORC Report states that social/community mapping has identified are four main settlements within the CDP area, and that the targeted stakeholder engagement is focussed on these four areas. RPM notes that these four areas are not named in JORC report. However, the TRA ANDAL report states that the Tebing Tinggi Village in the Nibung District and Beringin Makmur II Village in the Rawas Ilir District, have been identified as the key areas where social conditions may be affected by the TRA operations.

The February 2020 ANDAL Report for the MBJ port states that the Mendis Village and Mendis Jaya Village in the Bayung Lencir District, Musi Banyuasin Regency, have been identified as the key areas where social conditions may be affected by the MBJ port operations. In addition, it also states that the development and operation of the MBJ port and supporting facilities, will not:

- Disrupt the social values or public perception in the general project area and;
- Cause any significant disturbances to existing businesses and/or activities in the general project area, including disruptions to spatial planning, protected areas, and forest moratorium zones.

The CDP has three pillars of focus:

- Economic Pillar – to demonstrate local potential to be developed into sustainable economic income for local stakeholders and to conduct training in certain aspects of management and production.
- Social Pillar – providing general infrastructure which can support social activities and development, such as clean water supplies, community health clinics and sports facilities. Also includes support and optimisation for existing public services.
- Environmental Pillar – related to the environmental aspects and requirements to determine each village characteristic, such as local biodiversity conservation and water quality observations.

The SMMT Annual Report & Sustainability Report 2022 states that the total CDP implementation cost for 2022 was 1,604 M Rp (USD 106,000), and that the CDP Implementation activities undertaken during 2022 were:

- Community Infrastructure – provision of street lighting, local road construction and improvements, and water supply wells and piping.
- Community Health – provision support and assistance for local health centres and COVID-19 vaccinations.
- Community Education – provision of funding and assistance of operation and development of local education facilities and activities.
- Religious - provision of financial assistance for local religious infrastructure and activities.
- Local Economy – provision of financial assistance for community service equipment and training.
- General Social and Community – funding assistance for local community groups and facilities, and for local tree planting/greening programs.

## Land Acquisition and Involuntary Resettlement

The November 2022 Project Greek Information Memorandum states that 78 % of land inside the TRA IUP has been acquired, and that the acquisition of the remaining 22 % will not significantly impact on mine operations and development. The CAPEX for future land acquisition will be minimal and can be self-funded.

The November 2022 Project Greek Information Memorandum also states that the land acquisition has been completed for the proposed haulage road and MBJ port, comprising 50 ha coal terminal area and all non-forest road areas (the forest areas are covered under the Forestry Permit).

RPM has not sighted any information on whether resettlement has been required as a component of the land acquisition process.

## Stakeholder Engagement

RPM has not sighted a Stakeholder Engagement Plan for TRA and associated infrastructure, However, the SMMT Annual Report & Sustainability Report 2022 provides a summary of the stakeholder engagement process. Reportedly, key stakeholder groups have been identified (employees, investors/business partners, customers, regulators, local communities, and general public), and engagement is through meetings, conducting surveys, contracts and agreements and reporting (public and compliance). RPM also notes that the summary of the community development plan ("CDP") also refers to targeted stakeholder engagement being undertaken for the four main settlements within the CDP area.

## Grievance Mechanism for Affected Communities and Workers

RPM has not sighted a comprehensive grievance mechanism for affected communities and workers that covers TRA and associated infrastructure. However, the SMMT Annual Report & Sustainability Report 2022 describes the public complaint process for the SMMT projects. Complaints are reportedly lodged at a designated facility and are directed to the E&S department, which conduct an investigation to verify and

record the complaint. RPM notes the corrective action process to resolve the complaint is not described in this report. The SMMT Annual Report & Sustainability Report 2022 states that '*throughout 2022, there were no reports from the public received by the Company*'.

SMMT has an internal violation reporting system (whistleblowing system), for the reporting of alleged violations or irregularities by the Company employees. These cover corruption, fraud/dishonesty, illegal acts, dangerous acts, and activities that cause financial or non- financial losses to the Company. The Company has also established Code of Ethics (Work Ethics) which applies to all management and employees. SMMT reports that any violation of this Code of Ethics is also reported internally.

### Cultural Heritage

RPM has not sighted any information in relation to the identification, assessment, recording and management of cultural heritage areas within TRA and associated infrastructure.

***RPM Comment - Status of Agreements with Key Stakeholders and Matters Leading to Social Licence to Operate***

*The land acquisition has been completed for the proposed haulage road and MBJ Port and is 78 % complete for TRA. The November 2022 Project Greek Information Memorandum states that the acquisition of the remaining 22 % land within the TRA IUP, will not significantly impact on the mine operations and development.*

*The ongoing implementation of the SMMT CDP, indicates a commitment by the company to manage the any potential adverse effects from the TRA and proposed haulage road and MBJ port projects on the local social conditions, and to maintain the projects' social licence to operate.*

## 8.11.8 Mine Closure Planning

### Mine Closure Planning

RPM has not sighted a Mine Closure Plan (MCP) for TRA and proposed haulage road and MBJ port projects and no reference to the development of a MCP has been sighted in the available reviewed documentation.

### Mine Closure Cost Estimate

The November 2022 Project Greek Information Memorandum states that the 2022 TRA reclamation and mine closure guarantees as USD 534,000 (2021 – audited) and USD 595,000 (2022 – audited). RPM has not sighted any information on how these reclamation and mine closure guarantees were determined.

RPM has not sighted a mine closure estimate for the proposed haulage road and MBJ port projects.

A mine closure cost estimate for TRA of USD 1,056,432, was provided to RPM for review by email on 21 August 2023. This mine closure cost estimate was produced in 2014. RPM has not sighted any information on the mine closure scope and assumptions used for this 2014 mine closure cost estimate. RPM considers that the 2014 mine closure cost estimate for TRA of USD 1,056,432, is appropriate for the current size and complexity of the Project. However, RPM notes this will need to be reviewed and updated as the Project expands production up to 25 Mtpa.

***RPM Comment***

*In discussion with TRA, RPM was advised that progressive rehabilitation costs have been included in the waste and overburden removal contract costs, as they will be incurred contemporaneously. While this may well be the case, this would only cover the earthmoving component and further closure costs will be incurred at closure, which have yet to be estimated.*

*RPM has not sighted a MCP for TRA and for the proposed haulage road and MBJ port projects, and there is no reference in the reviewed available documentation, that a MCP has been or is being produced. RPM recommends that SMMT consider developing a MCP for TRA and for the proposed haulage road and MBJ port projects, in accordance with the international standard ISO 21795:2021, Mine closure and reclamation planning. This would provide for a structured approach to identifying and managing the projects' closure liabilities, and also provide the basis for the development of a mine closure cost estimate.*

### 8.11.9 Summary of Provided E&S Costs

The SMMT Annual Report & Sustainability Report 2022 provides the following total E&S costs and expenditure for the SMMT projects for 2022:

- Total environmental management expenditure for 2022 was 3,900 M Rp (USD 258,000).
- Total CDP implementation cost for 2022 was 1,604 M Rp (USD 106,000).

RPM notes that E&S costs provided in the SMMT Annual Report & Sustainability Report 2022 also cover the IPC project.

The November 2022 Project Greek Information Memorandum provides the following summary of the recent TRA operational E&S costs and expenditure:

- Audited Annual E&S Costs:
  - 2019 – USD 64,000.
  - 2020 – USD 36,000.
  - 2021 – USD 26,000.
- Inhouse E&S Costs for 2022 (Half Year to 30 June) – USD 27,000.

RPM has not sighted any recent E&S cost that are specific to the development and construction of MBJ. However, RPM considers that the total and summary E&S costs provided in the SMMT Annual Report & Sustainability Report 2022 and the November 2022 Project Greek Information Memorandum, are commensurate with the current E&S site activities that are described in the available documentation.

Projected E&S operating costs from the period 2023 to 2037, were provided to RPM for review by email on the 21 August 2023. The total projected E&S expenditure for this period is approximately USD 18,575,000, with an average annual E&S operating cost of approximately USD 1,238,000. RPM notes that projected E&S operating costs are significantly higher than the actual annual E&S costs provided in the November 2022 Project Greek Information Memorandum. However, RPM notes that the projected E&S operating costs are based on significantly increased annual production rates (i.e. up to 25 Mtpa by 2031/2032), and the associated increased E&S management requirements and activities.

These increased E&S costs are appropriately reflected in the TRA financial model for the project.

RPM has not sighted any information on the breakdown for the provided actual and projected E&S operating costs.

### 8.11.10 Key E&S Risks and Opportunities

#### Key E&S Risks

Based on the review of the available documentation, RPM considers that the key E&S risks for TRA and MBJ are:

- TRA:
  - Dust emissions from coal handling and cleared areas have the potential to result in offsite amenity impacts.

  - Mining area surface water runoff – this is contaminated with AMD and requires treatment and monitoring prior to discharge to ensure the discharge quality meets the required permitted standards.
  - Mine land disturbance and rehabilitation – control of land clearing and erosion is required to minimise habitat and forest area disturbance, and cleared areas are required to be rehabilitated.
- Proposed haulage road and MBJ port projects :
  - Dust emissions from coal handling and cleared areas have the potential to result in offsite amenity impacts.
  - Surface water runoff from the MBJ Port has the potential to result in quality impacts to surrounding surfaces water features. In particular, the potential for impacts to the water quality of Lalan River.
  - Proposed haulage road land disturbance and rehabilitation – control of land clearing is required to minimise habitat and forest area disturbance, and temporary cleared areas are required to be rehabilitated.

## Key E&S Opportunities

Based on the review of the available documentation, RPM considers that the key E&S opportunities for TRA and MBJ are:

- Status with the project land acquisition – this has been completed for the proposed haulage road and MBJ port projects and is 78 % complete for TRA. The acquisition of the remaining 22 % land within the TRA IUP, will not significantly impact on mine operations and development.
- Ongoing implementation of the SMMT CDP – to demonstrate a commitment by the company to manage the any potential adverse effects from the TRA and the proposed haulage road and MBJ port projects on the local social conditions, and to maintain the projects' social licence to operate.

# 9 Economic Analysis

## 9.1 Market Assessment

### 9.1.1 Product Coal Sale Price

The revenue assumptions for the options study and the LOM schedule are based on the long term forecast coal price of 3,800 kcal/kg gar (FOB) coal product from the McCloskey May 2023 update on thermal coal prices for Indonesia and are shown in **Table 9-1**.

The McCloskey May 2023 forecast coal price update was carefully considered by the Qualified Person and after due and careful enquiry and comparison with other publicly available coal price forecasts such as the Energy, Metals & Agriculture Consensus Forecasts published by Consensus Economic Inc, the Qualified Person is of the opinion that the McCloskey May 2023 forecast coal price forecast reflects their opinion of a reasonable outlook for the future at the time of the report.

**Table 9-1 LOM Product Pricing**

| Year | Coal(Mt) | CV gar (kcal/kg) | Ash(%ar) | TS(%ar) | TM(%ar) | IM(% adb) | Price(usd/t) |
|---|---|---|---|---|---|---|---|
| 2023 | 2.5 | 3,900 | 3.74 | 0.12 | 39.08 | 13.43 | 54.58 |
| 2024 | 2.8 | 3,870 | 3.95 | 0.12 | 39.21 | 13.48 | 40.00 |
| 2025 | 6.6 | 3,890 | 3.96 | 0.12 | 38.96 | 13.12 | 35.59 |
| 2026 | 12.5 | 3,830 | 3.50 | 0.13 | 40.28 | 14.04 | 35.71 |
| 2027 | 16.0 | 3,820 | 3.15 | 0.11 | 40.44 | 14.53 | 36.36 |
| 2028 | 19.0 | 3,870 | 3.07 | 0.13 | 40.17 | 14.43 | 37.01 |
| 2029 | 21.0 | 3,910 | 3.09 | 0.12 | 39.64 | 14.67 | 37.73 |
| 2030 | 23.0 | 3,940 | 2.95 | 0.16 | 39.22 | 15.49 | 36.73 |
| 2031 | 25.0 | 3,960 | 2.96 | 0.16 | 38.96 | 14.82 | 38.49 |
| 2032 | 25.0 | 3,950 | 2.96 | 0.11 | 39.07 | 14.57 | 40.32 |
| 2033 | 25.0 | 3,930 | 3.21 | 0.10 | 39.02 | 14.54 | 41.39 |
| 2034 | 25.0 | 3,900 | 3.52 | 0.10 | 39.39 | 14.88 | 42.40 |
| 2035 | 25.0 | 3,840 | 3.51 | 0.12 | 40.36 | 14.68 | 42.56 |
| 2036 | 25.0 | 3,770 | 3.35 | 0.14 | 41.42 | 14.19 | 42.72 |
| 2037 | 21.5 | 3,680 | 3.59 | 0.16 | 42.54 | 13.40 | 42.86 |

### 9.1.2 Marketing Regulatory Issues

#### Domestic Market Obligation

To secure coal supply for Indonesian domestic use, the mining law allows for a Domestic Market Obligation (DMO) where the central government can control production and export of mining products. Regulation No 34 of 2009 issued by the Ministry of Energy and Mineral Resources (ESDM) detailed the procedures for the DMO.

The regulation states that the DMO for each concession holder is to be set on an annual basis by the ESDM based on the demands of domestic consumers. To qualify as domestic consumers, consumers must be parties who will actually use the coal as raw material or fuel ie, they must be end users and not intermediaries such as coal traders.

The Government of Indonesia (GOI) introduced a decree (Ministrial Decree of Ministry of Energy and Mineral Resource No 1395/K/30/MEM/2018) on 9 March 2018, which set a coal price cap for public electricity generation of USD 70 /t. This price cap is applicable for coal with a calorific value of 6,322 kcal/kg gar, total moisture of 8 %, sulphur content of 0.8 % and ash of 15 %. For coals of any other specification,

the applicable domestic price cap is to be calculated via a formula linked to this reference price of USD 70 /t. RPM used this price cap formula for estimating the domestic price for TRA coal.

### Royalty

The GOI has revised the coal and mineral royalty rates in a recent Regulation no 26 of 2022. This regulation is an amendment to the previous Regulation 81 of 2019 where the royalty rate was determined based on whether the actual sale price of coal was above or below the benchmark price. So previously if actual coal sales prices were higher than the benchmark price, then the royalty was calculated based on the actual price; whereas if the actual price were lower than the benchmark price then the benchmark price was used to calculate royalty.

According to the new regulation the open cut coal producers must pay royalty according to its gross calorific value (arb) of coal as well as the Indonesian reference coal price or Harga Batubara Acuan (HBA). **Table 9-2** the new royalty rates associated with different gross calorific value and HBA ranges.

**Table 9-2 Updated Royalty Rates**

| Gross Calorific Value (arb) — kcal/kg | Reference Coal Price (HBA) | Rate of Royalty |
|---|---|---|
| GAR ≤ 4200 | HBA <70 USD | 5 % |
| | USD 70 ≤ HBA < USD 90 | 6 % |
| | HBA ≥ 90 | 8 % |
| 4200 < GAR < 5200 | HBA <70 USD | 7 % |
| | USD 70 ≤ HBA < USD 90 | 8.5 % |
| | HBA ≥ 90 | 10.5 % |
| GAR ≥ 5200 | HBA <70 USD | 9.5 % |
| | USD 70 ≤ HBA < USD 90 | 11.5 % |
| | HBA ≥ 90 | 13.5 % |

Tenure for TRA is held under two operation production mining business licences (Ijin Usaha Pertambangan – IUP Operasi Produksi). These IUP's attract a royalty rate dependent on the CV gar of the coal sold In the case of TRA's coal, the royalty rate is expected to be 8 % of the coal price because the CV gar is less than 4,200 kcal/kg.

## 9.2 Operating Cost Estimate

A unit rate economic model was created to enable the estimate of key economic metrics for the LOM production schedule. The unit operating costs used in the economic model are shown in **Table 9-3**.

**Table 9-3 Unit Operating Costs**

| Cost Item | Unit | Year2023to2025 | Year2026to2037 |
|---|---|---|---|
| Overburden ( 1km) | $/bcm | 1.77 | 1.77 |
| Overburden distance >1km | $/bcm | 0.04 | 0.04 |
| Coal Getting | $/t | 0.81 | 0.81 |
| Land ( remaining land acquisition) | $/t | 0.02 | 0.02 |
| Additional Disposal Area | $/t | 0.01 | 0.01 |
| Re-allocation road | $/t | 0.01 | 0.01 |
| Pelebaran sungai Lalan 20 km | $/t | 0.00 | 0.00 |
| Sinar Mas Road | $/t | 0.00 | 1.19 |
| Reiki (Carbon Area) Fee | $/t | 0.00 | 0.00 |
| PBB, Jamrek, Jamtup, Iuran Tetap | $/t | 1.01 | 1.01 |
| CSR & RIPPM | $/t | 0.07 | 0.07 |
| Royalty | % | 8 % | 8 % |
| Coal Hauling (trucking) | $/t | 0.12 | 0.05 |
| Hauling Road (Atlas) | $/t | 2.50 | 0.27 |
| Maintenance cost jalan Atlas | $/t | 0.00 | 0.01 |
| Jetty (stockpile & crushing) | $/t | 2.24 | 1.58 |
| Intermediate stockpile & Pit stockpile | $/t | 0.41 | 0.00 |
| Barging & stevedoring | $/t | 6.00 | 5.00 |
| Insurance | $/t | 0.1% | 0.1% |
| Surveyor | $/t | 0.15 | 0.15 |
| Others & GA | % | 1 % | 1 % |

## 9.3 Capital Cost Estimates

There are no capital costs estimated for this Project as it will be operated under a contractor service delivery model. TRA and SJB has confirmed that there is no carried forward capital that will need to be included in the economic model.

## 9.4 Commercial Assumptions

### 9.4.1 Taxes and Depreciation

The TRA project is subject to prevailing GOI laws and regulations on taxation. As such a company tax rate of 22.5 % has been applied to earnings from the concession. No depreciation is applied in the economic model since there is no capital and or carried forward capital to deal with.

### 9.4.2 Working Capital

There is no working capital applied in the economic model.

### 9.4.3 Discount Rate

A Project Net Present Value (NPV), at a Discount Rate of 12 %, has been estimated for the LOM economic model. This discount rate is based on client-provided data which advised that the industry norm for WACC (Weighted Average Cost of Capital) is 12 %. RPM was not provided with source data for review. RPM considers this discount rate to be conservative.

### 9.4.4 Inflation Rate

All economic analysis results are reported in real terms, and therefore exclusive of inflation, unless otherwise stated.

### 9.4.5 Assets and Liabilities

As this Technical Assessment applies to the underlying coal deposit and proposed mining operations for the Project area rather than the holding company, any existing liabilities and assets have not been accounted for in this economic model.

## 9.5 Economic Evaluation

A economic model has been prepared based on the LOM schedule, modelled coal production revenue, operating costs, and capital costs. The objective of the financial evaluation is to demonstrate the economic viability of the Project. The impacts of specific business considerations, such as financing and detailed tax strategies, were not assessed, and this evaluation does not represent a fair market valuation of the Project.

The economic model is used to value the Project based on the LOM production schedule result. A Project Net Present Value (NPV), at a Discount Rate of 12 % has been estimated for the LOM production schedule.

Annual LOM cash margin is shown in **Figure 9-1** and Cashflow and NPV is shown in **Figure 9-2.**

**Figure 9-1 Annual LOM Cash Margin**

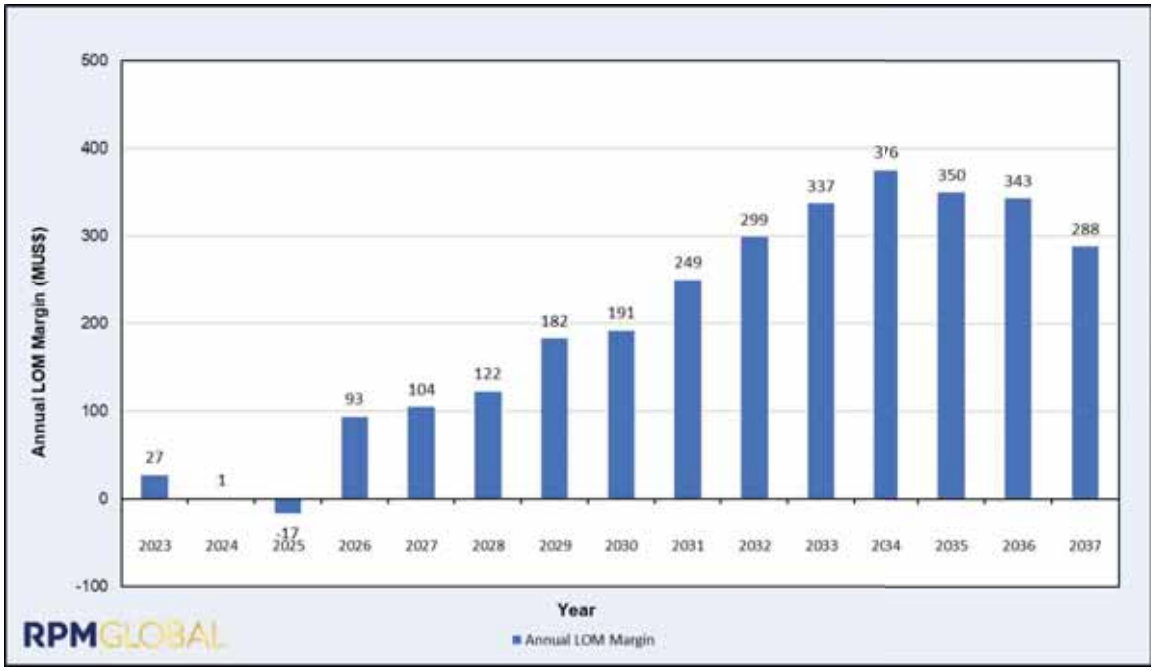
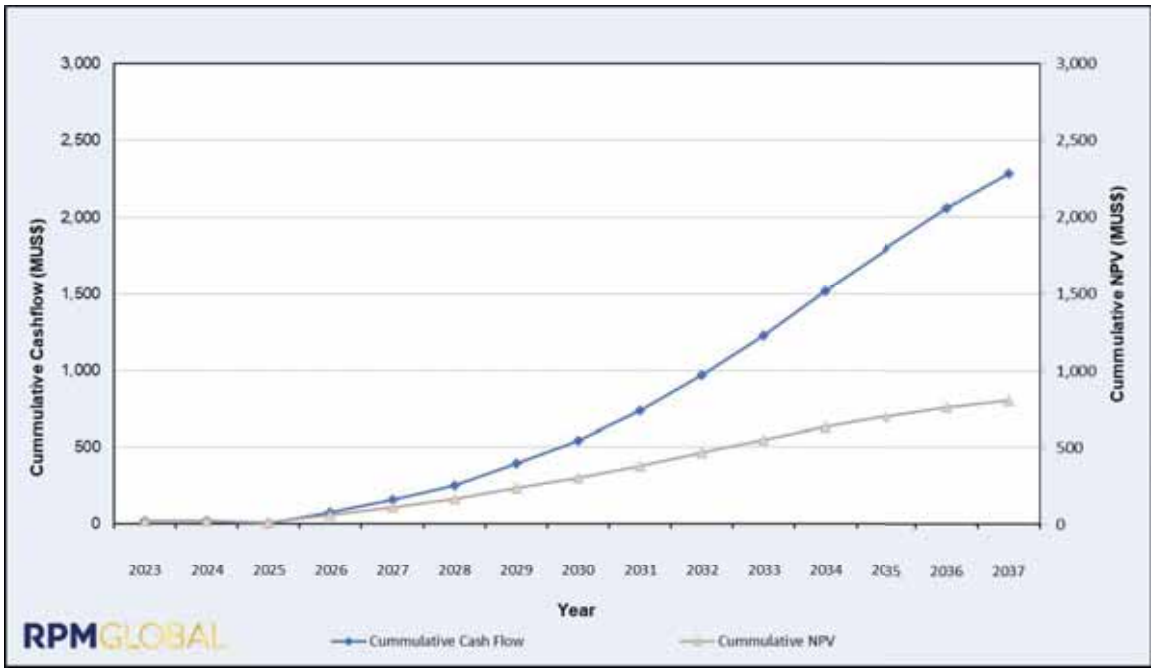


**Figure 9-2 Cashflow and NPV**




The outcome from the TRA Project economic modelling is that positive cash flows and margins are generated throughout the mine life. Based on the current cost inputs and revenue assumptions, the mine returns a positive NPV of USD809M, at a 12 % discount rate and indicates that the mine is economically viable from an NPV standpoint.

## 9.6 Sensitivity Analysis

Using a discount rate of 12 % in a cash flow analysis yielded a project NPV of USD 809M, excluding balance sheet assets and liabilities of the holding companies. This NPV demonstrates extraction could reasonably be justified under the assumptions used to support the Reserve estimation. It should not be construed to constitute the sole basis for a valuation of the project.

The sensitivity of this project NPV was tested against variations in the following factors:

- production rate;
- operating costs;
- sales price and;
- discount rate

These input factors were tested over a reasonable range of values while keeping all other factors constant The results of the sensitivity analysis are presented in a tornado diagram in **Figure 9-3** and a spider chart in **Figure 9-4.** This analysis shows the Project is most sensitive to variation in sales price, followed by operating costs, production rate, and real discount rate. These plots show even if the coal price falls by 20 %, the NPV would remain positive. This highlights the strong margin of the TRA Project when coal prices are high.

**Figure 9-3 Project Sensitivity Tornado Chart**

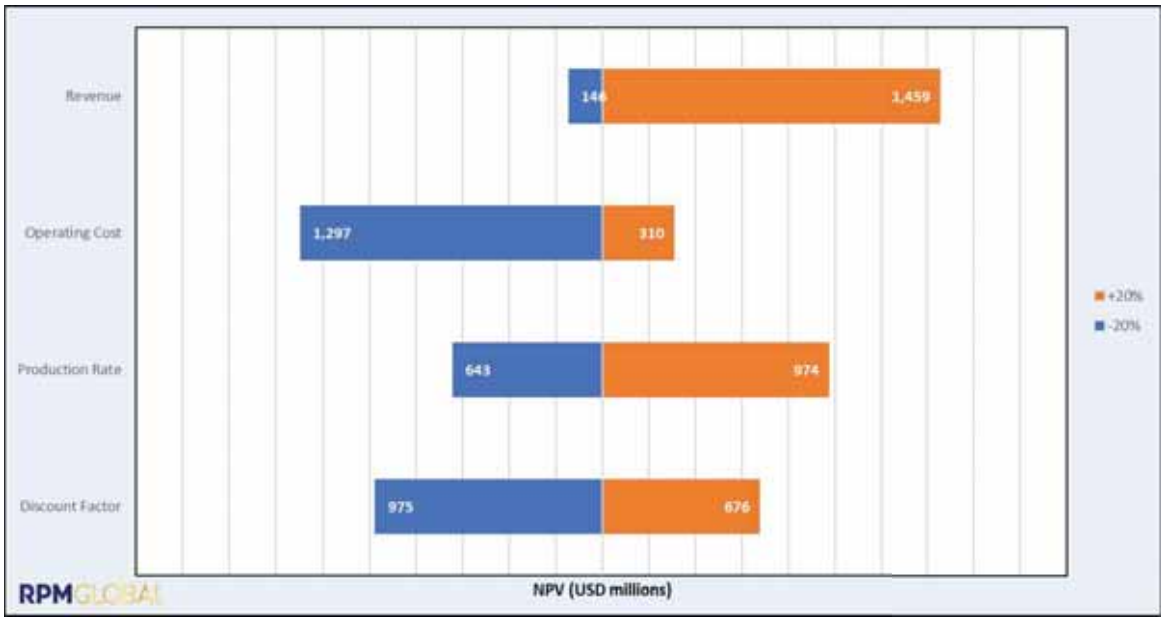
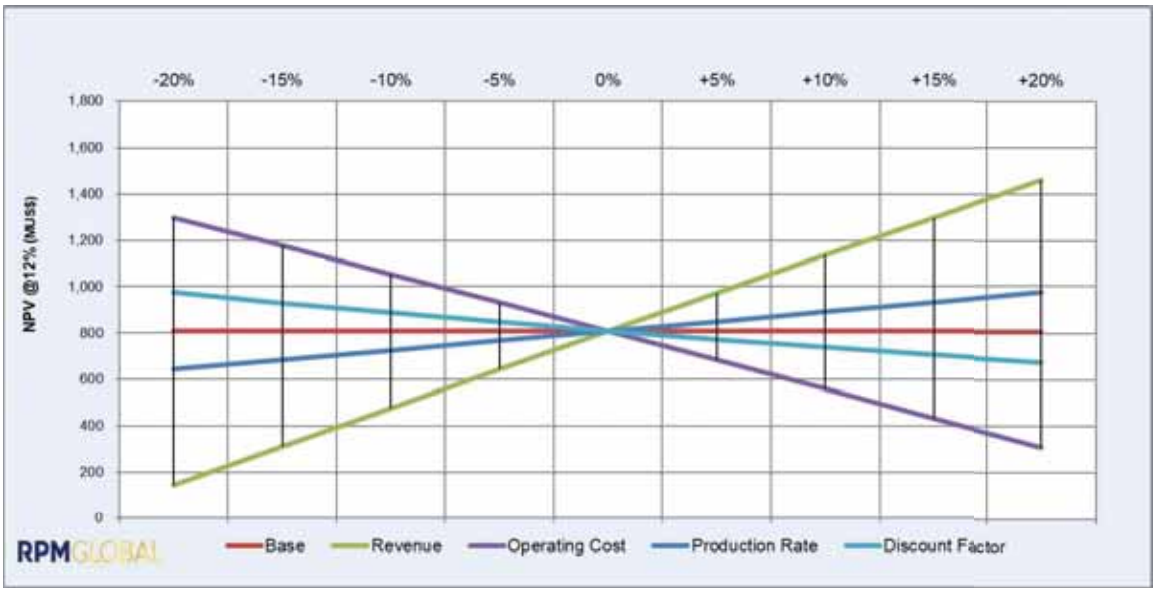



**Figure 9-4 Project Sensitivity - Spider Chart**




## 9.7 Economic Analysis Risks and Opportunities

### 9.7.1 Economic Analysis Risks

The economic analysis risks are demonstrated in the results of sensitivity analysis of the economic model:

- Lower coal prices and revenue will reduce Project value;
- Long term market demand displacement for low energy coal from projects like TRA in exchange for higher energy, lower emission coal. This may be offset in part where product specification such as TRA's are required for boilers designed specifically to burn only this quality of coal;
- An increase in unit operating costs across any or all of the Project process (mining, coal processing, coal hauling, barge loading) will reduce Project value;

- A lower than planned ramp up in coal production will reduce Project value;
- Re-estimation of closure cost in accordance with the international standard ISO 21795:2021, Mine closure and reclamation planning may reduce Project value.

### 9.7.2 Economic Analysis Opportunities

The economic analysis opportunities are demonstrated in the results of sensitivity analysis of the economic model:

- Higher coal prices and revenue will increase Project value;
- An decrease in unit operating costs across any or all of the Project process (mining, coal processing, coal hauling, barge loading) will increase Project value;
- A faster than planned ramp up in coal production will increase Project value.

# 10 Valuation

## 10.1 Guidelines

This section is part of the Independent Qualified Person Report and is prepared in accordance with the Australian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets promulgated by the VALMIN Committee (VALMIN Code, 2015), and SGX Listing Rules.

## 10.2 Basis of Value

The VALMIN Code primarily uses the terms Market Value and Technical Value.

- Technical Value is an assessment of a Mineral Asset's future net economic benefit at the Valuation Date under a set of assumptions deemed most appropriate by a Practitioner, excluding any premium or discount to account for market considerations.
- Market Value is the estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset should exchange on the date of Valuation between a willing buyer and a willing seller in an arm's length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion.

Valuation date is **31 May 2023.**

Three Valuation Approaches are noted by the VALMIN Code as being widely accepted approaches.

*Market-based Approach*

The Market Approach is based primarily on the notion of substitution. In this Valuation Approach the Mineral Asset being valued is compared with the transaction value of similar Mineral Assets under similar time and circumstance on an open market. These include:

- Comparable Sales Transaction, and
- Joint Venture Terms.

*Income-based Approach*

The Income Approach is based on the notion of cashflow generation. In this Valuation Approach the anticipated benefits of the potential income or cashflow of a Mineral Asset are analysed. These include:

- Discounted cashflow (DCF), and
- Multiples of Earnings.

*Cost-based Approach*

The Cost Approach is based on the notion of cost contribution to Value. In this Valuation Approach the costs incurred on the Mineral Asset are the basis of analysis. These include:

- Sunk costs, and
- Current Replacement Costs.

The selection of an appropriate Valuation Method will depend on such factors as the:

- nature of the Valuation;
- development status of the Mineral Assets, and
- extent and reliability of available information.

The VALMIN Code (2015) provides a classification of mineral assets which relate to the applicability of the Valuation approaches. These are:

- Early-stage Exploration Projects – Tenure holdings where mineralisation may or may not have been identified, but where Mineral Resources have not been identified;
- Advanced Exploration Projects – Tenure holdings where considerable exploration has been undertaken and specific targets identified that warrant further detailed evaluation, usually by drill testing, trenching or some other form of detailed geological sampling. A Mineral Resource estimate may or may not have been made, but sufficient work will have been undertaken on at least one prospect to provide both a good understanding of the type of mineralisation present and encouragement that further work will elevate one or more of the prospects to the Mineral Resources category;
- Pre-Development Projects – Tenure holdings where Mineral Resources have been identified and their extent estimated (possibly incompletely), but where a decision to proceed with development has not been made. Properties at the early assessment stage, properties for which a decision has been made not to proceed with development, properties on care and maintenance and properties held on retention titles are included in this category if Mineral Resources have been identified, even if no further work is being undertaken;
- Development Projects – Tenure holdings for which a decision has been made to proceed with construction or production or both, but which are not yet commissioned or operating at design levels. Economic viability of Development Projects will be proven by at least a Pre-Feasibility Study;
- Production Projects – Tenure holdings – particularly mines, wellfields and processing plants – that have been commissioned and are in production.

The Valuation approaches applicable to these mineral asset classifications are shown on **Table 10-1**.

**Table 10-1 Comparison of valuation approaches**

| Valuation Approach | Exploration Projects | Pre-development Projects | Development Projects | Production Projects |
|---|---|---|---|---|
| Market | Yes | Yes | Yes | Yes |
| Income | No | In some cases | Yes | Yes |
| Cost | Yes | In some cases | No | No |

The Valuation of a mineral asset should use at least two approaches and the reasons for selection of the preferred Valuation approach should be explained. The market premium/discount must be explained. A range of values and a preferred value must be determined.

## 10.3 Value Approaches

The projects considered in this section of the report are valued using the comparable transactions approach to allow comparison against the DCF approach. RPM considers this a reasonable approach as the Project is a Production Project in accordance with **Table 10-1**. The DCF Approach was used for the valuation of this Project.

### 10.3.1 Comparable Transactions

The Comparable Transactions approach is based on the determination of a resource multiple, i.e. dollars per tonne of Mineral Resource ($/t). The market transaction purchase prices are based on a large number of factors; coal target size, the category of resources and reserves of coal, geological factors and exploration potential, location and access to markets, existing mine and processing infrastructure and development, coal quality, open cut or underground, strip ratio, underground mining method, status of target company, strategic benefit to the buyer, market conditions, etc. No two assets can be deemed to be exactly comparable, therefore a suitable number of similar assets reflecting status of exploration, development and regional location and lithological setting are selected.

From each of the transactions selected a resource multiple (USD/t) is determined based on the purchase price and total resource.

A preferred value is determined based on an assessment of the comparable transaction's similarity to the asset being valued. The range of values and a preferred value is then determined based on the resource multiple and the asset's resources.

The Comparable Transactions approach is applicable to those assets with Mineral Resources.

There are a number of limitations to the Comparable Transactions approach.

- Difficulty in obtaining sufficient recent transactions considered comparable to the asset being valued;
- Obtaining accurate purchase price and asset quality data;
- Experience in incorporating joint venture and farm-in costs, share deals and royalties;
- Market fluctuations impact purchase prices, and
- Experience in selecting preferred and ranges of resource multiples of relevance to the asset being valued.

### 10.3.2 Preferred Valuation Method

Of the three approaches defined, the Income Based approach, using a Discounted Cash Flow (DCF) model, is most often used as the preferred method of valuation for assets in production as is the case for this Project. As a reasonableness check, the Comparable Transactions method is often used. It is often difficult to obtain sufficiently comparable transactions and a sufficient number of them to achieve an appropriate valuation for a particular asset using the Market Approach.

### Comparable Transactions

Transactions sourced were from S&P Global using criteria based on being located in Indonesia, and thermal coal type. The transactions considered for comparability are noted in **Appendix C**. Transactions were dated from 2013 to 2022. The TRA transaction, the subject of this report, was the only transaction listed for 2023. RPM considers transactions dated prior to 2021 not to be suitable comparatives due to market changes in terms of commodity pricing and general operating cost environment since this time.

The summary of the 2021 Thermal Coal Transactions, based on S&P Global data are outlined in **Table 10-2** below. The TAR project is included for comparative purposes.

**Table 10-2 Summary of 2021 Thermal Coal Transactions**

| Project Name | Location | Announcement Date | Reserves & Resources as of Date | Measured & Indicated (incl Reserves) (Mt) | Inferred Resources (Mt) | Total Resources (Mt) |
|---|---|---|---|---|---|---|
| PT Borneo Indobara ("BIB") | Kalimantan | Mar-21 | Dec-22 | 1,275 | 543 | 1,818 |
| PT Kuansing Inti Makmur ("KIM") | Sumatra Island | Mar-21 | Dec-22 | 160 | 92 | 253 |
| PT Trisula Kencana Sakti ("TKS") | Kalimantan | Mar-21 | Dec-22 | 56 | 26 | 82 |
| **PT Triaryani ("TRA")** | **Sumatra Island** | **Jul-23** | **Dec-22** | **627** | **20** | **647** |

In RPM's opinion, these 2021-dated transactions are not suitable comparatives considering the location and coal resources (volume) of the projects. Further detail on each of these assets is presented below. RPM has not been able to independently verify the information provided below and has relied on publically available information.

*Project: PT Borneo Indobara ("BIB") Concession*

**Location:**

The BIB Project covers an area of 24,100 ha and is located in the Tanah Bumbu district of the South Kalimantan Province, Indonesia. The concession is granted under a Perjanjian Kerjasama Pengusahaan Pertambangan Batubara (PKP2B) on 15 August 1994 and the tenure is granted under MEMR Decree related to Permulaan Tahap Kegiatan Produksi PKP2B (the Commencement of Production Phase) on 17 February 2006 and is valid for 30 years.

**Table 10-3 JORC Coal Resources as at December 2021 - PT Borneo Indobara**

| Coal Resources (Mt) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Area | Measured | Ash% (adb) | CV adb Kcal/kg | Indicated | Ash% (adb) | CV adb Kcal/kg | Inferred | Ash% adb | CV adb Kcal/kg | Total |
| KG | 876 | 5.51 | 5,306 | 321 | 6.35 | 5,257 | 315 | 6.73 | 5,244 | 1,512 |
| BS | 19 | 4.71 | 5,567 | 27 | 5.61 | 5,560 | 155 | 5.94 | 5,563 | 201 |
| SS | 18 | 6.22 | 5,510 | 10 | 6.29 | 5,559 | 15 | 5.59 | 5,570 | 43 |
| SN | 12 | 4.74 | 5,357 | 10 | 6.29 | 5,245 | 48 | 7.01 | 5,077 | 70 |
| PP | 10 | 8.58 | 6,716 | 10 | 9.32 | 6,593 | 10 | 8.48 | 6,615 | 30 |
| Total | 935 | 5.53 | 5,331 | 378 | 6.37 | 5,322 | 543 | 6.53 | 5,355 | 1,856 |

*Mineral Resources are reported inclusive of the Mineral Reserves*

*(Note: individual totals may differ due to rounding)*

*Source: Salva Mining Pty Ltd IQPR Report for Golden Energy and Resources Limited 25 January 2022*

- **Coal Type:** Thermal.
- **Mining Method:** Conventional open-pit coal mining operations

***RPM Comments:***

*The total coal resources and CV for BIB are significantly in excess of the TAR project. RPM considers this not to be a suitable comparative for valuation purposes based on these variances.*

*Project: PT Kuansing Inti Makmur ("KIM") Concession*

**Location:**

The KIM Project is located in the Bungo Regency of Jambi Province on Sumatra Island, Indonesia. KIM concession is located nearly equidistant from the Padang coast on the west (250 km) and the Jambi coast on the east (300 km).

**Table 10-4 JORC Coal Resources as at December 2021 - PT Kuansing Inti Makmur**

| Pit | Measured Resource | | | Indicated Resource | | | Inferred Resource | | | Total Mt |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mass Mt | Ash adb % | CV adb kcal/kg | Mass Mt | Ash adb % | CV adb kcal/kg | Mass Mt | Ash adb % | CV adb kcal/kg | |
| KIM East | 49 | 18.1 | 5,279 | 33 | 18.8 | 5,185 | 82 | 18.4 | 5,227 | 164 |
| KIM West | 58 | 16.7 | 5,445 | 23 | 17.5 | 5,340 | 10 | 15.7 | 5,228 | 91 |
| Total | 107 | 17.3 | 5,369 | 56 | 18.3 | 5,249 | 92 | 18.1 | 5227 | 255 |

*Mineral Resources are reported inclusive of the Mineral Reserves*
*Final Inferred Resource rounded to nearest 1 Mt*

*Source: Salva Mining Pty Ltd IQPR Report for Golden Energy and Resources Limited 25 January 2022*

- **Coal Type:** Thermal.
- **Mining Method:** Conventional open-pit coal mining operations

***RPM Comments:***

*The total coal resources for KIM are significantly lower than the TRA project and CV for KIM are significantly in excess of the TAR project. RPM considers this not to be a suitable comparative for valuation purposes based on these variances.*

*Project: PT Trisula Kencana Sakti ("TKS") Concession*

**Location:**

The TKS Concession is comprised of two contiguous IUPs. These IUPs are located at 58 km east of the town of Muara Teweh in the Central Kalimantan province of Indonesia.

**Table 10-5 JORC Coal Resources as at December 2021 PT Trisula Kencana Sakti**

| Resource Classification | Mass (Mt) | TM (arb) (%) | IM (adb) % | Ash (adb) (%) | Volatile Matter (adb) % | Total Sulphur (adb) % | GCV (adb) kcal/kg | Relative Density (adb) |
|---|---|---|---|---|---|---|---|---|
| Measured | 24.7 | 21.9 | 13.7 | 11.0 | 38.4 | 2.0 | 5,726 | 1.38 |
| Indicated | 26.0 | 20.4 | 13.1 | 12.4 | 38.5 | 1.8 | 5,714 | 1.39 |
| Inferred | 24.0 | 21.9 | 13.7 | 11.0 | 38.4 | 2.0 | 5,726 | 1.38 |
| TOTAL | 74.7 | 21.4 | 13.5 | 11.5 | 38.4 | 2.0 | 5,726 | 1.39 |

*(Note: individual totals may differ due to rounding, final Inferred Resource rounded to nearest 1 Mt)*

*Source: Salva Mining Pty Ltd IQPR Report for Golden Energy and Resources Limited 25 January 2022*

- **Coal Type:** Thermal.
- **Mining Method:** Conventional open-pit coal mining operations

***Comments:***

*The total coal resources for TKS are significantly lower than the TRA project and CV for TKS are significantly in excess of the TAR project. RPM considers this not to be a suitable comparative for valuation purposes based on these variances.*

As a result of the above research RPM considers there are no comparable transactions for valuation purposes. The DCF Approach was hence used for the valuation of this Project.

### 10.3.3 Discounted Cash Flow (DCF) Valuation

The DCF valuation is part of the Income-Based approach methods outlined above. Discounted cash flow (DCF) valuation is a financial modelling technique that determines whether an investment is worthwhile based on future cash flows. A DCF model is based on the premise that a company's value is determined by the company's ability to generate cash flows in the future. A discounted cash flow valuation is used to determine if an investment is worthwhile in the long run.

The econcomic model discussed in **Section 9** is a DCF model used to calculate the LOM NPV of the TRA Project. This model utilised the following:

- Commodity Pricing - The revenue assumptions for the options study and the LOM schedule are based on the long-term forecast coal price of 3,800 kcal/kg gar coal product from the McCloskey May 2023 update on thermal coal prices and are shown in **Table 9-1**.
- Discount Rate - A Project Net Present Value (NPV), at a Discount Rate of 12 %, has been estimated for the LOM economic model. This discount rate is based on client-provided data which advised that the industry norm for WACC (Weighted Average Cost of Capital) is 12 %. RPM was not provided with source data for review. RPM considers this discount rate to be conservative.
- Inflation Rate - All financial analysis results are reported in real terms, and therefore exclusive of inflation, unless otherwise stated.

Using a discount rate of 12 % in a cash flow analysis yielded a TRA project NPV of USD 809M, excluding balance sheet assets and liabilities of the holding companies. This NPV demonstrates extraction could reasonably be justified under the assumptions used to support the Coal Reserve estimate in **Section 7.2**.

Sensitivity Analysis – are discussed in more detail in **section 9.6**. The risk factors considered for sensitivity are production rate, operating costs, sales price, and discount rate. Sensitivities are based on the range -20 % to +20 % of base for production rate, operating costs, and sales price. Discount Rate sensitivities are based on the range of 9.6 % (+20 % base) to 14.4 % (-20 % base). NPV is positive for all sensitivities. The risk factors associated with, and impacts from, changes in these risk factors are demonstrated by this sensitivity analysis.

The results of the sensitivity analysis are presented in a tornado diagram in **Figure 10-1** and a spider chart in **Figure 10-2**. This analysis shows the Project is most sensitive to variation in sales price, followed by operating costs, production rate, and real discount rate. These plots show even if the coal price falls by 20 %, the NPV would remain positive.

**Figure 10-1 Project Sensitivity Tornado Chart**

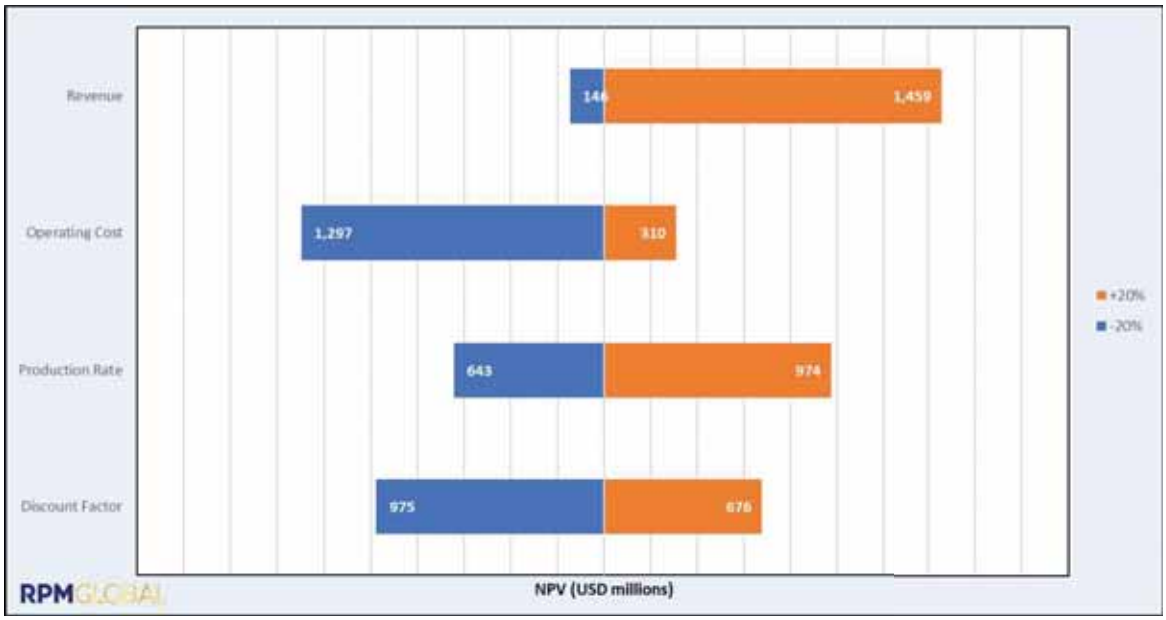
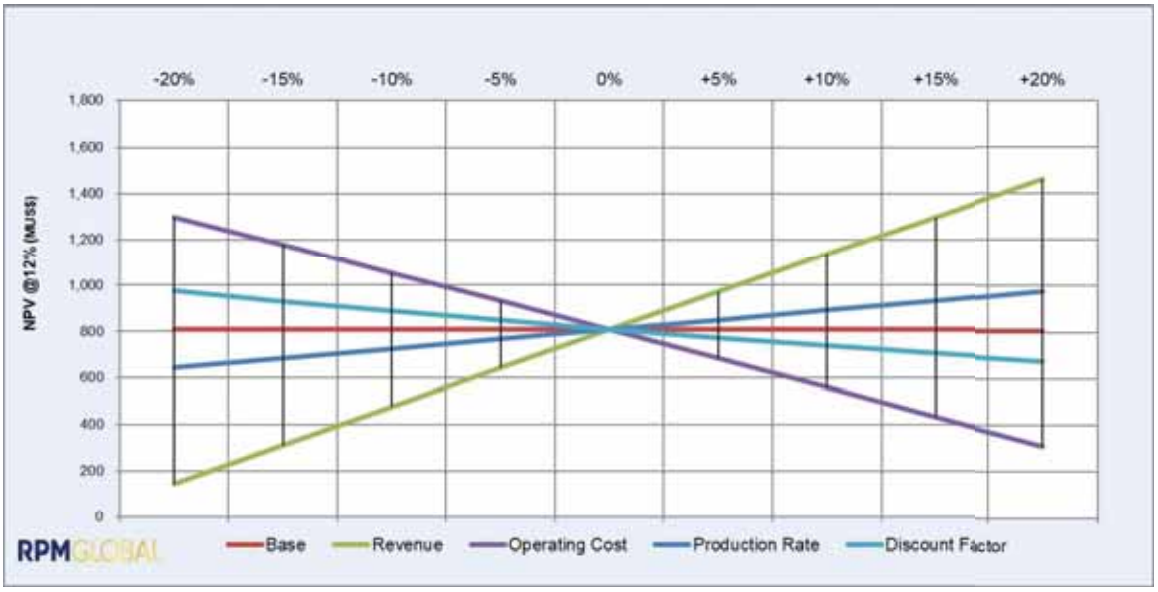



**Figure 10-2 Project Sensitivity - Spider Chart**




## Constant Price Scenario

A constant price scenario was included within the DCF Model. The constant price of USD 41.42 per tonne export was derived from the average of Year 2028-2043 of the McCloskey annual average thermal coal price outlook for 3,800 kcal/kg (gar) FOB for Indonesia as provided by TRA and dated May 2023. The constant price derived by RPM represents what the Qualified Person deems as representing the “long term coal price”, the period beyond the next 5 years (2023 2027) which the Qualified Persons deems as representing the “short term coal price” which is generally more volatile.

RPM made no change to DMO pricing and the constant price DCF resulted in a TRA project NPV of USD 957M. The NPV remained positive for all sensitivities. The constant price NPV result is higher than the result using the forecast coal price over the life of the Project as the constant coal price of USD 41.42 replaces

lower forecast coal prices in the years 2025 – 2033 and hence higher revenue in those years. This drives the higher NPV result.

Sensitivity Analysis (constant price) –The input factors considered for sensitivity are production rate, operating costs, sales price, and discount rate. Sensitivities are based on the range -20 % to +20 % of base for production rate, operating costs, and sales price. Discount Rate sensitivities are based on the range of 9.6 % (+ 20% base) to 14.4 % (-20 % base). NPV is positive for all sensitivities. The risks associated with, and impacts from, changes in these factors are demonstrated by this sensitivity analysis.

The results of the sensitivity analysis are presented in a tornado diagram in **Figure 10-3** and a spider chart in **Figure 10-4**. This analysis shows the Project is most sensitive to variation in sales price, followed by operating costs, production rate, and real discount rate. These plots show even if the coal price falls by 20 %, the NPV would remain positive.

**Figure 10-3 Constant Price - Project Sensitivity Tornado Chart**

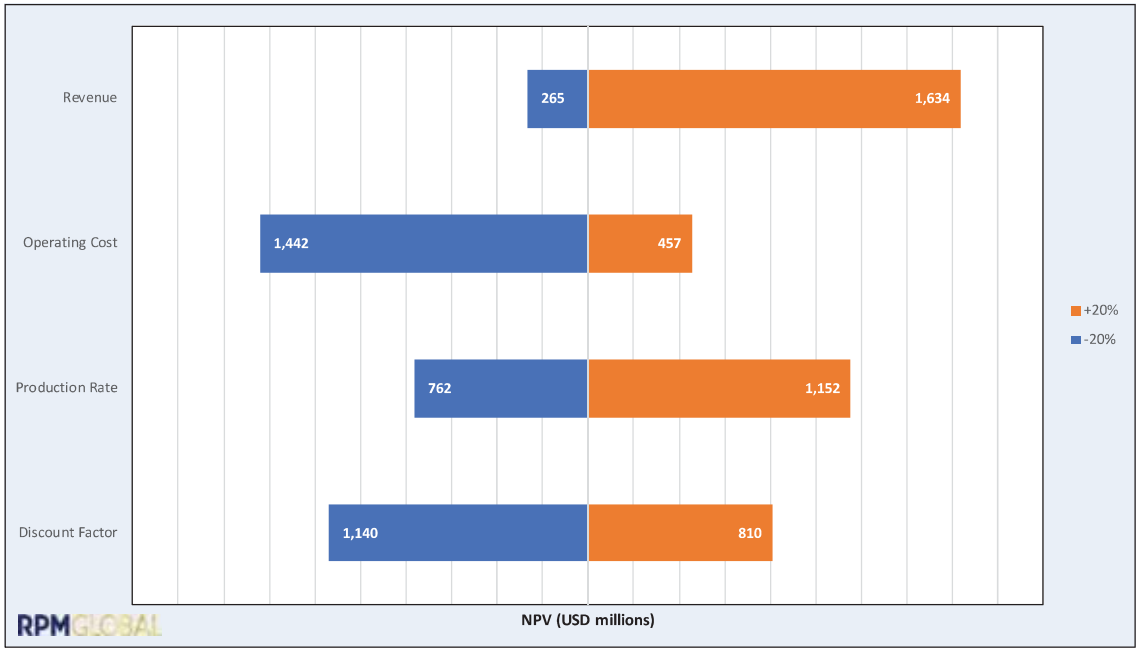
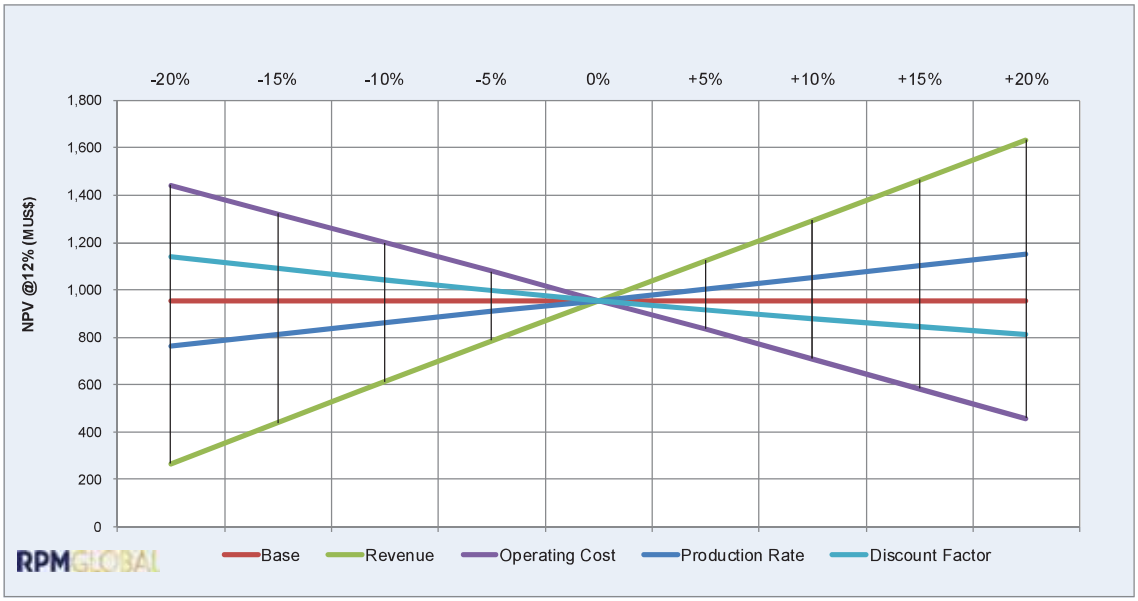


**Figure 10-4 Constant Price - Project Sensitivity - Spider Chart**




## 10.4 Valuation Summary

RPM conducted an independent valuation of the project utilising the VALMIN valuation approaches and in accordance with the SGX rules and guidelines. The VALMIN Code (2015) provides a classification of mineral assets that relate to the applicability of the Valuation approaches. These are Early-stage Exploration Projects, Advanced Exploration Projects, Pre-Development Projects, Development Projects, and Production Projects. The Valuation approaches applicable to these mineral asset classifications are shown on **Table 10-6**.

**Table 10-6 Comparison of valuation approaches**

| Valuation Approach | Exploration Projects | Pre-development Projects | Development Projects | Production Projects |
|---|---|---|---|---|
| Market | Yes | Yes | Yes | Yes |
| Income | No | In some cases | Yes | Yes |
| Cost | Yes | In some cases | No | No |

The Income Approach, using a Discounted Cash Flow (DCF) model, was used for the valuation of this Project. The Market Approach, assessing comparable transactions, was used to allow comparison against the DCF approach. RPM considers this a reasonable approach as the Project is a Production Project in accordance with **Table 10-1**.

Considering all the risk factors with the above sensitivities, RPM has undertaken a Monte Carlo simulation of the 4 individual variables tested for sensitivity. For each of these independent variables, RPM has constructed a probability distribution curve to reflect the variability of each parameter based on the Qualified Persons industry experience.

The distribution curves used in the Monte Carlo simulation are:

- Export thermal coal price, a normal distribution curve around the mean coal price over the life of the Project, where the export thermal coal price will vary be in the range of +/-20 % of the mean;
- Project operating costs, a left skewed distribution curve around the mean operating cost over the life of the Project, where the Project operating cost will vary in the range of +/-20 % of the mean;
- Project production rate, a right skewed distribution curve around the mean production rate over the life of the Project, where the Project production rate will vary in the range of +/-20 % of the mean; and

- Discount rate, a normal distribution curve around the mean discount rate over the life of the Project, where the Project discount rate will be in the +/-20 % range of the mean.

The results of the Monte Carlo simulation after 10,000 iterations, is that at a 90 % confidence level based on the probability distributions applied to the 4 key independent variables, the DCF Valuation NPV sits in the range of USD 360M to USD 1,225M with a most likely value of USD 809M.

For the Constant Price Scenario the results of the Monte Carlo simulation after 10,000 iterations, is that at a 90 % confidence level based on the probability distributions applied to the 4 key independent variables of this scenario, the Constant Price Valuation NPV sits in the range of USD 483M to USD 1,396 M with a most likely value of USD 957M.

RPM notes that over the last 10 years in the commodity price cycle 'low phase', the Global Coal NEWC index has recorded prices as low as USD 50/t for 6,322 kcal/kg coal. This Global Coal NEWC price resulted in an ICI 4 price of USD 23/t. If in the commodity price cycle over the next 15 years, the Global Coal NEWC index was to revisit the lows that have been recorded in the last 10 years of mid 2020 and the end of 2015 to mid 2016, i.e. a price of USD 50/t, TRA product coal pricing of USD 23/t could be expected. This price level of USD 23/t is -43 % of the average export price of the 2023 – 2037 McCloskey forecast period. Based on the sensitivity analysis that RPM has conducted, it is expected that the Project would be cash flow negative for those periods of time when Global Coal NEWC prices were at this level.

Long term market demand displacement for low energy coal from projects like TRA, in exchange for higher energy, lower emission coal is a risk to the technical valuation. This may be offset in part where product specification such as TRA's are required for boilers designed specifically to burn only this quality of coal.

RPM has relied on the Company's information in deriving the inputs to the valuation presented within this report. As outlined in the section Important Information About this Document, 6. Inherent Mining Risk the accuracy and outcomes of the valuation are subject to change due to numerous Risk Factors that are beyond RPM's control and that RPM cannot anticipate.

# 11 Interpretation and Conclusions

## Geology and Coal Resources

The geological dataset and geological models are considered by RPM to be adequate for Coal Resource estimates to be reported in accordance with the JORC Code (2012). Coal Resources have been estimated from the geological model prepared by TRA based on the drill hole data available as of 6 June 2023.

The Coal Resources at the Project are estimated by RPM to total 388 Mt, of which 36 Mt are classified as Inferred, 241 Mt are classified as Indicated, and 111 Mt are classified as Measured.

RPM considers that the western portion of the concession known as the Malam block, currently has limited drilling data coverage, resulting in Indicated and Inferred coal Resource classification. The opportunity exist for an uplift in the coal Resource classification in these areas with additional drilling. Closer spaced/ infill drilling in Malam block that predominantly targets the S4 Seam group will also improve the confidence of the current Indicated and Measured coal Resource areas ahead of mining over the first 5 years of the LOM plan.

## Mining and Coal Reserves

Appropriate modifying factors were applied to the coal Resources to determine the coal Reserves. These modifying factors considered loss and dilution parameters applied to coal mining sections, geotechnical criteria and exclusion criteria such as lease boundaries, and the economics of the operations.

RPM completed Deposit Characterisation of the insitu geological model coal and waste intervals. RPM concluded from this analysis that the deposit was suited to high volume production from thick waste intervals where 99 % of the waste is in intervals greater than 10m thick, which could be efficiently mined by large scale mining equipment (hydraulic excavators greater than 250 t class).

The most significant coal seams are the S4, S4A, and S4B coal seams (Seam S4 Group). This seam group account for 88 % of the in situ coal in the deposit. The S4 coal seam group (S4A, S4, and S4B) thickness ranges from 5m to a maximum of 40m thick. This indicates bulk coal excavation using excavators greater than 250t class is possible for the Project.

The average in situ model caloric value (CV) is low and in general ranges between 3,000 to 3,500 kcal/kg gar, with only a small part of the area consisting of a value greater than 4,000 kcal/kg gar. The ash content (Ash % adb) is generally low and ranges from 2 % up to a maximum of 10 %. The deposit has a low sulphur content (TS % adb) ranging from 0.1 % to max of 0.4 % across the deposit.

RPM used pit optimisation as a mine planning technique to investigate the relative economics of a coal deposit. It can help identify areas of higher and lower relative economic value over the deposit area.

A coal benchmark price of USD 41.42 per tonne at 3,800 kcal/kg gar calorific value was used as the long term coal price input to pit optimisation based on McCloskey May 2023 forecast coal prices. After due and careful enquiry, RPM is of the opinion that these long term forecast price are a reasonable outlook of the future forecast prices as at the time of reporting.

The Company provided the operating cost estimates for pit optimisation based on two operation schemes; an operation using the existing coal hauling road and port facility and an operation with a new coal hauling road and port facility. The operating cost provided were unit operating costs.

RPM completed the pit optimisation margin analysis of each shell to support the selection of the optimum shell. There is only a small increase in mineable quantities associated with an increase in the revenue factor between OPT080 and OPT100 pit shells. The pit shell OPT 080 was selected as the theoretical pit shell on which to base pit limits and a practical pit design be completed.

The mineable quantities and qualities in the practical pit shells that were designed are shown in **Table 11-1**.

**Table 11-1 Mineable Quantities and Qualities**

| Pit Name | Cut off Date Topography | Waste (Mbcm) | Coal (Mt) | SR (bcm/t) | CV kcal/kg (gar) | Ash % (ar) | TS % (ar) | TM % (ar) | IM % (adb) | RD In situ |
|---|---|---|---|---|---|---|---|---|---|---|
| Malam | EOM March 2023 | 1,263 | 265 | 4.8 | 3,870 | 3.22 | 0.13 | 40.02 | 14.54 | 1.22 |
| Betung | | 49 | 10 | 4.9 | 3,900 | 4.33 | 0.13 | 38.69 | 13.05 | 1.22 |
| **Total** | | **1,312** | **275** | **4.8** | **3,870** | **3.26** | **0.13** | **39.97** | **14.49** | **1.22** |

*Note: Only seam S4 Group includes as Mineable quantity. Other seams have been transferred as waste.*

The Company informed RPM the target coal is only Seam S4 Group. Within this constraint RPM developed and evaluated a LOM scheduling scenario to give an understanding of the mining result related to this seam target.

Within this scenario, mining starts at the first year in Pit Malam and Pit Betung simultaneously. Pit Malam mining direction generaly is from south to north. Pit Betung mining direction remains from north to south. This scenario allowed a higher portion of production in early stages of Pit Betung to provide mined out areas to be used as in pit dumps (IPD).

In the early stages of development, Pit Malam and Pit Betung dump into an out of pit dump that will be located near the pit. As the box cut is established, the pit dumps will follow the box cut develmpment of the pit into an IPD in the mined out areas, reducing the waste haulage distance.

The LOM production schedule is summarised per year and includes:

- 15 years mine life. This is comprised of:
  - 9 years of TRA commissioning coal quantity ramp up to a maximum of 25 Mtpa;
  - 6 years at the peak production rate of 25 Mtpa;
  - Final year 15 at 21.5 Mtpa as pits are depleted.
- an average mine strip ratio of 4.8 bcm/t ROM and;
- an average CV of 3,872 kcal/kg gar over the mine life.

The Measured Coal Resources within the economic and practical pit boundaries are converted to Proved Coal Reserves, and the Indicated Coal Resources are converted to Probable Coal Reserves. Open Cut Coal Reserves were estimated to total 275 Mt, of which 107 Mt are classified as Proved with the balance of 168 Mt classified as Probable. The Coal Resources are reported inclusive of Coal Reserves (that is, Coal Reserves are not additional to Coal Resources).

## Facilities Infrastructure and Logistics

The site facilities constructed near the mine currently consist of mine office, staff mess, workshop, fuel storage, raw water supply and water treatment, power generators and first aid and medical facilities.

Expanded facilities, infrastructure and services as mine production increases, will be the responsibility of the appointed mining contractors and other service providers.

The expansion of mining operations over time to 25 Mtpa will require a reconsideration of the ROM and sized product coal stockpiles. It is envisaged that the screening and sizing of coal will be relocated from the mine site to the port.

Current coal haulage is carried out on a mixed use road from site to a port facility The road is operated by ATLAS and the port is operated by SBL. The road has both forestry and mining haulage trucks operating on it. The haul distance from the mine site coal stockpiles to the barge loading point is approximately 140 km, the road is suitable for 30 tonne payload trucks with a typical operating speed of 40 km/h. Current coal haulage safety and productivity is severely impacted by the condition of the haul road and the mixed traffic using the haul road.

Future coal haulage is planned on a 92 km purpose-built haul road from the site to a new PT Marga Bara Jaya (MBJ) Port. Haulage is planned by B-Double 60 tonne capacity per trailer (total 120 tonnes per load) vehicles. The road width selected in the basis of design is 12 m excluding the road shoulders This is potentially a limiting factor in road speed which is currently set to 40 km/h.

Hydrology and flooding studies have been undertaken for the proposed road route and a flood immunity of 1:50 years has been selected, with supporting infrastructure of bridges and culverts to support this.

The current SBL port facility has a barging distance of approximately 183 km along the Lanlan river to the transhipment point. The facility loads 7,500 t barges at a rate of 750 t/h.

The site for the future port facility to be operated by MBJ will be equipped to accept the B-Double vehicles side tipping onto a pad with the coal pushed into hoppers. The coal is sized and mechanically handled onto stockpiles. Reclaimed coal from the stockpiles is moved by conveyor to the barge loading conveyors of 2 x 1500 tph. The port is proposed to provide for a barge receiving jetty, turn around area and 2 sets of barge loader and dolphins The product stockpiles are sized for 2 weeks capacity and are a series of 12 x 75 kt stockpiles at the final phase. The barging distance from this port to the transhipment point is approximately 221 km.

The river study conducted for barging activities indicates that the complete barge cycle time will be in the order of 110 hours. The river has up to 35 km of single lane sailing. There are a number of other obstructions hindering barge operations including 13 berths operated by other companies, and 400 m tight radius turns. The least available depth constraints limiting the river to single lane traffic and 7,500 DWT barges are the most significant of the river constraints.

With improvement to traffic management for the single lane section this and further river training (dredging works will be required) the total feasible capacity of the MBJ jetty may increase up to 30 Mtpa.

The proposed haulage road and MBJ Port will be developed in two phases with a total throughput capacity up to 25 Mtpa. Construction of Phase 1 (15 Mtpa throughput) will commence in mid-2023 and will be completed by the end of 2024. Construction of Phase 2 (additional 10 Mtpa) is planned to commence in 2030.

### Environmental and Social

Based on the review of the available documentation, the studies of potential environmental impacts of the TRA and associated road and MBJ port infrastructure, and the associated environmental monitoring and management programs, have been completed and approved. RPM has not identified any E&S approvals, issues and risks that are considered to have a material impact on the performance of the TRA and proposed haulage road and MBJ port projects in the longer term. However, RPM has not sighted any information on the current E&S approvals compliance status for the proposed haulage road. RPM notes that the haulage road ANDAL Report is referenced in the Project Greek Information Memorandum, November 2022.

Based on the review of the available information for TRA, the Project is currently operating in compliance with the requirements of the TRA E&S approvals and permits.

RPM has not sighted a waste rock characterisation report for TRA. However, the review of the available documentation indicates that acid generation occurs within the mining area and that appropriate design, management and monitoring measures for surface water runoff have been approved and are in place.

RPM has not sighted any information in relation to the estimation of GHG emissions and the assessment of climate related risks for TRA and the proposed associated haulage road and MBJ port projects. However, RPM notes that the potential impact of future tariffs, taxes, or tradeable caps on carbon emissions from GHG emissions associated with the operations or product on a project valuation, has not been considered in this review.

The ongoing implementation of the SMMT CDP indicates a commitment by the company to manage any potential adverse effects from the TRA and the proposed associated haulage road and MBJ port projects

on the local social conditions. RPM recommends that SMMT continue to document the ongoing implementation of the SMMT CDP to contribute to maintaining the projects' social licence to operate.

RPM has not sighted a MCP for TRA and for the proposed haulage road and MBJ port, and there is no reference in the reviewed available documentation, that a MCP has been or is being produced. RPM recommends that SMMT consider developing a MCP for TRA and the proposed haulage road and MBJ port, in accordance with the international standard ISO 21795:2021, Mine closure and reclamation planning. This would provide for a structured approach to identifying and managing the projects' closure liabilities, and also provide the basis for the development of a mine closure cost estimate.

SBLSBLRPM considers that the key Environmental and Social (E&S) risks are for:

- TRA – dust emissions from coal handling and cleared areas, mining area surface water runoff (contaminated with Acid Mine Drainage [AMD]), and land disturbance and rehabilitation.
- Proposed haulage road and MBJ port – dust emissions from coal handling and cleared areas, surface water runoff from the Coal Terminal (potential to result in quality impacts to surrounding surfaces water features), and Haul Road land disturbance and rehabilitation.

## Economic Analysis

Coal sales have been apportioned as 75 % to the seaborne export market and 25 % to fulfil the domestic market obligation (DMO) of the Government of Indonesia (GOI). The GOI regulation states that the DMO for each concession holder is to be set on an annual basis by the Ministry of Energy and Mineral Resources (ESDM) based on the demands of domestic consumers.

The GOI decree of 2018 sets a price cap for DMO use for public electricity generation of USD 70 /t. This price cap is applicable for coal with a calorific value of 6,322 kcal/kg gar, total moisture of 8 %, sulphur content of 0.8 % and ash of 15 %. For coals of any other specification, the applicable domestic price cap is to be calculated via a formula linked to this reference price of USD 70 /t. RPM used this price cap formula for estimating the domestic price for TRA coal.

Export coal price was estimated using the McCloskey forecast of May 2023.

Operating cost were estimated using the unit costs for the current situation which is expected to prevail between 2023 and 2025 and for the expansion phase between 2026 and 2037.

There are no capital costs estimated for this Project as it will be operated under a contractor service delivery model. The Client has confirmed that there is no carried forward capital that will need to be included in the economic model.

The outcome from the TRA Project economic modelling is that positive cash flows and margins are generated throughout the mine life. Based on the current cost inputs and revenue assumptions, the mine returns a positive NPV of USD809M, at a 12 % discount rate and indicates that the mine is economically viable from an NPV standpoint. It should not be construed to constitute the sole basis for a valuation of the Project.

The sensitivity of this project NPV was tested against variations in the following factors:

- production rate;
- operating costs;
- sales price and;
- discount rate.

These input factors were tested over a reasonable range of values (+20 % / -20 %) while keeping all other factors constant. The analysis shows the Project is most sensitive to variation in sales price, followed by operating costs, production rate, and real discount rate. These results show even if the coal price falls by

20 %, the Project NPV would remain positive. This highlights the strong cash margin of the TRA Project when coal prices are high.

## Project Risks

### Generic Mining Risks

(a) The operations of the TRA Coal Mine are susceptible to risks and hazards inherent in the mining industry

The operations of TRA Coal Mine may be affected by various factors and subject to risks and hazards inherent in the mining industry, including but not limited to, unanticipated variations in grade and other geological problems, operational and technical difficulties encountered in mining, insufficient or unreliable infrastructure, water conditions, surface or underground conditions, metallurgical and other processing problems, mechanical equipment performance problems, plant breakdowns, the lack of availability of materials and equipment or trained manpower, the occurrence of accidents, labour force disruptions, force majeure factors, unanticipated transportation costs, and weather conditions.

Any of these factors may materially and adversely affect the Groups business, financial condition, results of operations and the Group's ability to realise value from the Acquisition.

(b) The Coal Reserves and Resources and the net present value of the TRA Coal Mine are only estimates and are based on various key assumptions which may change

The Coal Resources and/or Coal Reserves estimates and the net present value of the TRA Coal Deposit included in this Circular and in the RPM Report are only estimates. Such estimates are expressions of judgment based on knowledge, experience and industry practice.

The Coal Reserve estimates included in this Circular and in the RPM Report are only estimates of the coal deposits that can be economically recovered. When estimating the size and value of Coal Reserves, assumptions are made regarding:

- geological conditions;
- confidence in the underlying Coal Resources and mining modifying factors;
- historical production from the mining area compared with production from other producing areas;
- the effects of regulations, including safety and environmental regulations and taxes by governmental agencies;
- future coal prices; and
- future operating costs, including increased reliance on independent third-party mining and project services providers.

The classification of Coal Reserves in line with the recommended guidelines of the JORC Code, as either Proved or Probable, carries a different level of confidence. Probable Reserves carry a higher risk and are estimated with a lower level of confidence than Proved Reserves, whereas Proved Reserves carry a lower risk and are estimated with a higher level of confidence than Probable Reserves.

Estimations and valuations of Coal Resources and Reserves, by their nature, cannot be made with complete certainty. The estimated Coal Resources and Reserves and the net present value of the TRA Coal Deposit included in this Circular and in the RPM Report are subject to changes to factors such as, but not limited to, actual production and operating costs of the TRA Coal Deposit and global coal prices, and may change significantly in the future if and when new information becomes available.

Actual factors may vary considerably from the assumptions used in estimating Coal Resources and Reserves and in determining the net present value of the TRA Coal Deposit. Actual production, costs, sales and expenditures of the TRA Coal Deposit may vary materially from the estimates used in the RPM Report and such estimates may not be indicative of the TRA Coal Deposit's future production, costs, sales or

expenditures. For example, future material declines in global coal prices could reduce our Coal Resources and Reserves estimates due to operational costs associated with exploiting the coal in the concession.

The conclusions and opinions contained in the RPM Report should be read subject to the limitations, risks and assumptions set out in the RPM Report and apply only as of the date of the RPM Report. The RPM Report relies on information provided to RPM and changes to any of the data, information and assumptions, including assumptions on coal prices, that RPM used in the preparation of the RPM Report that may have occurred since the date of the RPM Report may impact the conclusions and opinions in the RPM Report, and the Coal Resources and/or Reserves estimates and the net present value of the TRA Coal Deposit.

**TRA Specific Project Risks**

- Geological structures or coal washouts that are currently not identified in the geological model may occur that will result in a reduction in the ROM coal quantities available to be mined.
- Any reduction in ROM coal quantities available to be mined will lead to an increase in waste removal requirements and hence also an increase in strip ratio to achieve the nominated annual ROM coal production rate.
- The performance of the selected mining contractor will be crucial to the delivery of the annual waste and coal production schedule.
- Timely land acquisition is necessary in advance of mining so that the planned mining and dumping sequence can be achieved.
- Existing surface infrastructure and facilities such as the provincial road must be moved and relocated in a timely manner so as not to impede mining progress.
- Adequate ex-pit dump space and area is required for initial mining operations before the transition to in-pit dumping occurs. The current ex-pit dumping areas are limited and any issues that affects this available space will adversely impact the mine plan.
- The construction of the new haul road will take longer than expected and the existing haul road will need to be used for a longer period of time resulting in a slowdown in the ramp up of coal production and an extended period of higher coal hauling operating costs.
- The new barge loading port will take longer than expected to construct and move into operation resulting in the need to use the existing port for a longer period of time resulting in a slowdown in the ramp up of coal production and an extended period of higher barge port operating costs.
- Whilst the estimate for both the road and port has been completed, the accuracy of the estimate is stated to be low. It was also noted that imported CBR80 road pavement materials may not be readily available in this area. It is recommended that the estimate is updated with current pricing and from known road base quarries able to supply the Project.
- The navigable river channel requires dredging to facilitate the forecast expansion of coal barging requirements. Such works may come at significant additional cost and also require complex approvals at the Provincial Government level. It is advised that further studies are completed to ascertain improvements in the barging operation including a fully defined scope and costs for river dredging, spoil disposal, barging and tug logistics, and river traffic control systems.

Based on the review of the available documentation, RPM considers that the key E&S risks for TRA and MBJ are:

- TRA:
  - Dust emissions from coal handling and cleared areas have the potential to result in offsite amenity impacts.
  - Mining area surface water runoff – this is contaminated with AMD and requires treatment and monitoring prior to discharge to ensure the discharge quality meets the required permitted standards.
  - Mine land disturbance and rehabilitation – control of land clearing and erosion is required to minimise habitat and forest area disturbance, and cleared areas are required to be rehabilitated.
- Proposed Haulage Road and MBJ Port:

- Dust emissions from coal handling and cleared areas have the potential to result in offsite amenity impacts.
- Surface water runoff from the MBJ Port has the potential to result in quality impacts to surrounding surfaces water features. In particular, the potential for impacts to the water quality of Lalan River.
- MBJ Road land disturbance and rehabilitation – control of land clearing is required to minimise habitat and forest area disturbance, and temporary cleared areas are required to be rehabilitated.

The economic analysis risks are demonstrated in the results of sensitivity analysis of the economic model:

- Lower coal prices and revenue will reduce Project value;
- Long term market demand displacement for low energy coal from projects like TRA in exchange for higher energy, lower emission coal. This may be offset in part where product specification such as TRA's are required for boilers designed specifically to burn only this quality of coal;
- An increase in unit operating costs across any or all of the Project processes (mining, coal processing, coal hauling, barge loading) will reduce Project value; and
- A lower than planned ramp up in coal production will reduce Project value;
- Re-estimation of closure cost in accordance with the international standard ISO 21795:2021, Mine closure and reclamation planning may reduce Project value.

## Project Opportunities

The western portion of the concession currently has limited drilling coverage. Existing drilling data in the Malam block with quality analysis also needs additional closer spaced infill drilling that will improve both geological knowledge and the confidence level of waste and ROM coal quantities and qualities.

The high-wall pit of the western area Malam Block still has the potential to be evaluated and extended to add economically mineable ROM coal quantities; however, it will increase the incremental and total average stripping ratio.

The current Reserve estimate only includes the seam S4 group. There are other coal seams that are categorised as Indicated Resources inside the current pit design. The inclusion of these seams can be economically evaluated to increase the ROM coal quantities that can be mined, however the inclusion of these seams may decrease the average caloric value of the ROM coal that is mined.

The selected new coal haul road width could be widened to 16m (approximately 125 % increase in bulk earthworks) which will allow for an increase in truck haul speed and therefore reduce truck cycle times to and from the port.

Further investigation could be undertaken to evaluate using larger barges, or self-propelled barges to reduce barging unit costs.

Based on the review of the available documentation, RPM considers that the key E&S opportunities for TRA and MBJ are:

- Status with the project land acquisition – this has been completed for the proposed haulage road and MBJ port and is 78 % complete for TRA. The acquisition of the remaining 22 % land within the TRA IUP, will not significantly impact on mine operations and development.
- Ongoing implementation of the SMMT CDP – to demonstrate a commitment by the company to manage the any potential adverse effects from the TRA and proposed haulage road and MBJ port projects on the local social conditions, and to maintain the projects' social licence to operate.

The economic analysis opportunities are demonstrated in the results of sensitivity analysis of the economic model:

- Higher coal prices and revenue will increase Project value;

- A decrease in unit operating costs across any or all of the Project process (mining, coal processing, coal hauling, barge loading) will increase Project value;
- A faster than planned ramp up in coal production will increase Project value.

# 12 References

The following reports, documents and studies were used as reference material in the preparation of the Report:


- Preston, KB and Sanders, RH, (May 1993). "Estimating the In-Situ Relative Density of Coal", Australian Coal Geology, Vol. 9, pp 22-26.
- The Guidelines Review Committee on behalf of the Coalfields Geology Council of New South Wales and the Queensland Resources Council. (2014). Australian Guidelines for Estimation and Classification of Coal Resources.
- The Joint Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC). (2012). Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, (The JORC Code – 2012 Edition).
- Ikatan Ahli Geologi Indonesia. (2000). An Outline of the Geology of Indonesia.
- Badan Standardisasi Nasional. (2019). Pedoman Pelaporan, Sumberdaya, dan Cadangan Batubara (SNI 5015: 2019).
- PT Britmindo. (2011). Geotechnical and Hydrogeological Study PT Triaryani,
- PT. GeoXP. (2019). Open Cut Coal Resources and Reserves Estimation of PT. Triaryani, as of July 2019.
- PT Quantus Consultants Indonesia. (2012). Prosedur Standar Kerja Sampling Batubara.
- PT Quantus Consultants Indonesia. (2020). Standard Operasional Prosedur Pengambilan Sampel.
- Consensus Economics Inc. (15 May 2023). Energy & Metals Consensus Forecasts.
- TRA Virtual Data Room (VDR): \\2.0 TRA\2.3 Operation\.
- TRA Virtual Data Room (VDR): \\2.0 TRA\ 2.5 General\.

# 13 Consent Statement

The information in this Independent Qualified Person Report (IQPR) that relates to Technical Assessment and Valuation of Mineral Assets, reflects information compiled and conclusions derived by Mr Gregory Alan Eisenmenger, who is a Member of The Australasian Institute of Mining and Metallurgy (member number 304702). This report has an Effective Date as of 24 August 2023 and has been prepared in accordance with the Reporting Standards outlined in Section 1.5 of this report.

Mr Eisenmenger is a full time employee of RPM Advisory Services Pty Ltd, a fully owned subsidiary of RPM, at the company head office address of. Level 14, 310 Ann St, Brisbane QLD Australia 4000. RPM was instructed by PT Geo Energy Investama ("Client") to prepare this Report. Mr Eisenmenger is not an employee of PT Geo Energy Investama or any of its related entities.

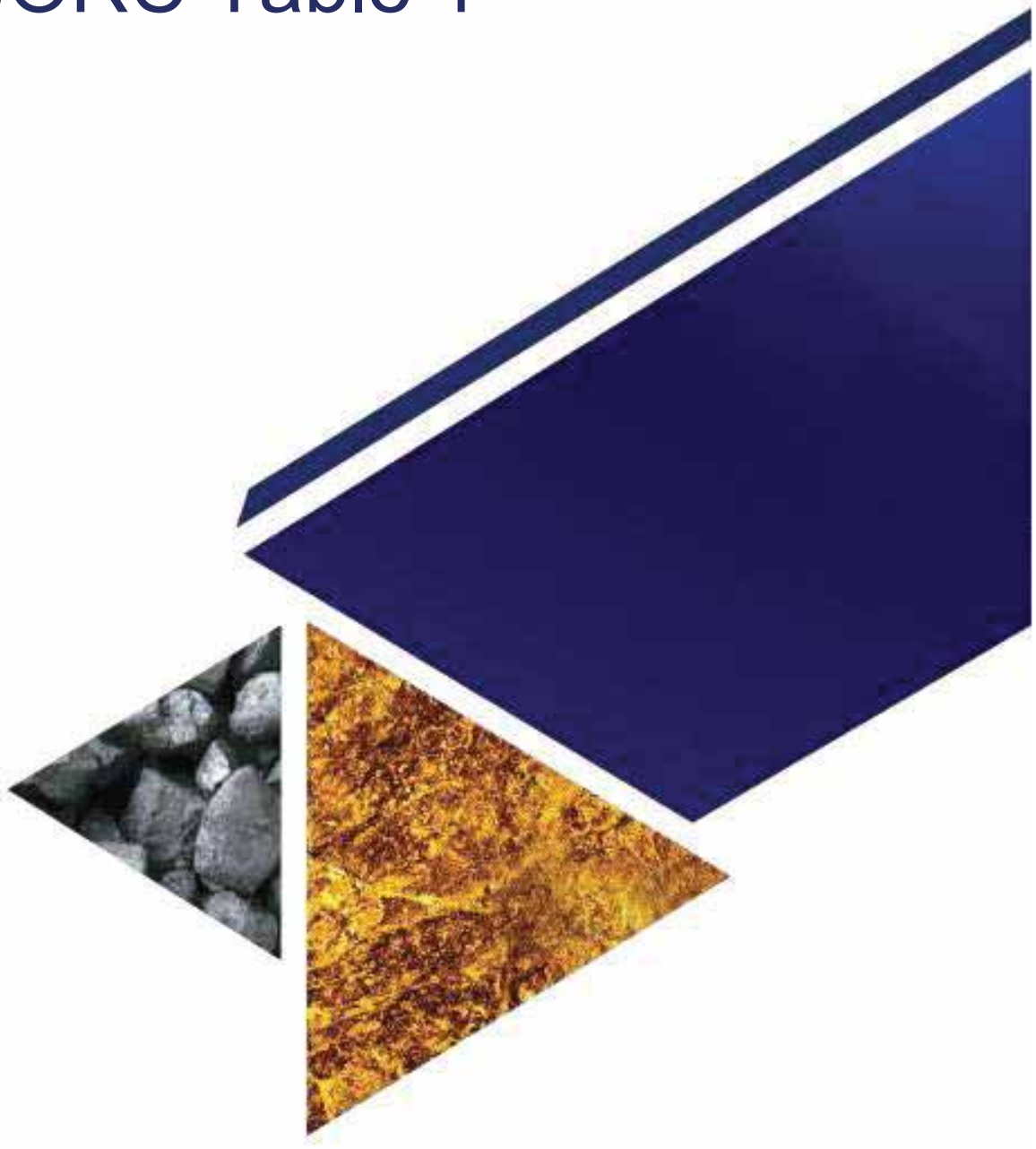
Mr Eisenmenger has sufficient experience relevant to the Technical Assessment and Valuation of the Mineral Assets under consideration and to the activity which he is undertaking to qualify as a Practitioner as defined in the VALMIN Code edition 2015. Mr Eisenmenger has over 45 years of international coal mining industry experience and is a 'Competent Person' as defined in the JORC Code and has significant experience as an 'Independent Technical Expert'. Mr Eisenmenger consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr Eisenmenger is not aware of any potential for a conflict of interest in relation to this work for the Client. He has no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this IQPR. No RPM staff who contributed to this report have any interest or entitlement, direct or indirect, in the companies, the mining assets under review, or the outcome of this IQPR. RPM will receive a professional fee for the preparation of this IQPR. Accordingly, Mr Eisenmenger has disclosed to the reporting company the full nature of the relationship between himself and the Client, including any issue that could be perceived by investors as a conflict of interest.

Gregory Alan Eisenmenger B.E.(Hons) (Civil), MAusIMM Membership Number 304702

RPMGLOBAL

# Appendix A.
# JORC Table 1



## Table 1 JORC Compliance Check List for Resources and Exploration

### Section 1 Sampling Techniques and Data

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | ▪ Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.<br>▪ Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.<br>• 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 the disclosure of detailed information. | ▪ Core sampling for coal quality work took place using NQ (47mm) and HQ (63mm) core sizes. Coal core samples were sent to the laboratory with a chain of custody paperwork.<br>▪ Open-hole drilling was also used with chip samples of cuttings and logged by the rig geologist. These chip samples were not analysed and used in quality modelling.<br>▪ A suite of downhole geophysical surveys, including Density, Gamma, and Calliper, were typically run in most drill holes. No drill hole deviation was completed due to vertical drilling and the shallow nature of the drill holes. 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 acquired to supplement the geologist's lithological description of the cores to:<br>– assist with ensuring that the core recoveries were satisfactory (> 90%); and<br>– assist with correlating the various seams and demonstrating continuity of seam character. |
| ***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 types, whether the core is oriented and if so, by what method, etc.). | ▪ PCD bits using air and water are used to complete the open hole sections of drill holes.<br>• Use of NQ and HQ (triple tube barrel) follows Industry accepted Standards for acquiring drill core. |
| ***Drill sample recovery*** | ▪ Method of recording and assessing core and chip sample recoveries and results assessed. | ▪ 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 |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | ▪ Measures are taken to maximise sample recovery and ensure the representative nature of the samples.<br>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. | core loss is recorded in geological logs, coal quality sample intervals and in the run-by-run drilling record field sheets.<br>▪ 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 %).<br>• No sample bias was identified in the current model dataset. |
| ***Logging*** | ▪ Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.<br>▪ Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.<br>• The total length and percentage of the relevant intersections logged. | ▪ A drill site geologist was always present during drilling operations.<br>▪ Preliminary core logs were derived from lithological logging of open hole chip "cuttings" and logging of drill core.<br>▪ All drill holes have a lithology description logged by a suitably qualified geologist. 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.<br>Field drill logs and field coal sample depths were subsequently reconciled against the geophysical logs whenever available. Barren drill holes were used to limit coal continuity. |
| ***Sub-sampling techniques and sample preparation*** | ▪ If core, whether cut or sawn and whether quarter, half or all cores taken.<br>▪ If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.<br>▪ For all sample types, the nature, quality and appropriateness of the sample preparation technique. | ▪ No splitting of the core is undertaken in the field. Sample preparation was done in PT. Geoservices laboratory in Bandung and Palembang city.<br>▪ 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.<br>• The coal samples collected for quality modelling were from NQ (47mm) and HQ (63mm) core sizes. This core size provides sufficient sample mass for testing raw coal |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | ▪ Quality control procedures were adopted for all sub-sampling stages to maximise the representativity of samples.<br>▪ 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.<br>• Whether sample sizes are appropriate to the grain size of the material being sampled. | parameters. |
| ***Quality of assay data and laboratory tests*** | ▪ The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.<br>▪ For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis include instrument make and model, reading times, calibrations factors applied and their derivation, etc.<br>• 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. | ▪ 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.<br>▪ Most of the coal plies have been subjected to a proximate analysis (which includes IM, Ash, VM, FC), TM, TS, and CV.<br>▪ Additional tests were performed in limited samples for Equilibrium Moisture (EQM), HGI, Ultimate Analysis, AFT, Ash Analysis, and Trace Elements.<br>▪ No QAQC was performed directly by TRA. It is expected that such a thorough QAQC was performed by PT. Geoservices as accredited external laboratories. |
| ***Verification of sampling and assaying*** | ▪ The verification of significant intersections by either independent or alternative company personnel.<br>▪ The use of twinned holes.<br>▪ Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>• Discuss any adjustments to assay data. | ▪ The logging and sampling were conducted by field geologists. Most core samples were acquired using the "twin-holes" method, with the rest using "target coring" methods. The sample depths were adjusted using geophysical log data. There are also several geotechnical holes that were drilled as fully cored holes.<br>▪ The protocols for sample acquisition, data entry, and data verification were developed by TRA's contractors. Assaying was completed by an external accredited laboratory.<br>• The internal QA-QC regression analysis shows that the relationship between Ash, IM and CV generally follows a normal trend. The relationship between CV and RD, in |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | | general, also conforms to the normal trend. No adjustment was made to the assay data. |
| ***Location of data points*** | ▪ Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.<br>▪ Specification of the grid system used.<br>• Quality and adequacy of topographic control. | ▪ All of drill hole collars were surveyed by Total Station. The topography was derived from combination of high precision aerial survey (LIDAR).<br>▪ The Project is using UTM 48S grid system.<br>• The benchmarks were derived from high precision Geodetic GPS which tied to the Government survey control. |
| ***Data spacing and distribution*** | ▪ Data spacing for reporting of Exploration Results.<br>▪ Whether the data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.<br>• Whether sample compositing has been applied. | ▪ Drill hole line spacing is typically 100-200 m in the Betung block and 450-600 m in the Malam block.<br>▪ This is considered adequate for the classification of Coal Resources into Measured and Indicated categories with due consideration for the variance in coal seam thickness, coal quality, and structural complexity.<br>• Sample compositing to a seam basis has been applied whenever the samples were based on a ply-by-ply basis. |
| ***Orientation of data in relation to geological structure*** | ▪ Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.<br>• 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. | • The geological data, including samples, was gathered based on vertical drilling supported by geophysical logging. Fifty-five of the 138 holes are quality, with core recovery generally > 90 %. |
| ***Sample security*** | • The measures are taken to ensure sample security. | ▪ All cores and cuttings were geologically described by qualified field geologists.<br>▪ Coal samples were stored in core trays on-site. Samples were taken from the core boxes, bagged in plastic bags with drill holes and sample numbers, and sent to the external laboratories after the instructions were completed.<br>▪ All sampling and sample labelling were undertaken by or supervised by the field geologist.<br>▪ Samples were packed, handled, and transported with normal care, documentation, and chain of custody. |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | | • 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. |
| ***Audits or reviews*** | • The results of any audits or reviews of sampling techniques and data. | ▪ Sampling and data acquisition procedures were reviewed by Competent Person, which confirmed that the exploration approach being used is acceptable for Resource reporting purposes.<br>• Site visits were performed by qualified geologists. The Competent Person discussed the outcome personally. |

## Section 2 – Reporting of Exploration Results

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| ***Mineral tenement and land tenure status*** | ▪ Type, reference name/number, location and ownership, including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national parks and environmental settings.<br>• 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. | ▪ All concessions have valid IUP (mining lease), documentation. No material issues were identified regarding this matter.<br>• The project is in the operating stage with a valid license. No issue operating in the area. |
| ***Exploration done by other parties*** | • Acknowledgment and appraisal of exploration by other parties. | ▪ TRA commenced an internal exploration programme in 1986.<br>• From 2010 onward, exploration was undertaken by third-party contractors. |
| ***Geology*** | • Deposit type, geological setting, and style of mineralisation. | • The Project concessions are within thick, multi-seam deposits that occur within the Late Miocene Age Muara Enim Formation of the South Sumatera Basin. The geology of the entire Project is best described as a series of shallowly plunging anticlinorium and synclinorium structures that trend northwest-southeast with shallow dips on their limbs. In the |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | | Malam block, coal occurs in a syncline structure with a dip of approximately 5 – 15 degrees. In the Betung block, coal occurs in a syncline structure with a dip of approximately 5 – 25 degrees. Multiple faults were identified with displacements between 70 m to 250 m that limit the continuity of coal seams in the Project area. |
| ***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.<br>▪ 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.<br>• The assumptions used for any reporting of metal equivalent values should be clearly stated. | • Samples are composited by weighting by mass if the samples were taken on a ply-by-ply basis. No maximum and/or minimum cut-offs were used in the modelling and estimation process. |
| ***Relationship between mineralisation widths and intercept length*** | ▪ These relationships are particularly important in the reporting of Exploration Results.<br>▪ If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.<br>• 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) | • The geometry of the deposit is well understood. This was based on the drill hole data and other geological information (regional and local mapping results). |
| ***Drill hole Information*** | ▪ A summary of all information material to the understanding of the exploration results, including a tabulation of the following information for all Material drill holes:<br>– Easting and northing of the drill hole collar;<br>– Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar; | ▪ A total of 138 drill holes supported with geophysical logs were used for modelling. Fifty-five of 138 holes were quality holes.<br>• A summary of the drilling discussion is provided in Section 5 and Section 6. |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | – Dip and azimuth of the hole; and<br>– Downhole length and interception depth.<br>▪ Hole length.<br>• 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. | |
| ***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. | ▪ Drill hole map and typical sections of TRA are provided in the Report. |
| ***Balanced reporting*** | • Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results. | • All information provided by the Client, including exploration results, has been reviewed. This Report references all 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. | • Geotechnical and hydrogeological studies were completed, with the results being incorporated for mine planning purposes. |
| ***Further work*** | ▪ The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>• Diagrams clearly highlight the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | ▪ Future drilling is planned within the target area to increase confidence and model accuracy. |

## Section 3 Estimation and Reporting of Mineral Resources

| Criteria | | Commentary |
|---|---|---|
| ***Database integrity*** | ▪ Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.<br>• Data validation procedures used. | ▪ TRA uses Microsoft Excel as the main geological dataset storage. To minimise errors in the dataset, several main steps were applied:<br>– Coal seam data entered the geological dataset was reconciled against the logs.<br>– There are several underlying "business rules" built into the dataset that help ensure consistency and integrity of data, including, but not limited to:<br>· the relational link between geological, downhole geophysical, and coal quality data;<br>· restriction of data entry to the interval of the defined drill hole depth;<br>· basic statistics such as histograms for major quality parameters (CV, Ash & TS) and cross plots (CV, Ash & RD) to ensure data consistency and understanding errors, if any; and<br>· basic coal quality integrity checks, such as ensuring data is within normal range limits, that proximate analyses add to 100 percent etc.<br>▪ Competent Person independently checked and rechecked seam and stratigraphic picks and correlations. After modelling, anomalous seam and interburden structures and thicknesses were interrogated, and errors were iteratively corrected from the dataset.<br>– It is highly unlikely that there is significant corrupt data in the dataset, given the validation procedures above.<br>• Some errors may still pass through to the geological and coal quality models. Considering that coal is a bulk commodity of relative even 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. |

<table>
<tr><th>Criteria</th><th></th><th>Commentary</th></tr>
<tr><td>Site visits</td><td>▪ Comment on any site visits undertaken by the Competent Person and the outcome of those visits.<br>• If no site visits have been undertaken, indicate why this is the case.</td><td>▪ A site visit was undertaken by Mr Delvit Muhamad and Mr Gusti Sumardika on 9-13 April 2023. The Competent Person has discussed the outcome and confirmed the following:<br>– Geological features that were observed in the active pit, in general, are aligned with geological model interpretation;<br>– The Project is in the operating stage, with the mining operations carried out and supervised professionally by TRA and its contractors; and<br>• There are sufficient infrastructures in place to support the mining operation.</td></tr>
<tr><td>Geological interpretation</td><td>▪ Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.<br>▪ Nature of the data used and of any assumptions made.<br>▪ The effect, if any, of alternative interpretations on Mineral Resource estimation.<br>▪ The use of geology in guiding and controlling Mineral Resource estimation.<br>• The factors affecting continuity both of grade and geology.</td><td>▪ The geological interpretation was based on the drilling data with the support of geophysical log information.<br>▪ TRA also used the regional and local mapping results to support the geological interpretation of the deposit.<br>▪ The confidence level of the deposit was determined based on the data distribution and geological complexity.<br>• All necessary constraints which affect the continuity of the coal seams were considered.</td></tr>
<tr><td>Dimensions</td><td>• The extent and variability of the Mineral Resource are expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</td><td>• The deposit covers an area of approx. 1,600 ha, with an approximate strike length of 5.5 km with a width of 3.5 km. A set of plans are also provided in the Report.</td></tr>
<tr><td>Estimation and modelling techniques</td><td>▪ The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and a maximum distance of extrapolation from data points. If a computer-assisted estimation method was chosen, include a description of the computer software and parameters used.</td><td>▪ Three-dimensional computer models were updated by RPM using Datamine MineScape software version 8.1. The summary of model parameters is as below:<br><table><tr><th>Parameter</th><th>TRA</th></tr><tr><td>Software</td><td>Datamine MineScape Version 8.1</td></tr><tr><td>Grid/ Block Size</td><td>25 x 25 m</td></tr></table></td></tr>
</table>

<table>
<tr><th>Criteria</th><th></th><th>Commentary</th></tr>
<tr><td></td><td>▪ The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.<br>▪ The assumptions made regarding recovery of by-products.<br>▪ Estimation of deleterious elements or other non-grade variables of economic significance (e.g., sulphur for acid mine drainage characterisation).<br>▪ In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.<br>▪ Any assumptions behind modelling of selective mining units.<br>▪ Any assumptions about correlation between variables.<br>▪ Description of how the geological interpretation was used to control the resource estimates.<br>▪ Discussion of basis for using or not using grade cutting or capping.<br>• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</td><td><table><tr><td rowspan="3">Structure Interpolator</td><td>Thickness: Planar (0)</td></tr><tr><td>Surface: FEM (1)</td></tr><tr><td>Trend: FEM (0)</td></tr><tr><td>Extrapolation Distance</td><td>2,500</td></tr><tr><td>Quality Interpolator</td><td>Inverse</td></tr><tr><td>Distance Power</td><td>3</td></tr></table>▪ Check estimates were undertaken by other competent geologist within RPM group to ensure the validity of the result.<br>▪ The models were based on gridded modelling approach.<br>▪ No selective mining unit assumptions were used for modelling processes.<br>▪ Model validation was undertaken by floor, thickness, and quality comparison model versus drill holes data and by visually inspecting the model sections, structure, quality contour, etc. against drill hole data.</td></tr>
<tr><td>Moisture</td><td>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</td><td>• Tonnages are estimated on an 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.</td></tr>
<tr><td>Cut-off parameters</td><td>• The basis of the adopted cut-off grade(s) or quality parameters applied.</td><td>• No cut-off grade has been used. A pit limit optimisation was applied.</td></tr>
<tr><td>Mining factors or assumptions</td><td>• 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</td><td>▪ A Minimum thickness of 0.5 m has been applied.<br>▪ No mining losses and dilution factor was used for Resources estimation.</td></tr>
</table>

| Criteria | | Commentary |
|---|---|---|
| | 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. | ▪ An economic pit shell was used to limit the reported Resources based on operating costs as outlined in the Reserves estimate and a benchmark coal price of USD 138 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 historical and future benchmark price.<br>▪ An overall slope of 30 degrees was applied in the optimisation process.<br>▪ 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 3.8:1 for the whole TRA area. |
| ***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 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 | • A selected mine optimization has been used to limit Resource estimation, and it is assumed environmental factors have been considered during the mine optimization process, such as rehabilitation and reclamation costs, as well any physical constraints (major river, etc.). |

| Criteria | | Commentary |
|---|---|---|
| | impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. | |
| ***Bulk density*** | ▪ Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, and the nature, size and representativeness of the samples.<br>▪ 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.<br>• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. | • 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. |
| ***Classification*** | ▪ The basis for the classification of the Mineral Resources into varying confidence categories.<br>▪ Whether the appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in the continuity of geology and metal values, quality, quantity and distribution of the data).<br>• Whether the result appropriately reflects the Competent Person's view of the deposit. | ▪ 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 the estimation of coal Resources. The RPM Competent Person has developed an approach that is based on the Indonesian Coal Guidelines (SNI: 5015 2019) to categorize the deposit complexity. The Competent Person also used geostatistics to define the PoO spacing for the Resource estimate. It is in the Competent Person's view that the guideline is reasonable for the classification of Indonesian coal deposits.<br>▪ The Indonesian Coal Guideline classifies coal deposits by several criteria into three levels based on the geological complexity that are described below:<br>- Simple:<br>· The deposit is not significantly affected by folding, faulting and intrusion.<br>· Strata dip is generally shallow. |

| Criteria | | Commentary |
|---|---|---|
| | | · Coal seam continuity can be traced over thousands of metres.<br>· Coal seams have limited and simple splitting.<br>· No material variability on both quality and coal lateral thickness observed.<br>– Moderate:<br>· The coal was deposited within a more fluctuating sedimentary environment resulting in moderate levels of splitting, and lateral seam thickness variability.<br>· Seam continuity can be traced over hundreds of metres.<br>· 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.<br>· The coal quality variability is directly related to the increased variability due to seam thickness changes and seam splitting.<br>· In some places, igneous intrusion affects seam structure and quality.<br>– Complex<br>In general, coal was deposited within a complex sedimentation environment resulting in;<br>· Seam splitting is common and forms complex splitting and coalescing patterns.<br>· Seam wash out, shale out.<br>· Coal quality is highly variable.<br>· Coal lateral distribution is limited and can only be traced over dozens of metres.<br>· Has been tectonically and extensively deformed resulting in steep strata dips and structurally induced seam thickness variability: |

<table>
<tr><th>Criteria</th><th></th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<ul>
<li>Folding, with some overturned bedding.</li>
<li>Steep seam dips.</li>
<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:
<ul>
<li>Dips are gentle, and most of the Resource has a dominant shallow dip at 5-10 degrees. This indicates that deposit is not significantly affected by folding;</li>
<li>Three faults are identified within the deposit at the far southwest corner and southeast corner of TRA concession;</li>
<li>The coal quality is consistent across the project, no significant anomaly was identified; and</li>
<li>The coal seams, particularly main seam groups on each block can be easily recognised from their geophysical signatures and thickness. The main seam groups can also maintain its total thickness throughout the Resource area.</li>
</ul></li>
<li>The PoO Spacing that been used for TRA is shown in table below.</li>
</ul>
<table>
<tr><th rowspan="2">Area</th><th rowspan="2">Seam Group</th><th colspan="3">PoO Radii (m) Quantity</th></tr>
<tr><th>Measured</th><th>Indicated</th><th>Inferred</th></tr>
<tr><td rowspan="4">TRA</td><td>All Seams</td><td>300</td><td>625</td><td>1,400</td></tr>
<tr><td rowspan="2">Seam Group</td><td colspan="3">PoO Radii (m) Quality</td></tr>
<tr><td>Measured</td><td>Indicated</td><td>Inferred</td></tr>
<tr><td>All Seams</td><td>250</td><td>500</td><td>1,000</td></tr>
</table>
<ul>
<li></li>
</ul>
</td></tr>
<tr><td>Audits or reviews</td><td>• The results of any audits or reviews of Mineral Resource estimates.</td><td>• Coal Resources estimations were internally peer reviewed by RPM and no fatal flaws were identified.</td></tr>
</table>

| Criteria | | Commentary |
|---|---|---|
| ***Discussion of relative accuracy/ confidence*** | ▪ Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.<br>▪ 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.<br>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. | ▪ Confidence levels were determined based on the Competent Person's view of the deposit's geological complexity. The Competent Person also used the Indonesian Coal Resources Guideline (SNI 2011) and Australian Coal Guidelines 2014 to define the confidence limit. A geostatistical - variogram study was completed to support the radii of influence of Coal Resources. RPM is of the opinion that the approaches are reasonable considering the nature and the location of the deposit. Rounding has also been applied to Resource estimation to reflect relative accuracy.<br>▪ The statement relates to global estimates.<br>• There is no reconciliation to date available. However, the total production is considered small compared to the total Resource, as the total mining area is only 90 hectares or 6% of the total area of the coal deposit. RPM considered the absence of coal reconciliation will not have a material impact on the Resource statement. |

## Table 1 JORC Compliance Check List For Ore Reserves

### Section 4 Estimation and Reporting of Coal Reserves

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| ***Mineral Resource estimate for conversion to Coal Reserves*** | Description of the Mineral Resource estimate used as a basis for the conversion to a Coal Reserve.<br><br>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Coal Reserves. | This JORC Reserve is estimated from JORC (2012) Code compliant Coal Resources Statement signed by Mr Hengky Palysa. The Competent Person, Mr. Palysa, 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 model associated with it formed the basis of the subsequent Coal Reserve estimate.<br><br>Coal Resources are reported inclusive of the Coal Reserves. |
| ***Site visits*** | Comment on any site visits undertaken by the Competent Person and the outcome of those visits.<br><br>If no site visits have been undertaken indicate why this is the case. | A site visit was undertaken to TRA by Mr. Delvit Muhammad and Mr. Gusti Sumardika in May 2023, both of whom are permanent employees of RPM.<br><br>The purpose of the site visits is to visit and inspect the current operations and infrastructures and visit the location plan of the new port. |
| ***Study status*** | The type and level of study undertaken to enable Mineral Resources to be converted to Coal Reserves.<br><br>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Coal 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. | TRA is an operating mine that commenced production in 2012 and has been mined a total of 5.9Mt coal as per end of year 2022 at the average actual SR of 1.2 bcm/t. Over its recent production from January to end of May 2023, TRA has mined 0.6 Mt at the average actual SR of 4.3 bcm/t.<br><br>A Life of mine (LOM) plan has been updated based on the 2023 Pit Shell that has been used as a basis to estimate the coal Reserve. A LOM plan has been developed by |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | | RPM and is considered to be at least equivalent to a Pre-Feasibility study mine plan.<br><br>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 were undertaken at a Pre-Feasibility study level. |
| ***Cut-off parameters*** | The basis of the cut-off grade(s) or quality parameters applied. | All seams that have been modelled have used the quality information contained within the model, with an allowance for dilution and loss based on assumed rock qualities. No quality cut off has been applied.<br><br>Only seam S4 Group (seam 4A, 4, and 4B) were counted as mineable coal following the Client's strategy to marketing this type of coal in order to gain the average product CV of 3,800 to 3,900 kcal/kg (gar) |
| ***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 Coal Reserve (i.e., either by application of appropriate factors by optimisation or by preliminary or detailed design).<br><br>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.<br><br>The assumptions made regarding geotechnical parameters (e.g., pit slopes, stope sizes, etc.), grade control and pre-production drilling.<br><br>The major assumptions made, and Mineral Resource model used for pit and stope optimisation (if appropriate). | The economic limit of the deposit has been determined using the pit optimisation process. The selected optimum shell is used as a basis to form and update the practical pit design.<br><br>The practical pit shell design was developed as the basis of the reported quantities. This pit was designed based on a selected optimisation shell which was cross checked against the Break-Even Strip Ratio (BESR) for the Project.<br><br>The life of mine plan schedule has been completed to demonstrate the mining and dump sequence on an annual basis production plan.<br><br>The LOM economic model has been developed to demonstrate the economic value of the Project. |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | The mining dilution factors used.<br><br>The mining recovery factors used.<br><br>Any minimum mining widths used.<br><br>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.<br><br>The infrastructure requirements of the selected mining methods. ` | The targeted seam, which is the S4 Group within the LOM pit design, was converted to the Reserve based on its categorisation referring to the Resource polygon limit. Only Measured and Indicated Resources are being converted to the Reserve.<br><br>The current operation method adopted in the Project is the Truck and Shovel open cut mining method. This method is considered a common proven mining method for the type of deposit in Indonesia.<br><br>Geotechnical studies of the rock strength and other material characteristics undertaken by the Client and its consultants have formed the basis of the pit slope parameters used in pit design.<br><br>Mining factors include:<br><br>Coal loss from the roof of 100 mm and from the floor of 100 mm has been modelled.<br><br>Dilution of total 50mm from the roof and floor has been modelled.<br><br>Mining Global loss of 4 %.<br><br>Dilution relative density of 2.1 $t/m^3$ and ash of 75 %.<br><br>ROM moisture is assumed to be similar with in-situ moisture with no adjustment applied.<br><br>Inferred coal was transferred to the waste of the total planned LOM mineable quantity, and RPM anticipates that the exclusion of this would not impact the outcomes of this study. |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | | The infrastructure required for the operation at the current and existing production level is already in place. The plan to build a new infrastructure to support the ramp up production plan is now being on the final stage of preparation study and ready for the development phase. The new infrastructures, which will include the new coal hauling road and port facility, will be built by a third party and will be used by TRA under a rental service agreement. |
| ***Metallurgical factors or assumptions*** | The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.<br><br>Whether the metallurgical process is well-tested technology or novel in nature.<br><br>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.<br><br>Any assumptions or allowances made for deleterious elements.<br><br>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the coal body as a whole.<br><br>For minerals that are defined by a specification, has the coal reserve estimation been based on the appropriate mineralogy to meet the specifications? | The mined ROM coal is planned to be dumped into graded stockpiles or directly into the ROM crusher. The ROM coal will be fed to the crusher, sized, and screened. The coal will be blended to the average grade being created within the period of time for the stockpile construction. Beyond blending and screening, no further metallurgical processing is undertaken on the Product coal.<br><br>Within the global losses, there is an allowance that accounts for the loss in volume caused by coal processing, conveying, and general spillage. |
| ***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 | The Project has an approved AMDAL and is at the production level under the approval capacity. There is an annual report provided to the government regarding environmental monitoring and compliance. |

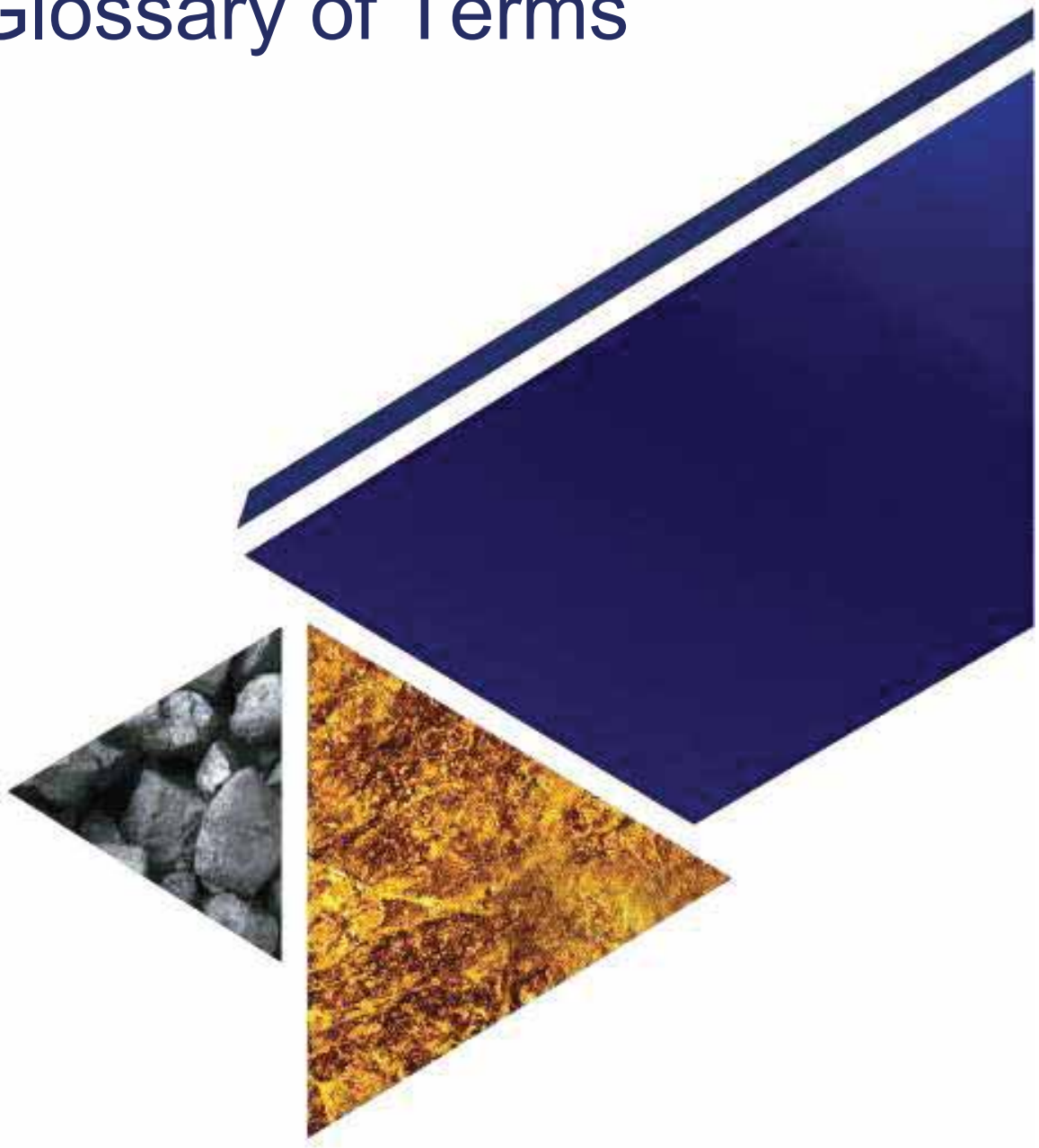
| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | applicable, the status of approvals for process residue storage and waste dumps should be reported. | TRA has established the environmental management plan, which generally will address all aspects of the mine operation and community development plan. |
| ***Infrastructure*** | The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed. | The project is currently on operating status with all required infrastructure in place.<br><br>A new infrastructure plan is to be built by a third party to support the ramp up production plan. |
| ***Costs*** | The derivation of, or assumptions made, regarding projected capital costs in the study.<br><br>The methodology used to estimate operating costs.<br><br>Allowances made for the content of deleterious elements.<br><br>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.<br><br>The source of exchange rates used in the study.<br><br>Derivation of transportation charges.<br><br>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.<br><br>The allowances made for royalties payable, both Government and private. | Operating costs have been supplied by the Client based on the current contracted rates and the projection to the ramp up production forecast with contractor mining rates that would be expected in the Indonesian coal mining industry.<br><br>The cost estimates provided by the Client are considered by RPM to be at least equivalent to a Pre-feasibility level of confidence.<br><br>The infrastructure required to support the current up to max 6Mtpa is already in place, and the supporting facilities required to support the ramp up production up to maximum 25Mtpa of coal are currently in the final stage of study and preparation for construction. TRA expected the third party company will able to complete the new facilities within the next 2 to 3 years.<br><br>Royalties are based on Government statutory royalties.<br><br>Product coal pricing, benchmark specification and any required price adjustments to reflect the actual product coal specification were provided by the Client. |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| ***Revenue factors*** | The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.<br><br>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. | Forward pricing in the economic model is based on a third party longterm forecast price of coal product at 3,800gar (FOB Indonesia) provided by the Client.<br><br>The benchmark price is adjusted to reflect the actual product coal quality.<br><br>All costs and revenues are based on US dollars, so there is no exchange rate adjustment of the Project financials. |
| ***Market assessment*** | The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.<br><br>A customer and competitor analysis along with the identification of likely market windows for the product.<br><br>Price and volume forecasts and the basis for these forecasts.<br><br>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. | There are no market analysis studies have been undertaken for this Project.<br><br>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.<br><br>Forward pricing in the economic model is based on a third party longterm forecast price of coal product at 3,800gar (FOB Indonesia) provided by the Client. |
| ***Economic*** | The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.<br><br>NPV ranges and sensitivity to variations in the significant assumptions and inputs. | The economic model is used to value the Project based on the LOM production schedule result. A Project Net Present Value (NPV), at a Discount Rate of 12 %, has been estimated for the LOM production schedule.<br><br>The key outcome from the TRA Project economic modelling is that positive cash flows and margins are generated throughout the remaining mine life. Based on the current cost inputs and revenue assumptions, the mine returns a positive and acceptable NPV result at a 12 % discount rate and indicates indicating that the mine is economic from an NPV standpoint. |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | | |
| ***Social*** | The status of agreements with key stakeholders and matters leading to social licence to operate. | All the required permits and approvals are in place to support the production stage of the Project. |
| ***Other*** | To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Coal Reserves:<br><br>Any identified material naturally occurring risks.<br><br>The status of material legal agreements and marketing arrangements.<br><br>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. | The Project has successfully marketed the coal production to date, and the mine is expected will be able to continue selling its coal product.<br><br>All coal 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 operation's viability. |
| ***Classification*** | The basis for the classification of the Coal Reserves into varying confidence categories.<br><br>Whether the result appropriately reflects the Competent Person's view of the deposit.<br><br>The proportion of Probable Coal Reserves that have been derived from Measured Mineral Resources (if any). | Classification of Coal Reserves has been derived by considering the Measured and Indicated Resources and the level of mine planning.<br><br>Measured coal Resources are classified as Proved coal Reserves, and Indicated coal Resources are classified as Probable coal Reserves, as the mine is currently operating, and the level of mine planning is considered adequate to support this level of certainty in the coal Reserve estimate. |

| Criteria | JORC Explanation | Commentary |
|---|---|---|
| | | The Inferred Coal Resources have been excluded from the Coal Reserve estimates.<br><br>The result reflects the Competent Persons' view of the deposit. |
| ***Audits or reviews*** | The results of any audits or reviews of Coal Reserve estimates. | An internal review has been undertaken by RPM senior staff, and the outcome of the coal Reserve estimate has been confirmed. |
| ***Discussion of relative accuracy/ confidence*** | Where appropriate a statement of the relative accuracy and confidence level in the Coal 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.<br><br>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.<br><br>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Coal Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.<br><br>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. | Both competent person and project peer reviewer are of the opinion that the relative accuracy and confidence level in the Coal Reserve using an appropriate approach and or procedures.<br><br>The statement predominantly relates to local estimates of all relevant modifying factors applied to converting Coal Resources to Coal Reserves in accordance with the JORC 2012 Code.<br><br>The coal Reserve estimate is most sensitive to the prevailing long term coal price used to determine the pit limits and the BESR.<br><br>The cost factors used in determining the pit limits and BESR were based on the Client cost forecast for a contract mining rate in the region.<br><br>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. |

# Appendix B.
# Glossary of Terms



| Abbreviation | Unit or Term |
|---|---|
| A | Ampere |
| ad | air dry |
| adb | air dry basis |
| AFC | Armoured Face Conveyor |
| AHD | Australian Height Datum |
| AIG | Australian Institute of Geoscientists |
| AOP | Annual Operations Plan |
| ar | as received |
| arb | as received basis |
| ARD | Apparent Relative Density |
| ARTC | Australia Rail Track Corporation |
| Associated Infrastructure | proposed 92km haulage road and MBJ port |
| ATLAS | PT Atlas Resources Tbk |
| AUD | Australian Dollar |
| AUSIMM | Australasian Institute of Mining and Metallurgy |
| bcm | bank cubic metre |
| BESR | Break Even Strip Ratio |
| BoW | Base of Weathering |
| C | Celsius (temperature) |
| Ca | Calcium |
| CAPEX | Capital expenses |
| CHPP | Coal Handling Processing Plant |
| Client | PT. Geo Energy Investama |
| Company | PT. Triaryani |
| CSN | Crucible Swell Number |
| DD | Diamond Drillholes |
| ddpm | dial divisions per minute |
| DMC | Dense Medium Cyclone |
| DTM | Digital Terrain Model |
| EHS | Environmental, Health and Safety |
| EIS | Environmental Impact Statement |
| EMP | Environmental Management Plan |
| EMS | Environmental Management System |
| EP | Equator Principles |
| EPCM | Engineering, Procurement, Construction Management |
| EPL | Environment Protection Licence |
| ESAP | Environmental and Social Action Plan |
| FoS | Factor of safety |
| FS | Feasibility Study |
| g | Grams |
| g/cc | Grams per cubic centimetre (density measurement) |
| gar | gross as received |
| GDB | Geological Database |
| GPS | Global Positioning System |
| HGI | Hardgrove Grindability |
| H:V | Horizontal:Vertical ratio |
| hp | Horsepower |
| H2SO4 | Sulphuric acid |
| Hz | hertz |
| IQPR | Independent Qualified Persons' Report as defined in Practice Note 6.3 of the SGX Mainboard listing rules. |
| JORC | Joint Coal Reserves Committee |
| JORC Code | Refers to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition, which is used to determine resources and reserves, and |

is published by JORC on behalf of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia

| | |
|---|---|
| kcal | thousands of calories |
| km | kilometre |
| sq.km | square kilometres |
| Kt | thousands of tonnes |
| ktpa | thousands of tonnes per year |
| kV | kilovolt |
| kW | kilowatt |
| kWh | kilowatt hour |
| l | liter |
| l/s | liters per second |
| LAS | Log ASCII Standard |
| lb | pound |
| lbs | pounds |
| LD | Large Diameter |
| LOM | Life of Mine |
| LTCC | Longwall Top Coal Caving |
| m | metre |
| cu.m | cubic metre |
| masl | meters above sea level |
| M | Million |
| MBcm | Million Bank cubic metres |
| MBJ | PT Marga Bara Jaya |
| M&I | Measured and Indicated (with respect to Resources) |
| ML | Mining Lease |
| MOP | Mine Operations Plan |
| Mt | Million tonnes |
| Mtpa | Million tonnes per annum |
| MW | megawatt |
| MWh | megawatt-hour |
| nar | net as received |
| NPV | Net present value |
| OC | Open Cut |
| OK | Ordinary Kriging |
| OPEX | Operational expenses |
| P | Phosphorus |
| PCI | Pulverised Coal Injection |
| PG | Professional Geologist |
| PoO | Point of Observation |
| PPE | Personal Protective Equipment |
| ppm | parts per million |
| PT GEI | PT Geo Energy Investama |
| QA/QC | quality-assurance/quality-control |
| QLD | Queensland |
| RC | Reverse Circulation Drill Holes |
| RCE | Rehabilitation Cost Estimate |
| RD | Relative Density |
| Rec | Recovery |
| ROI | Return on investment (percentage, after tax) |
| ROM | Run of Mine |
| RPM | RPMGlobal and its subsidiaries |
| Rv max | Vitrinite Reflectance |
| S | Sulphur |
| SBL | PT Sriwijaya Bara Logistic |
| SD | Standard deviation |
| SGX | Singapore Exchange Securities Trading Limited |
| SJB | PT. Satui JasaBara |
| SMMT | PT Golden Eagle Energy Tbk |
| $SO_2$ | Sulphur Dioxide |

| | |
|---|---|
| SR | Strip Ratio (expressed either as t:t or bcm:t) |
| SSCC | Semi Soft Coking Coal |
| t | Metric tonne |
| tph | Metric tonnes per hour |
| tpd | Metric tonnes per day |
| t/m³ | Tonnes per cubic metre (density measurement) |
| TSF | Tailings Storage Facility |
| UCS | Uniaxial Compressive Strength |
| UG | Underground |
| USD/$ | United States Dollars |
| VALMIN | Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets promulgated by the VALMIN Committee (VALMIN Code 2015 Edition). |
| Wi | Work index (grinding characteristic of rock) |
| WWTP | waste water treatment plant |
| XRF | X-ray fluorescence |
| 2D | 2 Dimensional |
| 3D | 3 Dimensional |

Note: Where the terms Competent Person, Inferred Resources and Measured and Indicated Resources are used in this report, they have the same meaning as in the JORC Code.

A 'Coal Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Coal Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Coal Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Coal Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

***A 'Measured Coal Resource' is that part of a Coal Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.***

*Mineralisation may be classified as a Measured Coal Resource when the nature, quality, amount and distribution of data are such as to leave no reasonable doubt, in the opinion of the Competent Person determining the Coal Resource, that the tonnage and grade of the mineralisation can be estimated to within close limits, and that any variation from the estimate would be unlikely to significantly affect potential economic viability.*

***An 'Indicated Coal Resource' is that part of a Coal Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.***

*An Indicated Coal Resource has a lower level of confidence than that applying to a Measured Coal Resource, however has a higher level of confidence than that applying to an Inferred Coal Resource.* Mineralisation may be classified as an Indicated Coal Resource when the nature, quality, amount and distribution of data are such as to allow confident interpretation of the geological framework and to assume continuity of mineralisation. Confidence in the estimate is sufficient to allow the application of technical and economic parameters, and to enable an evaluation of economic viability.

***An 'Inferred Coal Resource' is that part of a Coal Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.***

*An Inferred Coal Resource has a lower level of confidence than that applying to an Indicated Coal Resource. The Inferred category is intended to cover situations where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, however where the data are insufficient to allow the geological and/or grade continuity to be confidently interpreted. Commonly, it would be reasonable to expect that the majority of Inferred Coal Resources would upgrade to Indicated Coal Resources with continued exploration. However, due to the uncertainty of Inferred Coal Resources, it should not be assumed that such upgrading will always occur. Confidence in the estimate of Inferred Coal Resources is usually not sufficient to allow the results of the application of technical and economic parameters to be used for detailed planning. For this reason, there is no direct link from an Inferred Resource to any category of Ore Reserves.*

# Appendix C.
## Listing of S&P Global Projects for comparable transactions consideration

| Property Name | Buyer Name/ Target Name | Deal Type | Target | Target Country/Region | Announce Date (dd/mm/yyyy) | Deal Status | Completion/Termination Date (dd/mm/yyyy) | Mining Methods | Reserves & Resources As Of Date (dd/mm/yyyy) | Measured & Indicated: Ore Tonnage Incl Reserves (Mtonnes) | Inferred Resources: Ore Tonnage (Mtonnes) | Reserves & Resources: Ore Tonnage (Mtonnes) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Delta | Altura Mining Limited/Delta coal mine | Metals & Mining Property | Delta coal mine | Indonesia | 27/02/2013 | Completion | 27/02/2013 | Open Pit | 30/06/2013 | 41.9 | 19.5 | 61.4 |
| Arutmin | PT BUMI Resources Tbk./Arutmin mine | Metals & Mining Property | Arutmin mine | Indonesia | 30/01/2014 | Definitive Agreement | | Open Pit | 31/12/2022 | NA | NA | 1,995.9 |
| ADK | Investor group/Indonesian projects | Metals & Mining Property | Indonesian projects | Indonesia | 01/07/2014 | Completion | 14/08/2014 | Open Pit | 11/02/2013 | 2.4 | 1.1 | 3.5 |
| Binungan | Argyle Street Management Limited/Asia Resource Mineral | Metals & Mining Company | Asia Resource Minerals plc | United Kingdom | 08/06/2015 | Completion | 15/07/2015 | Open Pit | 31/12/2014 | 1,900.0 | 478.0 | 2,378.0 |
| Lati | Argyle Street Management Limited/Asia Resource Mineral | Metals & Mining Company | Asia Resource Minerals plc | United Kingdom | 08/06/2015 | Completion | 15/07/2015 | Open Pit | 31/12/2014 | 445.0 | 104.0 | 549.0 |
| Sambarata | Argyle Street Management Limited/Asia Resource Mineral | Metals & Mining Company | Asia Resource Minerals plc | United Kingdom | 08/06/2015 | Completion | 15/07/2015 | Open Pit | 31/12/2014 | 264.0 | 55.0 | 319.0 |
| Rantau Nangka | Agritrade Resources Limited/Merge Mining Holding Limited | Metals & Mining Company | Merge Mining Holding Limited | Cayman Islands | 28/10/2015 | Completion | 31/12/2015 | Long Wall | 31/03/2019 | 164.7 | 98.4 | 263.1 |
| Haju | PT Adaro Energy Tbk/IndoMet coal business | Metals & Mining Property | IndoMet coal business | Indonesia | 03/06/2016 | Completion | 14/10/2016 | Open Pit | 31/12/2022 | 4.2 | 0.1 | 4.3 |
| Lampunut | PT Adaro Energy Tbk/IndoMet coal business | Metals & Mining Property | IndoMet coal business | Indonesia | 03/06/2016 | Completion | 14/10/2016 | Open Pit | 31/12/2022 | 100.2 | 0.1 | 100.3 |
| Melak | Private investor - Dr. Low Tuck Kwong/PT Bayan Resource | Metals & Mining Company | PT Bayan Resources, Tbk | Indonesia | 07/06/2018 | Completion | 07/06/2018 | Open Pit | 01/04/2022 | 151.0 | 29.0 | 180.0 |
| Perkasa | Private investor - Dr. Low Tuck Kwong/PT Bayan Resource | Metals & Mining Company | PT Bayan Resources, Tbk | Indonesia | 07/06/2018 | Completion | 07/06/2018 | Open Pit | 01/04/2022 | 127.0 | 77.0 | 204.0 |
| Wahana Baratama | Private investor - Dr. Low Tuck Kwong/PT Bayan Resource | Metals & Mining Company | PT Bayan Resources, Tbk | Indonesia | 07/06/2018 | Completion | 07/06/2018 | Open Pit | 01/04/2022 | 258.0 | 67.0 | 325.0 |
| Mamahak | PT Bayan Resources, Tbk/Kangaroo Resources Limited | Metals & Mining Company | Kangaroo Resources Limited | Australia | 16/08/2018 | Completion | 11/12/2018 | Open Pit | 01/03/2015 | 9.9 | 4.1 | 14.0 |
| SB | PT. Harum Energy Tbk/PT Santan Batubara | Metals & Mining Company | PT Santan Batubara | Indonesia | 21/08/2018 | Completion | 21/08/2018 | Open Pit | 31/12/2022 | NA | NA | 135.0 |
| Tabang | Investor group/Coal assets | Metals & Mining Property | Coal assets | Indonesia | 17/06/2019 | Completion | 17/06/2019 | Open Pit | 01/04/2022 | 613.0 | 39.0 | 652.0 |
| SDJ | Trafigura Group Pte. Ltd./Assets of SDJ mine | Metals & Mining Property | Assets of SDJ mine | Indonesia | 27/06/2019 | Completion | 27/06/2019 | Open Pit | 31/12/2022 | 78.6 | 9.0 | 87.7 |
| BIB | Ascend Capital Advisors (S) Pte. Ltd./PT Golden Energy M | Metals & Mining Company | PT Golden Energy Mines Tbk | Indonesia | 12/03/2021 | Completion | 30/03/2021 | Open Pit | 31/12/2022 | 1,275.0 | 543.0 | 1,818.0 |
| KIM | Ascend Capital Advisors (S) Pte. Ltd./PT Golden Energy M | Metals & Mining Company | PT Golden Energy Mines Tbk | Indonesia | 12/03/2021 | Completion | 30/03/2021 | | 31/12/2022 | 160.0 | 92.0 | 253.0 |
| TKS | Ascend Capital Advisors (S) Pte. Ltd./PT Golden Energy M | Metals & Mining Company | PT Golden Energy Mines Tbk | Indonesia | 12/03/2021 | Completion | 30/03/2021 | Open Pit | 31/12/2022 | 56.0 | 26.0 | 82.0 |
| Triaryani | Investor Group/PT Golden Eagle Energy Tbk | Metals & Mining Company | PT Golden Eagle Energy Tbk | Indonesia | 26/07/2023 | Definitive Agreement | | Open Pit | 31/12/2022 | 627.0 | 20.0 | 647.0 |

# – END OF REPORT –

RPMGLOBAL

www.rpmglobal.com

AUSTRALIA | BRAZIL | CANADA | CHILE | CHINA | HONG KONG | INDIA | INDONESIA
MONGOLIA | RUSSIA | SOUTH AFRICA | TURKEY | USA