

**PREPARATION OF COMBINED JORC REPORT  
FOR PT SUNGAI DANAU JAYA AND PT TANAH BUMBU RESOURCES**

The Board of Directors of Geo Energy Resources Limited (the “**Company**”) refers to the announcement made by the Company on 27 June 2017 (the “**Completion Announcement**”). Further to the completion of the TBR Acquisition (as defined in the Completion Announcement), the Company has commissioned the preparation of a combined JORC report dated 6 July 2017 (the “**JORC Report**”) for PT Sungai Danau Jaya (“**SDJ**”) and PT Tanah Bumbu Resources (“**TBR**”) by SMG Consultants based on a combined mining plan.

As at 31 December 2016, the SDJ mineable coal reserves were 39.0 million tonnes. As at 31 May 2016, the TBR mineable coal reserves were 44.4 million tonnes. Based on the JORC Report, the combined mineable coal reserves of SDJ and TBR have increased to 85.2 million tonnes as at 19 May 2017.

The JORC Report is attached to this announcement.

**By Order of the Board  
GEO ENERGY RESOURCES LIMITED**

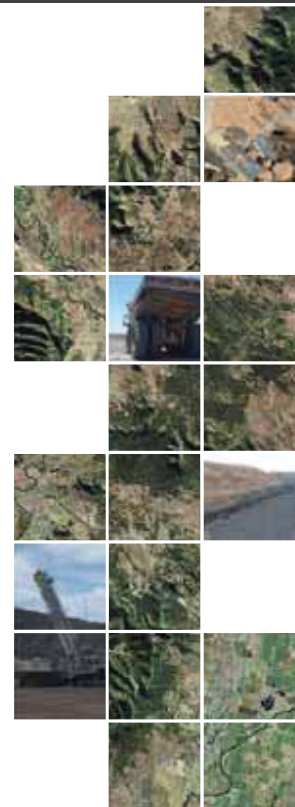
Charles Antonny Melati  
Executive Chairman

7 July 2017

# **Combined JORC Reserve Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources 6<sup>th</sup> July 2017**

**Prepared For :**

**Geo Energy Resources Limited**



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## DISCLAIMER

SMG Consultants (SMGC) has prepared this JORC Reserve Report for the exclusive use of Geo Energy Resources Limited (GERL) for the sole purpose of assessing the coal mining project (Project) combining PT Sungai Danau Jaya (SDJ) and PT Tanah Bumbu Resources (TBR) coal concessions located in the Angsana and Sungai Lohan sub district, Tanah Bumbu regency, South Kalimantan Province of Indonesia.

The report must be read in light of:

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- its reliance upon information provided to SMGC by GERL and others
- the limitations and assumptions referred to throughout the report
- the limited scope of the report
- other relevant issues which are not within the scope of the report

Subject to the limitations referred to above, SMGC 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.

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- the report speaks only as of the date herein and SMGC has no responsibility to update this report
- the report is integral and must be read in its entirety
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This review is made using various assumptions, conditions, limitations and abbreviations. Assumptions are listed on the following page without prejudice to probable omissions.



## Assumptions

All previous work is accepted as being relevant and accurate where independent checks could not or were not conducted.

All relevant documentation, along with the necessary and available data to make such a review has been supplied.

Key assumptions, some of which were verified by the client, are accepted as described in the relevant sections of the report.

## Conditions

Statements in this document that contain forward looking statements may be identified by the use of forward looking words such as "estimates", "plans", "intends", "expects", "proposes", "may", "will" and include, without limitation, statements regarding GERL's plan of business operations, supply levels and costs, potential contractual arrangements and the delivery of equipment, receipt of working capital, anticipated revenues, mineral Resource and mineral Reserve estimates, and projected expenditures.

It must be noted that the ability to develop infrastructure and bring into operation the proposed mines to achieve the production, cost and revenue targets is dependent on a large number of factors that are not within the control of SMGC and cannot be fully anticipated by SMGC. These factors include but are not limited to site mining and geological conditions, variations in market conditions and costs, performance and capabilities of mining contractors, employees and management and government legislation and regulations. Any of these factors may substantially alter the performance of any mining operation.

The appendices referred to throughout and which are attached to this document are considered to be integral to this report. A copy of the appendices must accompany the report or be provided to all users of the report.

The conclusions presented in this report are professional opinions based solely upon SMGC's interpretations of the information provided by GERL referenced in this report. These conclusions are intended exclusively for the purposes stated herein. For these reasons, prospective estimators must make their own assumptions and their own assessments of the subject matter of this report. Opinions presented in this report apply to the conditions and features as noted in the documentation, and those reasonably foreseeable. These opinions cannot necessarily apply to conditions and features that may arise after the date of this report, about which SMGC has had no prior knowledge nor had the opportunity to evaluate.

## ABBREVIATIONS

AC	Acid Consuming
ad	Air dried
adb	Air dried basis
AF	Acid Forming
AJE	PT Angsana Jaya Energi
AMDAL	"Analisis Mengenai Dampak Lingkungan Hidup" which translates to "Environmental Impact Analysis"
ANDAL	"Analisis Dampak Lingkungan Hidup" which translates to "Environmental Impact Analysis report, which is part of the AMDAL"
APL	Area Penggunaan Lain
AS	Australian Standards



ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
ar	As received
ARD	Acid Rock Drainage
ASTM	American Society for Testing and Materials
bcm	Bank cubic metre
BUMA	PT Bukit Makmur Mandiri Utama
capex	Capital costs
CCoW	Coal Contract of Work
CHPP	Coal Handling and Processing Plant
CI	Coking Index CV Measure of energy (kilocalorie) per kilogram
CPI	Competent Person Indonesia
DPC	PT Deli Pratama Coal
ESDM	Kementerian Energi Dan Sumber Daya Mineral (Ministry of Energy and Mineral Resources of Republic Indonesia)
FC	Fixed carbon
GAR	Gross As Received
ha	Hectare
HBA	"Harga Batubara Acuan" which translates to "Coal Price Reference"
HE	Hydraulic Excavator
HGI	Hardgrove Grindability Index
HPK	Hutan Produksi Konversi
HPB	"Harga Patokan Batubara" which translates to "Coal Standard Price"
hr	Hour
IM	Inherent Moisture
IPPKH	"Izin Pinjam Pakai Kawasan Hutan" which translates to "Permit to Borrow and Use Forest Area"
IRR	Internal Rate of Return
ISP	Intermediate stockpile
IUP	"Izin Usaha Pertambangan" which translates to "Mining Business License"
JORC	The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia
kcal/kg	Unit of energy (kilocalorie) per kilogram
kg	Kilogram
km	Kilometre
KP	"Kuasa Pertambangan" which translates to "Mining Rights"
kt	Thousand tonne
kV	Kilovolt
l	Litre
LAS	log ASCII standard
lcm	Loose cubic metre
LIDAR	Light Detection and Ranging
LOM	Life of Mine
m <sup>3</sup>	Cubic Metre
m	Metre
M	Million
Mbcm	Million bank cubic metres
Mbcmpa	Million bank cubic metres per annum
m/s	Metres per second
Mt	Million tonne



Mtpa	Million tonnes per annum
MW	Megawatt
NAF	Non Acid Forming
NAR	Nett As Received
NPV	Net Present Value
Opex	Operating costs
pa	per annum
PAF	Potential Acid Forming
PPE	personal protective equipment
RD	Relative Density
RKL	Rencana Pengelolaan Lingkungan Hidup which translates to “Environmental Management Plan, which is part of the AMDAL”
RL	Relative Level (used to reference the height of landforms above a datum level)
ROM	Run-of-Mine
RPL	Rencana Pemantauan Lingkungan Hidup which translates to “Environmental Monitoring Plan, which is part of the AMDAL”
SDJ	PT Sungai Danau Jaya
SE	Specific Energy
SMGC	SMG Consultants
SR	Strip ratio (of waste to ROM coal) expressed as bcm per tonne
SOP	Standard operating procedure
ST	Seam Thickness
t	Tonne
TBR	PT Tanah Bumbu Resources
tkm	Tonne kilometre
TM	Total Moisture
TMA	PT Toudano Mandiri Abadi
t/m3	Tonne per cubic metre
tpd	Tonnes per day
tph	Tonne per hour
TS	Total Sulphur
TM	Total Moisture
VM	Volatile Matter

## RELEVANT REPORTS AND DOCUMENTS

- SMG Consultants, “Combined JORC Resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources dated June 2017”
- Preston, KB and Sanders, RH, “Estimating the In situ Relative Density of Coal”, Australian Coal Geology, Vol 9, pp 22-26, May 1993
- Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves, 2003
- ASTM Guidebook of Thermal Coal, APBI-ICMA 2007
- “Optimum Design of Open-Pit Mines”, Joint C.O.R.S and O.R.S.A. Conference, Montreal, May 27-29, 1964
- Australasian Code for Reporting of Mineral Resources and Ore Reserves, (The JORC Code), 2012

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## EXECUTIVE SUMMARY

### BACKGROUND

SMG Consultants (SMGC) was engaged by Geo Energy Resources Limited (GERL) to prepare an independent estimate of Open Cut Coal Reserves for a coal mining project (Project) combining PT Sungai Danau Jaya (SDJ) and PT Tanah Bumbu Resources (TBR) coal concessions located in the Angsana and Sungai Lohan sub district, Tanah Bumbu regency, South Kalimantan Province of Indonesia. This Statement reports the estimated Coal Reserves contained within the Project as of the 19<sup>th</sup> May 2017, the date of the latest topographic survey. Mining commenced the Project area in December 2015. The Statement has been prepared in accordance with SMGC's interpretation of the requirements of the reporting guidelines of the 2012 Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code"). The Project's engineering department has prepared an execution level of mine plan jointly with the mining contractor. SMGC has used the mine plan for the purpose of this current Reserve estimate after performing a review for its validity and reasonableness.

### TENURE AND PERMIT

Tenure for The Project is held under two Izin Usaha Pertambangan (IUP) Operasi Produksi licenses – PT Sungai Danau Jaya (SDJ) and PT Tanah Bumbu Resources (TBR). SDJ and TBR cover 235.5 and 489.1 ha respectively which equates to a total 724.6 ha. The validity of the SDJ and TBR mining licenses are till May 2022 and January 2022, respectively.

The southern area of the Project is classified as Areal Penggunaan Lain (Other Purpose) and thus a "Borrow to Use" Permit (Izin Pinjam Pakai Kawasan Hutan) is not required, but the northern area (175.63 ha) is classified as Hutan Produksi Konversi (convertible production forest) and a "Borrow to Use" Permit (Izin Pinjam Pakai Kawasan Hutan) is required from the Forestry Department before mining operations can take place.

SDJ holds a valid IPPKH through 29<sup>th</sup> May 2022 for a total area of 68.5 Ha and the current mining activities are restricted within this area. The residual 16.03 Ha area of HPK inside SDJ concession requires an additional IPPKH in order to extend mining activities in this area. An application has been made in this regard and the same application has now been supported by the Ministry of Energy and Mineral Resources (ESDM) via a letter number 1859/30/DJB/2016 dated 30<sup>th</sup> December 2016 which states that SDJ can be granted an IPPKH over the said area under a condition referred as Domestic Marketing Obligation (DMO) as further discussed in the Section 11.

Approximately 91.1 ha in the Northern part of the TBR concession is classified as HPK and so an IPPKH is required before mining can commence in this area. At the time of writing this report SMGC was informed that the IPPKH has been granted and a copy of the same will be soon collected from the concerned department.

Approximately 227 Ha of the AJE concession comes under the HPK forest category and so an IPPKH is required for this area before mining activity can take place. SMGC was informed that an application has been already made in this regard for obtaining the same.

In the opinion of SMGC these come under standard permitting procedures and SMGC does not see any reason why they cannot be obtained. However, SMGC makes no warranty or representation to either GERL or third parties (express or implied) in regard to extension or obtaining any legal permits.



## GEOLOGY AND RESOURCES

A total of 185 boreholes have been drilled in the Project area, and the proposed Resource area is characterised by the following features:

- A small number of coal seams
- Thick parent coal seams (> 3 m)
- Thick interburden
- Shallow dips, average 5°

The main coal bearing lithology within the Project is the Dahor Formation. Coal in this formation shows a single phase of seam splitting. 12 named parent coal seams have been intersected by exploration drilling within the Project area. Of these 12 seams, the A5A, A5B, A5C, A5D, A6A and A6B seams have split into an upper and lower member. In total 18 named seam plies have been identified and are included in the structural geological model.

This Coal Reserve Estimate uses the most recent geological model and Coal Resources Estimate which was compiled by Mr. Abdullah Dahlan of SMGC. Mr. Dahlan is a Member of The Australasian Institute of Mining and Metallurgy and is a full time employee of SMG Consultants. He has sufficient experience in coal geology and Resource evaluation to qualify as a Competent Person under the 2012 JORC code.

The total JORC compliant Resource as of 19<sup>th</sup> May 2017 was estimated to be 97.0 Mt out of which 78.1 Mt is Measured, 17.2 Mt is indicated and 1.7 Mt is in the Inferred category. Resources are based upon estimated in situ density values estimated using the Preston-Sanders method. A minimum thickness cut-off 0.30 metres was set for the area, as it is considered unlikely that any seam thinner than this would be extracted during future mining

Coal located within the Project area may be characterised as a high moisture, variable ash content and low energy coal. Ash content is highly dependent on the seam with ash values ranging from 1.7 % to 24.0 % with a mean of 3.9 % on an air dried basis.

## APPROACH

The geological model developed for the Resource estimate and the as-dumped topography surface as of 19<sup>th</sup> May 2017 were the key inputs to the Reserve estimation process. Final pit design was provided by GERL. This was checked and adjusted by SMGC in order to verify adherence to geotechnical guidelines and use of appropriate mining limits considering concession boundaries, location of significant infrastructure and communities. Coal Reserves were then calculated by applying appropriate mining loss and dilution parameters to the Measured and Indicated Coal Resources inside the final pit design.

The Project's engineering department has completed an execution level of mine plan and the same was provided to SMGC for necessary verifications. SMGC has reviewed the plan and found suitable to support the current Reserve estimation. The schedule targeted 12.8 Mt of product coal in the first year and an average of 14.8 Mt from 2nd year onwards except for the final year. The dumping strategy is based on the mutual mining agreements between SDJ and its eastern neighbour AJE. The mine plan also assumes that AJE will follow the current life of mine plan so that the backfilling strategy can be successfully implemented to avoid any hindrance to the smooth mining operation.





## MODIFYING FACTORS

Coal Reserves were estimated by applying appropriate modifying factors and exclusion criteria to the Coal Resources. Surface water management, infrastructure and the location of the IUP boundary were used to determine the surface constraints for the mining operation.

The Project is a contractor operated coal mine using excavator and truck mining methods. Waste material is mined using hydraulic excavators ranging up to 100 tonne class and loaded into standard rear tipping off-highway trucks and hauled to dumps in close proximity to the pits or to in-pit dumps where possible. Coal is mined using hydraulic excavators and hauled out of the pit using rigid body coal trucks approximately 17 km to the Port stockpile. Coal is loaded from the stockpiles onto barges using a standard mechanical reclaim and barge-loading system. Barges of 8,000 t capacity can be loaded from the port. Coal is then barged approximately 18 km on the open ocean to the nearest anchorage.

A set of unit rates were derived by SMGC for the Project based on data supplied by GERL and supplemented with the SMGC knowledge database. Some of these were based on existing contracts between the Project and other parties. These unit rates were then compared against similar operations in Indonesia and are found reasonable and suitable for the purpose of this study.

## RESERVE ESTIMATE

Coal Reserves have been reported in Proved and Probable categories to reflect the reliability of the estimate. No Inferred Coal Resources are included in the reported Coal Reserves. The Coal Reserves along with the product qualities are presented from Table ES.1 to Table ES.3 and are rounded to reflect the accuracy of the estimates. Reserves are inclusive within Resource tonnes and are simply defined as the economically minable part of a Measured and/or Indicated Mineral Resource.

Please see Section 7.8 for a detailed understanding of the different Reserve Classes and procedure to convert In situ coal to Run of Mine (ROM). Marketable Reserves are equivalent to Run of Mine (ROM) Reserves as no beneficiation of coal product is planned other than crushing. Coal Reserve estimates are based on an execution level life of mine plan.

**Table ES.1 – Summary of Coal Reserves as at 19<sup>th</sup> May 2017**

Reserve Classes	Total Waste (Mbcm)	Total Coal (Mt)	Incremental Stripping Ratio (bcm/t)	Proved Coal (Mt)	Probable Coal (Mt)	Proved + Probable Coal (Mt)
In situ Coal Reserve	290.4	92.0	3.2	71.8	13.6	85.4
Mineable Coal Reserve	291.3	90.9	3.2	71.8	13.4	85.2
Run of Mine Coal Reserve	294.4	85.2	3.5	68.0	12.4	80.4
Total Marketable Coal Reserve	294.4	85.2	3.5	68.0	12.4	80.4

*\*This table must be presented with the entire JORC Reserve Statement from which it was obtained.*



**Table ES.2 – Summary of Coal Reserves by Concession**

Description	Total Waste (Mbcm)	Total Coal (Mt)	Incremental Stripping Ratio (bcm/t)	Proved Coal (Mt)	Probable Coal (Mt)	Proved + Probable Coal (Mt)
SDJ	125.2	37.9	3.3	28.1	9.2	37.3
TBR	169.2	47.3	3.6	40.0	3.2	43.2
Project	294.4	85.2	3.5	68.0	12.4	80.4

*\*This table must be presented with the entire JORC Reserve Statement from which it was obtained.*

**Table ES.3 – Estimated Quality of Product Coal**

Product Type	RD arb (t/m3)	TS adb (%)	VM adb (%)	IM adb (%)	TM arb (%)	Ash adb (%)	GAR arb (Kcal/Kg)
All	1.26	0.2	40.2	17.9	35.0	4.1	4,204

*\*This table must be presented with the entire JORC Reserve Statement from which it was obtained.*

The information in this report that relates to Coal Reserves of the Project and is based upon information compiled by Mr. Joyanta Chakraborty who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Chakraborty is employed as a Senior Mining Engineer by SMGC. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". This document has been checked as part of SMGC's peer review process.

## RISKS

### **Mutual Mining Arrangement**

This Reserve statement is highly dependent upon the mutual mining and dumping arrangement between SDJ and its eastern neighbour – PT Angsana Jaya Energi (AJE). This arrangement allows SDJ to dump a considerable amount of waste into this concession. Additionally it assumes that AJE will follow the current life of mine plan so that the backfilling strategy can be successfully implemented to avoid any hindrance to the smooth mining operation.

This mutual understanding is supported by one signed agreement between SDJ and AJE. SMGC has been given copies of the agreement (Appendix H). Any deviation from this arrangement may impact on the underlying Life of Mine plan and thus alter the outcome of this current Reserve Statement.

### **Additional IPPKH Permits**

The current activities of the Project are restricted by the existing IPPKH boundary for a total area of around 68.5 ha inside the SDJ IUP and there is no legal issue with the same. However, in order to adhere to the underlying life of mine plan the Project needs to obtain the residual IPPKH permits on time. All the IPPKH approval processes are currently in advanced stages and SMGC does not see any issue which prevents the Project from obtaining these approvals. However, the timing of obtaining this IPPKH will have a direct impact on the current strategy of the underlying Life of Mine plan and that in turn may alter the outcome of this Reserve statement.



## STATEMENT OF INDEPENDENCE

This report was prepared on behalf of SMGC by the signatory to this report, assisted by the subject specialists whose qualifications and experience are set out in Appendix B of this report.

SMG Consultants started business in Australia in the 1960's as a global geological and mining software development. SMG Consultants was founded in Indonesia in July 2009 as a base to serve its client base across Southeast Asia. SMG Consultants, headquartered in Jakarta, is an independent mining consulting group providing geological, resource evaluation, mining engineering, Life of Mine Planning, JORC Statements, KCMI Statements, VALMIN Reports and mine valuation services to the resources, power, investment and financial services industries.

SMGC works across the following minerals: Thermal Coal, Metallurgical Coal, Nickel, Gold, Manganese, Bauxite, Iron Ore and many other bulk commodities and base metals.

The most recent Resource estimates were completed in May 2017 as referenced in the Section 'Relevant Reports and Documents' of this report.

SMGC has been paid professional fees by Geo Energy Resources Limited (GERL) for the preparation of this report. The fees paid were not dependent in any way on the outcome of the technical assessment.

SMGC is independent from Geo Energy Resources Limited (GERL). No SMGC staff or specialists who contributed to this report have any interest or entitlement, direct or indirect, in the Company, the mining assets under review, or the outcome of this report.



**Joyanta Chakraborty**

BE Mining, MAusIMM, CPI

## 1. INTRODUCTION

### 1.1 SCOPE OF WORK

SMG Consultants (SMGC) was engaged by Geo Energy Resources Limited (GERL) to prepare an independent estimate of Open Cut Coal Reserves for the coal mining project (Project) combining two adjacent coal concessions in the South Kalimantan island of Indonesia.

This Statement of Coal Reserves for the Project's Open Cut Coal Mine has been prepared by SMGC for GERL. The purpose of this report is to provide an assessment of the coal Reserves in compliance with SMGC's interpretation of the Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code, 2012).

The Resource Statement used as the basis for Reserves estimation has been compiled by Mr. Abdullah Dahlan of SMGC. Mr. Dahlan is a Member of The Australasian Institute of Mining



and Metallurgy and is a full time employee of SMGC. He has sufficient experience in coal geology and Resource evaluation to qualify as a Competent Person under the 2012 JORC code.

## 1.2 INTERPRETATION

Under the 2012 JORC Code, only Indicated and Measured Coal Resources can be considered for conversion to Coal Reserves after consideration of the “Modifying Factors” including mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors.

To convert Resources to Reserves it must be demonstrated that extraction could be justified after applying reasonable investment assumptions.

The highest confidence level establishes Proved Reserves from Measured Resources and a lesser confidence level establishes Probable Reserves from Indicated Resources. A level of uncertainty in any one or more of the Modifying Factors may result in Measured Resources converting to Probable Reserves depending on materiality. A high level of uncertainty in any one or more of the Modifying Factors may preclude the conversion of the affected Resources to Reserves.

Key terms used to report Coal Reserves in this report are described below:

- **Coal Reserves** are the same as Ore Reserves as described in The 2012 JORC Code, which is defined as the economically minable part of a Measured and/or Indicated Mineral Resource. These are also referred to as **Run of Mine Reserves** and include dilution material and losses that may occur as part of the mining process, as well as consideration of all relevant modifying factors. Coal Reserves are subdivided into Proved and Probable to reflect the confidence of the underlying Resource data and confidence in the application of modifying factors.
- **Marketable Reserves** allow for a realistic yield in a coal beneficiation plant. In the case of this coal, marketable Reserves are equivalent to Run of Mine Reserves as no beneficiation of coal product is planned other than crushing.
- **Coal Resources** are reported inclusive of Coal Reserves (i.e. Coal Reserves cannot be added to Coal Resources).

## 1.3 APPROACH

This Reserve Estimate was prepared for maximising the Reserve tonnage for the Project. The following approach was undertaken by SMGC to estimate Coal Reserves for this scenario:

1. The Coal Resources estimate and geological model used as the basis for Reserves estimation has been compiled by Mr. Abdullah Dahlan of SMGC. Mr. Dahlan is a Member of The Australasian Institute of Mining and Metallurgy and is a full time employee of SMGC and has sufficient experience in coal geology and Resource evaluation to qualify as a Competent Person under the 2012 JORC code.
2. The topographic surface used for the geologic model and the Resource and Reserve statement was from total station survey data supplied by GERL. The As-dumped topographic surface used for estimation is current up to the 19<sup>th</sup> May 2017 after commencement of mining activity inside the Project area.
3. The Project's engineering department has completed an execution level of mine plan and the same was provided to SMGC for necessary verifications. A final pit design was produced based this mine plan following the recommendations from the geotechnical studies.



4. Minex software was used to generate a 'Reserves database' for all Resources inside the final pit design. Appropriate mining loss, dilution factors and density adjustments were applied and ROM quantities and qualities were reported.
5. SMGC has reviewed the mine plan provided and found it suitable to support the current Reserve estimation.
6. A financial model with suitable cost and revenue assumptions was then developed with the yearly quantities and qualities from the mine plan to confirm that the Project is viable given the assumptions of the study.
7. Recoverable Coal Reserves inside the final pit design were then classified as Proved or Probable based on the boundaries for Measured and Indicated Coal Resources provided in the Statement of Coal Resources.
8. The result of the Coal Reserve estimate and supporting information were documented in this report.

## 1.4 RESULTS LIMITATIONS AND STANDARDS

It is important to note when considering this report that geological information usually consists of a series of small points of data on a large blank canvas. The true nature of any body of mineralisation is never known until the last tonne of ore has been mined out, by which time exploration has long since ceased. Exploration information relies on interpretation of a relatively small statistical sample of the deposit being studied; thus a variety of interpretations may be possible from the fragmentary data available. Investors should note that the statements and diagrams in this report are based on the best information available at the time, but may not necessarily be absolutely correct. Such statements and diagrams are subject to change or refinement as new exploration makes new data available, or new research alters prevailing geological concepts. Appraisal of all the information mentioned above forms the basis for this report. The views and conclusions expressed are solely those of SMGC. When conclusions and interpretations credited specifically to other parties are discussed within the report, then these are not necessarily the views of SMGC.

Reserve figures in this report deal exclusively with coal contained within the Project boundary and have been limited by an upper weathering surface.

The underlying geotechnical assumptions used for in this Reserve estimate are derived from geotechnical reports prepared by the PT Quantus Consultants Indonesia.

The ex-pit dumping strategy adopted for the underlying mine plan is based on a mutual mining and dumping agreement between SDJ and its eastern neighbor AJE (Appendix H). The outcome of this Reserve estimate will be different if the Project is not allowed to dump inside the AJE concession.

## 1.5 JORC TABLE 1

This Coal Reserve Report has been carried out in recognition of The 2012 JORC Code published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy in 2012. Under the report guidelines all geological and other relevant factors for this deposit are considered in sufficient detail to serve as a guide to on-going development and mining.

In the context of complying with the Principles of the Code, Table 1 of the JORC code (Appendix C) has been used as a checklist by SMGC in the preparation of this report and any



comments made on the relevant sections of the JORC Table 1 and have been provided on an 'if not, why not' basis. This has been completed to ensure that it is clear to an investor whether items have been considered and deemed of low consequence or have yet to be addressed or resolved.

The order and grouping of criteria of the JORC Table 1, reflects the normal systematic approach to exploration and evaluation. Relevance and Materiality are the overriding principles which determine what information should be publicly reported and SMGC has attempted to provide sufficient comment on all matters that might materially affect a reader's understanding or interpretation of the results or estimates being reported. It is important to note that the relative importance of the criteria will vary with the particular project and the legal and economic conditions pertaining at the time of determination.

In some cases it may be appropriate for a Public Report to exclude some commercially sensitive information. A decision to exclude commercially sensitive information would be a decision for the company issuing the Public Report, and such a decision should be made in accordance with any relevant corporation regulations in that jurisdiction.

In cases where commercially sensitive information is excluded from a Public Report, the report should provide summary information (for example the methodology used to determine economic assumptions where the numerical value of those assumptions is commercially sensitive) and context for the purpose of informing investors or potential investors and their advisers.

## 2. TENURE

### 2.1 LOCATION AND ACCESS

The Project area is located in the Angsana and Sungai Lohan sub district, Tanah Bumbu regency, South Kalimantan Province of Indonesia and covers an area of 724.6 ha (Figure 2.1). The concession is situated 185 km due southeast of Banjarmasin the Capital Province of South Kalimantan.

Access to the concession area is by an approximately 2 hour domestic flight from Jakarta to Banjarmasin followed by 3 hour trip by car from Banjarmasin to Tanah Bumbu along tarred regional roads. The Project area is approximately 30 minutes by car from Tanah Bumbu via a regional tarred road and then palm plant haul road.

### 2.2 MINING TENURE

Tenure for the Project is held under two Izin Usaha Pertambangan (IUP) Operasi Produksi licenses for two adjacent concessions. SMGC has been provided with the copies of the IUP documents for the concessions and these are attached in Appendix D.

The details of these two concessions are shown in Table 2.1 and all Reserves reported in this statement are contained within these concessions.

**Table 2.1 – Concession Details**

IUP	PT Sungai Danau Jaya (SDJ)	PT Tanah Bumbu Resources (TBR)
Type	IUP Operasi Produksi	IUP Operasi Produksi
Number	N0. 188.45/311/ DISTAMBEN /2014	N0. 188.45/402/DISTAMBEN/2014
Company Name	PT Sungai Danau Jaya (SDJ)	PT Tanah Bumbu Resources (TBR)
Kabupaten	Tanah Bumbu	Tanah Bumbu



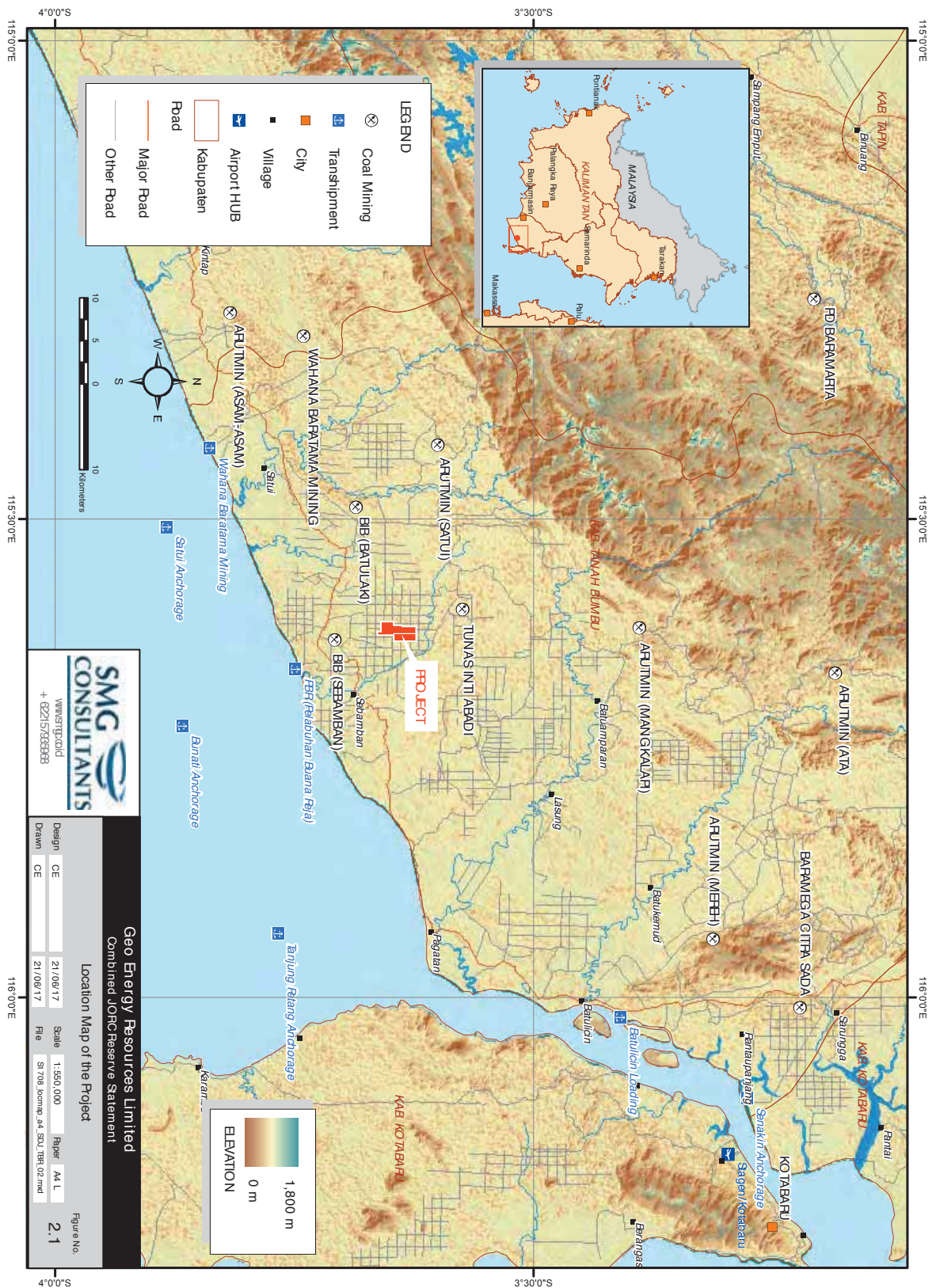
Province	South Kalimantan	South Kalimantan
Resource	Coal	Coal
Area	235.5 ha	489.1 ha
Date Signed	17 Juni 2014	13th August 2014
Expiry	29 Mei 2022	11th January 2022

SMGC makes no warranty or representation to either GERL or third parties (express or implied) in regard to the validity of the IUPs and documentations. This Reserve Report does not constitute a legal due diligence of the concessions. The clean and clear (C&C) certificates for both the IUPs (SDJ - No. 467/Bb/03/2014 and TBR - 682/Bb/03/2016) were issued by Directorate General of Mineral and Coal. SMGC has been given copies of the certificates. The same appears under Ministry of Energy and Mineral Resources (MEMR) WebGIS.

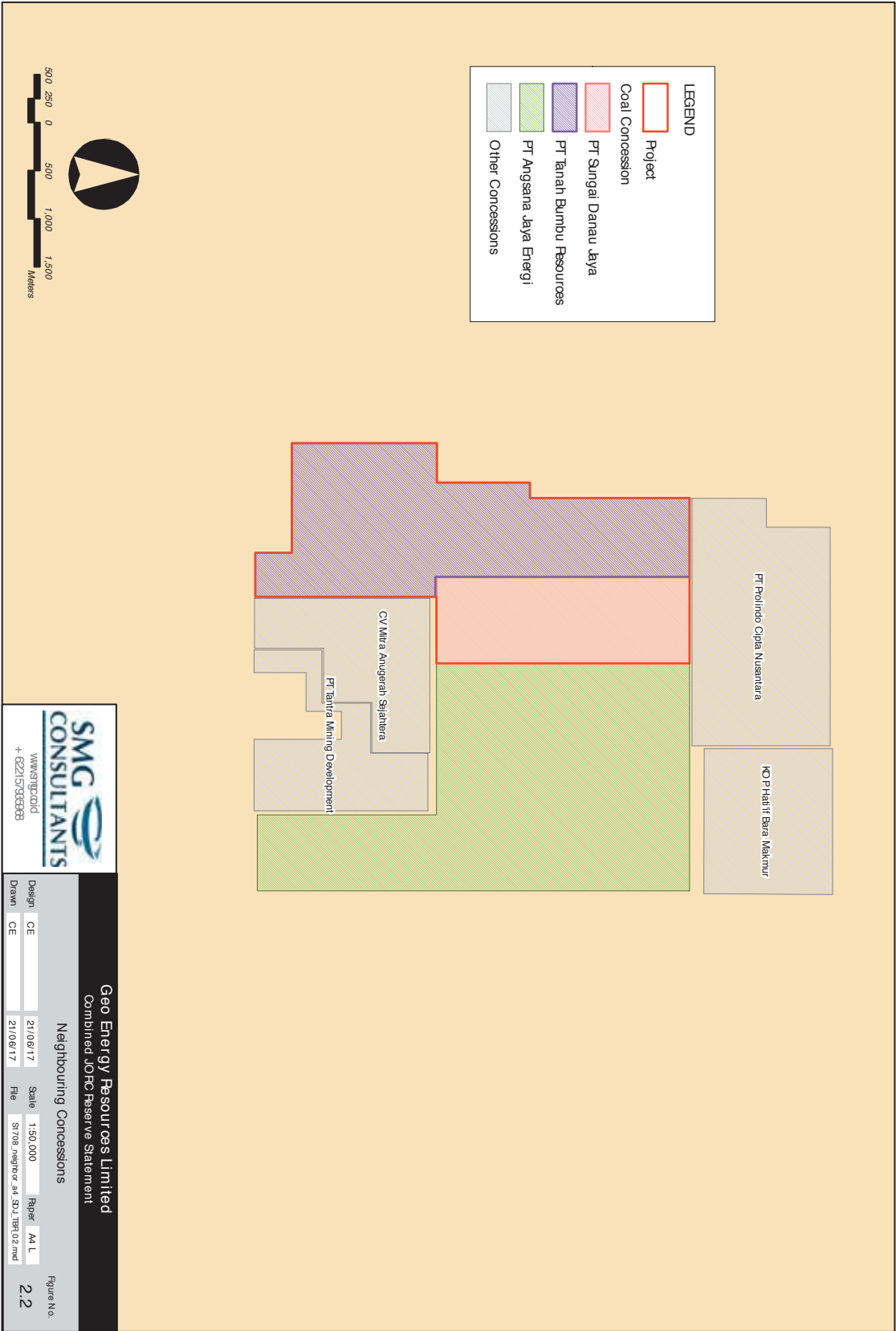
### 2.3 NEIGHBOURS

The Project is surrounded by several neighbouring concessions one of which has cooperative mining and dumping arrangements with SDJ. Therefore it is necessary to have a clear understanding about the names and positions of these neighbouring concessions which play a crucial role in executing the mine plan which underlays this JORC statement. Figure 2.2 shows the Project along with the neighbouring concessions.









## 2.4 FORESTRY STATUS

### 2.4.1 Izin Pinjam Pakai Kawasan Hutan (IPPKH)

Existing forest in Indonesia is generally classified as either Hutan Produksi (HP), which is forest that may be felled for industry purposes (generally timber), or Hutan Lindung (HL) which is protected forest. Through negotiation with stakeholders it is possible to obtain a permit to “borrow” land which is classified as HP for use in mining activities. In the case of SDJ and TBR the lease covers Non-Forested area (APL) in the southern part and Convertible Production Forest (HPK) at the northern part, so IPPKH is required for the northern part. Different forest categories in and around the Project area are shown in Figure 2.3.

#### Existing IPPKH 1 (SDJ)

SDJ holds a valid IPPKH through 29<sup>th</sup> May, 2022 for a total area of 68.5 Ha and the current mining activities are restricted within this area as shown in Figure 2.3.

#### IPPKH 2 under process (SDJ)

The residual 16.03 Ha area of HPK inside SDJ concession requires an additional IPPKH in order to extend mining activities in this area. SDJ had already applied for an IPPKH for this area and the same application has now been supported by the Ministry of Energy and Mineral Resources (ESDM) via a letter number 1859/30/DJB/2016 dated 30<sup>th</sup> December, 2016. This states that PT SDJ can be granted an IPPKH over the said area as long as the coal produced from this area is sold to meet the domestic coal needs of the Republic of Indonesia. This specific rule is called a Domestic Marketing Obligation (DMO) and is further discussed in the Section 11.

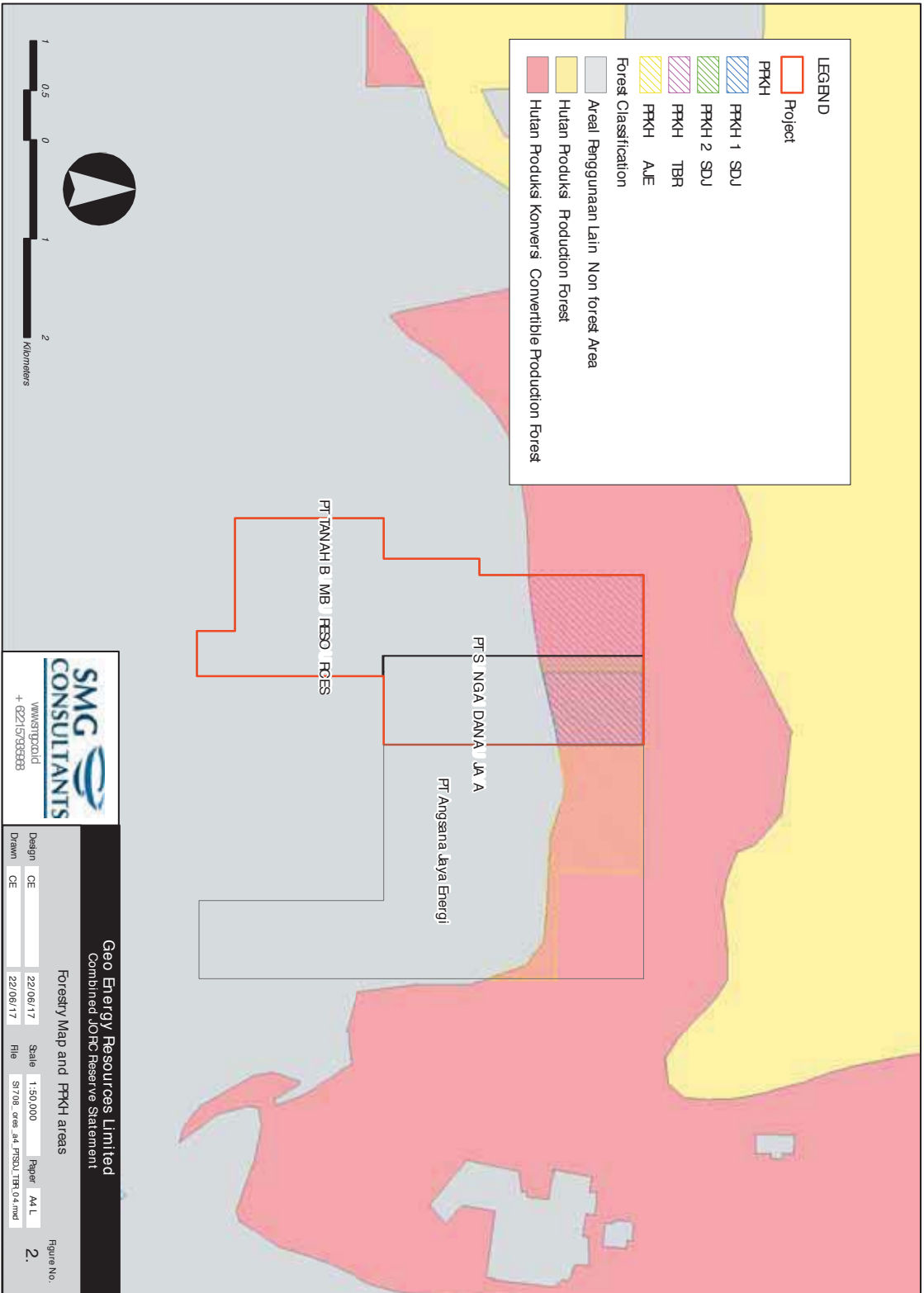
#### IPPKH 3 under process (TBR)

Approximately 91.1 ha in the northern part of the TBR concession is classified as HPK and so an IPPKH is required before mining can commence in this area. The application for this area is under process and a recommendation letter dated 22<sup>nd</sup> January 2015 from the Governor of South Kalimantan to the Ministry of Environment and Forestry was accepted on 9<sup>th</sup> May 2016 by the Ministry (Appendix E). At the time of writing this report SMGC was informed that the IPPKH has been granted and a copy of the same will be soon collected from the concerned department.

#### IPPKH 4 under process (AJE)

Approximately 227 Ha of the AJE concession comes under the HPK forest category and so an IPPKH is required for this area before mining activity can take place. SMGC was informed that an application has been already made in this regard for obtaining the same.

In the opinion of SMGC, obtaining these permits is a timing issue and SMGC does not see any reason why they would not be granted. However, the timing of obtaining this IPPKH has a direct impact on the underlying life of mine plan strategy and that in turn can change the outcome of the current Reserve statement.



### 3. GEOLOGY

This section is a summary of the report "Combined JORC Resource Statement, PT Sungai Danau Jaya and PT Tanah Bumbu Resources, dated June 2017, Prepared for Geo Energy Resources Limited" by SMGC. The reader is referred to that document for a more detailed discussion on geology and Resources.

#### 3.1 OVERVIEW

##### 3.1.1 Regional and Local Geology

The Project area is located in the southern part of the Barito Basin. The Barito Basin commenced its development in the late Cretaceous, following a micro-continental collision between the Paternoster and SW Borneo micro-continents (Metcalf, 1996; Satyana, 1996). The Dahor Formation is the coal bearing formation. This formation consists of quartz sandstone, friable, locally with intercalations of clay, lignite, limonite, smoky-quartz and basalt gravels.

The main coal bearing lithology within the Project area is the Dahor Formation. Coal in this formation shows a single phase of seam splitting. 12 named parent coal seams have been intersected by exploration drilling within the Project area. Of these 12 seams, the A5A, A5B, A5C, A5D, A6A and A6B seams have split into an upper and lower member. In total 18 named seam plies have been identified and are included in the structural geological model.

Coal seams strike in a roughly south-easterly direction and dip to the southwest. Seam dips are relatively gentle with an average recorded dip of 5°. The total seam thickness summary of the raw borehole input values is located in Table 3.1.

**Table 3.1 – SDJ Seam Thickness Summary**

SEAM	THICKNESS			INTERSECTION
	MIN	MAX	MEAN	
A6B2	0.5	4.1	2.5	25
A6B1	0.3	3.3	1.4	32
A6A4	0.2	1.6	0.7	23
A6A2	0.2	2.5	0.9	21
A6A1	0.2	1.6	0.6	22
A5D2	0.8	9.8	4.5	136
A5D1	0.8	9.0	3.5	136
A5C2	0.4	4.6	2.5	99
A5C1	0.1	3.2	0.8	99
A5B2	0.4	6.4	2.8	135
A5B1	1.5	16.9	10.1	134
A5A2	0.3	2.7	0.8	39
A5A1	0.2	1.5	0.4	39
A3	0.7	1.4	1.0	11
A2	0.3	0.7	0.5	6
A1	0.2	0.8	0.5	3
A0	0.7	1.0	0.9	2
A	2.5	6.4	5.1	4
SUMMARY	0.1	16.9	2.1	966



### 3.2 EXPLORATION HISTORY AND DATA

There have been a number of phases of exploration completed in the Project area in the past 7 years. The first phase is a limited coal outcrop mapping programme and shallow drilling programme was undertaken across a portion of the SDJ in 2010, and TBR in 2013.

A second stage exploration programme in SDJ then continued from December 2013 until March 2014. This stage included further coal outcrop mapping, and 200 m spaced borehole drilling with typically shallow drill depths and no coal quality analysis over a greater percentage of the SDJ area.

The second stage exploration programme in TBR went from December 2013 until May 2014. This stage included further coal outcrop mapping and 250 m spaced borehole drilling with typically shallow drill depths and no coal quality analysis over a greater percentage of the TBR area. A total of 48 boreholes were drilled during this stage. During October 2014 to December 2014 the third stage exploration programme continued with a total of 22 boreholes being drilled with 100 m maximum depth and coal quality analysis.

The favourable results obtained from these previous exploration programmes, led to a more extensive and systematic. Exploration programme being conducted during the period of April 2014 to June 2014 in SDJ and during the period of December 2015 to February 2016 in TBR. The programme was implemented and managed by SDJ and DPC. The exploration activities included detailed drilling, down-hole geophysical logging, coal quality analysis and topographic surveying

### 3.3 COAL QUALITY

Coal quality sampling was undertaken by GERL geologists, with the analysis testing being completed by PT Geoservices Coal Laboratories in Banjarbaru. PT Geoservices reports that its Banjarbaru laboratory is accredited to ISO 17025 standards and that quality control is maintained by daily analysis of standard samples and by participation in regular "round robin" testing programmes. No duplicates from core samples were analysed for quality assurance and quality control purposes. As far as SMGC are aware, PT Geoservices is independent of SMGC, GERL and all related companies.

A range of international standard methods have been used by PT Geoservices in their coal analysis tests. Reporting of quality variables has been completed on an air-dried, as received and dry ash free basis. American Society for Testing and Materials (ASTM) methods has been used for all quality variables with the exception of Relative Density. Australian Standards (AS) has been used for determination of Relative Density.

The following tests were undertaken as standard on all coal samples:

- Total Moisture (TM)
- Inherent Moisture (IM)
- Ash Content (AS)
- Volatile Matter (VM)
- Fixed Carbon (FC)
- Total Sulphur (TS)
- Calorific Value-air dried basis (CV adb)
- Relative Density (RD)



Of the boreholes that have been sampled in the Project area, 36 of the total 185 contain quality data. All 36 of these holes have associated geophysical data logs and only these holes have been used in the quality modelling process. From these boreholes a total of 76 valid samples were collected based on samples containing Ash and In situ Moisture records.

The proximate analysis results from the samples in the area (Table 3.2) show the coals to have high moisture, highly variable ash, low sulphur and low energy content.

### 3.4 GEOLOGICAL MODELLING

A geological model for the Project area was generated using Minex Geologic Modelling Software. The Minex Growth method was used for all structural modelling.

Validated collar surveys, lithology data and geophysical logs were required as a minimum for a borehole to be used in the modelling process. A total of 185 boreholes have been completed in the Project area.

A total of 36 of these validated boreholes have sufficient coal quality analyses to act as significant Points of Observation for the JORC Resource estimations. A valid point has been defined as a seam intersection that is surveyed and cored, where quality analysis has been acquired, sample recovery is  $\geq 90\%$  and the hole is accompanied by valid survey and geophysics.

The topography used in the current geological model is the mined out topography as of 19<sup>th</sup> May 2017. Topographic contour data was generated from this total station survey as XYZ co-ordinates points and imported into the database in ASCII format. This is considered to be of sufficient accuracy for the estimation of Coal Resources and Coal Reserves.

A “non-conformable” base of weathering surface for the current geological model was generated using a default depth of weathering of 3 m below topography. This was due to the limited logging of the weathered material in historical lithological logs. All grids in the final model are cut to this surface 3 m below the topography.

### 3.5 OTHER EXPLORATION ACTIVITIES WITHIN THE CONCESSION

No exploration work is currently underway following the completion of the drilling programme at TBR in February 2016.

Table 3.2 – Coal Quality Summary (Boreholes)

SEAM	TM ar (%)	IM adb (%)	ASH adb (%)	VM adb (%)	FC adb	TS adb (%)	CV		RD (t/m3)	NUMBER SAMPLES
							adb (kcal/kg)	ar (kcal/kg)		
A6B2	35.0	19.8	3.7	39.6	36.7	0.2	5,307	4,305	1.36	1
A6B1	34.5	27.7	3.6	36.6	31.9	0.3	4,693	4,254	1.31	1
A6A4	36.4	27.0	4.7	35.4	32.8	0.2	4,759	4,145	1.33	1
A6A2	32.4	16.5	10.7	39.7	32.9	0.3	5,024	4,061	1.40	2
A6A1	32.4	16.5	10.7	39.7	32.9	0.3	5,024	4,061	1.40	2
A5D2	35.2	17.0	3.6	40.7	38.6	0.2	5,369	4,193	1.36	25
A5D1	35.1	16.7	3.7	40.9	38.5	0.2	5,383	4,195	1.36	23
A5C2	35.1	17.5	5.0	40.6	36.7	0.4	5,329	4,191	1.36	16
A5C1	34.2	17.6	6.9	40.3	36.6	0.4	5,258	4,202	1.37	11
A5B2	35.1	17.4	4.3	40.3	38.0	0.3	5,354	4,210	1.36	22
A5B1	35.1	17.4	3.4	39.9	39.1	0.2	5,388	4,233	1.35	23
A5A2	36.4	13.2	6.6	43.3	36.7	0.2	5,458	4,007	1.37	6
A5A1	36.1	13.3	10.2	40.3	36.0	0.2	5,178	3,804	1.40	6
A3	36.5	14.3	5.9	42.5	38.4	0.3	5,506	4,082	1.40	2
A2										
A1										
A0	32.2	14.4	8.7	39.8	36.9	1.6	5,310	4,210	1.42	1
A	34.0	14.3	3.2	40.8	41.5	0.3	5,652	4,354	1.37	2
MEAN	35.2	17.3	3.9	40.4	38.5	0.2	5,371	4,211	1.36	
MIN	30.1	9.7	1.7	35.5	29.5	0.1	4,446	3,360	1.25	
MAX	40.3	27.8	24.0	45.8	44.7	1.6	5,902	4,639	1.52	

## 4. RESOURCES

### 4.1 RESOURCE DIMENSIONS

Drilling has identified a multi-seam coal Resource approximately 3.0 km long and 2.0 km wide within the Project area. The geometry of this deposit is limited by the Project's concession boundaries to the north, east, and west. There is reasonable potential that the deposit extends beyond the limit of the current drilling programme in the south of the TBR concession.

### 4.2 RESOURCE CLASSIFICATION

A division of the Resources into Measured, Indicated and Inferred status was undertaken for the geological model.

The following Resource dimensions were used:

- Measured – 250 m radius circular polygon around Points of Observation
- Indicated – between 250-500 m radius circular polygon around Points of Observation
- Inferred – between 500-1,000 m radius circular polygons around Points of Observation

Resource classifications for the Project were defined using the following criteria:

- Only boreholes that had valid survey collars (not GPS-survey) were used, i.e. those boreholes not surveyed have not been considered.
- Cored boreholes that were geophysically logged and sampled were considered as valid points of observation for Resource calculations.
- Non-logged holes were considered in structural modelling if coal seam thickness demonstrated valid thickness and recovery with adjacent geophysically logged boreholes.
- Open holes, intersecting coals seams with geophysical logs were also used to ensure continuity of the Resource calculation along the strike length of the deposit.
- A default density was not applied to Resource calculations as all estimated seams had a sufficient number and distribution of relative density analysis results to allow for extrapolation across the concession area.

The extent of the various Resource categories for each of the seams in the Project area can be seen in Appendix F.



### 4.3 RESOURCE SUMMARY

Table 4.1 summarises the JORC Resource estimates computed by SMGC within the Project area.

**Table 4.1 – Resource Estimates as of 19<sup>th</sup> May 2017**

	MEASURED Mt	INDICATED Mt	INFERRED Mt	TOTAL Mt
<b>TOTAL</b>	<b>78.1</b>	<b>17.2</b>	<b>1.7</b>	<b>97.0</b>

*\*This table must be presented with the entire JORC Resource Statement from which it was obtained.*

*\*All values are rounded to the nearest million tonnes.*

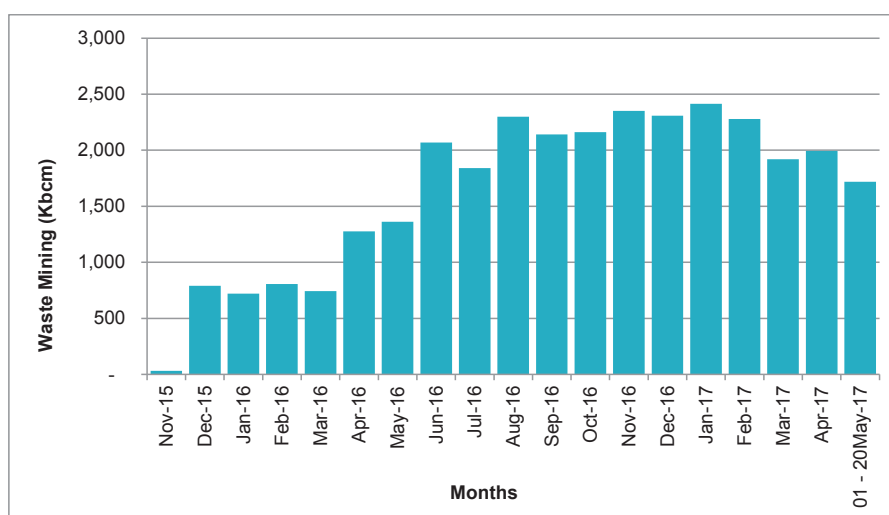
Resource estimates for the Project were based upon in situ density (ID) grids that have been converted from relative density data using the Preston-Sanders method. Sufficient relative density data was available to allow modelling of density for all estimated seams. The Resource depth was limited to a Lerch Grossman pit optimisation base surface (GEOM07), (as discussed in Section 7 of the Resource report) with a minimum seam thickness set to 0.30 m. All seams were truncated against the base of weathering surface 3 m below topography. All Resources were limited to the concession boundary.

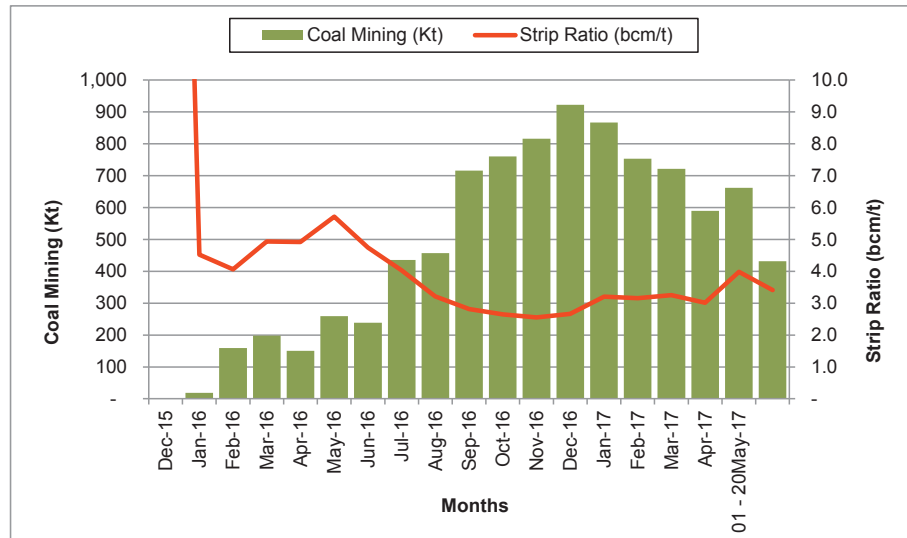
## 5. EXPLOITATION HISTORY AND RECONCILIATION

### 5.1 EXPLOITATION HISTORY

Mining operations inside the Project area commenced in December 2015. SMGC was provided with production records from the start of operations to the end of 20<sup>th</sup> May 2017. The actual waste mined, coal mined and project cumulative stripping ratio are shown in Figure 5.1 and Figure 5.2.

**Figure 5.1 – Historical Waste Mining Volumes**



**Figure 5.2 – Historical Coal Mining Quantities**

## 5.2 CURRENT OPERATION

The waste mining area, coal mining area, waste disposal ground and sediment structures are shown from Figure 5.3 to Figure 5.6.

**Figure 5.3 – Waste Mining****Figure 5.4 – Coal Mining**



**Figure 5.5 – Waste Disposal Area**



**Figure 5.6 – Sediment Control**



### 5.3 PRODUCTION RECONCILIATION

A reconciliation of actual production results versus the geological model estimates was undertaken for the Project from start of mining in December 2015 till 19<sup>th</sup> May 2017. The methodology used for the reconciliation is presented in the following Table 5.1:

**Table 5.1 – Reconciliation Methodology**

Step	Description
1	<b>Sanity Check</b> - The difference between the total barged coal to the vessel and the total hauled coal to the stockpile for the period was compared against the surveyed stockpile quantity at the end of the period.
2	<b>In situ to ROM Conversion Check</b> - The in situ coal production for the period was converted to the run-of-mine (ROM) coal using the same set of parameters used during JORC and then the ROM quantity was compared against the total hauled coal to the stockpile
3	<b>Quality Check</b> - The weighted average qualities of the ROM coal for the period was compared against that of the total shipped coal qualities based on the certificate of analysis (COA) results

#### 5.3.1 Sanity Check

This very basic check shows that the balance stock at the port stockpile after barging closely matches with the surveyed measurement of the same (Table 5.2). This ensures that the total hauled coal (8,770,071 t) to the port during the period is correct and can be used as number for comparison in the following checks.



Table 5.2 – Sanity Check Results

Description	Unit	Value	Formula	Remarks
Total Hauling to Port Stockpile	tonne	8,770,071	a	Recorded by weighbridge
Total Barging from Port Stockpile	tonne	8,760,225	b	Recorded by draft survey
<b>Balance Stock at Port Stockpile</b>	<b>tonne</b>	<b>9,846</b>	<b>c = a - b</b>	<b>By Difference</b>
<b>Surveyed Stock at Port Stockpile</b>	<b>tonne</b>	<b>9,291</b>	<b>d</b>	<b>Measured by TOTAL STATION</b>
Difference	tonne	555	c - d	By Difference



### 5.3.2 In situ to ROM Conversion Check

1. The original topography prior to any mining activity on the project area, the supplied as-dumped topography and the current in situ geological model were used to generate an in situ reserve database for the coal produced during the period.
2. This was then converted to a run-of-mine (ROM) database using the same set of parameters used during last JORC (Section 8.3 of the document - "JORC Reserve Statement, March 2017"). Figure 5.7 below demonstrates this conversion methodology.

Figure 5.7 – In situ to ROM Conversion



3. The ROM quantity of coal was then compared with the total hauled coal to the stockpile. This check shows a very close match between the two (see Table 5.3).

Table 5.3 – Hauled Coal vs ROM Coal

Description	Unit	Value	Formula	Remarks
Total Hauling to Port Stockpile	tonne	8,770,071	a	Recorded by weighbridge
Total ROM Coal	tonne	8,890,736	b	In situ to ROM Conversion
Match	%	99	a/b	

### 5.3.3 Quality Check

1. Weighted average of the recorded qualities of the shipped coal during the period was calculated using all the certificate of analysis (COA) data.
2. These were then converted to a dry-basis to eliminate any variation for inherent moisture due to variable standards used. Table 5.4 below shows these two results side by side.

**Table 5.4 – Air Dried and Dry Basis Qualities**

Basis	Ash	TS	VM	IM	FC	CV
	(%)	(%)	(%)	(%)	(%)	kcal/kg
Air Dried Basis	4.2	0.19	41.6	15.8	38.0	5,382
Dry Basis	5.0	0.22	49.4	0.0	45.2	6,394

3. The In situ and ROM quantities of the hauled coal on dry-basis was then compared against these weighted average of the shipped qualities. This shows that the shipped Ash is close to both in situ and ROM ash.

**Table 5.5 – Shipped Qualities vs Geomodel Qualities**

Description	Ash	TS	VM	IM	FC	CV
	(%)	(%)	(%)	(%)	(%)	kcal/kg
Shipment	5.0	0.22	49.4	0.0	45.2	6,394
ROM Database	5.2	0.20	49.3	0.0	46.0	6,421
In situ Database	4.9	0.20	49.3	0.0	45.9	6,442

*Note: stated as dry basis*

### 5.3.4 Conclusion and Recommendations

The major finding of the reconciliation is that it substantiates the validation of the current loss and dilution assumptions (Table 5.5) established during the last JORC Reserve estimate in March 2017 which pointed out that the dilution of waste material to clean coal during mining is negligible (~ 3 mm) and top-bottom coal losses during mining are almost 7.5 cm which is more than the industry standard (5 cm).

Further studies and ongoing reconciliations are strongly recommended to increase the level of confidence in the predicted product tonnes and qualities.

## 6. DEPOSIT CHARACTERISATION AND MINING METHOD

### 6.1 DEPOSIT CHARACTERISATION

#### 6.1.1 Introduction

The deposit in the Project area is characterised by the following features:

- A small number of coal seams
- Thick parent coal seams (> 3 m)

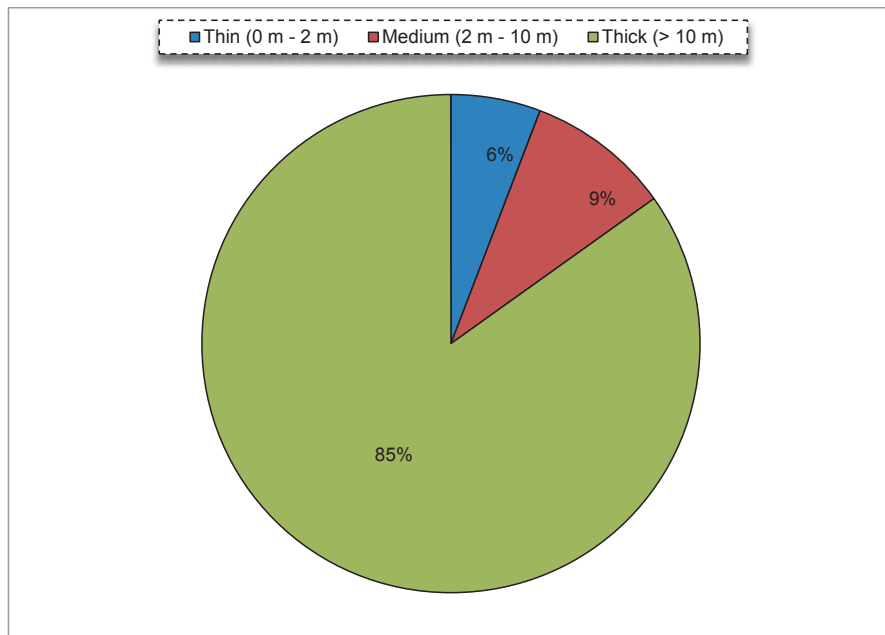


- Thick interburden (> 10 m)
- Shallow dips, average 5°

### 6.1.2 Waste Horizons

The in-seam interburden thickness in this deposit largely falls under the thick category (>10 m in thickness) as demonstrated in Figure 6.1. This implies that most of the waste material can be mined using medium to large sized excavators (100 to 200 t).

**Figure 6.1 – Interburden Thickness Categories**



**Note:**

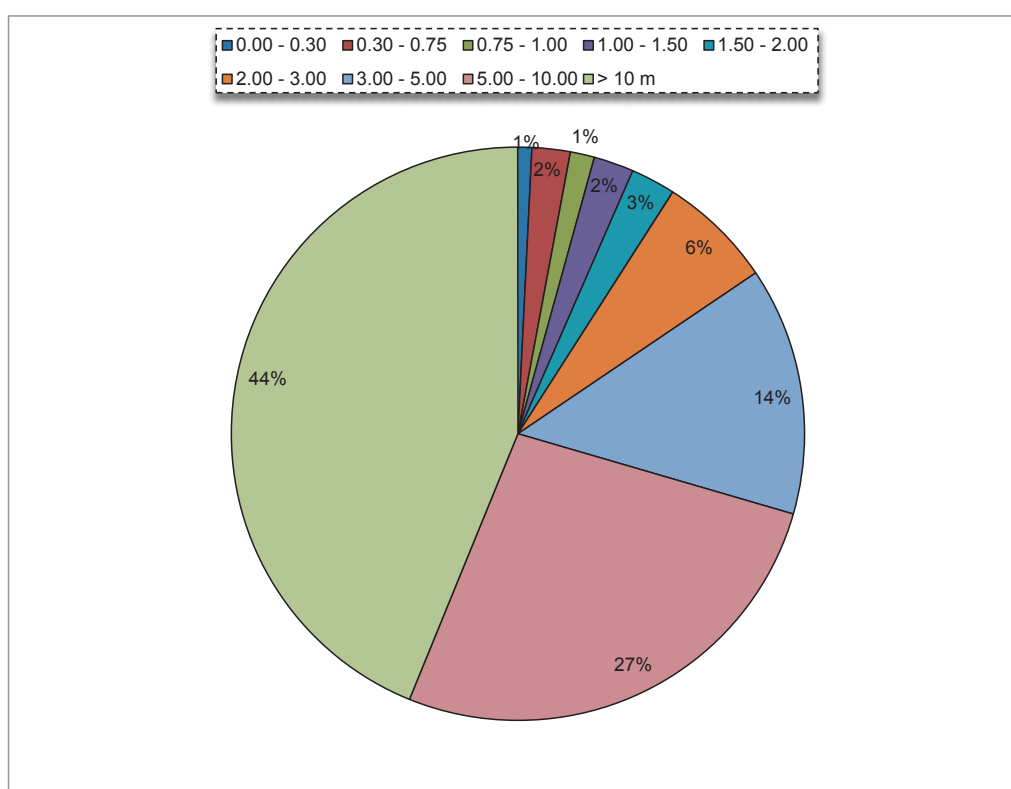
- The above estimate is based on a Working Section Model
- The estimation is restricted between Original Topography and A5A1 Seam floor inside the project area
- Percentages are expressed as Percentage of Total Waste Volume

### 6.1.3 Coal Structure

#### Seam Thickness

Figure 6.2 shows the distribution of mineable seam thickness in the deposit. These thicknesses have been derived from the In situ geological model by generating a working section model after joining the minimum parting thickness. It is clear from the distribution that 85 % of the total mineable coal tonnes are coming from seams which are greater than 3 m in thickness. This indicates the possibility of high recovery of coal during mining and of being able to use medium sized excavators for mining.

**Figure 6.2 – Coal Thickness Distribution**



**Note:**

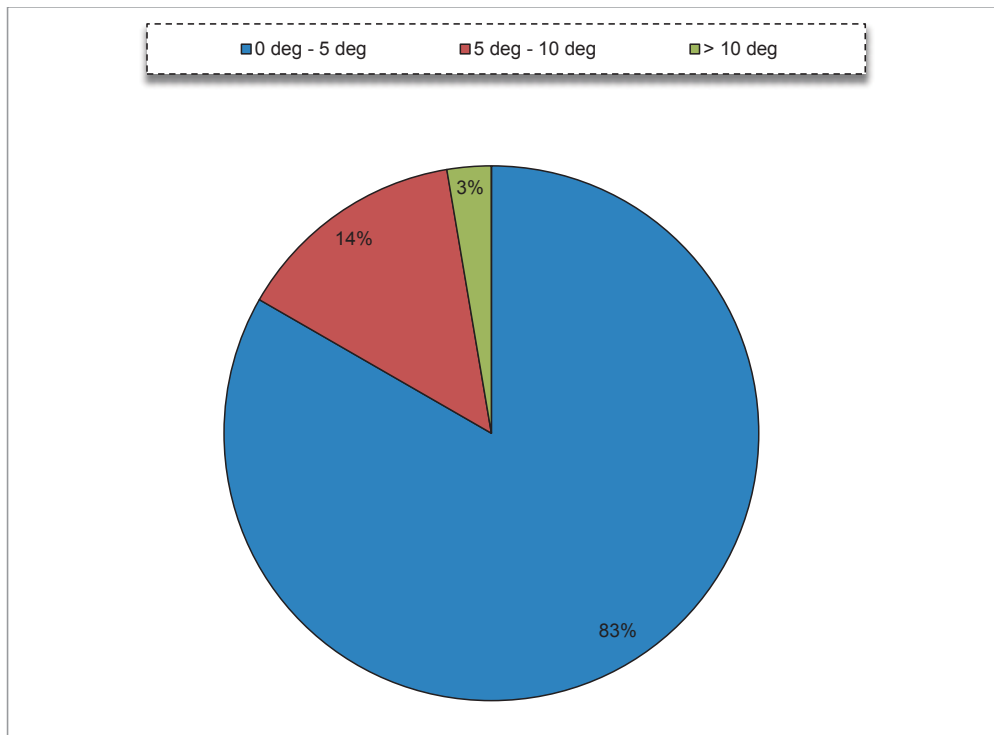
- The above estimate is based on Working Section Model
- The estimation is restricted between Original Topography and A5A1 Seam floor inside the project area
- Percentages are expressed as Percentage of Total Waste Volume



### Seam Gradient

The distribution of tonnage based on seam gradient is shown in Figure 6.3 below. The majority (97 %) of the seams in this deposit show low dips (0 to 10 degrees). This will be beneficial in enabling simple coal mining practices and allowing waste to be dumped back in pit with minimal geotechnical concerns.

**Figure 6.3 – Seam Gradient Distribution**



**Note:**

- The above estimate is based on Working Section Model
- The estimation is restricted between Original Topography and A5A1 Seam floor inside the project area
- Percentages are expressed as Percentage of Total Waste Volume

#### 6.1.4 Coal Quality

There is a very little variation in the coal quality in this deposit both stratigraphically down the seam sequence and also spatially across the concession area. The Project coal can be classified as Low sulphur, High Volatile Moderate Ash coal with Low Gross as Received Energy (GAR) content as:

- 82 % of coal tonnes come within a TS range of 0.1 % to 0.3 %
- 94 % of coal tonnes VM is greater than 39 %
- 83 % of coal tonnes come within an Ash range of 3 % to 7 %
- 80 % of coal tonnes GAR Energy come within a range of 3800 to 4400 Kcal/Kg

Figure 6.4 and Figure 6.5 shows the distribution of various DAF Energy zones for two major seams across the Project area. It is evident that there is a general trend of increasing energy from east to west.

Figure 6.6 to Figure 6.9 show the tonnage distribution under different ranges of Total Sulphur (TS), Volatile Matter (VM), Ash and Gross As Received Energy (GAR).



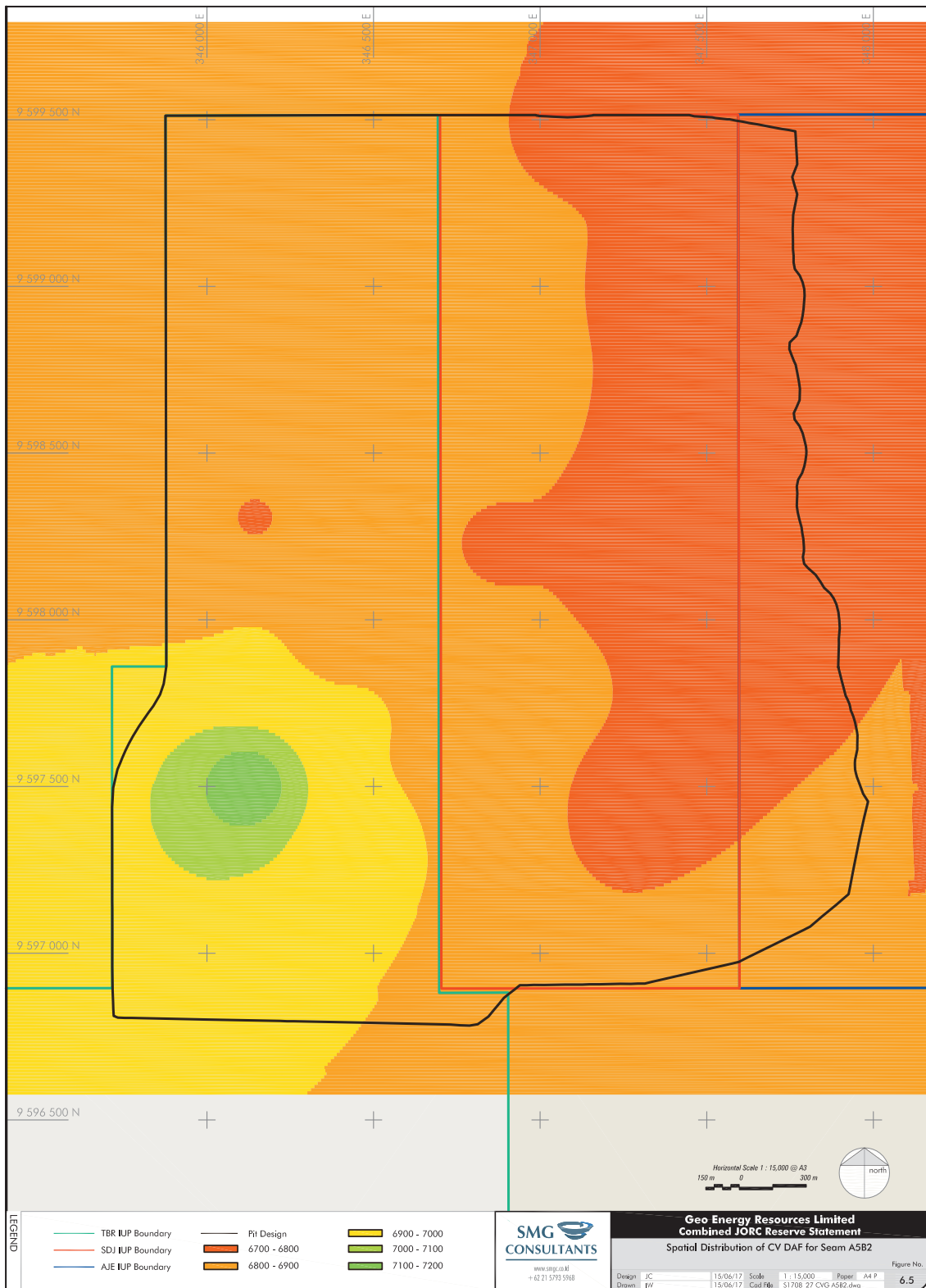


Figure 6.6 – Total Sulphur Distribution

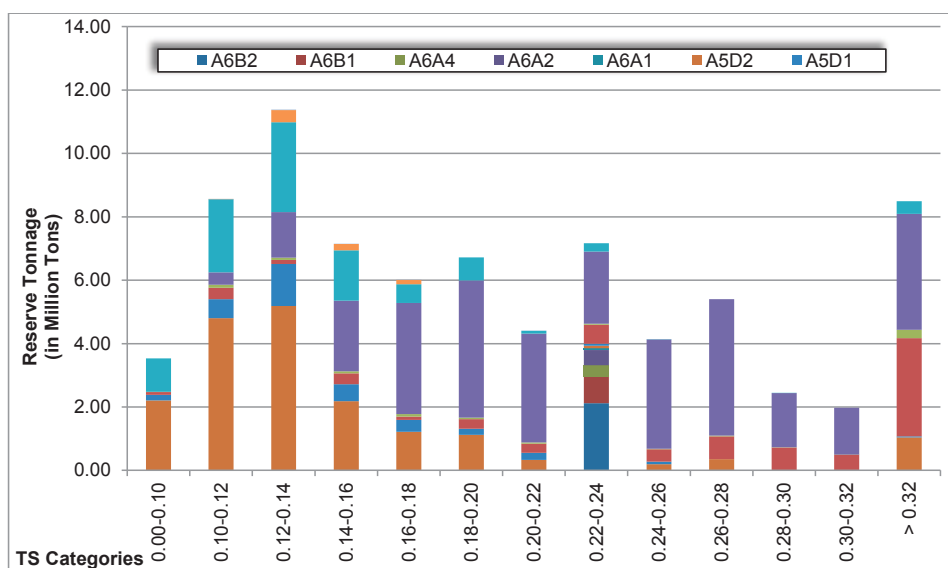


Figure 6.7 – Volatile Matter Distribution

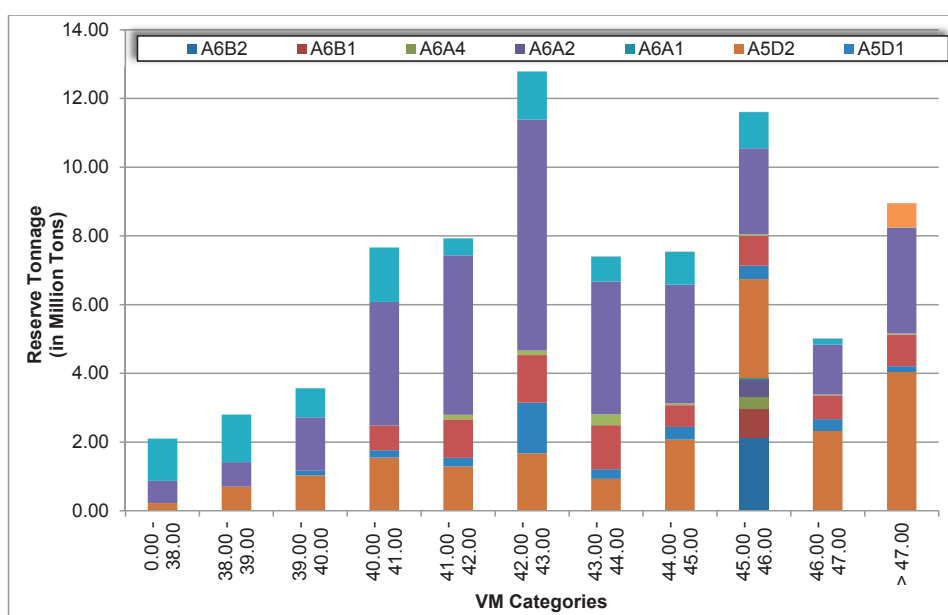


Figure 6.8 – Ash Distribution

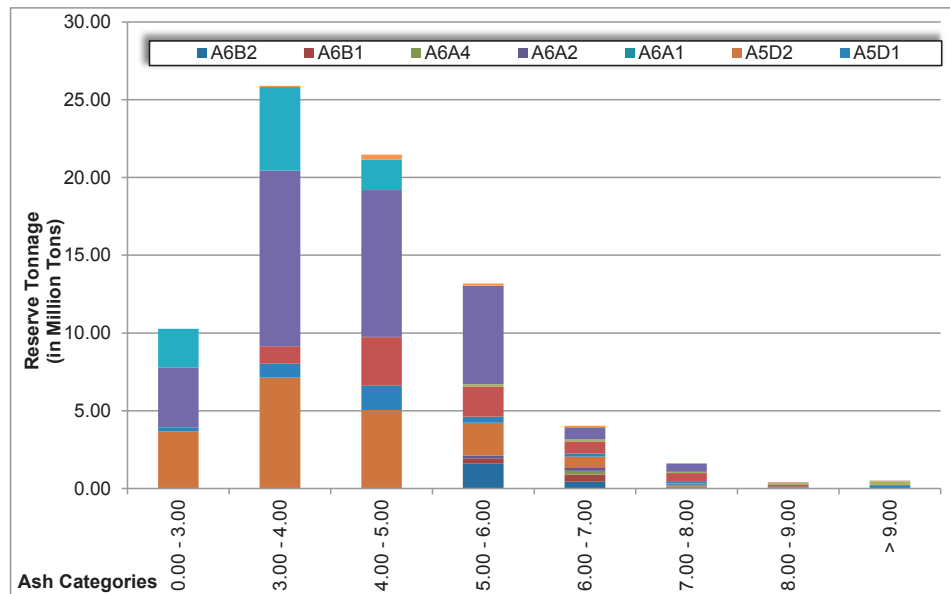
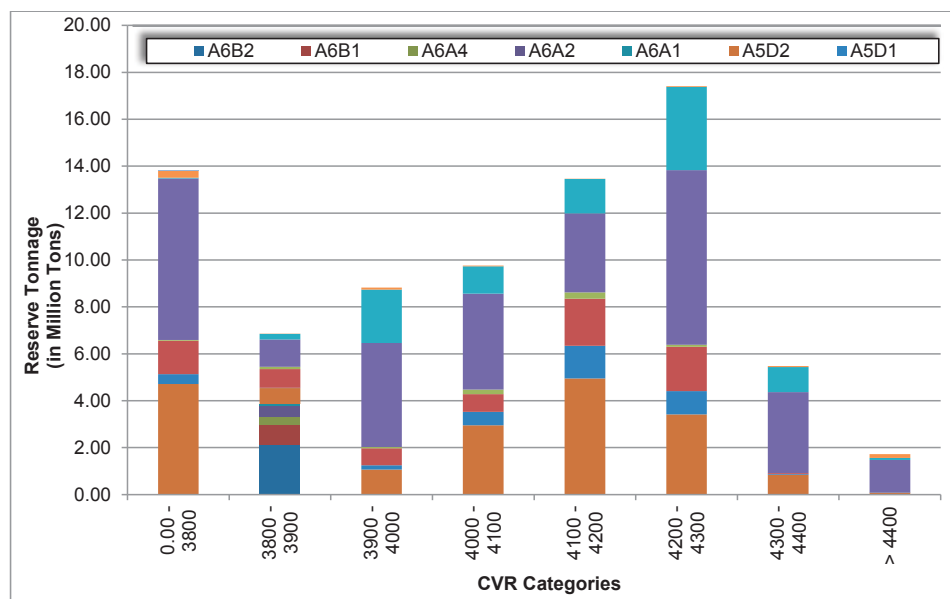


Figure 6.9 – As Received Energy (GAR) Distribution



## 6.2 MINING METHODS

Based on the above observations on the different characterisations of the Project's deposit it is assumed that a standard truck and excavator method will be the most appropriate. This method is well proven and a common practice in Indonesia.

### Waste Mining

Waste material will be mined using medium sized (100 to 200 t) hydraulic excavators and loaded into standard rear tipping off-highway trucks (100 t) and hauled to dumps in close proximity to the pits or to in-pit dumps where possible.

### Coal Mining

Cleaning of coal will be achieved by small sized hydraulic excavators (40 t) with flat-bladed buckets. Minimum dilution and greater recovery is likely to be expected due to thick nature of the coal seams with low dip. Excavation of coal will be achieved using small hydraulic excavator of 40 t class with standard coal buckets and loaded into 30 t dump trucks.

## 7. ESTIMATION OF COAL RESERVES

### 7.1 DETERMINATION OF OPEN CUT LIMITS

Mining has commenced in the Project area inside SDJ concession in December 2015 and since then the Project has produced around 9 million tonne of coal till May 2017. Currently the Project is producing an average 632 Kt coal per month. The Project is targeting to an average 14.8 Mt annual coal production starting 2018. The Project's engineering department has completed a full phased Life of Mine (LOM) plan in consultation with its on-board mining contractor PT Bukit Makmur Mandiri Utama (BUMA). SMGC has reviewed the mine plan, used the physical quantities and built a preliminary financial model using the cost and revenue assumptions discussed under Section 12 to check for the financial viability of the same in the current context. It is observed that the current mine plan is valid and can be used for the basis of the current Reserve estimation. SMGC has generated a pit design from the current mine plan to determine the open cut economic mining limits for this current Reserve estimation process.

### 7.2 ORIGINAL AND AS-DUMPED TOPOGRAPHIC SURFACE

The original topography of the Project area prior to any mining operations was derived from LIDAR remote sensing data in January 2012. This data was supplied as X, Y, Z points which was converted into a 2D grid in Minex. Mining commenced in the Project area in December 2015 as discussed in the Section 7.1. The mined out void and waste disposal areas were regularly surveyed by total station at the end of each month. This data was provided in ASCII format to SMGC and dated as of 19 May 2017. SMGC has merged this data with the original LIDAR topographic data to produce an as-dumped surface which represents the current topography of the area as of 19 May 2017. This surface was used in the current resource and reserve estimation process as a top limit to exclude any mined out coal from the calculation.

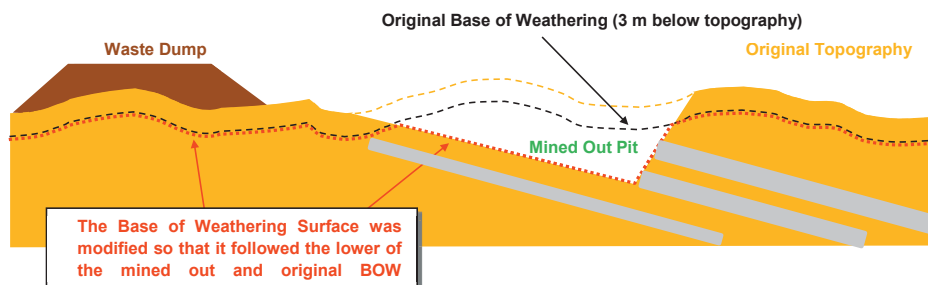
### 7.3 BASE OF WEATHERING

A "non-conformable" base of weathering (BOW) surface was generated during the Resource estimation stage using a default depth of weathering of 3 m below the original topographic surface. The original BOW was then modified and a new BOW generated which was the lower of the original BOW and the as-dumped surface. This modified BOW surface was then used during



estimation. This ensured that the coal in the model was accurately reported in the mined out areas and beneath the waste dumps. This modified BOW is shown in Figure 7.1.

**Figure 7.1 – Base of Weathering Surface**



## 7.4 FINAL PIT DESIGN

The pit design used in the current LOM plan was provided to SMGC. SMGC has reviewed the design in context of the geotechnical guidelines recommended by PT Quantus Consultants Indonesia and made some minor adjustments.

Detailed mining bench and berm design has not been undertaken for the final pit design as this is considered to have no material impact on the estimation of Reserves.

The base of the final pits and the depth zones are shown in Figure 7.2 and Figure 7.3 respectively. Figure 7.4 to Figure 7.6 shows cross sections of the final pits.

## 7.5 DENSITY AND MOISTURE ADJUSTMENT FACTORS

Determination of the in situ density of coal from borehole core samples is essential for the accurate estimation of reserves, especially for *low rank coals* which have high total moisture (TM) content. If no adjustment to density is made then it is considered likely that Coal Reserves of low rank coal would be significantly overstated as the in situ density of low rank coal is much less than the air-dried density.

For seams with air-dried density data, the in situ density of the coal has been computed using the *Preston-Sanders method* to account for the difference between air-dried density and in situ density. The following formula was used to put the coal tonnage on an “as received” basis.

$$RD2 = RD1 \times (100 - M1) / (100 + RD1 \times (M2 - M1) - M2)$$

WHERE : RD2 = relative density (ar)

: RD1 = relative density (ad)

: M1 = Moisture (ad)

: M2 = Moisture (ar)

## 7.6 IN SITU WASTE AND COAL

The total volume of in situ waste and coal in the final pit design is shown in Table 7.1. This includes waste and coal within the Project area.



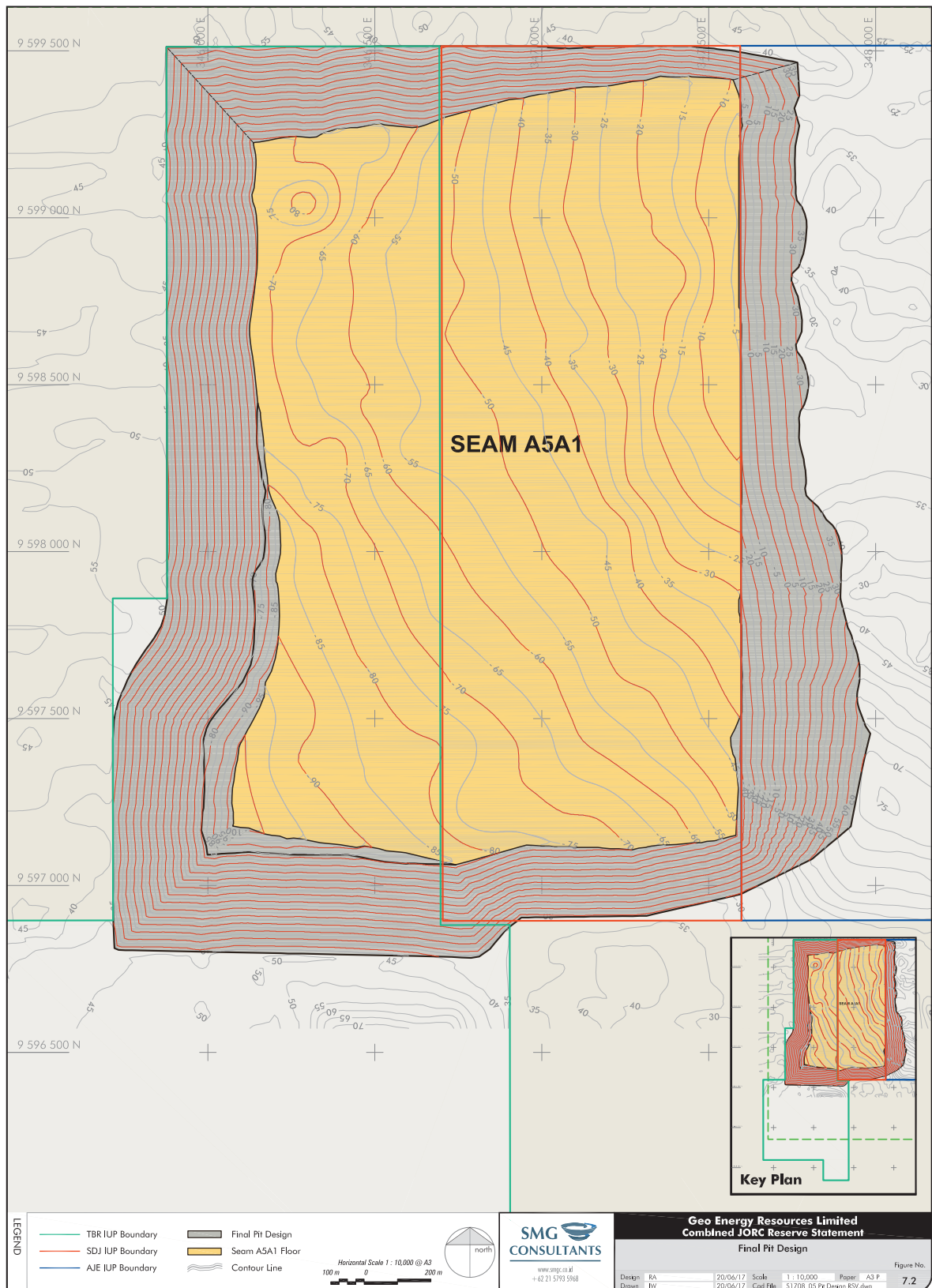
It is important to note that these tonnes cannot be classified as Reserves as modifying factors have yet to be applied, and also some of the tonnes in the pit shell are unclassified or are only at Inferred Resource status.

**Table 7.1 – In situ Waste and Coal in Final Pit Design**

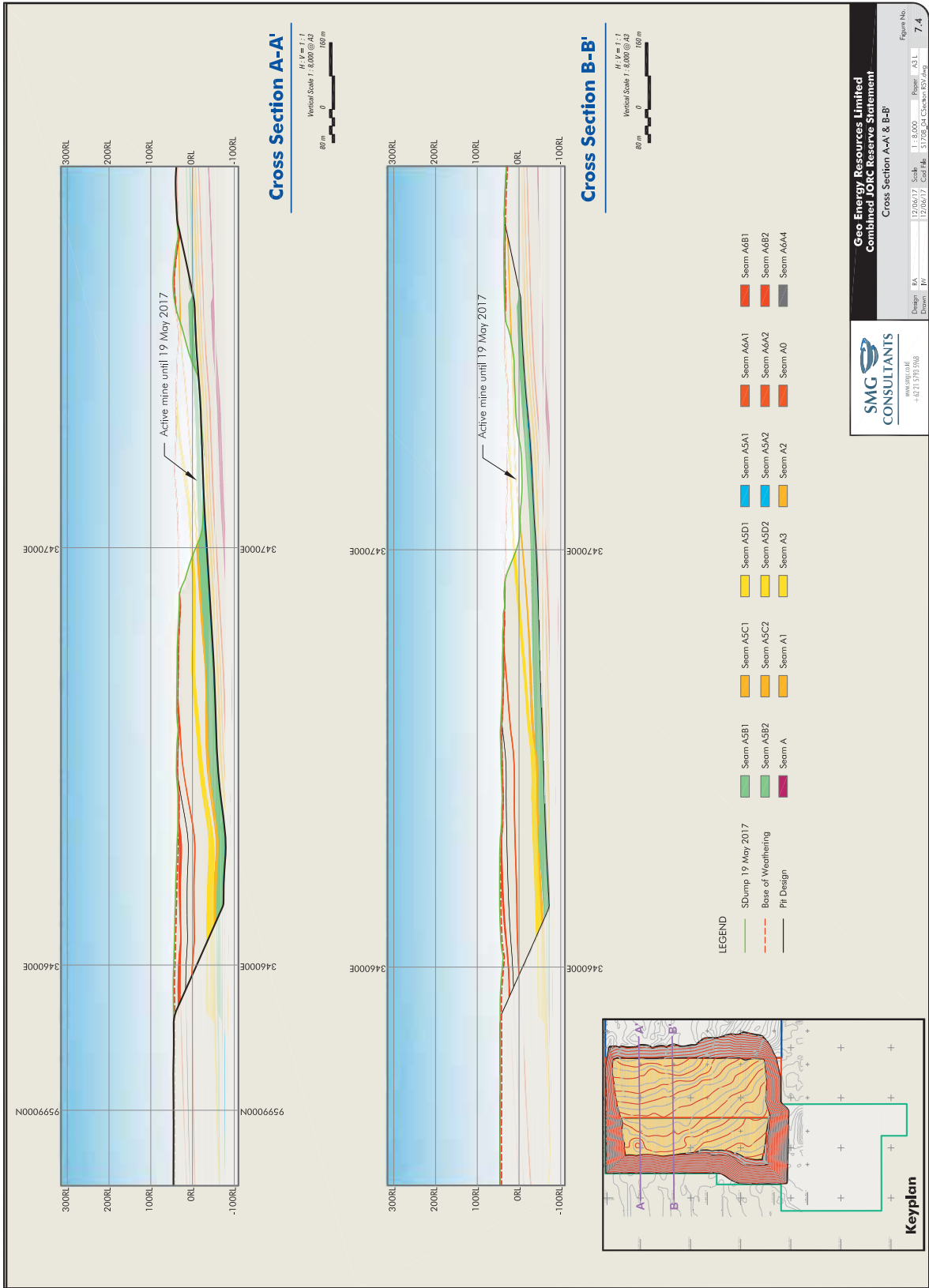
<b>Waste (Mbcm)</b>	<b>Coal (Mt)</b>	<b>SR (bcm/t)</b>
260.4	90.3	2.9

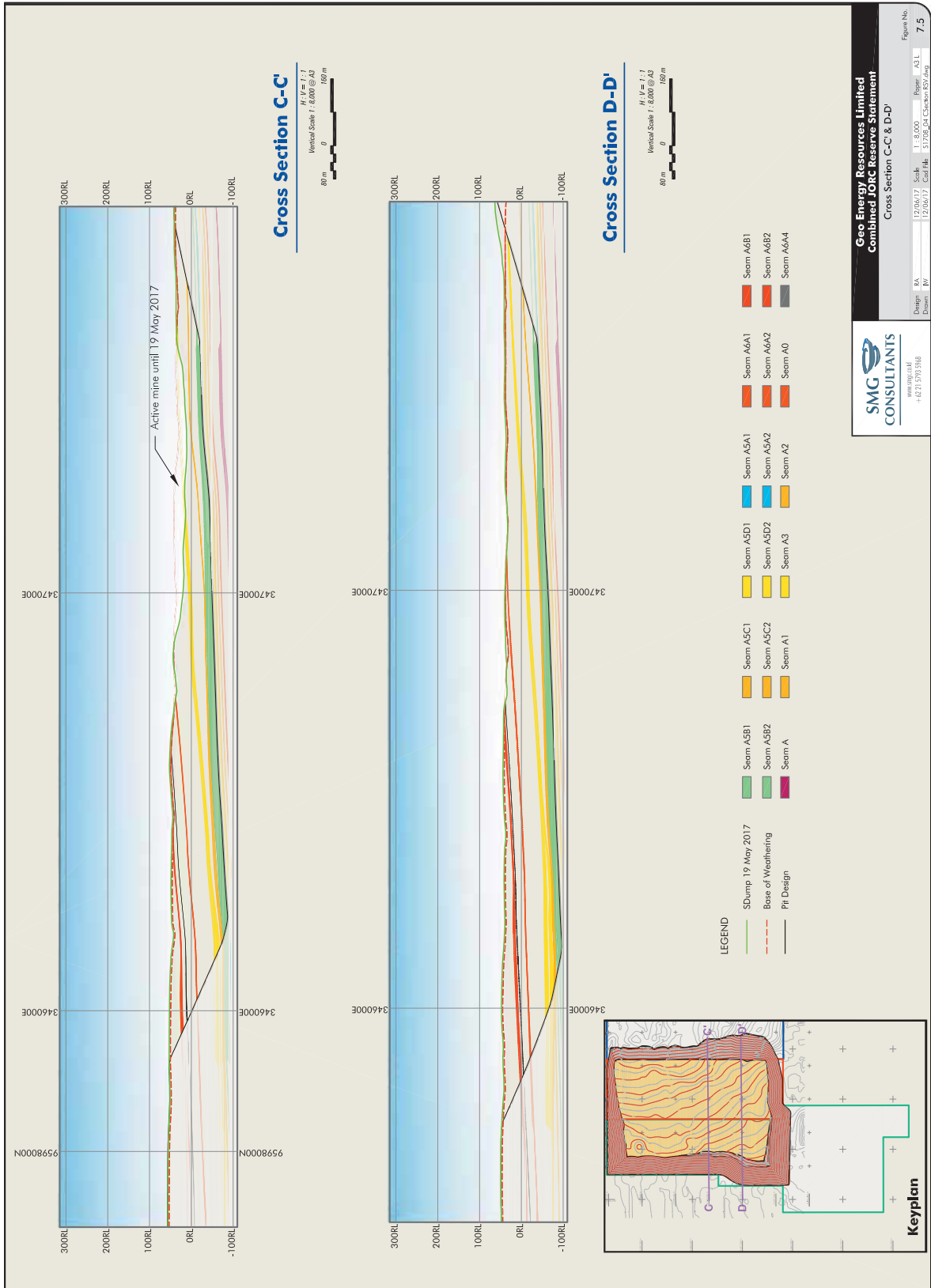
*\*This table must be presented with the entire JORC Reserve Statement from which it was obtained.*

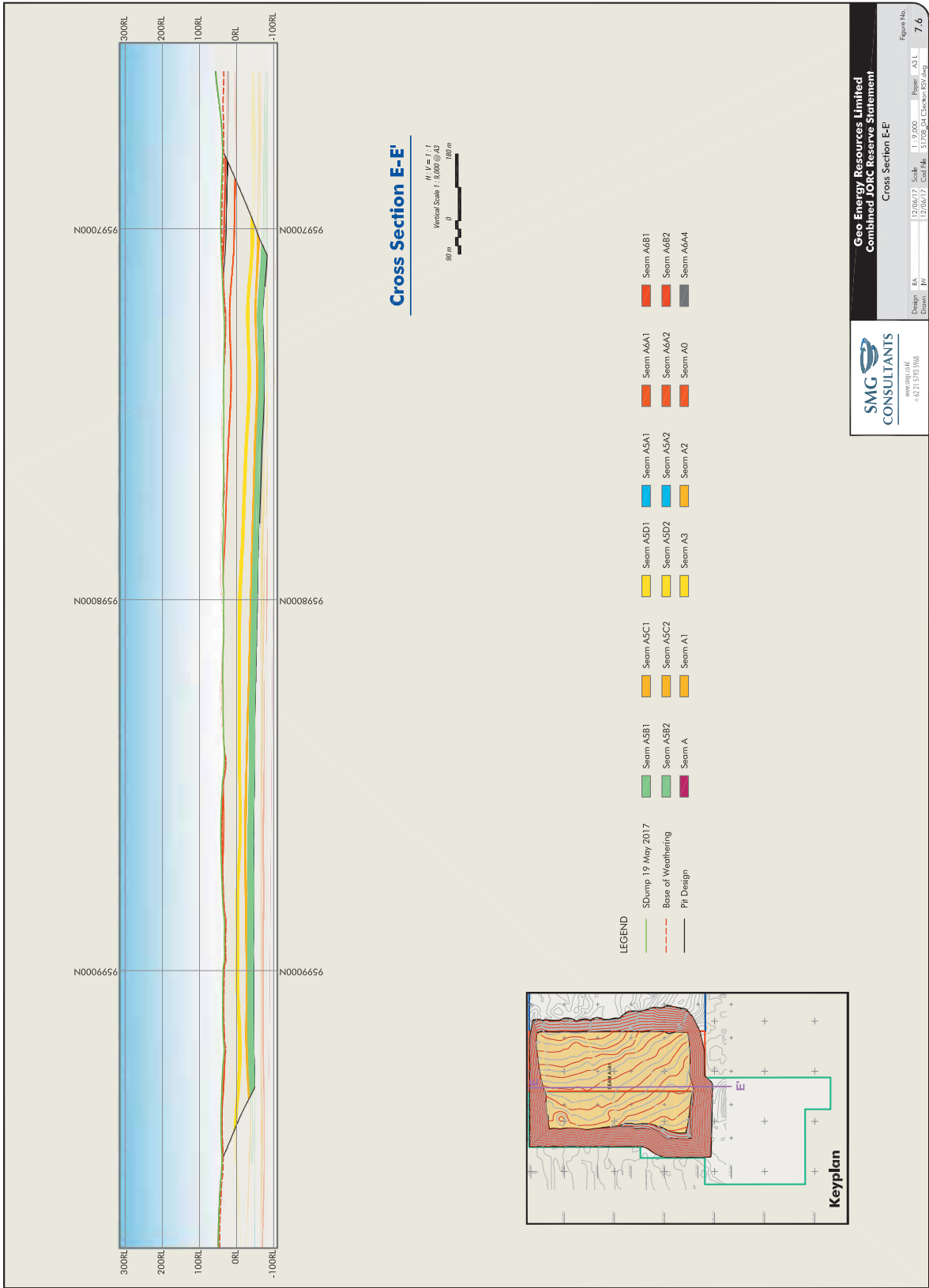
*\*Tonnes reported on an in situ density (arb basis)*











## 7.7 LOSS AND DILUTION PARAMETERS

SMGC has used the reconciliation results from the start of mining in December 2015 up to December 2016 as the coal recovery and adjustment factors for estimating coal Reserves for the concession. This was considered a more reasonable approach than trying to match up modelled and actual results by adjusting loss and dilution thickness parameters in a trial and error fashion. The reader is referred to the section 5.2 of the Reserve report - "JORC Reserve Statement, PT Sungai Danau Jaya, dated March 2017" for the detailed derivation of the same.

The parameters, coal recovery and adjustment factors used for the estimation of in-pit ROM coal from modelled in situ coal are shown in Table 7.2.

**Table 7.2 – Loss and Dilution Parameters**

Parameter	Assumption
Minimum Minable Coal Thickness	0.3 m
Minimum Minable Parting Thickness	0.2 m
Global Recovery Factor	98 %
Dilution	Top 0.3 cm Bottom 0.3 cm
Loss	Top 7.5 cm Bottom 7.5 cm

## 7.8 IN SITU TO ROM CONVERSION METHODOLOGY

### 7.8.1 In situ to ROM Conversion

The in situ database was converted to a ROM database by using the following steps:

1. apply Preston-Sanders adjustment (section 7.5);
2. exclusion of thin coal layers which are less than the minimum mineable thickness;
3. apply global recovery to all mineable coal layers;
4. apply top and bottom loss for all mineable coal layers; and
5. apply top and bottom dilution for all mineable coal layers

The above procedure is shown in Figure 7.7. This procedure is implemented in the Reserves database using Minex software. The result of this conversion is summarised in Table 7.3 below. The tonnes in this table do not represent Coal Reserves as consideration has not been made for boundaries of Measured and Indicated coal.

**Table 7.3 – Estimate of Tonnes of In-pit Coal**

Final Pit Design	Waste (Mbcm)	Coal (Mt)	Strip Ratio (Bcm/t)	% of In situ Tonnes	Remarks
In situ Coal <u>Before</u> Preston-Sanders Adjustment	290.4	98.9	2.9	100%	
In situ Coal <u>After</u> Preston-Sanders Adjustment	290.4	92.0	3.2	93%	Step 1
Mineable Coal after working section	291.3	90.9	3.2	92%	Step 2
ROM Coal after Recovery, Loss and Dilution	294.4	85.2	3.5	86%	Step 3+4+5
Marketable Coal	294.4	85.2	3.5	86%	Same as ROM

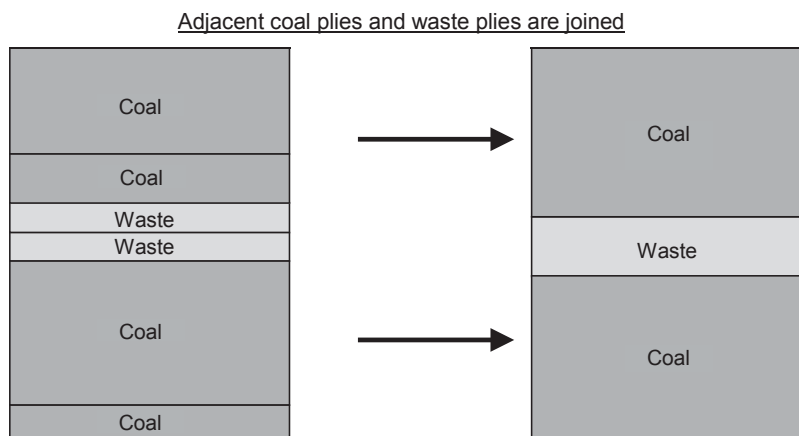
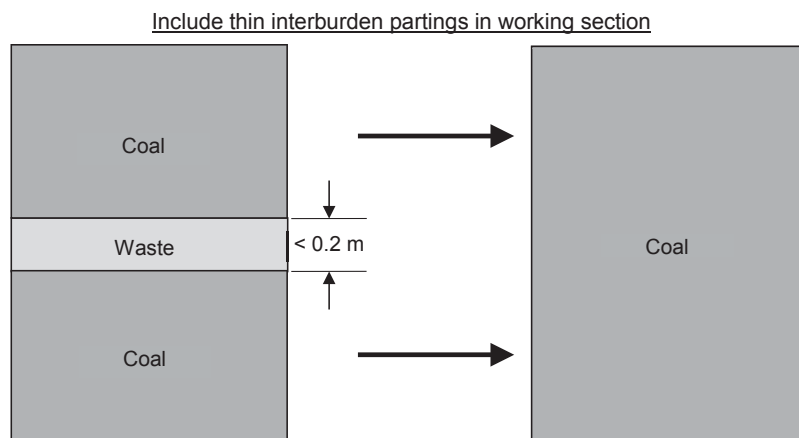
*\*This table must be presented with the entire JORC Resource Statement from which it was obtained*



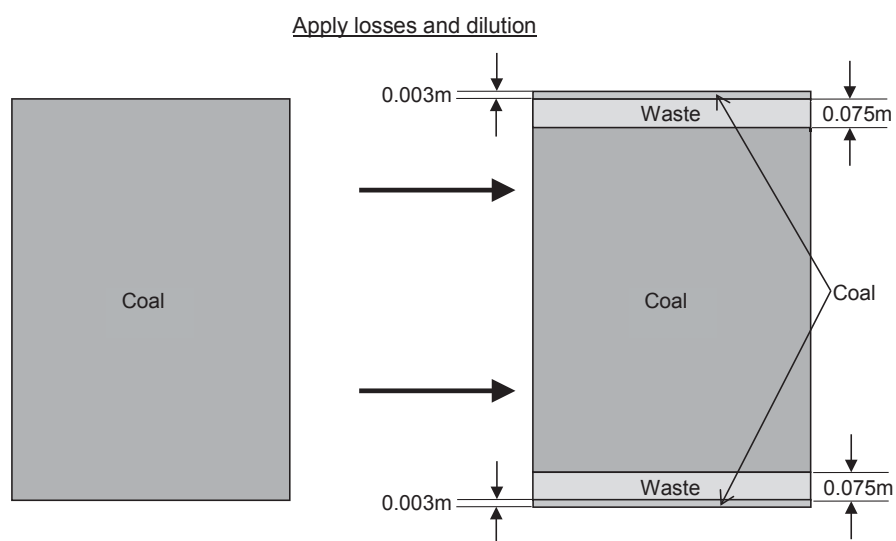
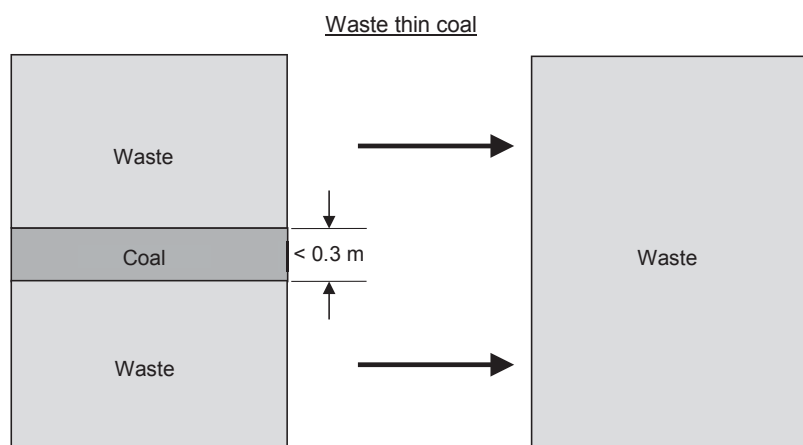
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**Figure 7.7 – In situ to ROM Procedure**





## 7.9 OTHER MINEABLE COAL INSIDE PIT DESIGN

The pit designs that were used to estimate Reserves for the Project contain a proportion of Coal Resources that are classified as Other Mineable Coal. Under the JORC Code, these Resources cannot be converted to Reserves and are described in this document as other coal inside the pit design (Table 7.4).

Explanations for the other coal component for the 13 seams have been grouped into two categories:

### Category 1

This includes the five top seams – A6B2 to A6A1. These seams contribute 5 % to the total product tonnage. Drilling to date could not include these seams in the current Resource estimate due to limited quality data points. SMGC has recommended a drilling programme with an additional 10 boreholes to collect enough quality samples from these five upper seams so they can be included in the next Resource estimate.

### Category 2

This includes small portions of the eight bottom seams – A5D2 to A5A1. These are the main seams contributing 95 % of the total product tonnes. The primary reason for this classification of some coal in these seams is due to insufficient boreholes within reasonable proximity of analysed borehole core samples. SMGC notes that the reason this coal has been included in the pit design is there are generally open hole intersections with geophysics at sufficiently close spacing to reasonably confirm the continuity and thickness of the seams and partings.

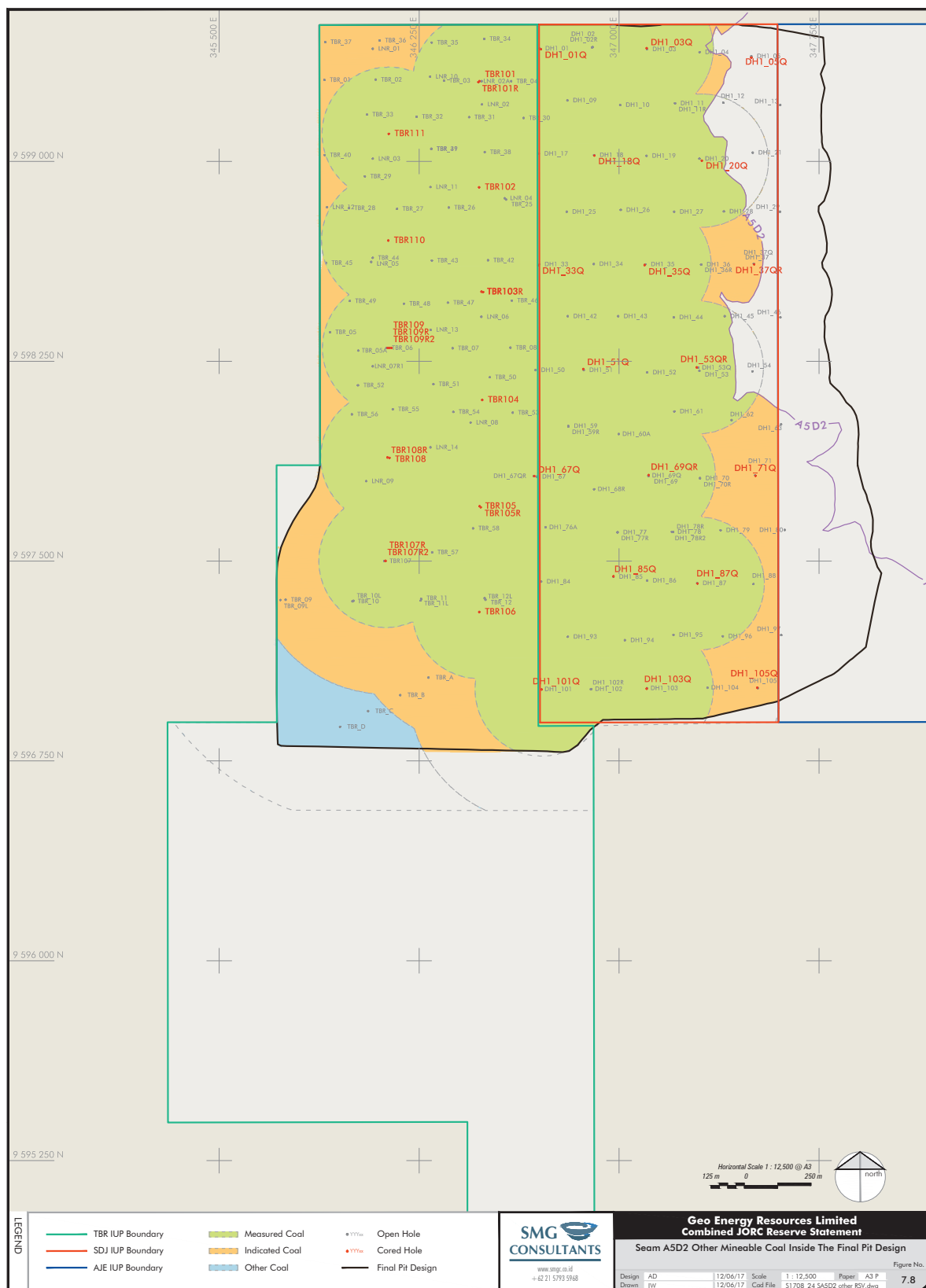
Figure 7.8 shows the other coal areas of the seam A5B2 which contributes 42 % to the total product coal.

**Table 7.4 – Seam by Seam Other Mineable Coal**

Seams	Total Coal Tonne (Mt)	Proven Tonne (Mt)	Probable Tonne (Mt)	Other Coal Tonne (Mt)	% of Other Coal	Explanation
A6B2	2.1	0.0	0.0	2.1	2.5%	Category 1
A6B1	0.9	0.0	0.0	0.9	1.0%	Category 1
A6A4	0.4	0.0	0.0	0.4	0.4%	Category 1
A6A2	0.5	0.0	0.0	0.5	0.6%	Category 1
A6A1	0.1	0.0	0.0	0.1	less than 0.1%	Category 1
A5D2	19.0	18.2	0.8	0.0	less than 0.1%	Category 2
A5D1	3.6	3.0	0.6	0.0	less than 0.1%	Category 2
A5C2	7.8	6.4	1.1	0.3	0.3%	Category 2
A5C1	0.7	0.3	0.4	0.0	less than 0.1%	Category 2
A5B2	35.6	30.6	4.9	0.0	less than 0.1%	Category 2
A5B1	12.5	8.8	3.7	0.0	less than 0.1%	Category 2
A5A2	1.9	0.6	0.8	0.4	0.5%	Category 2
A5A1	0.2	0.1	0.1	0.0	less than 0.1%	Category 2
<b>All</b>	<b>85.2</b>	<b>68.0</b>	<b>12.4</b>	<b>4.7</b>	<b>5.6%</b>	

\*The percentages were expressed as the other coal tonne of individual seams over Total Product Coal Tonne (85.2 Mt)





## 8. MINE SCHEDULING

A Life of Mine (LOM) plan was completed by the Project's engineering department for the deposit and the same was provided to SMGC. The LOM plan included a production schedule, waste balance and preliminary equipment calculations. SMGC has reviewed the mine plan and performed cross-checks to ensure that the operation is practical, achievable and that there is sufficient dumping room to contain all the waste mined in the final pit design. Waste haul distances were also estimated to adjust the waste mining costs for the operation.

The mine plan targeted 12.8 Mt in the year 2018 and average 14.8 Mt for rest of the mine life except for the last year. A summary of the LOM plan physical quantities and qualities are shown in the Table 8.1 below. The yearly pit and waste dump positions are included under Appendix G.

**Table 8.1 – Life of Mine Schedule**

Description	Unit	2017	2018	2019	2020	2021	2022	2023	Total
<b>Physical Quantities</b>									
Total Waste	Mbcm	21.7	50.5	52.7	52.7	52.7	52.7	11.6	294.4
ROM Coal	Mt	5.6	12.8	15.4	15.1	14.6	14.0	7.8	85.2
Strip Ratio	bcm : t	3.9	3.9	3.4	3.5	3.6	3.8	1.5	3.5
<b>Product Qualities</b>									
Total Moisture	% ar	35.5	35.2	35.2	35.2	34.7	34.9	34.8	35.0
Inherent Moisture	% adb	15.7	16.6	19.5	18.5	17.9	17.8	17.9	17.9
Ash	% adb	4.1	4.2	4.1	4.2	4.2	4.1	4.1	4.1
Volatile Matter	% adb	41.6	41.0	39.5	39.9	39.7	40.6	40.0	40.2
Fixed Carbon	% adb	37.4	38.3	36.1	36.9	37.6	37.6	37.9	37.3
Total Sulphur	% adb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Caloric Value (arb)	Kcal/Kg	4,130	4,128	4,140	4,197	4,260	4,286	4,265	4,204
Relative Density (arb)	t/m3	1.25	1.26	1.26	1.27	1.26	1.27	1.27	1.26

*Note: Year 2017 has been reported only from June 2017 to December 2017*

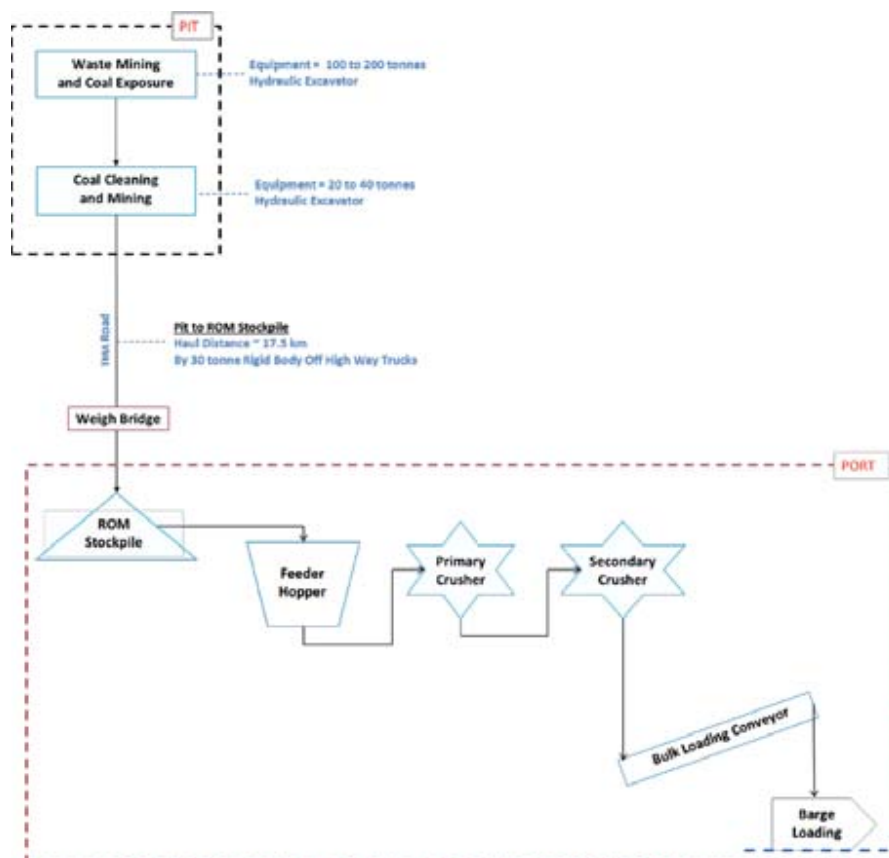
## 9. COAL LOGISTICS

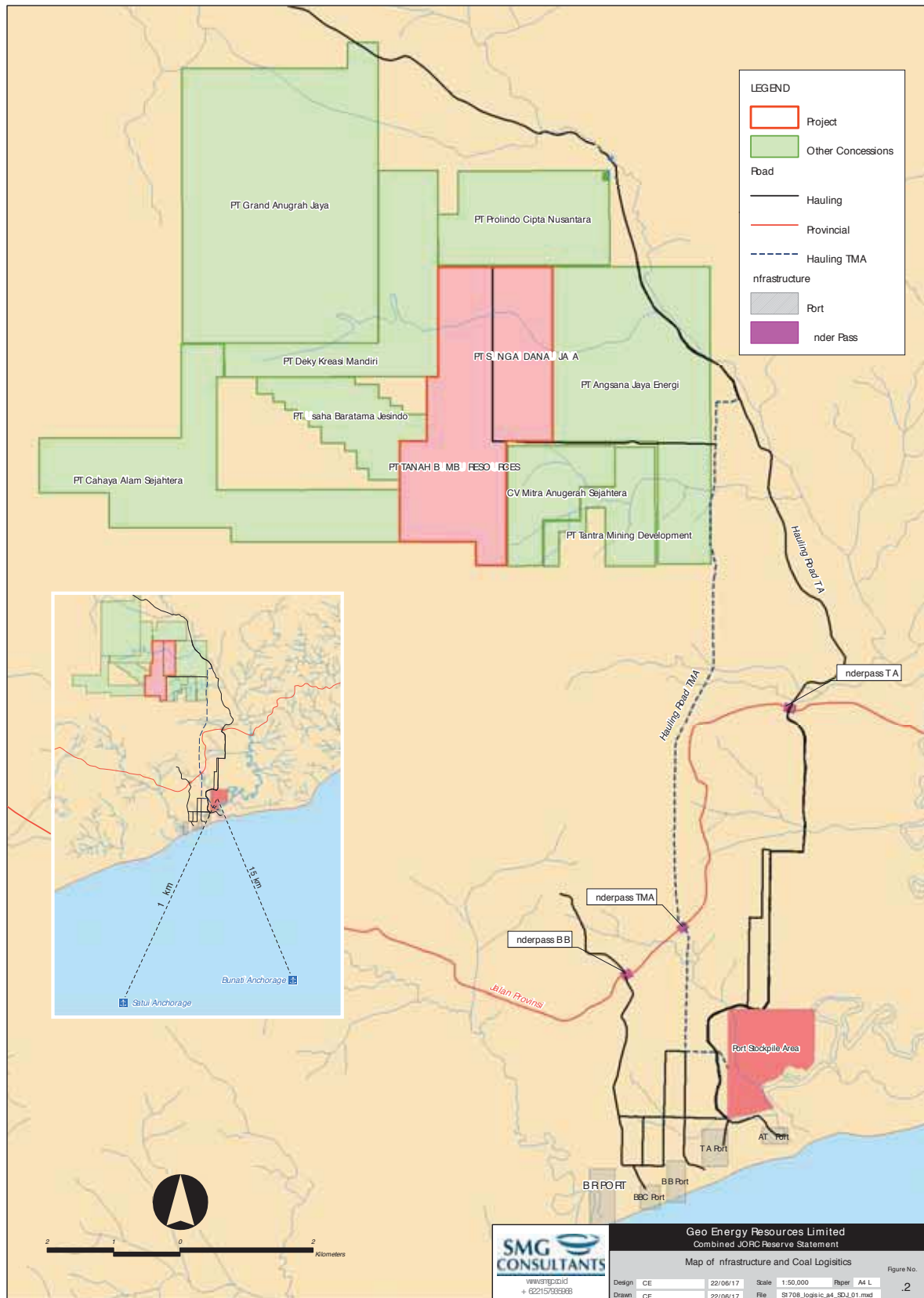
The Project has hauled and shipped more than 8 Mt between December 2015 and May 2017. The logistics for coal is considered to be very convenient for the Project. The coal is cleaned and mined using small excavators (40 t) and hauled using rigid body off-highway trucks (30 t) directly to a ROM stockpile located at the port at a distance of about 17.5 km from the mine. The coal trucks first use the mine haul roads from the pit to the existing PT Toudano Mandiri Abadi (TMA) coal toll road. This is a privately owned coal haul road between the Project and port area. This road is available for hauling coal on a USD/t basis. Coal from the pit use this haul road up to the ROM stockpile area near the STU port. All the coal trucks are weighed through a 50 t weigh-bridge before entering the ROM stockpile. Coal dumped to the ROM stockpile is rehandled into feeder hoppers by a fleet of wheel loaders and dump trucks depending on the barge allocation schedule. The coal from the hopper is crushed to – 50 mm product through primary and secondary crusher systems and finally loaded into 300 ft. (8000 t) barges through bulk loading conveyors (BLC).

A diagram representing the coal chain from the pit to port is shown in Figure 9.1. A map showing the location of the infrastructure location, coal haul road and port area is shown in Figure 9.2.



Figure 9.1 Coal Logistics Diagram





## 10. INFRASTRUCTURE

Operations have commenced within the Project area and all necessary infrastructures are already in place. This includes the following:

- Mining contractors Workshop and Site Office
- Mining Contractor's Camp for 350 People
- Coal Haul Road to the Port – This is a third party road available on rental basis
- Port Stockpile and Barge Loading facilities
  - STU Port – This is a third party port used by the Project on rental basis. The capacity of this port is 2,000 tph which equates to approximately 12 Mtpa
  - BIR Port - This is also a third party port used by the Project on rental basis. The capacity of this port is 600 tph which equates to approximately 3.6 Mtpa

In SMGC's opinion, the available infrastructure sufficient to support the current and the future mining activities following the existing Life of Mine plan. However, in order to ship approximately 15 Mt, it would need both the STU and BIR port available to the Project at the fullest capacity.

Figure 10.1 to Figure 10.7 demonstrates the existing infrastructure in the Project area.

**Figure 10.1 – Mining Contractor's Office**





**Figure 10.2 – Mining Contractor's Workshop**



**Figure 10.3 – The Owner's Office and Camp**





**Figure 10.4 – The Coal Haul Road**



**Figure 10.5 – The Port Stockpile**



**Figure 10.6 – The STU Port****Figure 10.7 – The BIR Port**

## 11. MARKETING ASSESSMENT

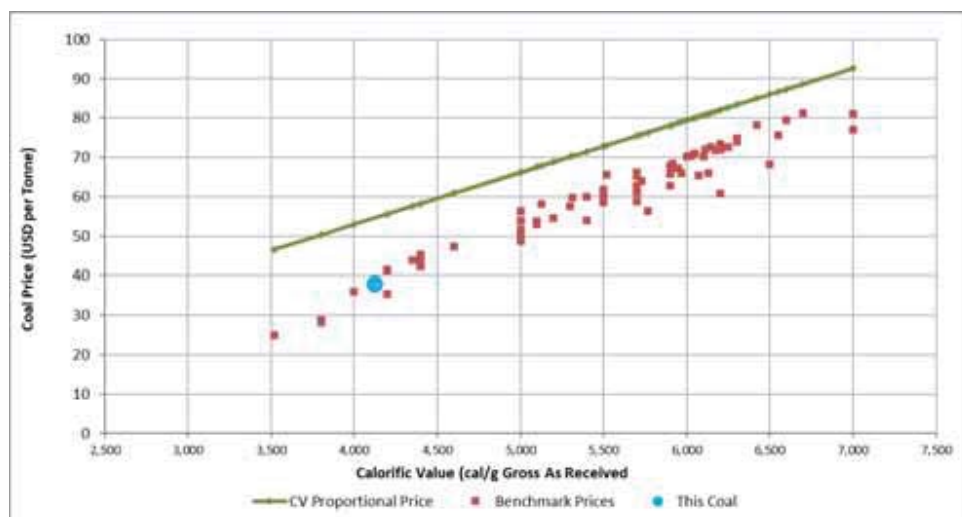
### 11.1 SALES PRICE

After a long trend of falling prices the global thermal coal price indexes have recovered sharply in the second half of 2016. The Indonesia benchmark price (HBA) is not an exception in this case. However, there are still sufficient volatilities in the seaborne thermal coal market which prevents accurate prediction of forward coal prices.

In this current context, SMGC has developed a regression formula based on the DJMPB – ESDM, Indonesia Benchmark coal sales prices and estimated the prices for the Project's coal in real terms for the purpose of creating an economic model to examine the viability of the Project.

The prices assumed in this study are intended strictly for this purpose only and shall in no way be construed to constitute the basis for a valuation of the Project. While these prices are considered to be reasonable for the purpose of this study and represent one possible future outcome; it must be noted that forward prices are influenced by a large number of factors which cannot be controlled nor accurately predicted. It is likely that actual future coal prices will be significantly different from these assumptions (see Figure 11.1 and Table 11.1).

**Figure 11.1 – Indonesian Benchmark Sales Prices**



**Table 11.1 – The Project's Coal Prices**

Descripton	Units	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
ROMT	Ktonne	5,600	12,800	15,400	15,100	14,600	14,000	7,800
CVGAR	Kcal/Kg	4,130	4,128	4,140	4,197	4,260	4,286	4,265
TM	(%)	35.5	35.2	35.2	35.2	34.7	34.9	34.8
TS	(%)	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Ash	(%)	4.1	4.2	4.1	4.2	4.2	4.1	4.1
<b>The Project Coal Price (Real)</b>	<b>USD/tonne</b>	<b>38.70</b>	<b>38.85</b>	<b>39.01</b>	<b>39.61</b>	<b>40.64</b>	<b>40.83</b>	<b>40.66</b>



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## 11.2 MARKETING REGULATORY ISSUES

While SMGC does not see any significant issues with marketing this type of coal in the longer term, there are a number of issues with the new Indonesian mining law (Law on Mineral and Coal Mining No. 4 of 2009) and associated regulations that have the potential to affect marketing and selling of coal from coal concessions. The actual implementation of this aspect of the law is still unclear and many holders of these contracts are currently in negotiation with the Indonesian government regarding this issue.

A number of aspects of the new law that may affect the marketing of coal from the Project are discussed in this section.

### Domestic Marketing Obligation

In order to secure coal supply for domestic use, the new mining law allows for a Domestic Market Obligation (DMO) where the central government is able to control the production and export of mining products. Regulation No. 34 of 2009 issued by the Ministry of Energy and Mineral Resources (MEMR) 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 MEMR 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 i.e. they must be end users and not intermediaries such as coal traders.

On the basis of this above regulation the Ministry of Energy and Mineral Resources (ESDM) has issued a letter to the Project authority supporting their application for an IPPKH permit for the residual 16.05 ha area under HPK forest category at the west side of the SDJ concession. This means that the Project has to supply a part of their annual coal production to fulfil the domestic power needs of Republic of Indonesia. However, this does not have any material impact on the financial viability of the Project as the HPB prices have improved recently and there is not much difference between domestic and international prices of this quality coal.

### Minimum Pricing Regulation

The Indonesian government has regulated benchmark prices for coal and other minerals to serve as the floor price for government royalty calculations. If actual coal sales are higher than the benchmark price, then the royalty is based on the actual price; whereas if the actual price is lower than the benchmark price then the benchmark price is used to calculate royalty. The requirements are detailed in Regulation No. 17 of 2010 issued by the MEMR. The benchmark price is applicable to both long term sales and spot sales.

At the current time the government's approach is that the benchmark price is only to be used to calculate royalties for the purpose of preventing transfer pricing. However it is possible under the new mining law that regulations could be issued such that benchmark prices would determine the minimum price for actual sales, which may affect marketing and sales.

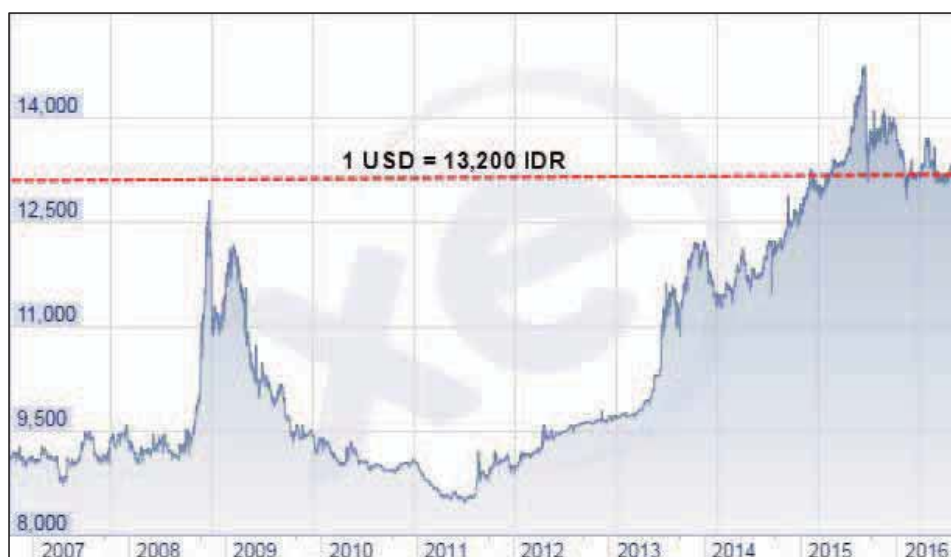
## 12. FINANCIAL EVALUATION

GERL is an operating mine and as such has existing contracts and forward sales agreements that are commercially sensitive (Refer to the *Table 1 Checklist of Assessment and Reporting Criteria* in JORC 2012 code). SMGC has constructed an economic model for the Project to confirm that it is economically feasible after the application of all modifying factors.

### 12.1 EXCHANGE RATE

The Exchange rate between US dollar (USD) and Indonesian Rupiah (IDR) has fluctuated significantly over the last 10 years (Figure 12.1). For the purpose of this financial evaluation SMGC has assumed a long term (LT) exchange rate of 13,200 for converting US Dollar to Indonesian Rupiah (IDR). In SMGC's opinion the recent spikes in the USD/IDR exchange rate is not going to continue at the same level in the longer term and hence cannot be considered as a LT conversion rate for this analysis.K

Figure 12.1 – Fluctuation in Exchange Rate



Source: [www.xe.com](http://www.xe.com)

### 12.2 CAPITAL COST

All of the required infrastructure for the Project is in place as described under Section 10. Exploration activities for resource extension are no longer required. There are no known major permits or technical studies required in the future for this Project. Therefore all capital costs are assumed to have been incurred for this Project and there are no major capital expenditure anticipated in future as well.

However, SMGC has considered mine closure costs at about USD 7,000 per hectare for a total of 495 Ha, incurred in the last two years of the mine life.

Given the short mine life of 6 years, no allowance has been included for ongoing and replacement capital expenditure for the operation.



## 12.3 OPERATING COSTS

### 12.3.1 Unit Rates

A set of unit rates (Table 12.1) were derived by SMGC for the Project based on data supplied by GERL and supplemented with the SMGC knowledge database. These unit rates were compared against actual costs from similar active operations in nearby areas and considered to be reasonable and suitable for the purpose of this study.

**Table 12.1 – Unit Rates**

Item	Unit	Base Rate	VAT
Topsoil	USD / bcm	2.18	Yes
Waste Mining	USD / bcm	2.18	Yes
Waste Overhaul above 1 Km	USD / bcm / 100 m	0.050	Yes
Coal Cleaning and Mining	USD / tonne	0.97	Yes
Coal Haulage to Port Stockpile	USD / tonne km	0.146	Yes
Coal Haulage Fee	USD / tonne	1.14	Yes
Crushing, Port Stockpile & Barge loading	USD / tonne	5.13	Yes
Barging & Stevedoring	USD / tonne	2.58	Yes
Overheads (Project personnel Only)	USD / tonne	0.10	No
Dewatering and Water Treatment	USD per annum	500,000	No
Land Fee	USD / tonne	3.0	No
VAT	% VAT costs	10 %	
Operating Cost Contingency	% All Costs	10 %	

### 12.3.2 Royalties and Government Costs

Tenure for the Project is held under two IUP Production (IUP Operasi Produksi) licenses which has a royalty rate that is dependent on the air dried energy of the coal as sold. In the case of this coal, the Royalty Rate is expected to be 5 % of the total revenue for the average coal produced as the air dried energy is greater than 5,100 kcal/kg and less than 6,100 kcal/kg.

An issue that should be noted regarding royalty costs for the Project is the government regulation regarding benchmark prices for coal and other minerals that serve as the floor price for government royalty calculations. If actual coal sales prices are higher than the benchmark price, then the royalty is calculated based on the actual price; whereas if the actual price is lower than the benchmark price then the benchmark price is used to calculate royalty. The requirements are detailed in Regulation No. 17/2010 issued by the MEMR. The benchmark price is applicable to both long term sales and spot sales.

The benchmark price is specified as the price received FOB mother vessel. The current yearly coal prices used in the financial analysis are also estimated on the same basis.

## 12.4 FINANCIAL SUMMARY

Using the capital costs, operating costs and sales price assumptions combined with the Reserves described in Section 14, the financial model showed the Project to be economically robust.





### **13. RISKS IN ESTIMATION OF RESERVES**

Uncertainties in geological, geotechnical, environmental, economic or other major areas associated to a mining project can significantly impact on the Reserve classification. SMGC is not aware of any other environmental, legal, marketing, social or government factors which may hinder the economic realisation of the Coal Reserves other than those disclosed in this report. Significant areas of uncertainty in the Coal Resources and the modifying factors applied to the Coal Reserves are discussed in this section.

#### **13.1 MUTUAL MINING ARRANGEMENT**

This Reserve statement is highly dependent upon the mutual mining and dumping arrangement between the Project and its eastern neighbour - AJE. This arrangement allows the Project to mine and dump certain amount of waste into this concession. Additionally it assumes that AJE will follow the current life of mine plan so that the backfilling strategy can be successfully implemented for the Project to avoid any hindrance to smooth mining operation.

This mutual understanding is supported by a signed agreement between the concerned parties. SMGC has been given copy of the agreement which is included under Appendix H. Any deviation from this arrangement may impact on the underlying Life of Mine plan which in turn will alter the outcome of this current Reserve Statement.

#### **13.2 LEGAL CONSTRAINTS**

The current activities of the Project are restricted by the existing IPPKH boundary for a total area of around 68.5 Ha and there is no legal issue with the same. However, in order to adhere to the underlying life of mine plan the Project needs to soon enter into the residual 201.6 ha of HPK area (107.3 ha at the west and 94.3 ha at the east) and additional IPPKH permits are required for the same as discussed in section 2.4.1. All the IPPKH approval processes are currently in advanced stages and SMGC does not see any issue which prevents the Project from obtaining the same. However, the timing of obtaining these permits will have a direct impact on the current strategy of the underlying Life of Mine plan and that in turn may alter the outcome of this Reserve statement.

#### **13.3 GEOLOGICAL FACTORS**

While no geological structures or coal washouts have been observed in the exploration to date, it is still possible that some structures exist in the deposit. These potential structures are considered unlikely to have a significant impact on the volumes of coal and waste in the deposit; however it is possible that potential structures could have implications for the stability of pit walls, particularly in the deeper parts of the pit. SMGC recommends that geotechnical mapping and monitoring systems are put in place from the commencement of mining and that any structure identified in the mining operation is analysed and the impact on pit wall stability analysed immediately.

#### **13.4 SURFACE CONSTRAINTS**

Mining operations are constrained by the concession boundaries. Other constraints that were used to define the Project were limits of exploration drilling. No other significant surface feature exists that would further constrain mining activities.



### 13.5 SURFACE WATER MANAGEMENT

Consideration of surface water runoff is critical for mining operations in Indonesia. Key issues that need to be managed include:

- Surface water flows onto the lease and the associated impact on operations
- Impacts that the mining operation will have on water flows outside the lease boundaries

The topography, catchment areas and water flows around the concession were mapped and analysed using both the LIDAR topographic survey data as well as SRTM topographic data. The area to the west side of the current pit inside the Project area is of higher elevation compared to that at the east. Thus, the natural direction of surface water flow is towards the concession in to the pit areas.

The major water channels and water flows that will have a significant impact on the Project are shown in Figure 13.1. There are 2 areas of the pit where water flows will have a significant impact of operations:

Northern Water Channel: a seasonal water stream flows through the concession and the northern part of the pit area, as shown in Figure 13.1. While this is expected to have water flows year round with some seasonal flooding, it is not considered to be a major one and thus it should be possible to divert the same with diversion ditches as shown in the Figure 13.1.

Southern Water Channel: this is also a seasonal water channel which combines a number of catchments in the southern part of the pit. Some diversions will be required at the later stages of the LOM plan.

SMGC is of the opinion that there are no other catchments or rivers that will have a material impact on the Reserve Estimate; however it will be necessary to construct water diversions and sequence waste dumping to ensure that surface water run-off does not enter the pit. The Project's engineering department has completed a water management plan in this regard. The major catchment areas and diversion ditches have been considered in the said plan. The mining sequence chosen for the deposit will have a significant impact on water management requirements, although differences in water management costs between options are likely to be small compared to the cost of moving waste. Water management costs are accounted for in the operating costs of the mine and are considered sufficient for the purpose of this Reserve Statement.





### 13.6 ENVIRONMENTAL FACTORS

SMGC does not see any safety, environmental or community issues that are considered to have a material impact on this Reserve estimate or will affect the performance of the operation in the longer term. It should be noted that this study does not constitute a detailed due diligence of environmental and community issues. SMGC cannot provide any guarantee or warranty that significant environmental or community issues will not affect the operation in the future

### 13.7 GEOTECHNICAL FACTORS

Two complete geotechnical studies were carried out by PT Quantus Consultants Indonesia for the SDJ and TBR concessions. The reports were made available to SMGC. SMGC has followed the geotechnical guidelines while reviewing the final pit design provided by GERL.

Procedures including dimensions, bunding and compaction are being put in place based on these geotechnical recommendations. The implementation of these procedures will need to be continuously monitored to ensure compliance. Ongoing condition monitoring, including groundwater pressure in the lowwall is also recommended.

SMGC is of the opinion that geotechnical issues are being managed adequately and so do not preclude the estimation of Coal Reserves in the concession.

### 13.8 OTHER RISK FACTORS

SMGC is not aware of any other social, political or government factors which may hinder the economic extraction of the Coal Reserves other than those disclosed in this report.

### 13.9 CLASSIFICATION

The JORC Code allows a Measured Resource to be accepted as a Proved Reserve and an Indicated Resource to be accepted as a Probable Reserve. To convert a Resource to a Reserve it must be demonstrated that extraction could reasonably be justified after applying reasonable assumptions. A level of uncertainty in any one or more of the Modifying Factors may result in a Measured Resource being converted to a Probable Reserve. A high level of uncertainty in any one or more of the Modifying Factors may preclude the conversion of the affected Resource to a Reserve.

In the opinion of SMGC the uncertainties in most of the modifying factors applied to the Coal Reserves are not sufficiently material to prevent the classification of areas deemed Measured Resources to be areas of Proved Reserves for the purpose of this study. Similarly in the opinion of SMGC the uncertainties in the modifying factors are also not sufficiently material to prevent the classification of areas deemed Indicated Resources to be areas of Probable Reserve.



## 14. STATEMENT OF COAL RESERVES

The Statement of Coal Reserves has been prepared in accordance with the 2012 Edition of the JORC Code. A summary of coal Reserves are shown under Table 14.1 and Table 14.2. A detailed seam by seam break down of the same is shown under Table 14.3 to Table 14.6.

The Reserves are stated as of 19<sup>th</sup> May 2017.

**Table 14.1 – Summary of Coal Reserves as of 19<sup>th</sup> May 2017**

Reserve Classes	Total Waste (Mbcm)	Total Coal (Mt)	Incremental Stripping Ratio (bcm/t)	Proved Coal (Mt)	Probable Coal (Mt)	Proved + Probable Coal (Mt)
In situ Coal Reserve	290.4	92.0	3.2	71.8	13.6	85.4
Mineable Coal Reserve	291.3	90.9	3.2	71.8	13.4	85.2
Run-of Mine Coal Reserve	294.4	85.2	3.5	68.0	12.4	80.4
Total Marketable Coal Reserve	294.4	85.2	3.5	68.0	12.4	80.4

**Table 14.2 – Summary of Coal Reserves by Concession**

Description	Total Waste (Mbcm)	Total Coal (Mt)	Incremental Stripping Ratio (bcm/t)	Proved Coal (Mt)	Probable Coal (Mt)	Proved + Probable Coal (Mt)
SDJ	125.2	37.9	3.3	28.1	9.2	37.3
TBR	169.2	47.3	3.6	40.0	3.2	43.2
Project	294.4	85.2	3.5	68.0	12.4	80.4

Table 14.3 – In situ Coal Reserves as of 19th May 2017

Seam	Total Waste (Mbcm)	Total Coal (Mt)	RD arb (t/m <sup>3</sup> )	TS adb (%)	VM adb (%)	IM adb (%)	TM adb (%)	Ash adb (%)	GAR arb (Kcal/Kg)	Proved Coal (Mt)	Probable Coal (Mt)	Proved + Probable Coal (Mt)
A6B2	35.7	2.5	1.27	0.17	39.6	19.9	35.0	3.7	4,305	0.0	0.0	0.0
A6B1	1.3	1.1	1.27	0.34	36.6	27.8	34.5	3.6	4,254	0.0	0.0	0.0
A6A4	12.6	0.6	1.28	0.25	35.5	27.0	36.4	4.7	4,145	0.0	0.0	0.0
A6A2	37.0	0.8	1.3	0.28	39.7	16.5	32.5	10.8	4,061	0.0	0.0	0.0
A6A1	2.5	0.2	1.3	0.28	39.7	16.5	32.5	10.8	4,061	0.0	0.0	0.0
A5D2	119.2	20.1	1.26	0.17	40.8	17.1	35.2	3.8	4,193	19.2	0.9	20.1
A5D1	2.0	4.0	1.27	0.17	40.3	17.9	34.5	4.6	4,222	3.2	0.7	4.0
A5C2	48.7	8.6	1.26	0.36	40.5	17.6	35.0	4.8	4,203	7.0	1.3	8.3
A5C1	0.7	1.0	1.27	0.31	40.4	17.6	34.3	8.4	4,208	0.4	0.5	0.9
A5B2	24.4	37.1	1.25	0.25	40.2	17.8	35.2	4.1	4,218	32.0	5.2	37.1
A5B1	1.5	13.1	1.26	0.16	39.2	19.1	34.7	3.5	4,254	9.2	3.9	13.1
A5A2	3.8	2.4	1.24	0.16	43.5	13.8	35.3	5.1	4,171	0.8	1.0	1.8
A5A1	0.9	0.4	1.27	0.17	40.3	13.3	36.0	9.9	3,794	0.1	0.2	0.3
All	290.4	92.0	1.26	0.22	40.2	17.9	35.0	4.2	4,213	71.8	13.6	85.4

Table 14.4 – Mineable Coal Reserves as of 19th May 2017

Seam	Total Waste (Mbcm)	Total Coal (Mt)	RD arb (t/m <sup>3</sup> )	TS adb (%)	VM adb (%)	IM adb (%)	TM adb (%)	Ash adb (%)	GAR arb (Kcal/Kg)	Proved Coal (Mt)	Probable Coal (Mt)	Proved + Probable Coal (Mt)
A6B2	34.6	2.4	1.27	0.17	39.6	19.9	35.0	3.7	4,305	0.0	0.0	0.0
A6B1	1.1	1.0	1.27	0.34	36.6	27.8	34.5	3.6	4,254	0.0	0.0	0.0
A6A4	7.3	0.5	1.28	0.25	35.5	27.0	36.4	4.7	4,145	0.0	0.0	0.0
A6A2	32.5	0.6	1.3	0.28	39.7	16.5	32.5	10.8	4,061	0.0	0.0	0.0
A6A1	2.7	0.1	1.3	0.28	39.7	16.5	32.5	10.8	4,061	0.0	0.0	0.0
A5D2	130.4	20.1	1.26	0.17	40.8	17.1	35.2	3.8	4,193	19.2	0.8	20.1
A5D1	1.8	4.0	1.27	0.17	40.3	17.9	34.5	4.6	4,222	3.2	0.7	3.9
A5C2	45.9	8.5	1.26	0.37	40.5	17.6	35.0	4.8	4,203	7.0	1.2	8.2
A5C1	0.6	0.9	1.27	0.29	40.3	17.8	34.2	8.5	4,225	0.4	0.5	0.8
A5B2	27.7	37.1	1.25	0.25	40.2	17.8	35.2	4.1	4,218	31.9	5.2	37.1
A5B1	1.7	13.1	1.26	0.16	39.2	19.1	34.7	3.5	4,254	9.2	3.9	13.0
A5A2	2.1	2.3	1.24	0.16	43.5	13.8	35.2	5.1	4,173	0.8	1.0	1.7
A5A1	2.8	0.2	1.27	0.16	40.2	13.3	36.2	10.8	3,727	0.1	0.1	0.2
All	291.3	90.9	1.26	0.22	40.2	17.9	35.0	4.2	4,215	71.8	13.4	85.2

Table 14.5 – Run-of Mine Coal Reserves as of 19th May 2017

Seam	Total Waste (Mbcm)	Total Coal (Mt)	RD arb (t/m <sup>3</sup> )	TS acb (%)	VM acb (%)	IM acb (%)	TM arb (%)	Ash acb (%)	GAR arb (Kcal/Kg)	Proved Coal (Mt)	Probable Coal (Mt)	Proved + Probable Coal (Mt)
A6B2	34.7	2.1	1.27	0.17	39.6	19.9	35.0	4.3	4,274	0.0	0.0	0.0
A6B1	1.2	0.9	1.28	0.34	36.6	27.8	34.5	3.6	4,202	0.0	0.0	0.0
A6A4	7.4	0.4	1.29	0.25	35.5	27.0	36.4	4.7	4,066	0.0	0.0	0.0
A6A2	32.7	0.5	1.31	0.28	39.7	16.5	32.5	10.8	4,006	0.0	0.0	0.0
A6A1	2.8	0.1	1.32	0.28	39.7	16.5	32.5	10.8	3,939	0.0	0.0	0.0
A5D2	130.7	19.0	1.26	0.17	40.8	17.1	35.2	3.8	4,183	18.2	0.8	19.0
A5D1	2.1	3.6	1.28	0.17	40.3	17.9	34.5	4.5	4,206	3.0	0.6	3.6
A5C2	46.4	7.8	1.27	0.37	40.5	17.7	35.0	4.8	4,184	6.4	1.1	7.5
A5C1	0.8	0.7	1.28	0.29	40.3	17.9	34.2	8.7	4,180	0.3	0.4	0.7
A5B2	28.2	35.6	1.25	0.25	40.2	17.8	35.2	4.1	4,211	30.6	4.9	35.6
A5B1	1.9	12.5	1.27	0.16	39.2	19.1	34.7	3.5	4,248	8.8	3.7	12.5
A5A2	2.5	1.9	1.25	0.16	43.5	13.8	35.3	5.1	4,122	0.6	0.8	1.4
A5A1	3.0	0.2	1.28	0.16	40.1	13.2	36.2	10.9	3,642	0.1	0.1	0.2
All	294.4	85.2	1.26	0.22	40.2	17.9	35.0	4.1	4,204	68.0	12.4	80.4

Table 14.6 – Marketable Coal Reserves as of 19th May 2017

Seam	Total Waste (Mbcm)	Total Coal (Mt)	RD arb (t/m <sup>3</sup> )	TS adb (%)	VM adb (%)	IM adb (%)	TM arb (%)	Ash adb (%)	GAR arb (Kcal/Kg)	Proved Coal (Mt)	Probable Coal (Mt)	Proved + Probable Coal (Mt)
A6B2	34.7	2.1	1.27	0.17	39.6	19.9	35.0	4.3	4,274	0.0	0.0	0.0
A6B1	1.2	0.9	1.28	0.34	36.6	27.8	34.5	3.6	4,202	0.0	0.0	0.0
A6A4	7.4	0.4	1.29	0.25	35.5	27.0	36.4	4.7	4,066	0.0	0.0	0.0
A6A2	32.7	0.5	1.31	0.28	39.7	16.5	32.5	10.8	4,006	0.0	0.0	0.0
A6A1	2.8	0.1	1.32	0.28	39.7	16.5	32.5	10.8	3,939	0.0	0.0	0.0
A5D2	130.7	19.0	1.26	0.17	40.8	17.1	35.2	3.8	4,183	18.2	0.8	19.0
A5D1	2.1	3.6	1.28	0.17	40.3	17.9	34.5	4.5	4,206	3.0	0.6	3.6
A5C2	46.4	7.8	1.27	0.37	40.5	17.7	35.0	4.8	4,184	6.4	1.1	7.5
A5C1	0.8	0.7	1.28	0.29	40.3	17.9	34.2	8.7	4,180	0.3	0.4	0.7
A5B2	28.2	35.6	1.25	0.25	40.2	17.8	35.2	4.1	4,211	30.6	4.9	35.6
A5B1	1.9	12.5	1.27	0.16	39.2	19.1	34.7	3.5	4,248	8.8	3.7	12.5
A5A2	2.5	1.9	1.25	0.16	43.5	13.8	35.3	5.1	4,122	0.6	0.8	1.4
A5A1	3.0	0.2	1.28	0.16	40.1	13.2	36.2	10.9	3,642	0.1	0.1	0.2
All	294.4	85.2	1.26	0.22	40.2	17.9	35.0	4.1	4,204	68.0	12.4	80.4

## 14.1 COMPARISON WITH PREVIOUS ESTIMATES

Two earlier estimates of Reserve were made for SDJ and TBR which were dated as of 25<sup>th</sup> December 2016 and 31<sup>st</sup> May 2016 respectively. The previous Reserve estimate is shown in comparison to this estimate in Table 14.7.

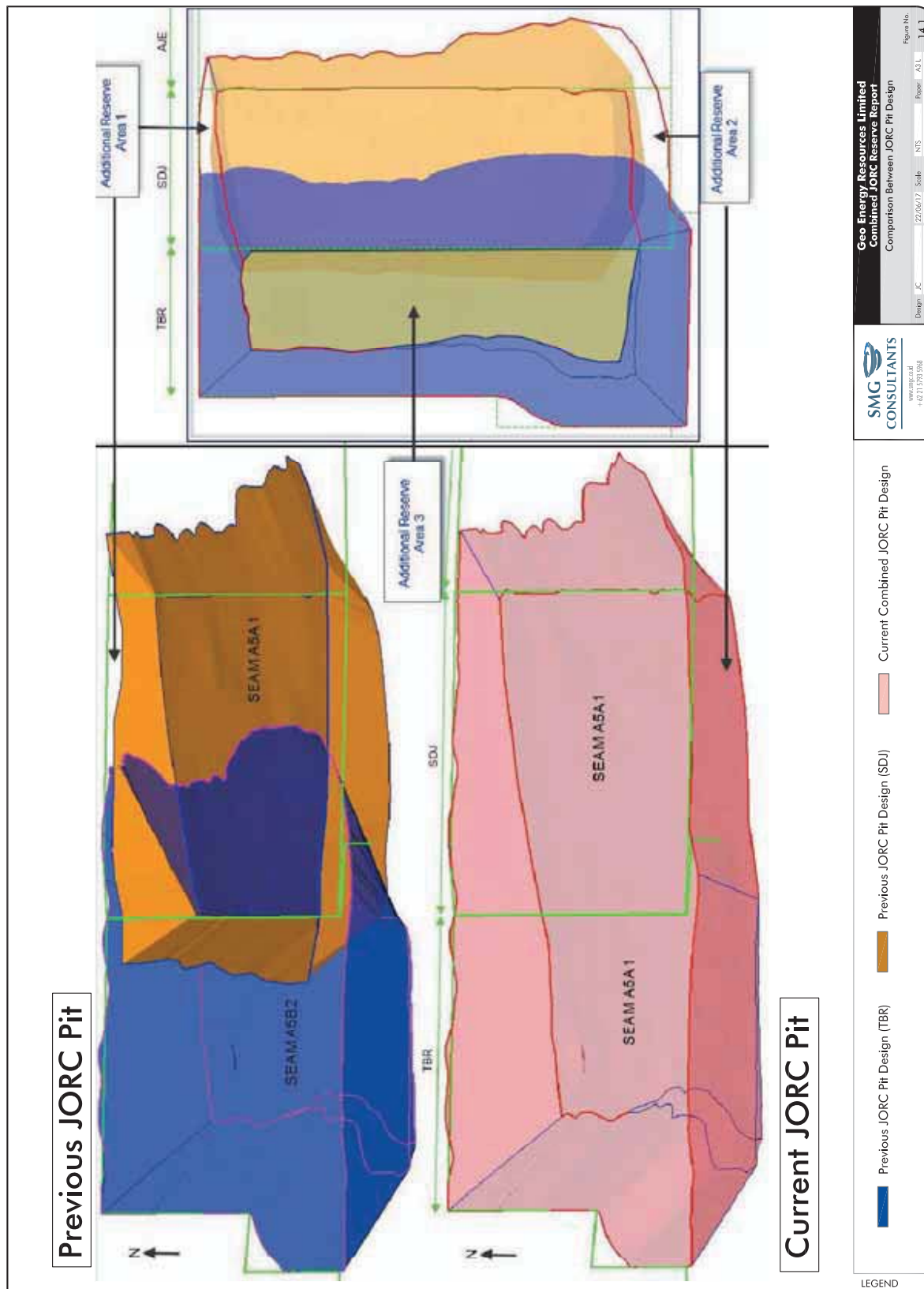
**Table 14.7 – Comparison to Previous Reserve Estimate**

Description	Proved (Mt)	Probable (Mt)	Proved and Probable (Mt)	Formula
Previous SDJ Reserve	27.8	8.2	36.0	a
Previous TBR Reserve	38.2	3.4	41.6	b
<b>Total Previous Estimate</b>	<b>66.0</b>	<b>11.6</b>	<b>77.6</b>	<b>C = a + b</b>
<b>Total Current Estimate</b>	<b>68.0</b>	<b>12.4</b>	<b>80.4</b>	<b>D</b>
Difference	2.1	0.8	2.8	E = D - C

The changes in Reserves inside the Project area are mainly attributable to the following:

- Excavation of 3.2 Mt of coal during the period between December 2016 and 19 May 2017
- Addition of Reserve in certain areas following the change in the Pit design (Figure 14.1)
- Minor differences between the geological models.





## 15. COMPETENT PERSON STATEMENT

The Reserve report was based on data as of the 19<sup>th</sup> May 2017 and has been prepared in accordance with the JORC Code.

The information in this report that relates to Coal Reserves of the Project and is based upon information compiled by Mr. Joyanta Chakraborty, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Chakraborty is employed as a Sr. Mining Engineer by SMG Consultants. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 JORC Code. Mr. Chakraborty has over 15 years' experience in the planning and mining of coal deposits. Mr. Chakraborty consents to the inclusion in the report of the matters based upon this information in the form and context in which it appears.

The Reserves Report must only be disclosed in the form in which it appears and may only be presented in its entirety. This report must not be released for public reporting purposes. Extraction of selected text from this report is only permitted with the written consent of PT SMG Consultants.



**Joyanta Chakraborty**

BE Mining, MAusIMM, CPI

This document was checked as part SMGC's peer review process. Peer review was undertaken by Mr. Kim Knerr who is also a Member of the Australasian Institute of Mining and Metallurgy. Mr. Knerr is employed as a Principal Engineer by SMGC. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves".



**Kim Knerr**

B.Sc (Geological Engineering), MAusIMM



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**Appendix A – Consent Template**

*[Letterhead of Competent Person or Competent Person's employer]*

**Competent Person's Consent Form**

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and  
Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

**Report name**

---

*(Insert name or heading of Report to be publicly released) ('Report')*

---

*(Insert name of company releasing the Report)*

---

*(Insert name of the deposit to which the Report refers)*

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

---

*(Date of Report)*



---

### Statement

I/We,

---

*(Insert full name(s))*

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of

---

*(Insert company name)*

Or

I/We am a consultant working for

---

*(Insert company name)*

and have been engaged by

---

*(Insert company name)*

to prepare the documentation for

---

*(Insert deposit name)*

on which the Report is based, for the period ended

---

*(Insert date of Resource/Reserve statement)*

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results, Mineral Resources and/or Ore Reserves *(select as appropriate)*.



---

## Consent

I consent to the release of the Report and this Consent Statement by the directors of:

---

*(Insert reporting company name)*

---

Signature of Competent Person:

---

Date:

---

Professional Membership:  
*(insert organisation name)*

---

Membership Number

---

Signature of Witness

---

Print Witness Name and Residence  
(eg town/suburb)

Additional deposits covered by the Report for which the Competent Person signing this form is accepting responsibility:

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Additional Reports related to the deposit for which the Competent Person signing this form is accepting responsibility:

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Signature of Competent Person:

---

Date:

---

Professional Membership:  
(insert organisation name)

---

Membership Number

---

Signature of Witness

---

Print Witness Name and Residence  
(eg town/suburb)



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## Appendix B – Contributors to Report

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### Joyanta Chakraborty – Senior Mining Engineering

**Qualifications:** BE (Mining), MAusIMM

**Contribution:** Overall project supervision, engineering, cross checks, report writing  
Competent Person for Coal Reserves

**Experience:** Joy has over 15 years of experience in open cut coal mining in the areas of operations, reserves evaluation, pit optimisation, mine design, equipment selection, mine scheduling, project costing and economics. Joy has worked 4 years in India and for the last 11 years he is working in Indonesia.

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### Kim Knerr – Senior Mining Engineering

**Qualifications:** BE (Mining - Hons)  
MAusIMM

**Contribution:** Peer review

**Experience:** Kim has 30 years of experience in open cut mining operations in globally in delivering strategic results in the minerals industry. He has completed Resource and Reserves analyses under JORC guidelines for bankable reviews and feasibility studies on a wide range of commodities including coal base and precious metals.

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### Tri Ratna Arum – Senior Mining Engineering

**Qualifications:** BE (Mining)

**Contribution:** Reserve database, assistance in cross checks and report preparation

**Experience:** Tri Ratna Arum is a mining engineer with over 9 years of experience in coal mining in Indonesia. Her experience includes open cut mine planning and design, reserves evaluation, pit optimisation, mine scheduling, backfill design and planning, project costing and economics.

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## Appendix C – JORC Table 1

**Table 1 Checklist of Assessment and Reporting Criteria**

**JORC TABLE 1**  
**Section 1 Sampling Techniques and Data**  
**(Criteria in this section apply to all succeeding sections.)**

Criteria	Explanation
Sampling techniques	<ul style="list-style-type: none"> <li>As discussed in Section 3.5 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>As discussed in Section 3.4 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>As discussed in Section 3.4 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>As discussed in Section 3.6 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>As discussed in Section 3.5 and Table 3.3 and Figure 3.3 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>As discussed in Section 3.7 and Table 3.5 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>As discussed in Section 3.5 and Section 3.7 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017</li> <li>Visual inspection on site.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>As discussed in Section 3.3 of SDJ JORC Resource Statement- July 2014.</li> <li>Table 3.1 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>As discussed in Section 3.4. Borehole locations identified in Figure 3.2 as well as those used for estimation purposes in Appendix D of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>All holes have been drilled vertically. Geological structure and local geology inclusive of seam dip is described in Section 2.3 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>Visual inspection of sample collection and batch creation. Samples were transported to the laboratory by GEMS personnel/contractors.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>A review of the borehole database was made before modelling was undertaken (See Section 5.1 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017).</li> </ul>



**Section 2 Reporting of Exploration Results**  
**(Criteria listed in the preceding section also apply to this section.)**

Criteria	Explanation
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>As discussed in Section 1.3 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>As discussed in Section 3.1 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>As discussed in Section 2 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Borehole Information	<ul style="list-style-type: none"> <li>As discussed in Section 3 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017. All boreholes exist in a validated Minex database which includes lithological, quality and hole survey information as discussed in Section 4.2 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>Sample methodology is discussed in section 3.5 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017. All samples have been composited over the full seam thickness and reported using Minex software tools.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>Down-hole lengths have been used in the modelling of the seams in Minex.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>All maps, tables and diagrams are identified in the Table of Contents of this report under the headings "Tables", "Figures" and "Appendices".</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>All reporting has been done in a balanced and measured way and is discussed in Section 1.5 and Section 1.5.1 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>As discussed in Section 3.1 and Section 3.8 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>As discussed in Section 3.8 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017. Further work will be necessary to improve the confidence levels of the deposits and understanding of the full seam stratigraphy. No proposed exploration plan has been proposed in this report.</li> </ul>

**Section 3 Estimation and Reporting of Mineral Resources**  
**(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)**

Criteria	Explanation
Database integrity	<ul style="list-style-type: none"> <li>As discussed in Section 5.1 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Site visits have been undertaken on numerous occasions by SMGC staff over the year to assist with geological exploration of the concession area.</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <li>As discussed in Section 4. and Section 6.2 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017. The SDJ 3D geological models have been created in Minex software and are considered to be an appropriate interpretation of the dataset.</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>As discussed in Section 5.3 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Estimation and modelling techniques	<ul style="list-style-type: none"> <li>As discussed in Section 5 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>As discussed in Section 5.4 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>As discussed in Section 5.5 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>The SDJ area is not currently being mined but is assumed that it will be conducive to open pit excavation by truck and shovel methods.</li> </ul>
Marketing factors or assumptions	<ul style="list-style-type: none"> <li>As discussed in Section 5.7.3 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>As discussed in Section 5.7.1 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Relative density	<ul style="list-style-type: none"> <li>As discussed in Section 5.8 and Section 5.9 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>As discussed in Section 5 and particularly Section 5.8 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>No other Resource estimates have been conducted on this concession as far as SMGC is aware. All data provided to SMGC has been reviewed and checked for accuracy where</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>As discussed in Section 5.7 of Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>

**Section 4 Estimation and Reporting of Ore Reserves**  
**(Criteria listed in section 1, and where relevant in sections 2 and 3,**  
**also apply to this section.)**

Criteria	Explanation
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> <li>Basis of the estimate is Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Site visits have been undertaken on numerous occasions by SMGC staff over the year to assist with geological exploration of the concession area..</li> </ul>
Study status	<ul style="list-style-type: none"> <li>The Project area is currently being mined by truck-shovel method.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>Refer to the Section 7.7 in this report</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>Refer to the Section 7.7 in this report</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserves Estimate</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserves Estimate</li> </ul>
Infrastructure	<ul style="list-style-type: none"> <li>Refer to the Section 10 in this report</li> </ul>
Costs	<ul style="list-style-type: none"> <li>Refer to the Section 12 in this report</li> </ul>
Revenue factors	<ul style="list-style-type: none"> <li>Refer to the Section 11 in this report</li> </ul>
Market assessment	<ul style="list-style-type: none"> <li>Refer to the Section 11 in this report</li> </ul>
Economic	<ul style="list-style-type: none"> <li>Refer to the Section 12 in this report</li> </ul>
Social	<ul style="list-style-type: none"> <li>Refer to the Section 13 in this report</li> </ul>
Other	<ul style="list-style-type: none"> <li>Refer to the Section 13 in this report</li> </ul>
Classification	<ul style="list-style-type: none"> <li>Basis of the estimate is Combined JORC resource Statement PT Sungai Danau Jaya and PT Tanah Bumbu Resources – June 2017</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>This document has been checked as part of SMGC's peer review process</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>SMGC Representative has made a site visit in June 2014.</li> </ul>

**Section 5 Estimation and Reporting of Diamonds and Other Gemstones**  
**(Criteria listed in other relevant sections also apply to this section. Additional guidelines are available in the 'Guidelines for the Reporting of Diamond Exploration Results' issued by the Diamond Exploration Best Practices Committee established by the Canadian Institute of Mining, Metallurgy and Petroleum.)**

Criteria	Explanation
Indicator minerals	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Source of diamonds	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Sample collection	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Sample treatment	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Carat	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Sample grade	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Reporting of Exploration Results	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Grade estimation for reporting Mineral Resources and Ore Reserves	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Value estimation	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Security and integrity	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>Not Applicable to this Coal Reserve Estimate.</li> </ul>

## Appendix 1 Generic Terms and Equivalents

Throughout the Code, certain words are used in a general sense when a more specific meaning might be attached to them by particular commodity groups within the industry. In order to avoid unnecessary duplication, a non-exclusive list of generic terms is tabulated below together with other terms that may be regarded as synonymous for the purposes of this document.

Generic Term	Synonyms and Similar Terms	Intended Generalised Meaning
assumption	value judgments	The Competent Person in general makes value judgments when making assumptions regarding information not fully supported by test work.
Competent Person	Qualified Person (Canada), Qualified Competent Person (Chile)	Refer to the Clause 11 of the Code for the definition of a Competent Person. Any reference in the Code to the singular (a Competent Person) includes a reference to the plural (Competent Persons). It is noted that reporting in accordance with the Code is commonly a team effort.
cut-off grade	product specifications	The lowest grade, or quality, of mineralised material that qualifies as economically mineable and available in a given deposit. May be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification.
grade	quality, assay, analysis (that is value returned by the analysis)	Any physical or chemical measurement of the characteristics of the material of interest in samples or product. Note that the term quality has special meaning for diamonds and other gemstones. The units of measurement should be stated when figures are reported.
metallurgy	processing, beneficiation, preparation, concentration	Physical and/or chemical separation of constituents of interest from a larger mass of material. Methods employed to prepare a final marketable product from material as mined. Examples include screening, flotation, magnetic separation, leaching, washing, roasting, etc.
		Processing is generally regarded as broader than metallurgy and may apply to non-metallic materials where the term metallurgy would be inappropriate.
mineralisation	type of deposit, ore body, style of mineralisation.	Any single mineral or combination of minerals occurring in a mass, or deposit, of economic interest. The term is intended to cover all forms in which mineralisation might occur, whether by class of deposit, mode of occurrence, genesis or composition.
mining	quarrying	All activities related to extraction of metals, minerals and gemstones from the earth whether surface or underground, and by any method (e.g. quarries, open cast, open cut, solution mining, dredging, etc.).
Ore Reserves	Mineral Reserves	'Ore Reserves' is preferred under the JORC Code but 'Mineral Reserves' is in common use in other countries and is generally accepted. Other descriptors can be used to clarify the meaning (e.g. Coal Reserves, Diamond Reserves, etc.).

recovery	yield	The percentage of material of interest that is extracted during mining and/or processing. A measure of mining or processing efficiency.
significant project	material project	An exploration or mineral development project that has or could have a significant influence on the market value or operations of the listed company, and/or has specific prominence in Public Reports and announcements.



PROVINSI KALIMANTAN SELATAN  
KEPUTUSAN BUPATI TANAH BUMBU  
NOMOR 188.45/ 311 /DISTAMBEN/2014

TENTANG  
PERSETUJUAN PERPANJANGAN PERTAMA DAN PENGGABUNGAN  
IZIN USAHA PERTAMBANGAN OPERASI PRODUKSI BATUBARA  
PT. SUNGAI DANAU JAYA  
(TB. 08 MEIPR 43)

BUPATI TANAH BUMBU,

- Menimbang : a. bahwa Surat Permohonan Direktur PT. SUNGAI DANAU JAYA Nomor : 001/PPIUP/SDJ/V/2014, tanggal 16 Mei 2014, perihal Permohonan Penggabungan Blok Izin Usaha Pertambangan Operasi Produksi dan Perpanjangan Masa Berlaku;
- b. bahwa berdasarkan hasil evaluasi, Permohonan Perpanjangan Perpanjangan Pertama dan Penggabungan Izin Usaha Pertambangan Operasi Produksi Batubara PT. SUNGAI DANAU JAYA telah memenuhi Persyaratan;
- c. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a dan huruf b perlu menetapkan Keputusan Bupati Tentang Persetujuan Perpanjangan Pertama dan Penggabungan Izin Usaha Pertambangan Operasi Produksi Batubara PT. SUNGAI DANAU JAYA (TB. 08 MEIPR 43);
- Mengingat : 1. Undang-Undang Nomor 5 Tahun 1990 tentang Konservasi Sumber Daya Alam Hayati dan Ekosistemnya (Lembaran Negara Republik Indonesia Tahun 1990 Nomor 49, Tambahan Lembaran Negara Republik Indonesia Nomor 3419);
2. Undang-Undang Nomor 2 Tahun 2003 tentang Pembentukan Kabupaten Tanah Bumbu dan Kabupaten Balangan di Provinsi Kalimantan Selatan (Lembaran Negara Republik Indonesia Tahun 2003 Nomor 22, Tambahan Lembaran Negara Republik Indonesia Nomor 4265);
3. Undang-Undang Nomor 27 Tahun 2003 tentang Panas Bumi (Lembaran Negara Republik Indonesia Tahun 2003 Nomor 115, Tambahan Lembaran Negara Republik Indonesia Nomor 4327);
4. Undang-Undang Nomor 32 Tahun 2004 tentang Pemerintahan Daerah (Lembaran Negara Republik Indonesia Tahun 2004 Nomor 125, Tambahan Lembaran Negara Republik Indonesia Nomor 4437) sebagaimana telah diubah beberapa kali terakhir dengan Undang-Undang Nomor 12 Tahun 2008 tentang Perubahan Kedua Atas Undang-Undang Nomor 32 Tahun 2004



- tentang Pemerintahan Daerah (Lembaran Negara Republik Indonesia Tahun 2008 Nomor 59, Tambahan Lembaran Negara Republik Indonesia Nomor 4844);
5. Undang-Undang Nomor 33 Tahun 2004 tentang Perimbangan Keuangan Antara Pemerintahan Pusat dan Daerah (Lembaran Negara Republik Indonesia Tahun 2004 Nomor 126, Tambahan Lembaran Negara Republik Indonesia Nomor 4438);
6. Undang-Undang Nomor 25 Tahun 2007 tentang Penanaman Modal (Lembaran Negara Republik Indonesia Tahun 2007 Nomor 67, Tambahan Lembaran Negara Republik Indonesia Nomor 4724);
7. Undang-Undang Nomor 26 Tahun 2007 tentang Penataan Ruang (Lembaran Negara Republik Indonesia Tahun 2007 Nomor 68, Tambahan Lembaran Negara Republik Indonesia Nomor 4725);
8. Undang-Undang Nomor 4 Tahun 2009 tentang Pertambangan Mineral dan Batubara, (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 4, Tambahan Lembaran Negara Republik Indonesia Nomor 4959);
9. Undang-Undang Nomor 28 Tahun 2009 tentang Pajak Daerah dan Retribusi Daerah, (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 130, Tambahan Lembaran Negara Republik Indonesia Nomor 5049);
10. Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 140, Tambahan Lembaran Negara Republik Indonesia Nomor 5059);
11. Undang-Undang Nomor 12 Tahun 2011 tentang Pembentukan Peraturan Perundang-undangan (Lembaran Negara Republik Indonesia Tahun 2011 Nomor 82, Tambahan Lembaran Negara Republik Indonesia Nomor 5234);
12. Peraturan Pemerintah Nomor 79 Tahun 2005 tentang Pedoman Pembinaan dan Pengawasan Penyelenggaraan Pemerintah Daerah (Lembaran Negara Republik Indonesia Tahun 2005 Nomor 165, Tambahan Lembaran Negara Republik Indonesia Nomor 4593);
13. Peraturan Pemerintah Nomor 38 Tahun 2007 tentang Pembagian Urusan Pemerintah Antara Pemerintah, Pemerintahan Daerah Provinsi, Pemerintahan Daerah Kabupaten/Kota (Lembaran Negara Republik Indonesia Tahun 2007 Nomor 82, Tambahan Lembaran Negara Republik Indonesia Nomor 4737);
14. Peraturan Pemerintah Nomor 6 Tahun 2008 tentang Pedoman Evaluasi Penyelenggaraan Pemerintahan Daerah (Lembaran Negara Republik Indonesia Tahun 2008 Nomor 19, Tambahan Lembaran Negara Republik Indonesia Nomor 4815);



15. Peraturan Pemerintah Nomor 26 Tahun 2008 tentang Rencana Tata Ruang Wilayah Nasional (Lembaran Negara Republik Indonesia Tahun 2008 Nomor 48, Tambahan Lembaran Negara Republik Indonesia Nomor 4833);
16. Peraturan Pemerintah Nomor 76 Tahun 2008 tentang Rehabilitasi dan Reklamasi Hutan (Lembaran Negara Republik Indonesia Tahun 2008 Nomor 201, Tambahan Lembaran Negara Republik Indonesia Nomor 4947);
17. Peraturan Pemerintah Nomor 29 Tahun 2009 tentang Tata Cara Penentuan Jumlah, Pembayaran, dan Penyctoran Penerimaan Negara Bukan Pajak yang Terutang (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 58, Tambahan Lembaran Negara Republik Indonesia Nomor 4995);
18. Peraturan Pemerintah Nomor 22 Tahun 2010 tentang Wilayah Pertambangan (Lembaran Negara Republik Indonesia Tahun 2010 Nomor 28, Tambahan Lembaran Negara Republik Indonesia Nomor 5110);
19. Peraturan Pemerintah Nomor 23 Tahun 2010 tentang Pelaksanaan Kegiatan Usaha Pertambangan Mineral dan Batubara (Lembaran Negara Republik Indonesia Tahun 2010 Nomor 29, Tambahan Lembaran Negara Republik Indonesia Nomor 5111) sebagaimana telah diubah dengan Peraturan Pemerintah Nomor 24 Tahun 2012 tentang Perubahan Peraturan Pemerintah Nomor 23 Tahun 2012 tentang Pelaksanaan Kegiatan Usaha Pertambangan Mineral dan Batubara (Lembaran Negara Republik Indonesia Tahun 2012 Nomor 45, Tambahan Lembaran Negara Republik Indonesia Nomor 5282);
20. Peraturan Pemerintah Nomor 78 Tahun 2010 tentang Reklamasi dan Pascatambang (Lembaran Negara Republik Indonesia Tahun 2010 Nomor 138, Tambahan Lembaran Negara Republik Indonesia Nomor 5172);
21. Peraturan Pemerintah Nomor 9 Tahun 2012 tentang Jenis dan Tarif atas Jenis Penerimaan Negara Bukan Pajak yang berlaku pada Kementerian Energi dan Sumber Daya Mineral (Lembaran Negara Republik Indonesia Tahun 2012 Nomor 16, Tambahan Lembaran Negara Republik Indonesia Nomor 5276);
22. Peraturan Pemerintah Nomor 27 Tahun 2012 tentang Izin Lingkungan (Lembaran Negara Republik Indonesia Tahun 2012 Nomor 45, Tambahan Lembaran Negara Republik Indonesia Nomor 5285);
23. Peraturan Menteri Dalam Negeri Nomor 54 Tahun 2009 tentang Tata Naskah di Lingkungan Pemerintah Daerah;
24. Peraturan Menteri Dalam Negeri Nomor 1 Tahun 2014 tentang Pembentukan Produk Hukum Daerah (Berita Negara Republik Indonesia Tahun 2014 Nomor 32);

25. Peraturan Daerah Provinsi Kalimantan Selatan Nomor 3 Tahun 2008 tentang Pengaturan Penggunaan Jalan Umum dan Jalan Khusus untuk Angkutan Hasil Tambang dan Hasil Perusahaan Perkebunan (Lembaran Daerah Provinsi Kalimantan Selatan Tahun 2008 Nomor 3);
26. Peraturan Daerah Kabupaten Tanah Bumbu Nomor 9 Tahun 2005 tentang Pembentukan Kecamatan Simpang Empat, Kecamatan Karang Bintang, Kecamatan Mentewe, Kecamatan Angsana dan Kecamatan Kuranji (Lembaran Daerah Kabupaten Tanah Bumbu Nomor 09 Tahun 2005 Seri E);
27. Peraturan Daerah Kabupaten Tanah Bumbu Nomor 29 Tahun 2005 tentang Rencana Tata Ruang Wilayah (RTRW) Kabupaten Tanah Bumbu (Lembaran Daerah Kabupaten Tanah Bumbu Nomor 29 Tahun 2005 Seri E);
28. Peraturan Daerah Kabupaten Tanah Bumbu Nomor 16 Tahun 2007 tentang Pembentukan, Kedudukan, Tugas Pokok dan Susunan Organisasi Dinas Daerah Kabupaten Tanah Bumbu (Lembaran Daerah Kabupaten Tanah Bumbu Tahun 2007 Nomor 40), sebagaimana telah diubah beberapa kali terakhir dengan Peraturan Daerah Kabupaten Tanah Bumbu Nomor 14 Tahun 2013 tentang Perubahan Kedua Atas Peraturan Daerah Kabupaten Tanah Bumbu Nomor 16 Tahun 2007 tentang Pembentukan, Kedudukan, Tugas Pokok dan Susunan Organisasi Dinas Daerah Kabupaten Tanah Bumbu (Lembaran Daerah Kabupaten Tanah Bumbu Tahun 2013 Nomor 14);
29. Peraturan Daerah Kabupaten Tanah Bumbu Nomor 4 Tahun 2008 tentang Urusan Pemerintahan yang Menjadi Kewenangan Pemerintahan Daerah Kabupaten Tanah Bumbu (Lembaran Daerah Kabupaten Tanah Bumbu Tahun 2008 Nomor 61, Tambahan Lembaran Daerah Kabupaten Tanah Bumbu Nomor 20);
30. Peraturan Daerah Kabupaten Tanah Bumbu Nomor 3 Tahun 2011 tentang Retribusi Penggantian Biaya Cetak Peta pada Bidang Pertambangan (Lembaran Daerah Kabupaten Tanah Bumbu Tahun 2011 Nomor 3);
31. Peraturan Daerah Kabupaten Tanah Bumbu Nomor 11 Tahun 2012 tentang Pertambangan Umum (Lembaran Daerah Kabupaten Tanah Bumbu Tahun 2012 Nomor 11);
32. Keputusan Bupati Tanah Bumbu Nomor 545/045/IUP-OP/D.IPE/2010, tentang Persetujuan Izin Usaha Pertambangan Operasi Produksi Kepada PT. SUNGAI DANAU JAYA (TB. 08 MEIPR 43) tanggal 08 Maret 2010;
33. Keputusan Bupati Tanah Bumbu Nomor 188.45/481/DISTAMBEN/2012, tentang Persetujuan Izin Usaha Pertambangan Operasi Batubara kepada PT. SUNGAI DANAU JAYA (TB. 08 MEIPR 43), tanggal 03 Desember 2012;

Desember 2012;...

Memperhatikan: Rekomendasi Kepala Dinas Pertambangan dan Energi Kabupaten Tanak Bumbu Nomor 870/426/PU/TAMBEN/2014 tanggal 05 Juni 2014 tentang Rancangan Keputusan Bupati tentang Persetujuan Perpanjangan Pertama dan Penggabungan Izin Usaha Pertambangan Operasi Produksi Batubara PT. Sungai Danau Jaya (TB. 08 MEIPR 43)

MEMUTUSKAN :

Menetapkan : KEPUTUSAN BUPATI TENTANG PERSETUJUAN PERPANJANGAN PERTAMA DAN PENGABUNGAN IZIN USAHA PERTAMBANGAN OPERASI PRODUKSI PT. SUNGAI DANAU JAYA (TB. 08 MEIPR 43).

KESATU : Memberikan Persetujuan Perpanjangan Pertama dan Penggabungan Izin Usaha Pertambangan Operasi Produksi Batubara Kepada:

Nama Perusahaan : PT. SUNGAI DANAU JAYA  
Alamat : Jl. Danau Sunter Selatan TB-S, Ruko Green Lake, Blok E, Kelurahan Sunter Agung, Kecamatan Tanjung Priok, Jakarta Utara.

Berdasarkan Akta Pernyataan Keputusan Para Pemegang Saham PT. SUNGAI DANAU JAYA, Nomor 90.- tanggal 20 Maret 2014 oleh Lala Mukti S.H., LL.M., Notaris di Jakarta mencantumkan susunan Direksi, Komisaris dan Pemegang Saham sebagai berikut :

Direktur : RICHARD NIVLI MA PALAR  
Direktur : HARYANTO SOMAN  
Komisaris : SUKI

Pemegang Saham :

1. Nama : YULIDAR PUTRA KARIM  
Alamat : Perum Citra 2 Blok N 11, nomor 8, RT 005, RW 012, Kelurahan Pegadungan, Kecamatan Kalideres, Kotamadya Jakarta Barat, Jakarta.  
Nilai Saham : 40 (empat puluh) saham atau setara dengan 5% (lima persen) dari jumlah seluruh saham, dengan nilai nominal sebesar Rp. 40.000.000,00 (empat puluh juta rupiah).

2. Nama : JANUARDI KARIM  
Alamat : Jl. Mangga Besar IV G, nomor 24, RT. 012, RW. 002, Kelurahan Taman Sari, Kecamatan Taman Sari, Kotamadya Jakarta Barat, Jakarta.  
Nilai Saham : 40 (empat puluh) saham atau setara dengan 5% (lima persen) dari jumlah seluruh saham, dengan nilai nominal sebesar Rp. 40.000.000,00 (empat puluh juta rupiah).

juta rupiah).....

3. Nama : VIVI VONA  
 Alamat : Perum Citra 2 N-7/12. B, RT. 005, RW. 012 Kelurahan Pegadungan, Kecamatan Kalideres, Kotamadya Jakarta Barat, Jakarta.  
 Nilai Saham : 400 (empatatus) saham atau setara dengan 50% (limapuluh persen) dari jumlah seluruh saham, dengan nilai nominal sebesar Rp. 400.000.000,00 (empatatus juta rupiah).

4. Nama : INDRA GUNAWAN  
 Alamat : Jl. Jembatan Item, RT. 001, RW. 007, Kelurahan Pekojan, Kecamatan Tambora, Kotamadya Jakarta Barat, Jakarta.  
 Nilai Saham : 54 (limapuluh empat) saham atau setara dengan 6,75% (enam koma tujuh lima persen) dari jumlah seluruh saham, dengan nilai nominal sebesar Rp. 54.000.000,00 (limapuluh empat juta rupiah).

5. Nama : PT. DELI COAL  
 Alamat : Jakarta Selatan  
 Nilai Saham : 266 (duaratus enam puluh enam) saham atau setara dengan 33,25% (tigapuluh tiga koma dua lima persen) dari jumlah seluruh saham, dengan nilai nominal sebesar Rp. 40.000.000,00 (empat puluh juta rupiah).

Lokasi Penambangan:

Kecamatan : Angsana dan Sungai Loban  
 Kabupaten : Tanah Bumbu  
 Provinsi : Kalimantan Selatan  
 Kode Wilayah : TB. 08 MEIPR 43  
 Luas : 235,5 Ha  
 Komoditas : Batubara

Dengan Peta dan daftar koordinat Wilayah Izin Usaha Pertambangan (WIUP) yang diterbitkan oleh Bupati Tanah Bumbu sebagaimana tercantum dalam Lampiran I dan Lampiran II Keputusan ini.

KEJUA : Pemegang Izin Usaha Pertambangan Operasi Produksi mempunyai hak untuk melakukan kegiatan konstruksi, produksi, pengangkutan dan penjualan didalam Wilayah Izin Usaha Pertambangan sampai dengan tanggal 29 Mei 2022.

KETIGA : Izin Usaha Pertambangan Operasi Produksi ini dilarang dipindahtengankan kepada pihak lain tanpa persetujuan tertulis dari Bupati Tanah Bumbu.

KEEMPAT : PT. SUNGAI DANAU JAYA sebagai Pemegang Izin Usaha Pertambangan Operasi Produksi dalam melaksanakan kegiatannya mempunyai hak dan kewajiban sebagaimana

sebagaimana....

tercantum dalam Lampiran III Keputusan ini yang merupakan bagian tidak terpisahkan dari keputusan ini.

- KELIMA** : Selambat-lambatnya 60 (enam puluh) hari kerja setelah diterbitkannya Keputusan ini pemegang Izin Usaha Pertambangan Operasi Produksi sudah harus menyampaikan Rencana Kerja dan Anggaran Biaya (RKAB) kepada Bupati Tanah Bumbu Cq. Dinas Pertambangan dan Energi untuk mendapat persetujuan.
- KEENAM** : Terhitung sejak 90 (sembilan puluh) hari kerja sejak persetujuan Rencana Kerja dan Anggaran Biaya sebagaimana dimaksud dalam Diktum KELIMA Pemegang Izin Usaha Pertambangan Operasi Produksi sudah harus memulai aktifitas di lapangan.
- KETUJUH** : PT. SUNGAI DANAU JAYA selaku Pemegang Izin Usaha Pertambangan Operasi Produksi tidak diperbolehkan melakukan penumbangan di wilayah kawasan hutan sebelum memperoleh Izin Pinjam Pakai dari Kementerian Kehutanan;
- KEDELAPAN** : Tanpa mengurangi ketentuan peraturan perundang-undangan, maka izin Usaha Pertambangan Operasi Produksi ini dapat diberhentikan sementara, dicabut, atau dibatalkan, apabila pemegang Izin Usaha Pertambangan Operasi Produksi tidak memenuhi kewajiban dan larangan sebagaimana dimaksud dalam Diktum KETIGA, Diktum KEEMPAT, Diktum KELIMA, Diktum KEENAM dan Diktum KETUJUH dalam Keputusan ini.
- KESEMBILAN**: Keputusan Bupati ini mulai berlaku tanggal ditetapkan dan berakhir pada tanggal 29 Mei 2022.

Ditetapkan di Barulicin  
Pada tanggal 17 Juni 2022



Terbitan:

1. Menteri Energi dan Sumber Daya Mineral
2. Menteri Keuangan
3. Sekretaris Jenderal Kementerian Energi dan Sumber Daya Mineral
4. Inspektur Jenderal Kementerian Energi dan Sumber Daya Mineral
5. Direktur Jenderal Pajak, Kementerian Keuangan
6. Direktur Jenderal Perbendaharaan, Departemen Keuangan
7. Direktur Jenderal Pendapatan Daerah, Kementerian Dalam Negeri
8. Direktur Jenderal Mineral dan Batubara
9. Gubernur Kalimantan Selatan
10. Kepala Biro Hukum dan Humas/Kepala Biro Keuangan/Kepala Biro Perencanaan dan Kerjasama Luar Negeri, Setjen Kementerian Energi dan Sumber Daya Mineral
11. Direktur Teknik dan Lingkungan Mineral dan Batubara
12. Direktur Pembinaan Program Mineral dan Batubara
13. Direktur Pembinaan Pengusahaan Mineral

14. Direktur Pembinaan Pengusahaan Batubara
15. Direktur Pajak Bumi dan Bangunan, Kementerian Keuangan
16. Kepala Dinas Pertambangan dan Energi Provinsi Kalimantan Selatan
17. Direksi PT. SUNGAI DANAU JAYA.





Lampiran II : KEPUTUSAN BUPATI TANAH BUMBU

Nomor : 188.45/311 /DISTAMBEN/2014

Tanggal : 17 Juni 2014

LAMPIRAN DAFTAR KOORDINAT WILAYAH

IZIN USAHA PERTAMBANGAN OPERASI PRODUKSI (Perpanjangan Pertama)

NAMA PERUSAHAAN : PT. SUNGAI DANAU JAYA

Lokasi

- Propinsi : Kalimantan Selatan
- Kabupaten : Tanah Bumbu
- Kecamatan : Angsana & Sungai Loban
- Komoditas : Batubara
- Kode Wilayah : TB 08 MEIPR 43
- Luas : 235,5 Ha

No. Ti- tik	Garis Bojur (BT)			Garis Lintang			LU/LS
	°	'	"	°	'	"	
1	115	37	11.0	3	38	45.3	LS
2	115	37	11.0	3	37	20.0	LS
3	115	37	40.0	3	37	20.0	LS
4	115	37	40.0	3	38	45.3	LS

BUPATI TANAH BUMBU





LAMPIRAN III  
KEPUTUSAN BUPATI TANAH BUMBU  
NOMOR 118.45/514/DISTAMBEN/2014  
TENTANG  
PERSETUJUAN PERPANJANGAN  
PERTAMA DAN PENGGABUNGAN IZIN  
USAHA PERTAMBANGAN OPERASI  
PRODUKSI BATUBARA PT. SUNGAI  
DANAU JAYA (TB. 08 MEIPR 43)

HAK DAN KEWAJIBAN PEMEGANG IZIN USAHA PERTAMBANGAN  
OPERASI PRODUKSI

Hak dan Kewajiban

A. Hak

1. memasuki Wilayah Izin Usaha Pertambangan (WIUP) sesuai dengan peta dan daftar koordinat.
2. melaksanakan kegiatan Izin Usaha Pertambangan (IUP) Operasi Produksi (Konstruksi, Produksi, Pengolahan Pemurnian dan Pengangkutan Penjualan), sesuai dengan ketentuan peraturan perundang-undangan.
3. membangun fasilitas penunjang kegiatan Izin Usaha Pertambangan Operasi Produksi (Konstruksi, Produksi, Pengolahan Pemurnian dan Pengangkutan Penjualan), di dalam maupun di luar Wilayah Izin Usaha Pertambangan.
4. dapat menghentikan sewaktu-waktu kegiatan Izin Usaha Pertambangan Operasi Produksi (Konstruksi, Produksi, Pengolahan Pemurnian dan Pengangkutan Penjualan), di setiap bagian atau beberapa bagian Wilayah Izin Usaha Pertambangan dengan alasan bahwa kelanjutan dari kegiatan Izin Usaha Pertambangan Operasi Produksi (Konstruksi, Produksi, Pengolahan Pemurnian dan Pengangkutan Penjualan), tersebut tidak layak atau praktis secara komersial maupun karena keadaan kahar, keadaan yang menghalangi sehingga menimbulkan penghentian sebagian atau seluruh kegiatan usaha pertambangan.
5. mengajukan permohonan pengusahaan mineral lain yang bukan merupakan asosiasi mineral utama yang ditemukan dalam Wilayah Izin Usaha Pertambangan.
6. mengajukan pernyataan tidak berminat terhadap pengusahaan mineral lain yang bukan merupakan asosiasi mineral utama yang ditemukan dalam Wilayah Izin Usaha Pertambangan.
7. memanfaatkan sarana dan prasarana umum untuk keperluan kegiatan Izin Usaha Pertambangan Operasi Produksi (Konstruksi, Produksi, Pengolahan Pemurnian dan Pengangkutan Penjualan), setelah memenuhi ketentuan peraturan perundang-undangan.
8. dapat melakukan kerjasama dengan perusahaan lain dalam rangka penggunaan setiap fasilitas yang dimiliki oleh perusahaan lain baik yang berafiliasi dengan perusahaan atau tidak sesuai dengan ketentuan peraturan perundang-undangan.
9. dapat membangun sarana dan prasarana pada Wilayah Izin Usaha Pertambangan lain setelah mendapat izin dari pemegang Izin Usaha Pertambangan yang bersangkutan.

## B. Kewajiban

1. memilih yurisdiksi pada Pengadilan Negeri Tanah Bumbu.
2. selambat-lambatnya 6 bulan setelah ditetapkannya keputusan ini, pemegang Izin Usaha Pertambangan (IUP) Operasi Produksi harus sudah melaksanakan dan menyampaikan laporan pemalokan batas wilayah Izin Usaha Pertambangan Operasi Produksi kepada Bupati Tanah Bumbu cq. Dinas Pertambangan dan Energi.
3. hubungan antara pemegang Izin Usaha Pertambangan Operasi Produksi dengan pihak ketiga menjadi tanggung jawab pemegang Izin Usaha Pertambangan sesuai ketentuan perundang-undangan,
4. melaporkan Rencana Investasi.
5. menyampaikan rencana reklamasi.
6. menyampaikan rencana pasca tambang.
7. menempatkan jaminan penutupan tambang (sesuai umur tambang).
8. menyampaikan Rencana Kerja dan Anggaran Biaya (RKAB) selambat-lambatnya pada bulan November yang meliputi rencana tahun depan dan realisasi kegiatan setiap tahun berjalan kepada Bupati Tanah Bumbu cq. Dinas Pertambangan dan Energi dengan tembusan kepada Menteri Energi dan sumber Daya Mineral dan Gubernur Kalimantan Selatan.
9. menyampaikan Laporan Kegiatan Triwulan yang harus diserahkan dalam jangka waktu 30 (tigapuluh) hari setelah akhir dari triwulan takwim secara berkala kepada Bupati Tanah Bumbu cq. Dinas Pertambangan dan Energi dengan tembusan kepada Menteri Energi dan sumber Daya Mineral dan Gubernur Kalimantan Selatan.
10. apabila ketentuan batas waktu penyampaian Rencana Kerja dan Anggaran Biaya (RKAB) dan pelaporan sebagaimana dimaksud pada angka 8 (delapan) dan 9 (sembilan) tersebut di atas terlampaui, maka kepada pemegang Izin Usaha Pertambangan Operasi Produksi akan diberikan peringatan tertulis.
11. menyampaikan laporan produksi dan pemasaran sesuai dengan ketentuan peraturan perundang-undangan.
12. menyampaikan Rencana Pengembangan dan Pemberdayaan Masyarakat sekitar wilayah pertambangan kepada Bupati Tanah Bumbu cq. Dinas Pertambangan dan Energi.
13. menyampaikan Rencana Kerja Tahunan Tekhnis dan Lingkungan (RKRTL) setiap tahun sebelum penyampaian Rencana Kerja dan Anggaran Biaya (RKAB) kepada Bupati Tanah Bumbu cq. Dinas Pertambangan dan Energi.
14. memenuhi ketentuan perpajakan sesuai dengan ketentuan peraturan perundang undangan.
15. membayar luran Tetap setiap tahun dan membayar royalti sesuai dengan ketentuan peraturan perundang-undangan.
16. menempatkan Jaminan Reklamasi sebelum melakukan kegiatan produksi dan rencana penutupan tambang sesuai ketentuan peraturan perundang-undangan.
17. menyampaikan RPT (Rencana Penutupan Tambang) 2 tahun sebelum kegiatan produksi berakhir.
18. mengangkat seorang Kepala Teknik Tambang yang bertanggung jawab atas Kegiatan Izin Usaha Pertambangan Operasi Produksi (Konstruksi, Produksi, Pengolahan Pemurnian dan Pengangkutan Penjualan), Keselamatan dan Kesehatan Kerja Pertambangan serta Pengelolaan Lingkungan Pertambangan.
19. kegiatan produksi dimulai apabila kapasitas produksi terpasang sudah mencapai 70% yang direncanakan.

20. permohonan perpanjangan Izin Usaha Pertambangan untuk Kegiatan Produksi harus diajukan dalam jangka waktu 2 (dua) tahun dan paling lambat dalam jangka waktu 6 (enam) bulan sebelum berakhirnya masa izin ini dengan disertai pemenuhan persyaratan.
21. kelalaian atas ketentuan tersebut pada butir 20, mengakibatkan Izin Usaha Pertambangan Operasi Produksi berakhir menurut hukum dan segala usaha pertambangan dihentikan dalam jangka waktu paling lama 6 (enam) bulan sejak berakhirnya keputusan ini. Pemegang Izin Usaha Pertambangan Operasi Produksi harus mengangkat, keluar segala sesuatu yang menjadi miliknya, kecuali benda-benda / bangunan - bangunan yang dipergunakan untuk kepentingan umum.
22. apabila dalam jangka waktu sebagaimana dimaksud dalam butir 21, pemegang Izin Usaha Pertambangan Operasi Produksi tidak melaksanakan maka barang/aset pemegang Izin Usaha Pertambangan menjadi milik pemerintah.
23. pemegang Izin Usaha Pertambangan Operasi Produksi harus menyediakan data dan keterangan sewaktu-waktu apabila dikehendaki oleh pemerintah.
24. pemegang Izin Usaha Pertambangan Operasi Produksi membolehkan dan menerima apabila pemerintah sewaktu-waktu melakukan pemeriksaan.
25. menerapkan kaidah pertambangan yang baik.
26. mengelola keuangan sesuai dengan sistem akuntansi Indonesia.
27. melaporkan pelaksanaan pengembangan dan pemberdayaan masyarakat setempat secara berkala.
28. mengutamakan pemanfaatan tenaga kerja setempat, barang, dan jasa dalam negeri sesuai dengan ketentuan peraturan perundang-undangan.
29. mengutamakan pembelian dalam negeri dari pengusaha lokal yang ada di daerah tersebut sesuai dengan ketentuan peraturan perundang-undangan.
30. mengutamakan seoptimal mungkin penggunaan perusahaan jasa pertambangan lokal dan/atau nasional.
31. dilarang melibatkan anak perusahaan dan/atau afiliasinya dalam bidang usaha jasa pertambangan di Wilayah Izin Usaha Pertambangan Wilayah Izin Usaha Pertambangan yang diusahakannya, kecuali dengan izin Menteri.
32. melaporkan data dan pelaksanaan penggunaan usaha jasa penunjang.
33. menyerahkan seluruh data yang diperoleh dari hasil kegiatan Izin Usaha Pertambangan Operasi Produksi kepada Bupati Tanah Bumbu cq. Dinas Pertambangan dan Energi dengan tembusan kepada Menteri Energi dan Sumber Daya Mineral dan Gubernur Kalimantan Selatan.
34. menyampaikan proposal yang sekurang kurangnya menggambarkan aspek teknis, keuangan, produksi dan pemasaran serta lingkungan sebagai persyaratan pengajuan permohonan perpanjangan Izin Usaha Pertambangan Operasi Produksi.
35. memberikanganti rugi kepada pemegang hak atas tanah dan tegakan yang terganggu akibat kegiatan Izin Usaha Pertambangan Operasi Produksi.
36. Pemegang Izin Usaha Pertambangan Operasi Produksi sebelum melaksanakan kegiatan penambangan (termasuk dalam kawasan) harus terlebih dahulu memiliki Izin Pinjam Pakai Kawasan.

37. mengutamakan pemenuhan kebutuhan dalam negeri (DMO) sesuai ketentuan peraturan perundang-undangan.
38. penjualan produksi kepada afiliasi harus mengacu kepada harga pasar.
39. kontrak penjualan jangka panjang (minimal 3 tahun) harus mendapat persetujuan terlebih dahulu dari Menteri.
40. Kegiatan usaha pertambangan tidak dapat dilaksanakan pada tempat yang dilarang untuk melakukan kegiatan usaha pertambangan sesuai dengan ketentuan peraturan perundang-undangan.
41. Pemegang IUP atau IUPK sebelum melakukan kegiatan operasi produksi wajib menyelesaikan hak atas tanah dengan pemegang hak sesuai dengan ketentuan peraturan perundang-undangan.
42. perusahaan wajib mengolah produksinya di dalam negeri.
43. pembangunan sarana dan prasarana pada kegiatan konstruksi antara lain meliputi :
  - a. fasilitas-fasilitas dan peralatan pertambangan.
  - b. instalasi dan peralatan peningkatan mutu mineral/batubara.
  - c. fasilitas-fasilitas Bandar yang dapat meliputi dok-dok, pelabuhan-pelabuhan, dermaga-dermaga, jembatan-jembatan, tongkang-tongkang, pemecah-pemecah air, fasilitas-fasilitas terminal, bengkel-bengkel, daerah daerah penimbunan, gudang-gudang dan peralatan tangkar muat.
  - d. fasilitas-fasilitas transportasi dan komunikasi yang dapat meliputi jalan-jalan, jembatan-jembatan, kapal kapal, feri-feri, pelabuhan-pelabuhan udara, rel-rel, tempat tempat pendaratan pesawat, hanggar-hanggar, garasi-garasi, pompa-pompa BFM, fasilitas-fasilitas radio dan telekomunikasi, serta fasilitas-fasilitas jaringan telegraph dan telepon.
  - e. perkotaan, yang dapat meliputi rumah-rumah tempat tinggal, toko-toko, sekolah-sekolah, rumah sakit, teater-teater dan bangunan lain, fasilitas-fasilitas dan peralatan pegawai kontraktor termasuk tanggungan pegawai tersebut.
  - f. listrik, fasilitas-fasilitas air dan air buangan dan dapat meliputi pembangkit-pembangkit tenaga listrik (yang dapat berupa tenaga air, uap, gas, atau diesel), jaringan-jaringan listrik, dam-dam, saluran-saluran air, sistem-sistem penyediaan air, dan sistem-sistem pembuangan limbah (tailing), air buangan pabrik, dan air buangan rumah tangga.
  - g. fasilitas-fasilitas lain-lain, yang dapat meliputi namun tidak terbatas bengkel-bengkel mesin, bengkel-bengkel pengcoran, dan reparasi.
  - h. semua fasilitas tambahan atau fasilitas lain, pabrik dan peralatan yang dianggap perlu atau cocok untuk operasi pengusahaan yang berkaitan dengan Wilayah Izin Usaha Pertambangan atau untuk menyediakan pelayanan atau melaksanakan aktifitas-aktifitas pendukung atau aktifitas yang sifatnya insidentil.







**PEMERINTAH PROVINSI KALIMANTAN SELATAN**  
**KANTOR PELAYANAN PERIZINAN TERPADU**

Jl. Jend. Sudirman No. 14 Telp./Fax. (0511) 3352356 Kode Pos 70114

e-mail : kp2provkalsel@yahoo.co.id

**BANJARMASIN**

**Appendix E - Recommendation Letter**

Banjarmasin, 22 Januari 2015

Kepada :

Nomor : 503/125/TU-KP2T/I/2015  
Sifat : Biasa  
Lampiran : -  
Hal : Rekomendasi Izin Pinjam Pakai  
Kawasan Hutan untuk Kegiatan  
Pertambangan an. PT. Tanah Bumbu  
Resources di Kabupaten Tanah  
Bumbu, Provinsi Kalimantan Selatan

Yth. Menteri Lingkungan Hidup  
dan Kehutanan RI  
di- Jakarta

Sehubungan dengan Surat Direktur PT. Tanah Bumbu Resources Nomor : 001/SP-IPPKH/TBR/2014, tanggal 29 Oktober 2014 perihal Permohonan Rekomendasi untuk Kegiatan Pertambangan Batubara seluas ± 489.1 Ha di Kabupaten Tanah Bumbu Provinsi Kalimantan Selatan, serta memperhatikan terhadap :

1. Pasal 38 ayat (3) Undang-Undang Nomor 41 Tahun 1999 tentang Kehutanan, bahwa penggunaan kawasan hutan untuk kepentingan pertambangan dilakukan melalui pemberian izin pinjam pakai oleh Menteri dengan mempertimbangkan batasan luas dan jangka waktu tertentu serta kelestarian lingkungan.
2. Peraturan Menteri Kehutanan Nomor : P.16/Menhut-II/2014, tanggal 10 Maret 2014 tentang Pedoman Pinjam Pakai Kawasan Hutan pada Pasal 16 ayat (1) huruf c1, bahwa salah satu persyaratan administrasi permohonan izin pinjam pakai kawasan hutan bagi perizinan di luar kehutanan yang diterbitkan oleh Bupati/Walikota dan Pemerintah diantaranya adalah Rekomendasi Gubernur.
3. Peraturan Gubernur Kalimantan Selatan Nomor 026 Tahun 2014 tanggal 19 Mei 2014 tentang Pelimpahan Kewenangan Pelayanan Perizinan dan Nonperizinan pada Kantor Pelayanan Perizinan Terpadu Provinsi Kalimantan Selatan.

Bersama ini disampaikan hal-hal sebagai berikut :

1. PT. Tanah Bumbu Resources berencana akan melakukan Kegiatan Pertambangan Batubara pada areal seluas 489.1 Ha, yang lokasinya sebagian besar berada di dalam Kawasan Hutan, di Wilayah Kabupaten Tanah Bumbu Provinsi Kalimantan Selatan. Sesuai dengan ketentuan, penggunaan kawasan hutan untuk kegiatan di luar sektor kehutanan harus melalui prosedur pinjam pakai kawasan hutan.
2. Hasil Analisis Fungsi Kawasan Hutan dari Balai Pemantapan Kawasan Hutan Wilayah V Banjarbaru, sesuai surat Nomor : S.1066/VII/BPKH V-3/2014, tanggal 22 Desember 2014, diperoleh data sebagai berikut :
  - a. Keseluruhan areal yang dimohon terletak di wilayah Kabupaten Tanah Bumbu, berada pada kawasan Hutan Produksi Terbatas (HPT) seluas ± 91,11 Ha, dan Areal Penggunaan Lain (APL) seluas ± 395,76 ha sehingga terdapat perbedaan 2,23 ha lebih kecil dari areal yang dimohon.
  - b. Kondisi penutupan lahan berada pada areal Perkebunan seluas ± 486,87 ha
  - c. Areal yang dimohon tidak masuk dalam peta indikatif Penundaan Pemberian Izin Baru Pemanfaatan Hutan, Penggunaan Kawasan Hutan dan Perubahan Peruntukan Kawasan Hutan dan Areal Penggunaan Lain (Revisi VI).
3. Pertimbangan Teknis Dinas Kehutanan Provinsi Kalimantan Selatan Nomor : 522/67/Pola/Dishut, tanggal 20 Januari 2015 diperoleh data sebagai berikut :
  1. Areal yang dimohon berada pada kawasan Hutan Produksi Terbatas (HPT) seluas ± 91,11 Ha, dan Areal Penggunaan Lain (APL) seluas ± 395,76 ha.

2. Keadan vegetasi / penutupan lahan seluruhnya merupakan perkebunan.
3. Areal yang dimohon tidak berada pada wilayah penunmbaan izin baru.
4. Telaahan/Kajian Analisis Perencanaan Keruangan dari Bappeda Provinsi Kalimantan Selatan Nomor : 050/44/ITR/Bappeda, tanggal 19 Januari 2015, antara lain bahwa berdasarkan legditas fungsi penuntukan pemanfaatan ruang, lokasi yang dimohonkan bertumpang tindih dengan Perusahaan Perkebunan PT. Sajang Hebung seluas ± 0,17 ha serta lokasi tambang yang bertumpang tindih dengan dengan Perusahaan Perkebunan PT. Ladang Rumpun Subur Abadi seluas ± 479,77 Ha agar dilengkapi dengan dokumen kerjasama penggunaannya dan supaya luasan izin pinjam pakai kawasan yang direkomendasikan tidak mencakup luasan izin penguasaan pihak ketiga lainnya. Sehingga berdasarkan Pertimbangan Teknis dari Dinas Kehutanan Provinsi Kalimantan Selatan dan BPKH Wilayah V Banjarbaru serta Telaahan/Kajian Analisis Perencanaan Keruangan dari Bappeda Provinsi Kalimantan Selatan disimpulkan bahwa rencana areal pinjam pakai kawasan hutan yang dapat diperuntukkan untuk kegiatan pertambangan an. PT. Tanah Bumbu Resources adalah seluas ± **489,10 Ha.**

Berdasarkan hal hal tersebut diatas, pada prinsipnya kami mendukung dan memberikan rekomendasi terhadap permohonan izin pinjam pakai kawasan hutan untuk Kegiatan Operasional Pertambangan Batubara a.n. PT. Tanah Bumbu Resources di Kabupaten Tanah Bumbu Provinsi Kalimantan Selatan seluas ± **91,11 Ha.** dengan catatan :

- a. Kepada pemohon sebelum melakukan kegiatan dilapangan diwajibkan memenuhi segala persyaratan dan ketentuan sesuai Peraturan Menteri Kehutanan Nomor : P 16/Menhut II/2014, tanggal 10 Maret 2014 tentang Pedoman Izin Pinjam Pakai Kawasan Hutan
- b. Rekomendasi ini tidak mengurangi hak kepemilikan bagi pemilik tanah yang berada dalam lokasi, dan apabila ternyata areal tersebut terdapat Hak hak masyarakat maupun kepentingan pihak lain menjadi kewajiban bagi PT. Tanah Bumbu Resources untuk menyelesaikan menurut Peraturan dan Ketentuan serta Perundang-undangan lainnya yang berlaku.
- c. Rekomendasi ini bukan merupakan izin untuk melaksanakan kegiatan, kegiatan di lapangan baru dapat dimulai setelah ada izin pinjam pakai kawasan hutan dari Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia.
- d. Sebagai bahan pertimbangan, terlampir disampaikan peta areal rencana kegiatan izin pinjam pakai kawasan hutan

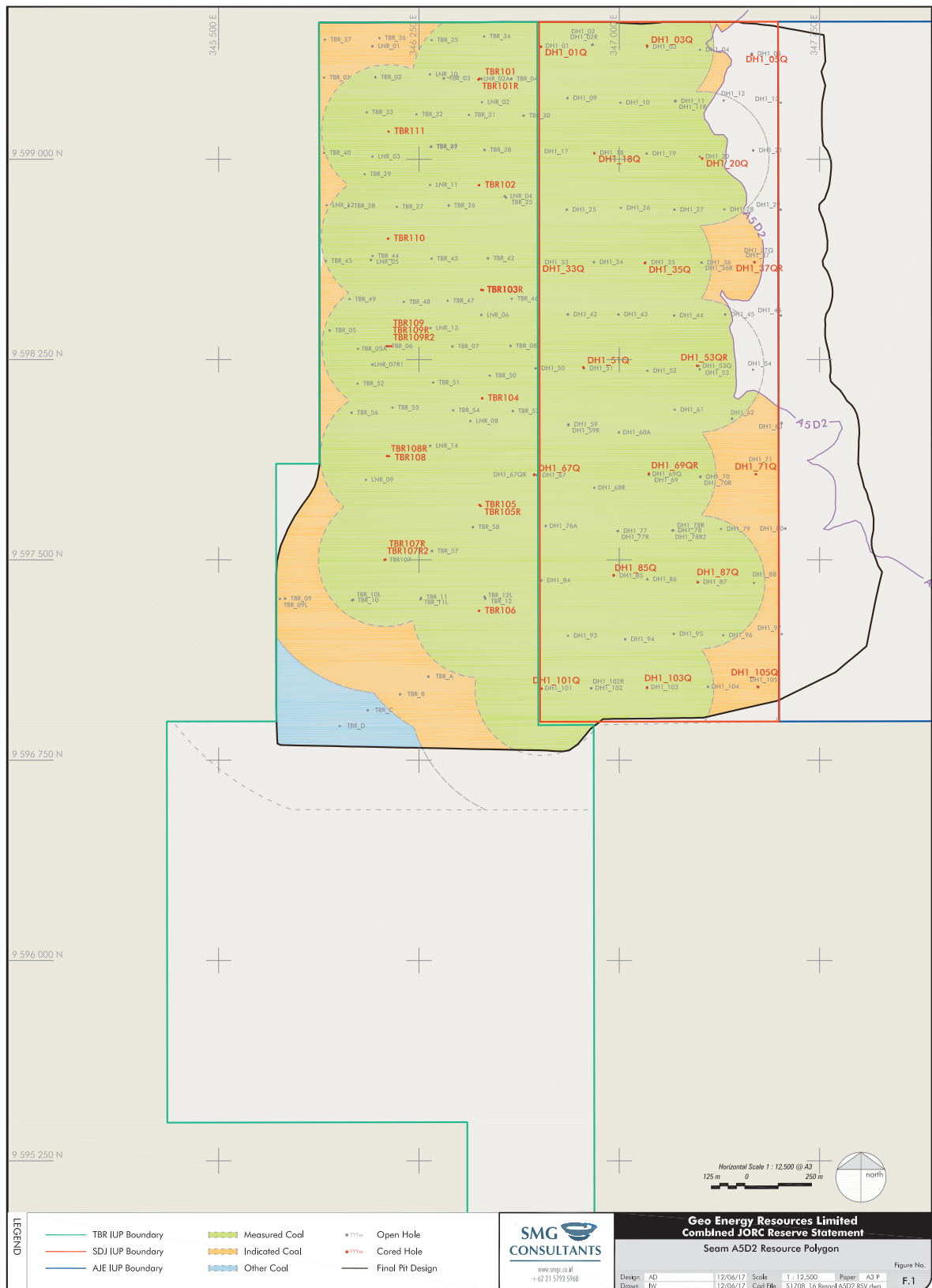
Demikian disampaikan untuk menjadi bahan pertimbangan lebih lanjut.



Tembusan Yth :

1. Menteri Dalam Negeri di-JAKARTA;
2. Menteri Energi dan Sumberdaya Mineral di-JAKARTA;
3. Gubernur Kalimantan Selatan di-BANJARMASIN;
4. Direktur Jendral Planologi Kehutanan di-JAKARTA;
5. Bupati Tanah Bumbu di-BATULICIN;
6. Kepala Dinas Kehutanan Prov. Kalsel di-BANJARMASIN;
7. Kepala Dinas Pertambangan dan Energi Prov. Kalsel di-BANJARMASIN;
8. Kepala BPKH Wilayah V Banjarbaru di-BANJARMASIN;
9. Direktur PT. Tanah Bumbu Resources di-BATULICIN

## Appendix F – Resource Polygon

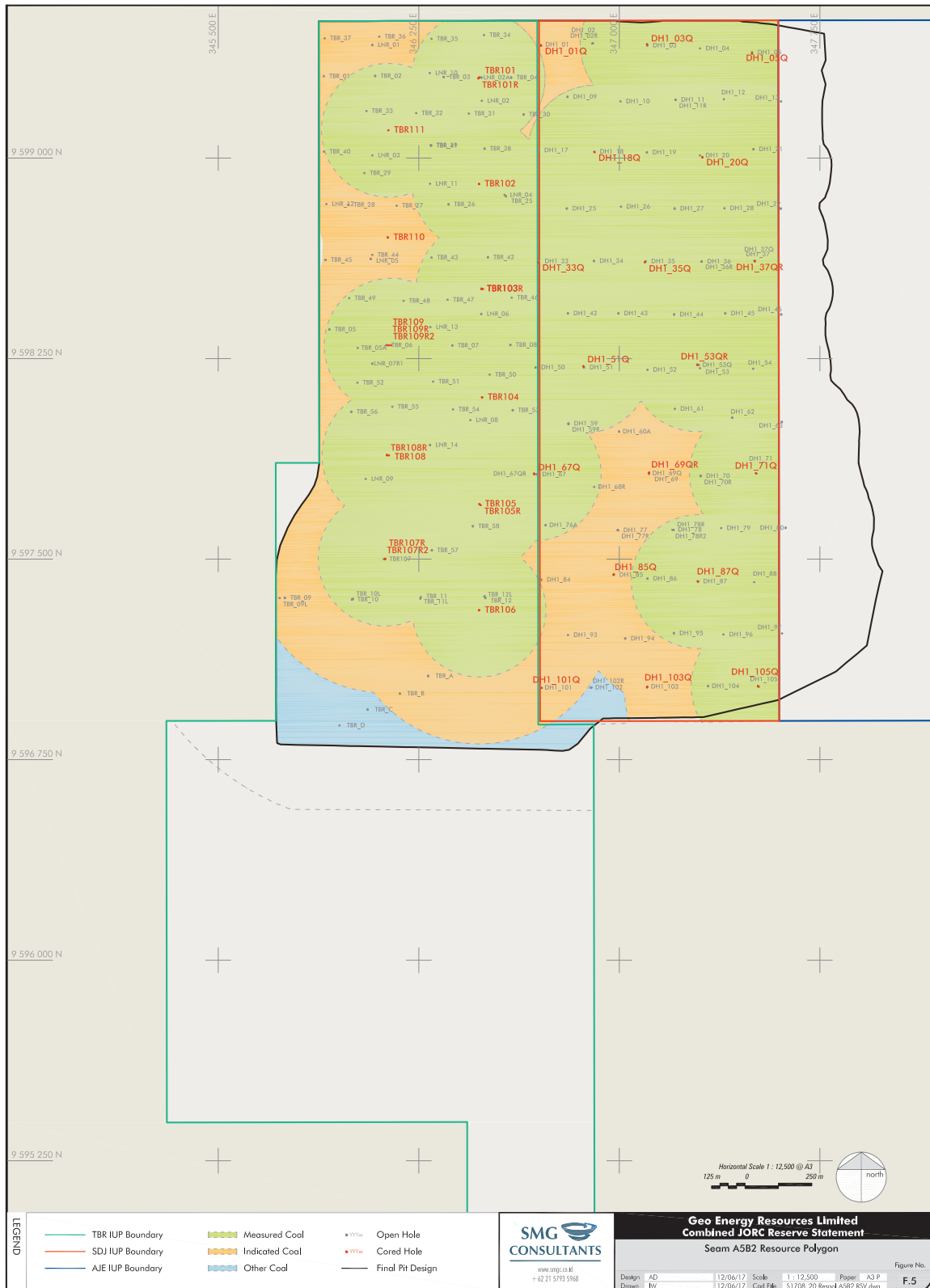


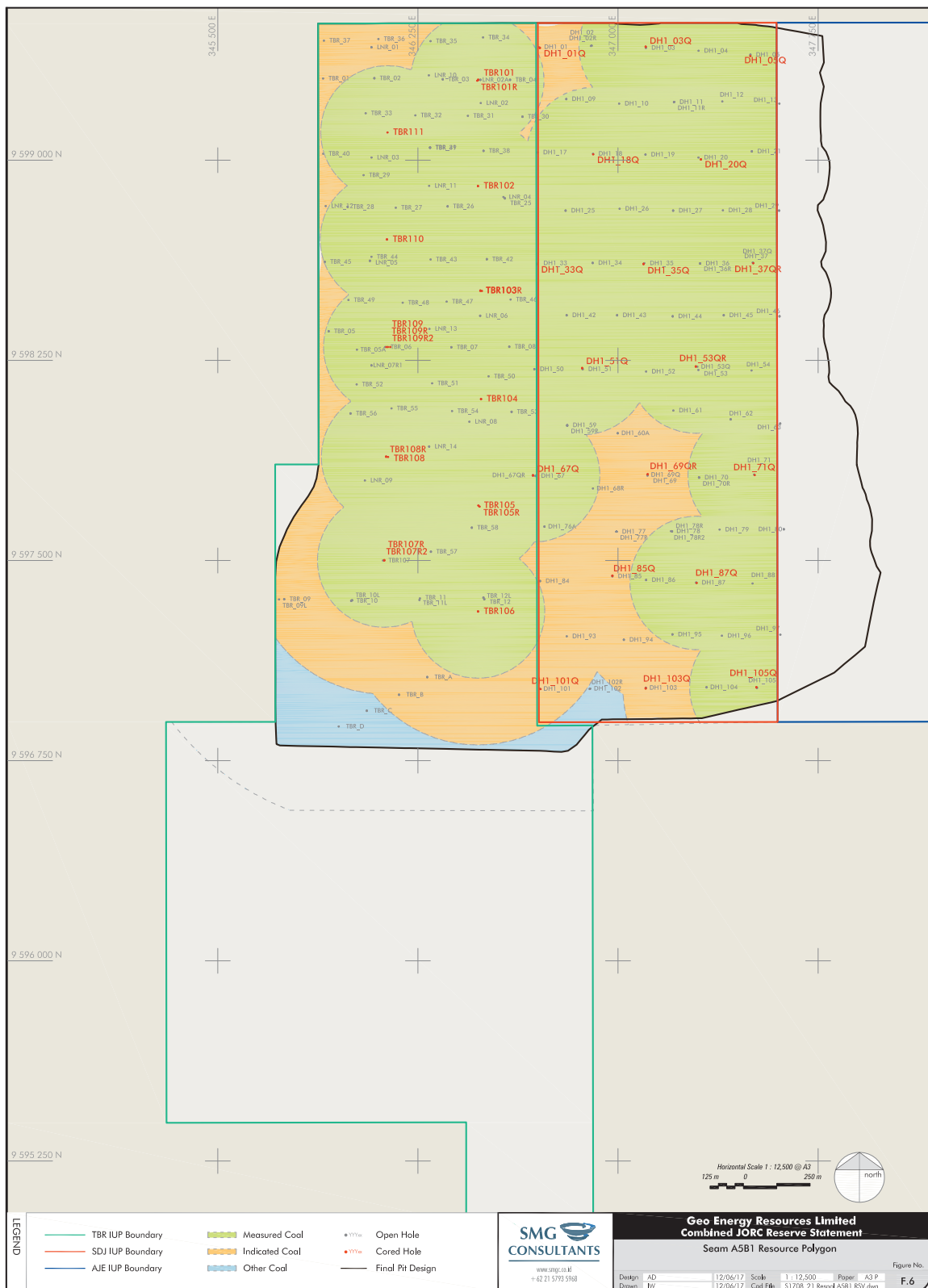


















End Of 2017

Appendix G - Life of Mine Plan Faces





End Of 2018



End Of 2019





End Of 2020



End Of 2021





End Of 2022



End Of 2023





## Appendix H - Mutual Mining Agreement

### PERJANJIAN BATAS TAMBANG BERSAMA

### JOINT BOUNDARY MINING AGREEMENT

Pada hari ini, Rabu tanggal 02 Juli 2014, telah di buat dan di tanda tangani Perjanjian Batas Tambang Bersama antara :

On this day, Wednesday, date 02 July 2014 , Joint Boundary Mining Agreement has been made and signed by and between :

1. **PT ANGSA NA JAYA ENERGI**, Perusahaan yang didirikan berdasarkan hukum Republik Indonesia, beralamat di Ruko Green Lake, Danau Sunter Selatan TB – S, RT.015, RW.016, Kelurahan Sunter Agung, Kecamatan Tanjung Priok, Jakarta Utara. Dalam hal ini diwakili oleh Richard Niviji Ma Palar dalam kapasitasnya sebagai Direktur (selanjutnya disebut "Pihak Pertama")
2. **PT. SUNGAI DANA U JAYA**, Perusahaan yang didirikan berdasarkan hukum Republik Indonesia, beralamat di Ruko Green Lake, Jl. Danau Sunter Selatan TB – S, Blok E, Kelurahan Sunter Agung, Kecamatan Tanjung Priok, Jakarta Utara. Dalam hal ini diwakili oleh Haryanto Sofian dalam kapasitasnya sebagai Direktur. (selanjutnya disebut "Pihak Kedua")

1. **PT ANGSA NA JAYA ENERGI** , Company established under Law of Republic Indonesia. Having its registered address at Ruko Green Lake, Danau Sunter Selatan TB – S, RT.015, RW.016, Kelurahan Sunter Agung, Kecamatan Tanjung Priok, Jakarta Utara. In this agreement, represented by Richard Niviji Ma Palar in his capacity as Director (Hereinafter referred to as "First Party")
2. **PT. SUNGAI DANA U JAYA**, Company established under Law of Republic Indonesia. Having its registered address at Ruko Green Lake, Jl. Danau Sunter Selatan TB – S, Blok E, Kelurahan Sunter Agung, Kecamatan Tanjung Priok, Jakarta Utara. In this agreement, represented by Haryanto Sofian in his capacity as Director (Hereinafter referred to as "Second Party")

Pihak Pertama dan Pihak Kedua secara bersama-sama disebut dengan "Para Pihak"

First Party and Second Party together referred to as the "Parties"

Para Pihak dengan ini menerangkan terlebih dahulu bahwa:

The Parties hereby declare that :

- A. Pihak Pertama adalah Pihak yang secara sah memegang Izin Usaha Pertambangan tahap Operasi Produksi di Kecamatan Angsana dan Sungai Loban, Kabupaten Tanah Bumbu, Propinsi Kalimantan Selatan seluas 773.1 Hektar berdasarkan Izin Usaha Pertambangan No. 188.45 / 310 / DISTAMBEN / 2014 yang dikeluarkan oleh Bupati Tanah Bumbu.

- A. First Party is a company who legitimately holds Mining Business Permit Operation Production stage at Kecamatan Angsana and Sungai Loban, Kabupaten Tanah Bumbu, Propinsi Kalimantan Selatan with area 773.1 Ha based on Mining Business Permit No 188.45 / 310 / DISTAMBEN / 2014 issued by the regency head of Tanah Bumbu.

- B. Pihak Kedua adalah Pihak yang secara sah memegang Izin Usaha Pertambangan tahap Operasi Produksi di Kecamatan Angsana dan Sungai loban, Kabupaten Tanah Bumbu, Propinsi Kalimantan Selatan seluas

- B. Second Party is party who legitimately holds Mining Business Permit Operation Production stage at Kecamatan Angsana and Sungai Loban, Kabupaten Tanah Bumbu, Propinsi Kalimantan Selatan with



235.5 Hektar berdasarkan Izin Usaha Pertambangan No. 188.45 / 311 / DISTAMBEN / 2014 yang dikeluarkan oleh Bupati Tanah Bumbu.

area 235.5 Ha based on Mining Business Permit No 188.45 / 311 / DISTAMBEN / 2014 issued by the Regency Head of Tanah Bumbu.

- C. Bahwa kedua konsensi tambang milik Para Pihak berada di lokasi yang berbatasan satu sama lainnya dan dalam rangka untuk memaksimalkan produksi, para pihak setuju untuk melakukan penambangan batubara secara bersama di batas konsensi tersebut.

- C. Both Parties' mining Concession is located in boundary of close proximity with one and the other, therefore to maximize mining production, both Parties agree to conduct mining activity together within the concession boundary.

Berdasarkan hal-hal tersebut Para Pihak sepakat untuk mengikatkan diri kedalam Perjanjian Batas Tambang Bersama ini dengan ketentuan sebagai berikut:

Based on the concerned mutual interest above, The Parties agree to bind themselves into this Joint Boundary Mining Agreement with the following conditions:

1. Para Pihak sepakat untuk melakukan kegiatan penambangan secara bersama untuk mengambil potensi Batubara yang terdapat di batas konsensi masing-masing Pihak. Masing-masing Pihak berhak atas batubara tersebut sampai dengan penggalian mencapai batas dari koordinat konsesi masing-masing Pihak.
2. Hal-hal terkait pembentukan Joint Safety Committee, kewajiban Backfill dan Rehabilitasi Lahan, penentuan tapal batas konsensi akan ditentukan melalui perjanjian terpisah.
3. Dalam hal penambangan tidak dilakukan secara bersama, pihak yang terlebih dahulu memulai tambang diberi izin untuk melakukan pemotongan tanah penutup masuk kedalam wilayah IUP pihak yang lain sampai sejauh diperlukan agar dapat mengambil seluruh potensi batubara yang ada sampai batas IUP masing-masing pihak. Pekerjaan harus dilakukan sesuai dengan ketentuan yang diatur dalam Joint Safety Committee sebagai disebut dalam pasal 2, dan harus dikoordinasikan agar kedua belah pihak dapat mengambil seluruh potensi batubara yang terkandung dalam masing-masing IUP sampai dengan batas IUP.

1. The Parties agree to conduct mining activities together to realise the potential coal contained in the concessions boundary of each Party. Each Party has the right to mine coal to the extent limited by concession coordinates of each Party.
2. Matters related to the establishment of Joint Safety Committee, the Backfill obligation and Land Rehabilitation, determination of concession boundaries will be determined in a separate agreement.
3. In the event that mining activity is not carried out simultaneously by both Parties, the party which started mining first will be granted the permission to conduct the overburden excavation by way of crossing into the other party's IUP area to the areal extent such that both Parties are optimally able to excavate coal belonging to their respective concession. Mining operation has to be performed as per conditions set by Joint Safety Committee as presented in Clause 2, and has to be coordinated according to both Parties' mutual agreement on maximal coal production in each Party's concession boundary.





4. Perjanjian ini tunduk pada Hukum Republik Indonesia, apabila terdapat perselisihan di kemudian hari, Para Pihak sepakat untuk menyelesaikannya secara musyawarah, apabila Musyawarah tidak mencapai mufakat maka akan diselesaikan melalui Badan Arbitrase Nasional Indonesia di Jakarta.

5. Perjanjian ini berlaku selama 8 (delapan) Tahun terhitung tanggal Perjanjian ini yang dapat di perpanjang berdasarkan kesepakatan tertulis Para Pihak.

6. Perjanjian ini tetap mengikat Para Pihak, Ahli Waris, Penerus, Pengganti yang sah secara hukum dari masing-masing Pihak hingga jangka waktu Perjanjian ini berakhir.

7. Ketentuan-ketentuan dalam Perjanjian ini dapat diganti, dirubah atau ditambahkan berdasarkan kesepakatan tertulis Para Pihak.

4. This Agreement is subject to the Law of the Republic of Indonesia. If any dispute were to arise following the signing of this agreement, The Parties agree to resolve it amicably. In the event that amicable settlement could not be achieved, both parties will seek settlement through the Indonesian National Arbitration Board in Jakarta.

5. This Agreement is valid for 8 (Eight) years commencing at the date of this Agreement and could be extended by written agreement of the Parties.

6. This Agreement is binding on the Parties, Heir, Successor & Replacement according to the Law of each of the Parties throughout this Agreement's validity period.

7. The provisions of this agreement may be replaced, amended or supplemented by written agreement of the Parties.

Demikian Perjanjian Batas Tambang Bersama ini dibuat dalam rangkap dua dan ditanda tangani diatas Materai yang cukup.

The Parties, intending to be legally bound, have executed the Joint Boundary Mining Agreement in duplicate, on the date first set forth above and signed on legal stamp duty.

Pihak Pertama / First Party  
PT. ANGSA JAYA ENERGI



Richard Niviji Ma Palar  
Direktur / Director

Pihak Kedua / Second Party  
PT. SUNGAI DANAU JAYA

Haryanto Sofian  
Direktur / Director



**ADDENDUM TO  
JOINT BOUNDARY MINING AGREEMENT**

the Addendum To Joint Boundary Mining Agreement ("Addendum") has been made on this 17<sup>th</sup> day of September 2014 by and between:

- I. **PT SUNGAI DANAU JAYA**, a limited liability company established under the laws of the Republic of Indonesia, having its domicile at North Jakarta and office at Ruko Grand Like Jl. Danau Sunter Selatan TB-S Blok E, Tanjung Priok, Jakarta Utara, Indonesia, hereinafter referred to as the **"FIRST PARTY"**; and
- II. **PT ANGSANA JAYA ENERGI**, a limited liability company established under the laws of the Republic of Indonesia, having its domicile at Kabupaten Tanah Bumbu, South Kalimantan and office at Sebamban II Blok F No.21, Tanah Bumbu, South Kalimantan, hereinafter referred to as the **"SECOND PARTY"**.

THE FIRST PARTY and THE SECOND PARTY shall hereinafter be jointly referred to as the **"PARTIES"** and separately as a **"PARTY"**.

The PARTIES declare as follows:

- a. Whereas the PARTIES has bounded each other to the Joint Boundary Mining Agreement dated 2 July 2014 (hereinafter referred to as the **"Agreement"**);
- b. Whereas The PARTIES intend to incorporate additional clauses to the Agreement.

**ADENDUM TERHADAP  
PERJANJIAN BATAS TAMBANG BERSAMA**

Adendum terhadap Perjanjian Batas Tambang Bersama ("Adendum") ini dibuat pada tanggal 17 September 2014, oleh dan antara:

- I. **PT SUNGAI DANAU JAYA**, suatu perseroan terbatas yang didirikan berdasarkan hukum Negara Republik Indonesia, berkedudukan di Jakarta Utara, beralamat kantor di Ruko Grand Like Jl. Danau Sunter Selatan TB-S Blok E, Tanjung Priok, Jakarta Utara, Indonesia, untuk selanjutnya disebut sebagai **"PIHAK PERTAMA"**; dan
- II. **PT ANGSANA JAYA ENERGI**, suatu perseroan terbatas yang didirikan berdasarkan hukum Negara Republik Indonesia, berkedudukan di Kabupaten Tanah Bumbu, Kalimantan Selatan, beralamat kantor di Sebamban II Blok F No.21, Tanah Bumbu, Kalimantan Selatan, untuk selanjutnya disebut sebagai **"PIHAK KEDUA"**.

PIHAK PERTAMA dan PIHAK KEDUA untuk selanjutnya secara bersama-sama disebut sebagai **"PARA PIHAK"** dan masing-masing sebagai **"PIHAK"**.

PARA PIHAK menerangkan hal-hal sebagai berikut:

- a. Bahwa PARA PIHAK telah mengikatkan diri satu sama lain terhadap Perjanjian Batas Tambang Bersama tertanggal 2 Juli 2014 (selanjutnya disebut sebagai **"Perjanjian"**);
- b. Bahwa PARA PIHAK bermaksud untuk menambahkan beberapa ketentuan tambahan terhadap Perjanjian tersebut.

In relation to the matters above, the PARTIES hereby agree to sign this Addendum with terms and conditions as follows:

Sehubungan dengan hal-hal tersebut di atas, PARA PIHAK dengan ini sepakat untuk membuat dan menandatangani Addendum ini dengan ketentuan dan syarat-syarat sebagai berikut:



# Article 1 SCOPE OF AGREEMENT

1. The PARTIES agree to cooperate with each other in a mutually beneficial relation, which each PARTY hereby give consent, license or permission ("**Approver**") to the other PARTY who will conduct prior mining activities ("**Receiver**") to:
  - a. Pass through, crossing or enter the territory of IUP OP of Approver, whereas the boundaries of IUP are considered as Joint Boundaries to conduct Overburden Removal (OB Removal);
  - b. Pass through, crossing or enter certain territory of IUP OP of Approver to be used as Disposal Area from mining activities derived from the territory of IUP OP of Receiver;
  - c. Pass through, crossing or enter certain territory of IUP OP of Approver to be used as Hauling Road, starting from the territory of IUP OP of Receiver up to the Disposal Area or Hauling Road located in the territory of IUP OP of Approver and/or to the Hauling Road which is managed/owned by third parties in accordance with the requirements of Receiver.

# PASAL 1 RUANG LINGKUP

1. PARA PIHAK sepakat bekerjasama dalam prinsip yang saling menguntungkan kedua belah pihak, dimana masing-masing PIHAK dengan ini memberikan persetujuan, ijin, ataupun hak akses ("**Pemberi Persetujuan**") kepada PIHAK lainnya yang akan melakukan kegiatan tambang lebih dulu ("**Penerima Persetujuan**") untuk:
  - a. Melewati, melintasi atau memasuki wilayah IUP OP dari Pemberi Persetujuan, dimana batas wilayah IUP tersebut dianggap sebagai batas wilayah tambang bersama (*Joint Boundaries*) untuk melakukan pengupasan tanah lapisan penutup (*Overburden Removal/OB Removal*);
  - b. Melewati, melintasi atau memasuki wilayah-wilayah tertentu dari Wilayah IUP OP Pemberi Persetujuan untuk digunakan sebagai tempat pembuangan tanah yang berasal dari OB Removal (*Disposal Area*) dari kegiatan pertambangan yang berasal dari Wilayah IUP OP Penerima Persetujuan;
  - c. Melewati, melintasi atau memasuki wilayah-wilayah tertentu dari Wilayah IUP OP Pemberi Persetujuan untuk digunakan sebagai jalan pengangkutan batubara (*Hauling Road*) mulai dari Wilayah IUP OP Penerima Persetujuan sampai dengan Disposal Area maupun Hauling Road yang terdapat di Wilayah IUP OP Pemberi Persetujuan dan/atau sampai ke Hauling Road yang dikelola/dimiliki oleh pihak ketiga manapun sesuai dengan kebutuhan dari Penerima Persetujuan.



**Article 2  
APPROVALS, PERMITS OR INITIAL  
ACCESS RIGHTS**

1. The PARTIES agreed that for the first stage of the implementation of the Agreement, the SECOND PARTY gives consent, permission, cross right or access rights to the FIRST PARTY as the PARTY who will do the prior coal mining activities, to use the Joint Boundaries, Hauling and Disposal Area Road according to the map area and coordinate points attached.
2. Each PARTY shall provide the necessary land acquisition for the mining activities, which is included in the territory of their IUP OP, except for the Hauling and Disposal Road area which is to be used by the FIRST PARTY during the first stage of implementation of cooperation under this Addendum which will be paid directly by the FIRST PARTY to PT Ladang Rumpun Subur Abadi as the land owner and / or any third party designated by PT Ladang Rumpun Subur Abadi.
3. For approval at the next stages, either to fulfill the needs of the FIRST PARTY or SECOND PARTY, will be subsequently discussed and determined between the PARTIES and the result shall state in a separate agreement.

**Article 3  
REPRESENTATIONS & WARRANTIES**

1. Each PARTY has full power to (i) signed this Addendum, and (ii) fulfill their obligations in accordance with terms and conditions of this Addendum.
2. Each PARTY has obtained any required corporate procedure and/or other measures for the implementation of this Addendum and warrant that the implementation of this Addendum shall not generate any violation of any other agreements that has binding each PARTY

**PASAL 2  
PERSETUJUAN, IJIN ATAU HAK AKSES  
AWAL**

1. PARA PIHAK sepakat bahwa sebagai tahap pertama dari pelaksanaan Perjanjian ini, PIHAK KEDUA memberikan persetujuan, ijin, hak melintas ataupun hak akses kepada PIHAK PERTAMA selaku pihak yang akan melaksanakan kegiatan tambang batubara lebih awal, untuk menggunakan Joint Boundaries, Hauling Road dan Disposal Area sesuai dengan Peta Lokasi dan Titik Koordinat terlampir.
2. Masing-masing PIHAK wajib membebaskan lahan yang masuk dalam Wilayah OP miliknya, kecuali untuk Hauling Road dan Disposal Area yang akan digunakan oleh PIHAK PERTAMA sebagai pelaksanaan kerjasama tahap pertama berdasarkan Adendum ini, akan dibayarkan secara langsung oleh PIHAK PERTAMA kepada PT Ladangrumpun Suburabadi sebagai pemilik lahan dan/atau pihak lainnya yang ditunjuk oleh PT Ladang Rumpun Subur Abadi.
3. Untuk persetujuan di tahap-tahap berikutnya, baik untuk memenuhi kebutuhan PIHAK PERTAMA ataupun PIHAK KEDUA, akan dibahas dan disepakati bersama diantara PARA PIHAK dan hasilnya dituangkan dalam perjanjian tersendiri.

**PASAL 3  
PERNYATAAN DAN JAMINAN**

1. Masing-masing PIHAK telah memiliki wewenang penuh untuk (i) menandatangani Adendum ini, dan (ii) untuk melaksanakan hak dan tanggung jawab masing-masing PIHAK sesuai dengan syarat-syarat dan ketentuan dari Adendum ini.
2. Masing-masing PIHAK telah mengambil seluruh langkah korporasi dan/atau langkah-langkah lain yang diperlukan untuk pelaksanaan Adendum ini dan menjamin bahwa pelaksanaan Adendum ini tidak akan menimbulkan pelanggaran atas perjanjian lainnya yang telah mengikat masing-masing PIHAK (apabila ada).

(if any).

3. Any information, statements and warrants which given by each PARTY under this Addendum is true, accurate and complete, therefore shall not preclude the other PARTY to execute this Addendum including land use approval by the Receiver from the Approver.
3. Semua informasi, pernyataan-pernyataan dan jaminan-jaminan yang diberikan masing-masing PIHAK berdasarkan Adendum ini adalah benar, akurat dan lengkap, oleh karenanya tidak akan menghalangi PIHAK lainnya untuk melaksanakan Adendum ini termasuk penggunaan lahan oleh Penerima Persetujuan dari Pemberi Persetujuan.
4. Each PARTY shall warrant that during the Term of Agreement, each PARTY will not withdraw, cancel or terminate the manner and for any reason regarding the granting of approvals, permits or privileges under this Agreement. Furthermore, the SECOND PARTY guarantees that it shall not give consent, permission or right of equal access to any other PARTY which interfere the mining production activity, which shall be conducted by the FIRST PARTY.
4. Masing-masing PIHAK menjamin bahwa selama Jangka Waktu Perjanjian ini, tidak akan menarik, membatalkan atau mengakhiri dengan cara dan alasan apapun mengenai pemberian persetujuan, ijin ataupun hak akses berdasarkan Perjanjian ini. Lebih lanjut, PIHAK KEDUA menjamin tidak akan memberikan persetujuan, ijin ataupun hak akses yang sama kepada pihak lainnya yang tentunya akan mengganggu kegiatan operasi produksi tambang yang akan dijalankan oleh PIHAK PERTAMA.
5. Each PARTY shall warrant in the event of a change in the management and / or shareholders of each of the PARTY, then it shall not conclude, cancel or terminate this Agreement with any reason.
5. Masing-masing PIHAK menjamin dalam hal terjadi terjadi perubahan pengurus dan/atau pemegang saham dari masing-masing PIHAK, maka hal tersebut tidak akan mengakhiri, membatalkan atau memutuskan Perjanjian ini dengan alasan apapun.

#### Article 4 NOTIFICATION

1. Any correspondence required to deliver for the implementation of the Agreement, must be delivered by registered post, facsimile, or delivered in person to address that is stated at the beginning of this Addendum.
2. Notification shall be deemed received (i) if sent directly evidenced by the receipt, (ii) if sent by post, according to the receipt issued by the post; (iii) if sent by facsimile transmission, in accordance with the justified evidence by the receiving PARTY.
3. Any alteration to the addresses above, shall be notified by one PARTY to the

#### PASAL 4 PEMBERITAHUAN

1. Semua surat menyurat yang perlu dikirim untuk melaksanakan Perjanjian ini, harus dikirim dengan pos tercatat, melalui faksimili, atau disampaikan secara langsung ke alamat yang dicantumkan di awal Adendum ini.
2. Pemberitahuan dianggap telah diterima (i) apabila dikirimkan secara langsung dibuktikan dengan tanda terima, (ii) apabila dikirimkan melalui pos, sesuai dengan tanda terima yang dikeluarkan oleh pos; (iii) apabila dikirim melalui faksimili, sesuai dengan bukti transmisi yang dibenarkan oleh PIHAK penerima.
- Perubahan terhadap alamat-alamat tersebut di atas, wajib diberitahukan oleh PIHAK yang



other PARTY no later than 14 (fourteen) calendar days after the occurrence of a change of address. If the notification of address alteration is not implemented, then any risk of non-receipt of such notice shall be borne by the PARTY who altered its address without any notification to the other PARTY.

satu kepada PIHAK lainnya selambat-lambatnya 14 (empat belas) hari kalender sejak terjadinya perubahan alamat tersebut. Bila pemberitahuan perubahan alamat tidak dilakukan, maka segala resiko atas tidak diterimanya pemberitahuan tersebut menjadi tanggung jawab PIHAK yang melakukan pindah alamat tanpa pemberitahuan kepada PIHAK lainnya.

#### Article 5 MISCELLANEOUS

1. This Addendum is made in two languages, the English and Indonesian language. If there is any discrepancy or misinterpretation between the English and Indonesian version, the Indonesian version shall prevail. Any other matters that are not or not yet provided in the Agreement will be provided later in a separate agreement that is made and signed by the PARTIES as the integrated part of the Agreement.
2. The Agreement shall be subject to and governed according to the laws applicable in the State of the Republic of Indonesia. This Addendum is made in two languages, the English and Indonesian language. If there is any discrepancy or misinterpretation between the English and Indonesian version, the Indonesian version shall prevail.
3. If in the future there is one or more provisions of the Agreement that is declared invalid, null and void, such cancellation will not affect the applicability of other provisions of this Addendum.
4. Any terms and conditions as stated in the Agreement, that are not amended within the Addendum shall remain in force and binding to the Parties to execute it.

#### PASAL 5 KETENTUAN-KETENTUAN LAIN

1. Adendum ini dibuat dalam dua bahasa, Bahasa Indonesia dan Bahasa Inggris. Apabila terdapat pertentangan atau perbedaan penafsiran atau arti antara versi Bahasa Indonesia dengan versi Bahasa Inggris, maka yang akan diberlakukan adalah versi dalam Bahasa Indonesia. Hal-hal lain yang belum cukup diatur dalam Perjanjian, akan dibahas dan disepakati bersama diantara PARA PIHAK dan hasilnya dituangkan dalam suatu addendum atau amandemen yang merupakan bagian tidak terpisahkan dari Perjanjian.
2. Perjanjian dan segala akibat hukumnya yang timbul sehubungan dengan pelaksanaan Perjanjian, diatur menurut hukum yang berlaku di wilayah Republik Indonesia.
3. Apabila dikemudian hari ada satu atau lebih ketentuan dari Perjanjian yang dinyatakan tidak berlaku, batal demi hukum, maka pembatalan tersebut tidak akan mempengaruhi berlakunya ketentuan-ketentuan lain dari Adendum ini.
4. Ketentuan atau Persyaratan dari Perjanjian sepanjang tidak diubah dalam Adendum ini, akan tetap berlaku dan mengikat Para Pihak untuk melaksanakannya.

This Addendum is made in good faith, is signed on the date, month and year as mentioned in the beginning of this Agreement. in 2 (two) original copies equally enforceable.

Demikian Addendum ini dibuat dengan itikad baik, pada tanggal sebagaimana disebutkan di atas, dalam rangkap 2 (dua) bermeterai cukup dan masing-masing mempunyai kekuatan hukum yang sama bagi PARA PIHAK.

**FIRST PARTY/PIHAK PERTAMA,**  
**PT SUNGAI DANAU JAYA**



Name>Nama : Richard Niviji M. Palar  
Title/Jabatan : Direktur

**SECOND PARTY/PIHAK KEDUA,**  
**PT ANGSANA JAYA ENERGI**



Name>Nama : Haryanto Sofian  
Title/Jabatan : Direktur

**LEGALISASI**

Nomor : 186/Leg/IX/2014 (Rangkap Dua)

Mengetahui untuk legalisasi tanda-tangan

1. Tn. HARYANTO SOFIAN tersebut ; \_\_\_\_\_

\_\_\_\_\_

Dan telah saya, Notaris kenal -----

Jakarta, 11 7 SEP 2014  
Notaris Jakarta,




(DJASMIN, SH., MH.)



**ADDENDUM II TO  
JOINT BOUNDARY MINING  
AGREEMENT**

the Addendum II To Joint Boundary Mining Agreement ("**Addendum II**") has been made on this day Monday, of 2 February, year 2015, by and between:

- I. **PT SUNGAI DANAU JAYA**, a limited liability company established under the laws of the Republic of Indonesia, having its domicile at North Jakarta and office at Ruko Grand Like Jl. Danau Sunter Selatan TB-S Blok E, Tanjung Priok, Jakarta Utara, Indonesia, hereinafter referred to as the "**FIRST PARTY**"; and
- II. **PT ANGSANA JAYA ENERGI**, a limited liability company established under the laws of the Republic of Indonesia, having its domicile at Kabupaten Tanah Bumbu, Kalimantan Selatan, office at Sebamban II, Blok F No.21, Tanah Bumbu, South Kalimantan, hereinafter referred to as the "**SECOND PARTY**".

THE FIRST PARTY and THE SECOND PARTY shall hereinafter be jointly referred to as the "**PARTIES**" and separately as a "**PARTY**".

The PARTIES declare as follows:

- Whereas the PARTIES has bounded each other to the:
  - a. Joint Boundary Mining Agreement dated 2 July 2014 (hereinafter referred to as the "**Initial Agreement**")
  - b. Addendum To Joint Boundary

**ADENDUM II TERHADAP  
PERJANJIAN BATAS TAMBANG  
BERSAMA**

Adendum II terhadap Perjanjian Batas Tambang Bersama ("**Adendum II**") ini dibuat pada hari Senin, tanggal 2 Februari 2015, oleh dan antara:

- I. **PT SUNGAI DANAU JAYA**, suatu perseroan terbatas yang didirikan berdasarkan hukum Negara Republik Indonesia, berkedudukan di Jakarta Utara, beralamat kantor di Ruko Grand Like Jl. Danau Sunter Selatan TB-S Blok E, Tanjung Priok, Jakarta Utara, Indonesia, untuk selanjutnya disebut sebagai "**PIHAK PERTAMA**"; dan

- II. **PT ANGSANA JAYA ENERGI**, suatu perseroan terbatas yang didirikan berdasarkan hukum Negara Republik Indonesia, berkedudukan di Kabupaten Tanah Bumbu, Kalimantan Selatan, beralamat kantor di Sebamban II blok F No.21, Tanah Bumbu, Kalimantan Selatan, untuk selanjutnya disebut sebagai "**PIHAK KEDUA**".

PIHAK PERTAMA dan PIHAK KEDUA untuk selanjutnya secara bersama-sama disebut sebagai "**PARA PIHAK**" dan masing-masing sebagai "**PIHAK**".

PARA PIHAK menerangkan hal-hal sebagai berikut:

- Bahwa PARA PIHAK telah mengikatkan diri satu sama lain terhadap:
  - a. Perjanjian Batas Tambang Bersama tertanggal 2 Juli 2014 (selanjutnya disebut sebagai "**Perjanjian Awal**");
  - b. Adendum Terhadap Perjanjian

Mining Agreement dated 17 of September 2014 (hereinafter referred to as the "Addendum I")

- c. Mutual Consent Of Joint Boundary Mining dated 17 of September 2014 (hereinafter referred to as the "Mutual Consent")

Initial Agreement, Addendum I and Mutual Consent hereinafter jointly referred to as the "Agreement"

- Whereas The PARTIES intend to incorporate additional clauses to the Agreement.

In relation to the matters above, the PARTIES hereby agree to sign this Addendum II with terms and conditions as follows:

#### ARTICLE 1 SCOPE OF AGREEMENT

The PARTIES understand that they share the extensions of the same deposit and hence agree to perform mining activities jointly for the most effective exploitation of the same. A joint mine plan will be prepared and agreed between THE PARTIES in this regard.

#### ARTICLE 2 MISCELLANEOUS

1. This Addendum is made in two languages, the English and Indonesian language. If there is any discrepancy or misinterpretation between the English and Indonesian version, the Indonesian version shall prevail. Any other matters

Batas Tambang Bersama tertanggal 17 September 2014 (selanjutnya disebut sebagai "Adendum I");

- c. Kesepakatan Bersama Penggunaan Batas Tambang Bersama tertanggal 17 September 2014 (selanjutnya disebut sebagai "Kesepakatan Bersama");  
Perjanjian Awal, Adendum I dan Kesepakatan Bersama untuk selanjutnya secara bersama-sama disebut sebagai "Perjanjian"

- Bahwa PARA PIHAK bermaksud untuk menambahkan beberapa ketentuan tambahan terhadap Perjanjian tersebut.

Sehubungan dengan hal-hal tersebut di atas, PARA PIHAK dengan ini sepakat untuk membuat dan menandatangani Adendum II ini dengan ketentuan dan syarat-syarat sebagai berikut:

#### PASAL 1 RUANG LINGKUP PERJANJIAN

PARA PIHAK memahami bahwa mereka berbagi bentangan deposit yang sama, dan oleh karenanya sepakat untuk melaksanakan kegiatan penambangan bersama sehingga mendapatkan efektifitas eksploitasi yang sama. Sebuah rencana tambang bersama akan dipersiapkan dan dalam hal ini disepakati oleh PARA PIHAK.

#### PASAL 2 LAIN-LAIN

1. Adendum ini dibuat dalam dua bahasa, Bahasa Indonesia dan Bahasa Inggris. Apabila terdapat pertentangan atau perbedaan penafsiran atau arti antara versi Bahasa Indonesia dengan versi Bahasa Inggris, maka yang akan

that are not provided yet in the Agreement shall be provided in a separate agreement that is made and signed by the PARTIES as the integrated part of the Agreement.

diberlakukan adalah versi dalam Bahasa Indonesia. Hal-hal lain yang belum cukup diatur dalam Perjanjian, akan dibahas dan disepakati bersama diantara PARA PIHAK dan hasilnya dituangkan dalam suatu addendum atau amandemen yang merupakan bagian tidak terpisahkan dari Perjanjian.

2. Any terms and conditions as stated in the Agreement, that are not amended within the Addendum shall remain in force and binding to the Parties to execute it.

2. Ketentuan atau Persyaratan dari Perjanjian sepanjang tidak diubah dalam Adendum ini, akan tetap berlaku dan mengikat Para Pihak untuk melaksanakannya.

This Addendum is made in good faith, signed on the date, month and year as mentioned in the beginning of this Agreement, in 2 (two) original copies with sufficient stamp and equally enforceable.

Demikian Adendum ini dibuat dengan itikad baik, pada tanggal sebagaimana disebutkan di atas, dalam rangkap 2 (dua) bermeterai cukup dan masing-masing mempunyai kekuatan hukum yang sama bagi PARA PIHAK.

**FIRST PARTY/PIHAK PERTAMA,**  
**PT SUNGAI DANAU JAYA**



Name>Nama : Richard Niviji M. Palar  
Title/Jabatan : Director/ Direktur

**SECOND PARTY/PIHAK KEDUA,**  
**PT ANGSA NAJAYA ENERGI**



Name>Nama : Haryanto Sofian  
Title/Jabatan : Director/ Direktur