Company Announcements
ASX Limited

By Electronic Lodgement

9 May 2017

Updated JORC Statement of Coal Resources and Reserves for PT Katingan Ria Thermal Coal Project, Indonesia

Highlights

- Coal Resources and Reserves for PT Katingan Ria have been updated in accordance with the JORC Code 2012
- PT Katingan Ria coal (4,200 Kcal/Kg GAR) is a typical low rank, sub-bituminous thermal coal with low sulphur and nitrogen contents and complies with the Argus Indonesian Coal Index (4,200 GAR)
- Coal Resources (which includes Reserves) are 87.5Mt (6.5Mt Measured, 44Mt Indicated and 37Mt Inferred)
- Coal Reserves are 27.4Mt (all classified as Probable)
- Base case project NPV (10%) valuation of US$57m based on a US$40.00/t long term coal price and US$32.24/t FOB cash cost forecasts[1]
- Coal reserves and the valuation in this announcement have been prepared based on an export operation. Realm, in addition, is investigating the potential to supply a domestic mine mouth power station near the project and will provide further updates when possible.

1. INTRODUCTION

Realm Resources Limited (ASX: RRP) ("**Realm**" or the "**Company**") is pleased to announce that it has undertaken the necessary geological assessments and studies required to update the estimated Coal Resources and Reserves for the PT Katingan Ria thermal coal project in Indonesia ("**PTKR**") (in which Realm holds a 51% interest) in accordance with 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 ("**JORC Code 2012**").

Xenith Consulting Pty Ltd ("**Xenith**") was commissioned by Realm to complete an independent estimate (the "**Statement**") of the Open Cut Coal Resources and Reserves within IUP Production No. 540/208/KPTS/V/2013 (the **"Lease"**), located in Central Kalimantan, Indonesia. The Statement, which reports the following coal resources and reserves for the Lease as at 28 February 2017, has been undertaken in accordance with the JORC Code 2012:

a) total Coal Resources (inclusive of Reserves) for PTKR have been estimated at 87.5Mt (6.5Mt Measured, 44Mt Indicated and 37Mt Inferred); and

b) total Coal Reserves for PTKR have been estimated at 27.4Mt (all classified as Probable).

[1] Refer to section 3 of this announcement for a summary of the financial model, material assumptions and disclosures in relation to the production target on which the NPV valuation is based.

The Coal Resources and Reserves estimate supersedes the prior estimate in 2013 with minor changes (approximately minus 1.5Mt to both Resources and Reserves) attributed to the changes in the domaining requirements in the 2014 Australian Guidelines for the Estimation and Classification of Coal Resources) (refer to Realm ASX announcements dated 14 February 2013 and 8 March 2013 for further details). Realm confirms that other than as set out in this announcement, the Company is not aware of any new information or data that materially affects the information included in the prior announcements and, other than as set out in this announcement, that all material assumptions and technical parameters underpinning the estimates in the prior announcements continue to apply and have not materially changed.

All Coal Resources and Reserves are quoted on a 100% basis.

The following information prescribed by the JORC Code 2012 is included in this announcement and its Appendices:

a) detail of the Coal Resources (see Table 1 in Section 2) and Reserves for PTKR (see Table 2 and Table 3 in Section 2); and

b) a summary of important assessment and reporting criteria used for the reporting of mineral resources and ore reserves in accordance with the Table 1 checklist in the JORC Code 2012 (Appendix 1, Appendix 2 and Appendix 4).

2. STATEMENT OF RESOURCES AND RESERVES – PTKR

2.1 Coal Resources

Table 1: - Coal Resources

RESOURCE CATEGORY	SEAM	TOTAL VOLUME (Mbcm)	PLAN AREA (Ha)	MASS (MT)	THICKNESS (m)
NORTH					
INDICATED	B	4.20	301.12	5.00	1.40
INDICATED	MAIN	14.70	385.17	19.00	3.84
INFERRED	C	5.20	310.86	7.00	1.66
INFERRED	B	2.70	215.41	3.00	1.25
INFERRED	MAIN	9.60	260.68	12.00	3.76
INFERRED	A2	0.90	204.19	1.00	0.43
		SUBTOTAL		47.00	
SOUTH					
MEASURED	MAIN	5.10	113.45	6.50	4.46
INDICATED	MAIN	14.20	328.36	18.00	4.31
INDICATED	B	1.20	101.75	2.00	1.14
INFERRED	MAIN	6.10	219.58	8.00	2.76
INFERRED	C	1.30	71.84	2.00	1.82
INFERRED	3	1.80	501.18	2.00	0.36
INFERRED	2	1.90	403.22	2.00	0.46
		SUBTOTAL		40.50	
SEAMS					
	MAIN	49.60		63.50	3.89
	UPPER SEAMS	15.40		20.00	1.42

RESOURCE CATEGORY	SEAM	TOTAL VOLUME (Mbcm)	PLAN AREA (Ha)	MASS (MT)	THICKNESS (m)
	LOWER SEAMS	3.70		4.00	0.41
TOTAL MEASURED		5.10		6.50	
TOTAL INDICATED		34.20		44.00	
TOTAL INFERRED		29.40		37.00	
GRAND TOTAL				**87.50**	

Notes:

- Tonnages are estimated on an in-situ basis.
- The Preston-Sanders equation has been used to calculate the in-situ density. The in-situ moisture has been fixed at 32.0% for tonnage calculation purposes.
- Resources were limited to seams with thickness greater than 0.1m, a maximum raw ash percentage (standardised to 17% moisture) of 50% and a depth limit for open cut resources of 100m below topography.
- Mining Method: Open Cut.
- Inferred Resources are rounded to reflect the relative uncertainty of the estimate.

2.2 Coal Reserves

Table 2: - Total Open Cut Coal Reserve Quantities

Area	B Seam Probable (Mt)	Main Seam Probable (Mt)	Total Reserves Probable (Mt)
North of Fault	1.6	6.5	**8.1**
South of Fault - Permit Zone	0.8	16.8	**17.6**
South of Fault - Other	0.2	1.5	**1.7**
Total	**2.6**	**24.8**	**27.4**

Table 3: - Total Open Cut Coal Reserve Qualities (ar @ 32% moisture)

Area	B Seam Ash	B Seam CV	Main Seam Ash	Main Seam CV	Avg. Ash	Avg. CV
North of Fault	12.60	4,058	10.46	4,324	**10.57**	**4,311**
South of Fault - Permit Zone	15.47	4,242	8.28	4,248	**8.64**	**4,248**
South of Fault - Other	9.86	4,252	9.86	4,273	**9.86**	**4,272**
Total	**13.34**	**4,129**	**8.94**	**4,269**	**9.35**	**4,256**

Notes

- Mining Method: Open Cut.
- All Coal Reserves have been classified as Probable due to the coal price and barging risks.
- The coal produced at the Project is not washed resulting in 100% yield. Therefore, the Coal Reserve is equal to Marketable Reserve.
- Reserves are reported on an AR moisture basis (at 32% moisture).

Coal Reserves have been estimated by applying realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and government factors to the Coal Resources. The mining factors (such as recovery and dilution) have been defined from the proposed open cut mining method. No metallurgical factors are applicable as the ROM coal is sold as a raw coal without processing. The mine is not a producing mine and is therefore in the process of gaining the legal, environmental and government approvals to operate.

The Coal Reserves quoted in this Statement are based on a long-term coal price of US$40/t for PT Katingan Ria coal. This is based on the CRU International forecast dated February 2017. Based on the current spot price (US$41.75/t FOB Kalimantan 4,200 kcal/kg GAR coal, January 25th 2017), the project is economic and Reserves exist.

Pit Optimisation was carried out on the PT Katingan Ria deposit in a previous Mining and Barging Options Study conducted by Xenith in February 2013. This study delineated an area of the deposit that was economical to mine at a reasonably low product coal sales price. For this Statement, the optimiser was re-run with updated coal price and costing assumptions which showed the results of the previous study were still considered to be appropriate. The current PT Katingan Ria LOM pit (used in this Reserves Statement) was within the economic mining limits.

All the Coal Reserves are classified based on the level of detail completed in the mine planning and the level of confidence in the Resources. Coal Resources are reported inclusive of Coal Reserves (that is, Coal Reserves are not additional to Coal Resources).

To allow Realm to carry out coal mining operations and production at PTKR, PTKR must obtain the Borrow to Use Forestry Permit (Izin Pinjam Pakai) from the Minister of Forestry. PTKR received the Extended Principle Forestry License No. 11/1/PP-PKH/PMA/2015 dated 1 June 2015 regarding the extension of the Principle License to use the forestry area for coal production operation activity and its supporting facilities for PT Katingan Ria for the area of 3,058.25 Ha. The Company will only be in a position to progress this final permit stage when there is certainty regarding the development proposal and the timing thereof. In addition to the Borrow to Use Forestry Permit, the Company will also be required to obtain standard and ordinary course legal, regulatory and governmental approvals and permits which will be applied for once the Borrow to Use Forestry Permit has been obtained.

3. VALUATION

3.1 Financial Analysis

Base case project NPV (10%) valuation of US$57m based on a US$40.00/t long term coal price and US$32.24/t FOB cash cost forecasts.

Xenith built a financial model to confirm that the project is economically feasible after the application of all modifying factors. All financial modelling has been completed based on marketing a single product. Using the capital costs, operating costs and sales price assumptions combined with the life of mine plans, the financial models show the project to be economically feasible.

Table 4: - Summary of discounted cash flow valuation ranges for PTKR

Production Parameters	Units	Value
ROM Production	Mtpa	2.5
Product Coal	Mtpa	2.5
Average Strip Ratio	BCM:ROM t	3.5
Average Coal Price	USD/t	40
LOM Average Operating Cost (Real)	USD/Prod t	32.24
Capital Cost (LOM Real)	USD M	24.4
Net Present Value		
7.5% real discount rate	USD M	74
10% real discount rate	**USD M**	**57**
12.5% real discount rate	USD M	44

There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

3.2 Assumptions

The economic assumptions used in the financial evaluation of the mining operation are reasonable and are consistent with current mining industry practices in Kalimantan. A variety of sources have been used in determining key inputs, including quotes from contractors, independent reports, Xenith's cost database, The project feasibility study and build-up of costs from first principles. The key discounted cash flow assumptions used in the Xenith analysis include:

a) The estimated ore reserves and mineral resources underpinning the production target have been prepared by a competent person or persons in accordance with the requirement in Appendix 5A (JORC Code);

b) cash flow allocated to the Life of Mine ("LOM") schedule (from the 2013 Feasibility Study) of which 27.4 Mt is Probable JORC Reserve, 7 Mt is in the Inferred Resource category. It is noted the inferred coal is scheduled in the last 4 years of mine life. *Note: There is a low level of geological confidence associated with the inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised;*

c) typically, 2.5 Mtpa ROM, as per the 2013 Feasibility study;

d) a mine life of 16 years, as per the 2013 Feasibility study;

e) it is assumed all coal is mined and sold in the same year;

f) standalone operation using contract mining, as per the 2013 Feasibility study;

g) cash flow is discounted to 1st January 2017 on a 100% ungeared basis;

h) LOM average operating costs of $32.24/t based on a November 2016 operating cost update carried out by Britmindo (a breakdown of the operating cost is provided in Table 5 below);

i) LOM total capital costs of $24.4 million, which includes allowances for mine site development, haul road construction, river dredging, stockpile construction, land compensation, engineering and project management, sustaining capital and a 30% contingency (a breakdown of capital cost is provided in Table 6 below);

j) revenue assumptions are based on a long-term coal price of $40/t for PT Katingan Ria coal. This is based on the CRU International forecast dated February 2017; and

k) a discount rate of 10% (real) with a lower of 7.5% and an upper of 12.5% has been adopted based on discussions with Realm.

A summary of capital costs is given in the table below.

Table 5: - Operating Cost

Cost Structure	Units	Unit Cost (USD)
Direct Operating Cost		
O/B removal – Truck and Shovel	$/bcm	1.70
O/B removal – Dozer Push	$/bcm	0.80
Coal Mining	$/t	1.50
Indirect Operating Cost		
Coal Hauling ROM to Stockpile at Port (incl. Road Maint.) [41.1 km]	$/t/km	0.12
ROM Stockpile and Feed to Crushing Plant	$/t	1.00
Crushing	$/t	1.00
Barge Loading at Jetty Terminal	$/t	0.50

Cost Structure	Units	Unit Cost (USD)
Barging to Ship Loading Anchorage [130 km]	$/t/km	0.025
Barge Transfer	$/t	1.75
Barging to Ship Loading Anchorage [304 km]	$/t/km	0.020
Stevedoring floating crane etc	$/t	1.75
Quality Testing*	$/t	0.20
General & Administration Cost		
Community Development	$/t	0.15
Provision for Rehabilitation	$/t	0.20
Other fixed Costs (inclusive Demurrage)	$/t	0.15
Overhead Expenses	$/t	0.25
Marketing	% Coal Price	1%
VAT on Contracting Services	% Selected Costs	10%
Royalty	% Coal Price	5%
Total Costs FOB Mother Vessel	**US$/t**	**32.24**

Source: Britmindo (November 2016 Operating Cost Update)

Major risks to the Coal Reserve Estimate are a reduction in the thermal coal price and challenges associated with transporting the coal to market, namely barging on the Katingan River.

Table 6: - Capital Cost

Item	Cost (US$ M)
Mine Development – Mine Site	2.0
Haul Road	3.4
River Dredging	3.0
Upper Stockpile (USP)	2.2
Kasongan Staging Post	1.5
Land Compensation / Acquisition	1.0
Engineering and Project Management	1.1
Project Contingency (30%)	4.3
Total Capital	**18.5**
Working Capital Requirement	**5.9**
Total Capital + Working Capital	**24.4**
Sustaining Capital Expenditure (per Annum)	1.5

The table shows that the PT Katingan Ria project is not capital intensive. This is due to the use of local contractors through most stages of the project.

A summary of Life of Mine (LOM) operating costs is presented table below. The costs presented in the table below are from the November 2016 Britmindo Operating Cost Update.

4. GENERAL

4.1 Forward-looking assumptions

Preparation of the Statement required the Competent Person to adopt certain forward-looking assumptions including export coal price and mining cost assumptions. These assumptions are commercially confidential. Long-term export price assumptions are considered reasonable but may differ from actual prices. These types of forward-looking assumptions are necessarily subject to risks,

uncertainties, and other factors, many of which are outside the control of the Company. For the avoidance of doubt, neither the Competent Persons nor the Company makes any undertaking to subsequently update any forward-looking statements in this release to reflect events after the date of this release.

4.2 JORC Code 2012

The statement of Coal Resources and Reserves presented in this report has been prepared by Competent Persons in accordance with the JORC Code 2012. Additional materials with respect to detailed reporting for PTKR are included below.

The estimated ore reserves and mineral resources underpinning the production target have been prepared by a competent person or persons in accordance with the requirement in Appendix 5A (JORC Code).

4.3 Competent Persons

The information in this Announcement relating to coal resources and reserves is based on, and fairly represents, information compiled by Competent Persons (as defined in the JORC Code 2012, and listed below). All Competent Persons have at the time of reporting, sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as a Competent Person as defined by the JORC Code 2012. Each Competent Person consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

Coal Resources: Mr Troy Turner, Xenith Consulting Pty Ltd (Member AusIMM)

Coal Reserves: Mr Grant Walker, Xenith Consulting Pty Ltd (Member AusIMM)

See Appendix 3 for the relevant Competent Persons' Statements.

4.4 About Realm

The company's primary focus is creating shareholder value through the operation of the Foxleigh Mine in Central Queensland, while advancing development ready projects throughout the Australasian region. Additionally, Realm seeks to acquire value accretive coal operations and grow the Company into a mid-tier coal supplier.

Information on Realm Resources Limited is available on the Company's website at www.realmresources.com.au.

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APPENDIX 1 Additional Information - Coal Resources Estimates

1. Background

The Coal Resource estimate for PTKR is supported by the JORC Code 2012 Table 1 (Sections 1 to 3) documents provided in Appendix 4.

The following summary of information for the Coal Reserve estimate is provided in accordance with Listing Rule 5.8 of the ASX Listing Rules.

2. Geology and geological interpretation

The PT Katingan Ria site is characterised by undulating terrain with relatively steeply incised drainage paths to the south and east of the concession. Coal is observed as a series of flat lying seams ranging in thickness from 0.1m to 8m, interbedded with sediments ranging from extremely weathered to weathered sandstones. A granitic basement generally underlies the sequence.

The resource lies within a shallow dipping, multi seam deposit. Areas of the Lease are subject to gentle folding with dips ranging from six degrees to flat lying, with an average dip of approximately three degrees. The area has one major fault trending southwest to northeast which has become a natural divide within the deposit, with areas described as either south or north of this fault. The most laterally extensive seam is the Main Seam, which remains the predominant target seam for the project. The Main Seam typically ranges in thickness from 4.5m to 5.5m in areas to the southeast of the fault, and has an average total thickness of 3.9m across the total resource area. The Main Seam has a low raw ash averaging 10.6% (standardised to 17% moisture).

Seams stratigraphically above the Main Seam, known as the Upper Seam Sequence, generally occur in areas to the north of the major fault. The Upper Seam Sequence seams included in the Resource Estimate range in thickness from 0.3m to 2.7m but have a higher raw ash, averaging 18.2% (standardised to 17% moisture). The average cumulative coal thickness for the reported Upper Seam Sequence is approximately 3.7m, but with inclusion of the overlying D Seams, which have not been reported in the Resource Estimate, the average cumulative thickness increases to approximately 5.6m.

The Lower Seam Sequence, which occurs stratigraphically below the Main Seam, is generally found 5m to 15m below the Main Seam. The Lower Seam Sequence seams included in the Resource Estimate are thinner and have a moderate raw ash averaging 12.1% (standardised to 17% moisture). The average cumulative coal thickness for the reported Lower Seam Sequence is approximately 0.8m.

The coal from the project area presents as a typical low rank, sub-bituminous thermal coal with very low sulphur content and low nitrogen content. This coal also complies with the Argus Indonesian Coal Index (4,200 GAR).

Based on the results of the coal quality data, the coal contained within the Lease can be classified as a Sub-Bituminous, Type A Coal. This classification is based on the ASTM classification of Coals by Rank.

3. Sampling and sub-sampling techniques

Sampling of the core samples was undertaken at the drill site. Samples were identified and logged by the field geologists and then double bagged at the drill site before being transported to the fly camp for storage. Samples were sub-sampled based on minimum thickness criteria and the visual observation of stone bands or other geological boundaries.

4. Drilling techniques

Drilling has been conducted using both man-portable and track mounted drill rigs. These rigs are suitable for the task given the steep topography and lack of wide access tracks. The Drilling has included both open hole drilling with geophysics and slimcores (HQ core at 63mm). Drilling generally included pilot chip holes, before a core hole was planned to ensure maximum core recovery.

5. Criteria used for classification

Measured, Indicated and Inferred resource categories have been classified in the project depending on the level of confidence in the seam structure and continuity plus the level of variability in the coal quality data. No maximum distances between points of observation (POB) have been prescribed for the resource categories. The approach was to understand each seam's quality and quantity and variability thereof. By then assessing the variability domains of similar confidence (thickness, seam signature, quality and limited by faults) have been identified.

6. Sample analysis method

All coal samples were double bagged on site and transported to the laboratory for testing. The laboratory used was PT Geoservices at Banjarbaru, for earlier drillhole programs, and PT Geoservices Balikpapan for the latest drillhole program.

For more recent samples sent to Balikpapan, PT Geoservices, cored coal was sampled on a seam basis, with stone bands included within the sampled seam. Previous drill programs had already allowed for relatively accurate seam predictions.

Further laboratory analysis programs including float sink (F1.4, F1.6 and F1.8 sg), proximate analysis, ash fusion temperature, ultimate analysis, trace element analysis, chlorine and forms of sulphur analysis were undertaken on selected holes from the latest drill hole program only.

7. Estimation methodology

The geological model and resource estimate were constructed using Ventyx Minescape software (version 5.9), using the Finite Element Method (FEM) interpolator with (0, 1, 0) parameters for thickness, surface and trend respectively.

Cross Correlation plots of raw ash and RD were used to validate the data. Any outliers were excluded. The maximum extrapolation distance of 1000m from the last data point was used for the model. Limits were placed on the Resource Estimate in line with the 0.1m thickness cut-off applied to all coal seams. The model has been validated by checking cross sections, surface and thickness contours, and comparison with drillhole postings. Grid spacing is 10 m x 10 m.

8. Cut-off grade

Any coal seams less than 0.30m have been excluded from the resource estimate. Coal with raw ash higher that 50% has been excluded. The resource estimate has been limited to coal seams with a maximum depth of 100m below topographic surface.

9. Mining and metallurgical methods and modifying factors

The Project is planned as an open cut mine operated using a contractor to mine overburden and coal. The planned operation consists of an open cut haul back mining method using hydraulic loaders and rear dump trucks to dump both in-pit and ex-pit. Dozers will be utilised to move waste in certain areas. Coal will be transported from the pit by 60 t road trucks approximately 45 km (40 km in the early years as the pit commences in the southern portion of the Lease) to a stockpiling and barge loading facility on the Katingan River. Barges will then transport coal 435 km from the stockpile area to the River mouth for transhipment into coal ships for delivery to market.

Coal is planned to be sold "unwashed", meaning there is no metallurgical treatment required to achieve a saleable product. The coal is expected to predominately be sold as a high moisture, low energy thermal product to the export market with all ROM coal considered saleable product.

APPENDIX 2 Additional Information - Coal Reserve Estimates

1. Background

The Coal Reserve estimates for PTKR is supported by the JORC Code 2012 Table 1 provided in Appendix 4.

The following summary of information for the Coal Reserve estimate is provided in accordance with Listing Rule 5.9 of the ASX Listing Rules.

The statement of Coal Reserves presented in this report has been produced in accordance with the JORC Code 2012.

2. Economic assumptions

Xenith has developed an economic model from first principles which utilises the Discounted Cash Flow (DCF) methodology.

The model was built to confirm that the project is economically feasible after the application of all modifying factors. All financial modelling has been completed based on marketing a single product. Using the capital costs, operating costs and sales price assumptions combined with the life of mine plans, the financial models show the project to be economically feasible.

The economic assumptions used in the financial evaluation of the mining operation are reasonable and are consistent with current mining industry practices in Kalimantan.

The key discounted cash flow assumptions used in the economic model include:

- Standalone operation using contract mining;
- Cash Flow allocated to the Life of Mine ("LOM") schedule of 36.9 Mt, of which 27.4 Mt is Probable JORC Reserve, 7 Mt is in the Inferred Resource category and 3 Mt does not have a Resource category. It is noted the inferred and non-classified coal is scheduled in the last 4 years of mine life;
- Typically 2.5 Mtpa ROM;
- A mine life of 16 years;
- It is assumed all coal is mined and sold in the same year;
- Cash flow is discounted to 1st January 2017 on a 100% ungeared basis;
- A discount rate of 10% (real) with a lower of 7.5% and an upper of 12.5% has been adopted based on discussions with Realm;
- Revenue assumptions are based on a long-term coal price of $40/t for PT Katingan Ria coal;
- Xenith has applied a corporate tax of 30% to mining profits;
- The overall Royalty payable is 5% of coal sale price;
- Any residual value of plant and equipment is not considered to be material; and
- Costs and Value are in USD.

3. Criteria used for classification

Coal Reserves have been classified based on the confidence of the Coal Resources, the level of detail in the mine planning, and the level of risk associated with the project. All Indicated Resources have been classified as Probable Reserves. Measured Resources within the pit shell have also been

classified as Probable Reserves to reflect the preliminary stage of the project. No Inferred Resources have been reported in this estimate.

4. Mining and recovery factors

In the PT Katingan Ria open pit the Ore Reserve estimate is based on a conventional open pit mining operation.

The practical pit shell is based on the Lerchs-Grossman pit optimisation procedure. This shell has been used to estimate JORC Reserves. Other constraints included the Resource classification polygons, lease boundaries, and initial mining permit zone.

The selected method of mining will be conventional truck and shovel strip mining in combination with dozer push. This method suits the geometry of the deposit and in particular the shallow and outcropping nature of the coal. Dumping will take place ex-pit initially and subsequently in-pit as backfill when the open void is large enough.

5. Coal processing method

ROM Coal would be trucked from the mine site and dumped onto the ROM stockpile at the upper stockpile (USP). ROM Coal would be loaded to the bin hopper using a front-end wheel loader (FEL) and then crushed in the primary crusher (1 m to 200 mm).

From the USP, coal will be loaded onto barges and transported approximately 435 km on the Katingan River to the coast, where coal ships will be loaded for delivery to market.

The coal produced at the Project is not washed resulting in 100% yield. Therefore, Coal Reserve is equal to Marketable Reserve.

6. Cut-off grade

The mining factors applied to the Coal Resources model for deriving ROM Coal quantities have been selected based on the use of excavators and trucks. The assumption is that clean accurate mining practices will be adopted to avoid any downgrade in the coal quality. The process to convert in-situ to ROM coal and the application of mining factors incorporated the following assumptions:

- Minimum interburden (parting) thickness: The minimum parting thickness has been taken as 0.2 m. Interburden less than this thickness will be taken as ROM coal.
- Minimum seam thickness: It is assumed that only coal seams greater than or equal to 0.3 m in thickness will be mined as ROM coal. Coal less than this thickness will be treated as waste.
- Roof and floor dilution: 0.01 m has been applied at both the roof and floor for coal dilution to represent a selective mining operation where more time is taken to ensure ‘clean mining’.
- Roof and floor loss: 0.05 m has been applied to at both the roof and floor for coal loss. This represents an aggressive clean-up of the roof and floor to target a low ash product.
- Global loss: 7% of all coal mined has been assumed to be lost. This global allowance is made up of a geological loss, resulting from variations in the coal seams not captured in the geological model, and a mining loss that covers losses occurring along edges, including wedges and ramps.

The ROM geological model has been reported at 32% as received moisture

7. Estimation methodology

This revised Ore Reserve estimate is in line with Industry best practice standards and reported according to the guidelines set by the JORC Code, 2012 Edition.

Realm had previously released a Coal reserve in February 2013. This updated Reserve has 1.7 Mt less Probable Reserve than the February 2013 Reserve Estimate. There have been no updates to the geology model or no updates to the pit shell. The only update has been to the Resource/Reserve

polygons. Previously the JORC Resource and Reserve Estimate used circular JORC polygons as per the 2004 Code. In the February 2017 update, geological domaining has been used as per the 2012 Code. This slight difference in method accounts for the difference in Reserve.

Coal Resources are reported inclusive of Coal Reserves.

8. Modifying factors

The Project is located within Kabupaten Katingan and is governed by the laws of Indonesia.

Realm obtained its exploration mining license (formerly called Kuasa Pertambangan Eksplorasi) on 23 December 2008 for the mining area of 5,053Ha in the District of Marikit and Senaman Mantikei, Regency of Katingan, Province of Central Kalimantan. The mining license, in compliance with the Mining Law No. 4 of 2009, has been upgraded and converted into an Operation Production Mining License (Ijin Usaha Pertambangan Operasi Produksi) No. 545/222/KPTS/VIII/2011 dated 9 August 2011 for the area of 4,258Ha. which also has been adjusted due to the change composition of the Shareholder with the letter of the Regent of Katingan No. 540/208/KPTS/V/2013 regarding granting the IUP Production to PT Katingan Ria. Based on the new Law No. 23 of 2014 as a Foreign Investment Company the documents of the company shall be transferred to the Directorate General of Mineral and Coal, at present the Company on the process to obtain the adjustment of the IUP OP to be issued by the Minister of the Energy and Mineral Resources.

To allow Realm to carry out coal mining operations and production at PTKR, PTKR must obtain the Borrow to Use Forestry Permit (Izin Pinjam Pakai) from the Minister of Forestry. PTKR received the Extended Principle Forestry License No. 11/1/PPPKH/PMA/2 015 dated 1 June 2015 regarding the extension of the Principle Forestry License to use the forestry area for coal production operation activity and its supporting facilities for the area of 3,058.25 Ha. PTKR will only be in a position to progress this final permit stage when there is certainty regarding the development proposal and the timing thereof. In addition to the Borrow to Use Forestry Permit, PTKR will also be required to obtain standard and ordinary course legal, regulatory and governmental approvals and permits which will be applied for once the Borrow to Use Forestry Permit has been obtained.

Major risks to the Coal Reserve Estimate are a reduction in the thermal coal price and challenges associated with transporting the coal to market, namely barging on the Katingan River.

APPENDIX 3 Competent Persons' Statement

PT Katingan Ria Coal Resources

The information in this announce that relates to mineral resources is based on and fairly represents information and supporting documentation compiled by Mr Troy Turner who is a member of the Australasian Institute of Mining and Metallurgy (AusIMM Membership No. 227689).

Mr Troy Turner is a consultant working for Xenith Consulting Pty Ltd who has been engaged by Realm Resources Limited to prepare documentation for PT Katingan Ria Project.

Mr Troy Turner has five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC 2012).

Mr Troy Turner consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

PT Katingan Ria Coal Reserves

The information in this announce that relates to mineral resources is based on and fairly represents information and supporting documentation compiled by Mr Grant Walker who is a member of the Australasian Institute of Mining and Metallurgy (AusIMM Membership No. 230557).

Mr Grant Walker is a consultant working for Xenith Consulting Pty Ltd who has been engaged by Realm Resources Limited to prepare documentation for the PT Katingan Ria Project.

Mr Grant Walker has five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC 2012).

Mr Grant Walker consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

APPENDIX 4 JORC Code 2012 Table 1 for PTKR Coal Resources and Reserves

The following table provides a summary of important assessment and reporting criteria used at PT Katingan Ria for the reporting of exploration results, Coal Resources and Coal Reserves in accordance with the Table 1 checklist in The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition).

SECTION 1 - SAMPLING TECHNIQUES AND DATA
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary

Sampling Techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*
	• *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*
		• There have been four distinct phases of exploration on the PT Katingan Ria Project by Realm and one phase by Goku Resources.
		  • 2010: Goku Resources drilled 63 holes; the majority were rotary open holes, with a minor number of core holes drilled for coal quality testing. Less than 10% of the core holes were geophysically logged, which has limited their value in geological modelling. Field mapping has been conducted within the Lease, with many hundred coal outcrop locations mapped and photographed during 2010 and 2011.
		  • 2011 – 2012: Three phases of drilling completed by Realm Resources Ltd.
		  • 2011: Drilling was conducted over two phases, May and August. The May drilling completed 18 drill holes, the August drilling completed 10 drill holes
		  • 2012: Drilling was completed in January and February total 14 drill holes.
		  • 2012: Drilling was completed in September to November totaling 18 drill holes, comprising 6 chip holes and 12 core holes.
		• All coal samples were double bagged on site and transported to the laboratory for testing. The laboratory used was PT Geoservices at Banjarbaru, for earlier drillhole programs, and PT Geoservices Balikpapan for the latest drillhole program.
		• Cored samples sent to Banjarbaru, PT Geoservices, were sampled on a ply basis and samples were then combined at the laboratory once seam correlations

Criteria	JORC Code Explanation	Commentary
		had been completed. All laboratory services were conducted to the relevant standards • For more recent samples sent to Balikpapan, PT Geoservices, cored coal was sampled on a seam basis, with stone bands included within the sampled seam. Previous drill programs had already allowed for relatively accurate seam predictions. • Further laboratory analysis programs including float sink (F1.4, F1.6 and F1.8 sg), proximate analysis, ash fusion temperature, ultimate analysis, trace element analysis, chlorine and forms of sulphur analysis were undertaken on selected holes from the latest drill hole program only.
Drilling Techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	• Drilling activities conducted in 2011-2012 consisted of 29 (99mm) open holes and 31 (63mm) coal quality cored holes.

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr><td>Drill Sample Recovery</td><td>

Method of recording and assessing core and chip sample recoveries and results assessed.
Measures taken to maximise sample recovery and ensure representative nature of the samples.
Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.

</td><td>

Core recovery using a volumetric calculation for the particular ply had to be greater than 90%, unless the sample could be confirmed representative of the seam/ply by other methods including photo and geophysical log review;
Each seam had to have a core recovery of 90%; anything below this resulted in a low confidence and was not used as a valid point of observation for that particular seam

No relationship between core recovery and coal quality results has been proven.
</td></tr>
<tr><td>Logging</td><td>

Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.
Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.
The total length and percentage of the relevant intersections logged.

</td><td>

2010: Less than 10% of core holes were geophysically logged
2011-2012: All core and chip samples have been logged geologically in the field on a ply level.
The sample depths were subsequently corrected to geophysical logs.
The level of detail is deemed appropriate to support resource estimation.
Core photos have been taken, showing depths and sample intervals. Core recoveries have been determined on a length basis.
Velseis Indonesia, PT Golden Star Energy and Coal Logging Indonesia conducted geophysical logging. All holes were logged using coal combination sonde. The following logs are available in paper format:

<table>
<tr><td>GAMMA FROM DENSITY TOOL</td></tr>
<tr><td>LONG SPACED DENSITY</td></tr>
<tr><td>BED RESOLUTION DENSITY</td></tr>
<tr><td>CALIPER FROM DENSITY</td></tr>
</table>
</td></tr>
</table>

Criteria	JORC Code Explanation	Commentary
Sub-Sampling Techniques and Sample Preparation	⁾ *If core, whether cut or sawn and whether quarter, half or all core taken.* ⁾ *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* ⁾ *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* ⁾ *Quality control procedures adopted for all sub-sampling stages to maximise "representivity" of samples.* ⁾ *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* ⁾ *Whether sample sizes are appropriate to the grain size of the material being sampled.*	⁾ Core samples were split along natural bedding planes. ⁾ Full core samples were taken. The sample preparation techniques, quality control procedures could not be assessed as all works were done before Xenith was engaged in the project.
Quality of Assay Data and Laboratory Tests	⁾ *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* ⁾ *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* ⁾ *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	⁾ Xenith cannot clearly verify the sample preparation as it happened before Xenith's involvement in the project. These holes have assisted with defining the broad area of the coal sequence but have not been used in as POB's. ⁾ Validation of the coal quality analysis data consisted of statistical histograms and cross correlation plots of relevant variables such as relative density and ash content etc. ⁾ The assay provided is appropriate for resource estimation. ⁾ LAS (logged ASCII standard) data files were supplied for each of the boreholes drilled. All geophysical picks by Xenith were based on the 1:20 scale Seam Thickness Log for each hole. A majority of holes had a 1:100 Coal Lithology Log and a 1:20 Coal Quality Log as well as the Seam Thickness Log associated with it. The suite of logs loaded into the borehole database are shown below: GAMMA FROM DENSITY TOOL LONG SPACED DENSITY BED RESOLUTION DENSITY

Criteria	JORC Code Explanation	Commentary
		CALIPER FROM DENSITY
Verification of Sampling and Assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• PT Geoservices comply with the Australian Standards for coal quality testing and as such conduct the verifications for coal quality analysis outlined in the standards. • No twinned holes have been used to verify assay data. • Data queries are generated through verification software and standard checks. Any result that falls outside expected tolerances is highlighted to the laboratory for follow-up and secondary analysis if required. No known adjustments have been made to the coal quality data.
Location of Data Points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Holes drilled prior to Xenith's involvement have not listed the survey method in the Company Reports. From electronic data and written reports it was evident that the pilot hole and core hole that were drilled on one site were given the exact same coordinates. All coordinates were reported to 2 decimals indicating accurate surveying may have been performed. • The coordinate system used in the model is World Geodetic System 1984 (WGS84), Zone 49s.

Criteria	JORC Code Explanation	Commentary
Data Spacing and Distribution	) *Data spacing for reporting of Exploration Results.*) *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*) *Whether sample compositing has been applied.*	) The average borehole distance is approximately 390m between boreholes.) Samples were composited (and weight averaged) within the Stratmodel software per seam/ply. The spacing is sufficient to support the resource classification as outlined in this report.
Orientation of Data In Relation to Geological Structure	) *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*) *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	) There is some evidence of faulting in the Lease. These faults have been included in the geological model.) Sampling is not biased in terms of orientation.) All drill holes are vertical to intersect the relatively flat- lying coal bed stratigraphy
Sample Security	) *The measures taken to ensure sample security.*	) Xenith is not aware of any specific chain of custody arrangements that existed during any of the exploration phases.
Audits or Reviews	) *The results of any audits or reviews of sampling techniques and data.*	) No known audits or reviews of sampling techniques.

SECTION 2 - REPORTING OF EXPLORATION RESULTS
(Criteria listed in the preceding section also apply to this section)

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr><td>Mineral Tenement and Land Tenure Status</td><td>

Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.
The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.

</td><td>

Tenement Details

<table>
<tr><th>Tenure Type</th><th>Tenure Number</th><th>Interest</th><th>Principal Holder</th></tr>
<tr><td>IUP</td><td>IUP Prod No. 540/208/KPTS/V/2013</td><td>100%</td><td>Realm Resources Ltd.</td></tr>
</table>
Overlapping tenure: the Company's application to upgrade its exploration forestry permit at the PT Katingan Ria Project to operational status was approved, in principle, by the Indonesian Ministry of Forestry (Extended Principle License No. 11/1/PP-PKH/PMA/2015 dated 01 June 2015 regarding the extension of the Principle License to use the forestry area for coal production operation activity and its supporting facilities for PT Katingan Ria for the area of 3.058,25 Ha.
</td></tr>
<tr><td>Exploration Done by other Parties</td><td>

Acknowledgment and appraisal of exploration by other parties.

</td><td>

Previous exploration undertaken on the PT Katingan Ria Project occurred in 2010 and was conducted by Goku Resources
63 holes drilled, the majority were rotary open holes, with a minor number of core holes drilled for coal quality testing. Less than 10% of the core holes were geophysically logged.
Field mapping has been conducted within the Lease, with many hundred coal outcrop locations mapped and photographed during 2010 and 2011.

</td></tr>
<tr><td>Geology</td><td>

Deposit type, geological setting and style of mineralisation.

</td><td>

The Lease is contained within the Barito Basin that occupies a large area of central and southern Kalimantan. The Basin is asymmetrical and opens to the Java Sea to the south. It is bounded in the west by the Schwaner Shield and to the north by the Adang fault which separates the Barito and Kutei Basins.
The coal sequence is found within the Dahor Formation which is composed of fine to coarse grained sandstone of a bluish grey colour. Coal beds have been previously identified from outcrop mapping at a range of thickness from 0.3m to 8.0m. The Formation has been designated as Middle Pliocene to Pleistocene in age.
Structurally, the thickness is estimated to be 300m in total and may thicken in a north easterly direction. The Dahor Formation overlies the Sepauk Tonalite Formation, which comprises granitic rocks with equi-granular texture, made up of diorite, monzonite, tonalite and granodiorite. These rocks are observed as occasional boulders along the logging tracks in the eastern portion of the lease area.

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</table>

Criteria	JORC Code Explanation	Commentary
		) There are 20 identified coal seams within the lease area, though not all coal seams are present over the entire lease area due to folding and/or faulting. The Main Seam is the most consistent and laterally extensive coal seam over the lease area, and is considered the primary target of the project. The Main Seam has an average dip of approximately three degrees.) The Upper Seam Sequence consists of seams overlying the Main Seam and is represented by seams I, H, G, F, E, D3, D2, D1, C1, C, B, A2 and A1 in downhole order.
Drill Hole Information	) *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.*) *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	) Please see complete drill hole table in Appendix 6.) All holes are considered vertical. No deviation data has been used as hole deviation is not material considering the shallow depths and low angle dip of the strata.

Criteria	JORC Code Explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Coal quality samples have been composited by mass % weighted averaging, apart from relative density which is weight averaged by volume %. • High ash values have been included as long has the interval is classified as being part of the seam/ply.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• All drilling is conducted in vertical holes. All coal intersections and down-hole geophysics are vertical thickness, as the seam dips are sub-5 degrees this thickness is considered true thickness. • Lateral coal seam continuity is demonstrated by seam intercepts within surrounding boreholes confirmed by geophysical logging.

Criteria	JORC Code Explanation	Commentary
Diagrams	) *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	) All maps are shown in the report body.
Balanced reporting	) *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	) Xenith believes this report gives a true representation of the PT Katingan Ria Project resource, based on the information available.) All available data has been used unless it has been deemed unreliable or not representative.
Other substantive exploration data	) *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	) No other substantive exploration data has been collected.
Further work	) *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*) *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	) Xenith previously recommended the drilling of at least three additional drill holes in the north of the Lease, to define D Seam extents and potentially convert these seams to the Inferred category.) Scope for pre-production drilling will be required upon completion of mine design to assist in box-cut design and further mine planning within the start-up area. This will likely entail a series of closely spaced boreholes.

SECTION 3 - ESTIMATION AND REPORTING OF MINERAL RESOURCES
(Criteria listed in Section 1, and where relevant in Section 2, also apply to this section)

Criteria	JORC Code Explanation	CP Comments
Database Integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	Exploration data from the 2010 exploration phase was deemed not valid for use as a point of observation for this resource estimate. Xenith have also validated all data prior to modelling.
Site Visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	Numerous site visits were undertaken during the 2011 and 2012 drilling phases by Xenith. Given the geological nature of the deposit and the similarity to other deposits 'the Competent Persons' existing knowledge of the area is deemed sufficient.
Geological Interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	The geology of the deposit is generally well understood including areas of faulting. The main areas of uncertainty are the areas around the edges of the drilled area The resource classification is to a large extent guided by the occurrence of faulting, and seam/ply splitting, in addition to borehole and quality data density. The effect of alternative interpretations in seam correlations would be a relatively unchanged total tonnage, but the effect on resource categorisation/domaining could be a reduction in Inferred resource. Factors affecting continuity in quality and geology would likely be syn-depositional variations such as changes in energy, as well as erosional features, channels etc.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The total resource area roughly measures 6km x 6km The depth of the seam intersected in boreholes ranges from 20m to 60m.
Estimation and Modeling Techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation*	The geological model and resource estimate were constructed using Ventyx Minescape software (version 5.9), using the Finite Element Method (FEM) interpolator with (0, 1, 0) parameters for thickness, surface and trend

Criteria	JORC Code Explanation	CP Comments
	parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	respectively. • Cross Correlation plots of raw ash and RD were used to validate the data. Any outliers were excluded. • The maximum extrapolation distance of 1000m from the last data point was used for the model. • Limits were placed on the Resource Estimate in line with the 0.1m thickness cut-off applied to all coal seams. • The model has been validated by checking cross sections, surface and thickness contours, and comparison with drillhole postings. • Grid spacing is 10 m x 10 m.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content*	• The tonnages are estimated on an in-situ basis. • The Preston-Sanders equation has been used to calculate the in-situ density. The in-situ moisture has been fixed at 17% for tonnage calculation purposes.
Cut-Off Parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Any coal seams less than 0.30m have been excluded from the resource estimate. • Coal with raw ash higher that 50% has been excluded.

Criteria	JORC Code Explanation	CP Comments
		• The resource estimate has been limited to coal seams with a maximum depth of 100m below topographic surface.
Mining Factors or Assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions.*	• Xenith has assumed an open cut, thin seam mining operation. • The method presumes seams down to a minimum of 0.3 m to be extractable. • Some seams have been excluded from resource estimation due to limited borehole intersections or low confidence in seam continuity.
Metallurgical Factors or Assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Raw coal proximate determined from drillholes have been modelled where available. Analysis of the coal quality data shows the most likely product for this coal is a low energy steaming product. It is expected the coal will be sold as raw product and will not require beneficiation. Therefore, no metallurgical factors have been applied.
Environmental Factors or Assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a Greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• The PT Katingan Ria Project is currently covered by a Forestry Area Permit.

Criteria	JORC Code Explanation	CP Comments
Bulk Density	) *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*) *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.*) *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	) In-situ Relative Density Estimation – The in-situ density of the coal seams has been estimated using the Preston Sanders in situ relative density estimation equation.) In situ moisture has been fixed to 17% to moisture correct laboratory derived air dried relative density values.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *a) Whether the result appropriately reflects the Competent Person's view of the deposit.*	) Measured, Indicated and Inferred resource categories have been classified in the project depending on the level of confidence in the seam structure and continuity plus the level of variability in the coal quality data. No maximum distances between points of observation (POB) have been prescribed for the resource categories. Instead each seam's quality and quantity and variability thereof have been assessed and domains of similar confidence (thickness, seam signature, quality and limited by faults) have been identified.
Audits or Reviews	) *The results of any audits or reviews of Mineral Resource estimates.*	) No audits have been undertaken. The client has not commissioned any further studies and or reviews until certainty around permitting and approvals is secured.
Discussion of Relative Accuracy/ Confidence	) *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion*	) No geostatistical analyses have been undertaken. Such studies will possibly be of value in the future when a wider range of borehole distances are available. However, seams characteristics can be unchanged for extensive distances, but rapidly change over a very short distance, which could make the use of geostatistical methods unsuitable for determination of confidence levels, particularly for relatively small datasets.) Factors that could affect accuracy include unknown fault structures between completed boreholes, seam washouts in roof or inseam stone bands

Criteria	JORC Code Explanation	CP Comments
	of the factors that could affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	developing, the weather profile around outcrops due to the topographic variations in the project area.

SECTION 4 - ESTIMATION AND REPORTING OF ORE RESERVES
(Criteria listed in Section 1, and where relevant in Sections 2 and 3 of Table 1, also apply to this section)

Criteria	JORC Code Explanation	CP Comments
Mineral Resource estimate for conversion to Ore Reserves	) *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*) *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	) The JORC Reserve is based on the February 2017 JORC Resources Statement, also reported in this document. The Coal Resources Statement was signed by Mr Troy Turner, a Competent Person under the Code and an employee of Xenith.) Coal Resources are reported inclusive of Coal Reserves.
Site visits	) *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*) *If no site visits have been undertaken indicate why this is the case.*	) A site visit was conducted for the 2013 Resource and Reserves Statement. Since this time nothing has changed at site and another site visit has not been completed.
Study status	) *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*) *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	) The Project is a Greenfields site in Central Kalimantan, Indonesia. Production is proposed to begin in 2018 with peak production of 2.5 Mt from 2020.[2]
Cut-off parameters	) *The basis of the cut-off grade(s) or quality parameters applied.*	) Xenith has designed a practical pit shell based on the Lerchs-Grossman pit optimisation procedure. This shell has been used to estimate JORC Reserves. Other constraints included the Resource classification polygons, lease boundaries, and initial mining permit zone.
Mining factors or assumptions	) *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*) *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.*	) Reasonable factors have been used for roof and floor loss, dilution and minimum coal parting thickness as well as diluting material properties. An overall slope of 45 degrees has been assumed due to lack of geotechnical data. Coal quality is as per the geological model combined with loss, dilution and moisture adjustments.

[2] This production target must be read in conjunction with the cautionary statement on page 1 that "there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised."

Criteria	JORC Code Explanation	CP Comments
	) *The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.*) *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).*) *The mining dilution factors used.*) *The mining recovery factors used.*) *Any minimum mining widths used.*) *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*) *The infrastructure requirements of the selected mining methods.*	
Metallurgical factors or assumptions	) *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*) *Whether the metallurgical process is well-tested technology or novel in nature.*) *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.*) *Any assumptions or allowances made for deleterious elements.*) *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole.*) *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	) No metallurgical factors or assumptions have been employed as the ROM coal is crushed and sold without processing.) The coal produced at the Project is not washed resulting in 100% yield. Therefore, Coal Reserve is equal to Marketable Reserve.
Environmental	) *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	) The land use status on the Project is production forest.) Reclamation and rehabilitation obligations with respect to construction, operation and ultimate closure of the Mining Operations Area are consistent with the RKAB submitted in support of the IUP OP mining licence.) In order to comply with environmental regulations and requirements, the Company completed its environmental

Criteria	JORC Code Explanation	CP Comments
		analysis document (Analisa Mengenai Dampak Lingkungan or AMDAL) along with its environmental management plan (Rencana Kelola Lingkungan), environmental monitoring plan (Rencana Pemantauan Lingkungan) and feasibility study all of which were approved under the Bupati approval No. 660.1/155/KPTS/V/2011 dated 6 May 2011. • Environmental monitoring activities have not been undertaken as part of the work to date. This would form part of the ongoing programme requirements to be implemented from start-up.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The major infrastructure requirements for the project are the Mine Infrastructure Area (MIA), Upper Stockpile (USP) area consisting of stockpile, crusher and barge loading facilities and the Kasongan Staging Point (KSP) consisting of barge to barge loading facilities and a coal sampling laboratory. • Coal will be hauled approximately 45 km by road from the mine to the Upper Stockpile (USP). Initially, this haulage distance will be lower (40 km) as the mine commences in the southern portion if the Lease, decreasing the haul. From the USP, coal will be loaded onto barges and transported approximately 435 km on the Katingan River to the coast, where coal ships will be loaded for delivery to market. • Barging is considered one of the most critical processes for the PT Katingan Ria project.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*	• Xenith has developed a mining options study for PT Katingan Ria for which Realm have supplied input. Costs have been obtained from liaison with Realm personnel; first-principles build ups by Xenith, and from Xenith's internal database. Xenith is of the opinion the costs used (both capital and operating) are appropriate for this deposit.

Criteria	JORC Code Explanation	CP Comments
	• *The allowances made for royalties payable, both Government and private.*	
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• The Reserves are based on the long-term Indonesian thermal coal price of US$40/t for PT Katingan Ria coal. This is based on the CRU International forecast dated February 2017. Based on the current spot price (US$41.75/t FOB Kalimantan 4,200 kcal/kg GAR coal, January 25th 2017), the project is economic and Reserves exist.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• The international seaborne thermal coal market is the basis of the supply and demand dynamics of the thermal product coal from this deposit. It is believed any production from Realm will be absorbed by this market demand.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• Xenith has developed a project discounted cash flow model. • At a discount rate of 10%, the project NPV is US$57M. At 7.5% discount rate, the value is US$74M and at 12.5% the value is US$44M.[3] • A sensitivity to coal price, operating cost, and capital cost has been run and the project is most sensitive to coal price movements, flowed by movements in operating cost. The estimated ore reserves and mineral resources underpinning the production target have been prepared by Competent Persons in accordance with the requirements of Appendix 5A (JORC Code).

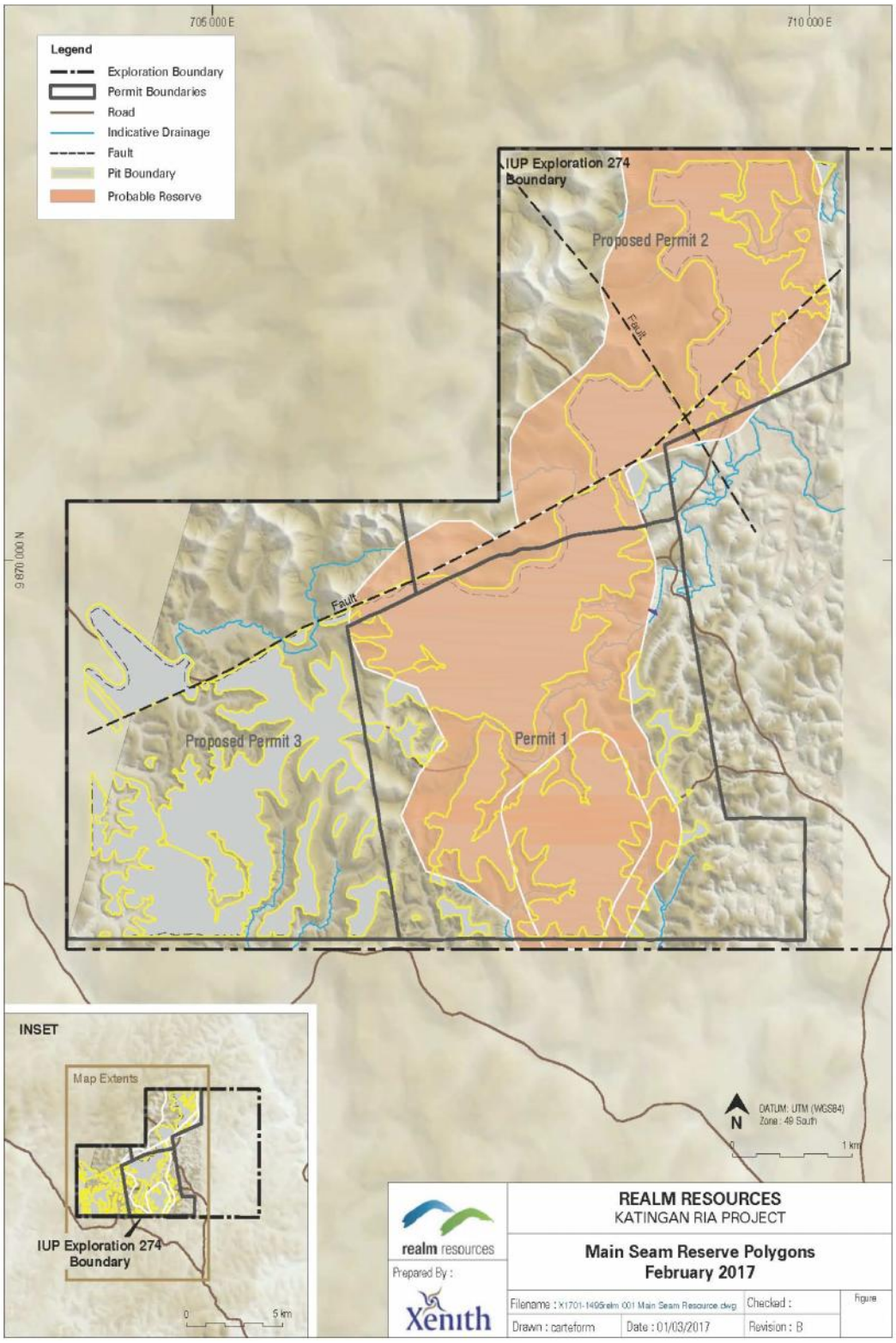
[3] This production target is in part based on inferred Coal Resources. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

Criteria	JORC Code Explanation	CP Comments
Social	) *The status of agreements with key stakeholders and matters leading to social licence to operate.*	) The Project area is unpopulated with the surrounding areas also sparsely populated with land used primarily for subsistence farming. Although it is unpopulated, the locals believe that the forest is owned by community under the traditional rules.) The closest community to the project is the village of Tumbang Atei located about 10km, as-the-crow-flies, to the east of the concession area.
Other	) *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:*) *Any identified material naturally occurring risks.*) *The status of material legal agreements and marketing arrangements.*) *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	) Realm obtained its exploration mining license (formerly called Kuasa Pertambangan Eksplorasi) on 23 December 2008 for the mining area of 5,053Ha in the District of Marikit and Senaman Mantikei, Regency of Katingan, Province of Central Kalimantan.) The mining license in compliance with the Mining Law No.4 of 2009, has been converted to IUP Exploration No. 274 of 2009 and upgraded to an Operation Production Mining License No. 545/222/KPTS/VIII 2011 dated 9 August 2011 which also has been adjusted due to the change composition of the Shareholder with the letter of the Regent of Katingan No. 540/208/KPTS/V/2013 regarding granting the IUP Production to PT Katingan Ria. Based on the new Law No. 23 of 2014 as a Foreign Investment Company the documents of the company shall be transferred to the Directorate General of Mineral and Coal, at present the Company on the process to obtain the adjustment of the IUP OP to be issued by the Minister of the Energy and Mineral Resources.) In order to comply with environmental regulations and requirements, the Company completed its environmental analysis document (Analisa Mengenai Dampak Lingkungan or AMDAL) along with its environmental management plan (Rencana Kelola Lingkungan), environmental monitoring plan (Rencana Pemantauan Lingkungan) and feasibility study all of which were approved under the Bupati approval No. 660.1/155/KPTS/V/2011 dated 6 May 2011.) To allow the Company to carry out coal mining operations and production, the Company must obtain the Borrow to Use Forestry Permit (Izin Pinjam Pakai) from the Minister of Forestry, this was lodged by the Company on 29 January 2012. The Company received the Extended Principle License No. 11/1/PP-

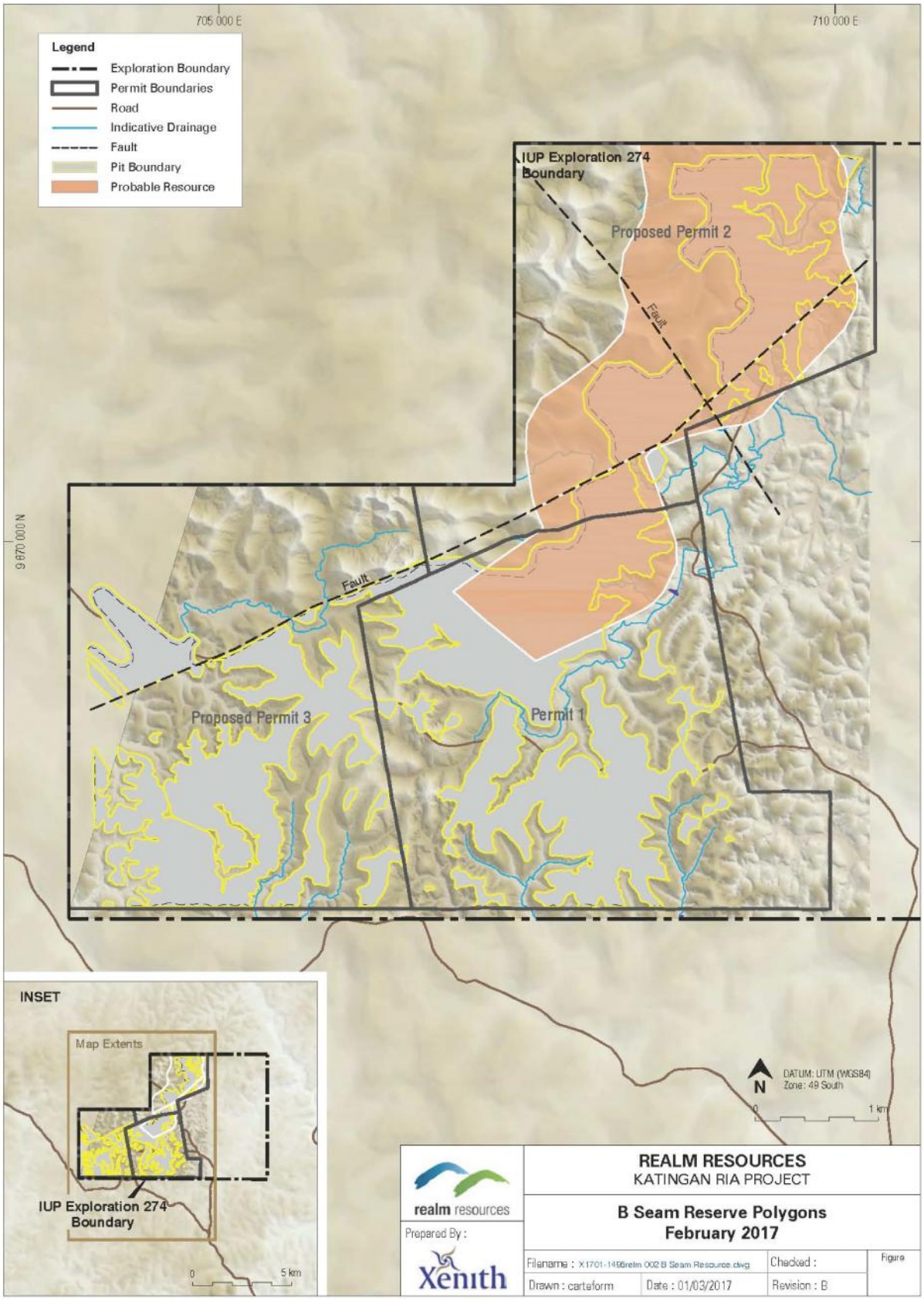
Criteria	JORC Code Explanation	CP Comments
		PKH/PMA/2015 dated 01 June 2015 regarding the extension of the Principle License to use the forestry area for coal production operation activity and its supporting facilities for PT Katingan Ria for the area of 3.058,25 Ha.
Classification	) *The basis for the classification of the Ore Reserves into varying confidence categories.*) *Whether the result appropriately reflects the Competent Person's view of the deposit.*) *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	) Measured Resources within the pit shell have been classified as "Probable Reserves". Indicated Resources have been classified as "Probable Reserves". No Inferred Resources have been used in this estimate.
Audits or reviews	) *The results of any audits or reviews of Ore Reserve estimates.*	) As per findings in this review, plus internal reconciliation and peer review.
Discussion of relative accuracy/ confidence	) *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*) *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*) *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*) *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	) The Reserves are based on the long-term Indonesian thermal coal price of US$40/t for PT Katingan Ria coal. This is based on the CRU International forecast dated February 2017. Based on the current spot price (US$41.75/t FOB Kalimantan 4,200 kcal/kg GAR coal, January 25th 2017), the project is economic and Reserves exist.

APPENDIX 5 Geological Model Plots

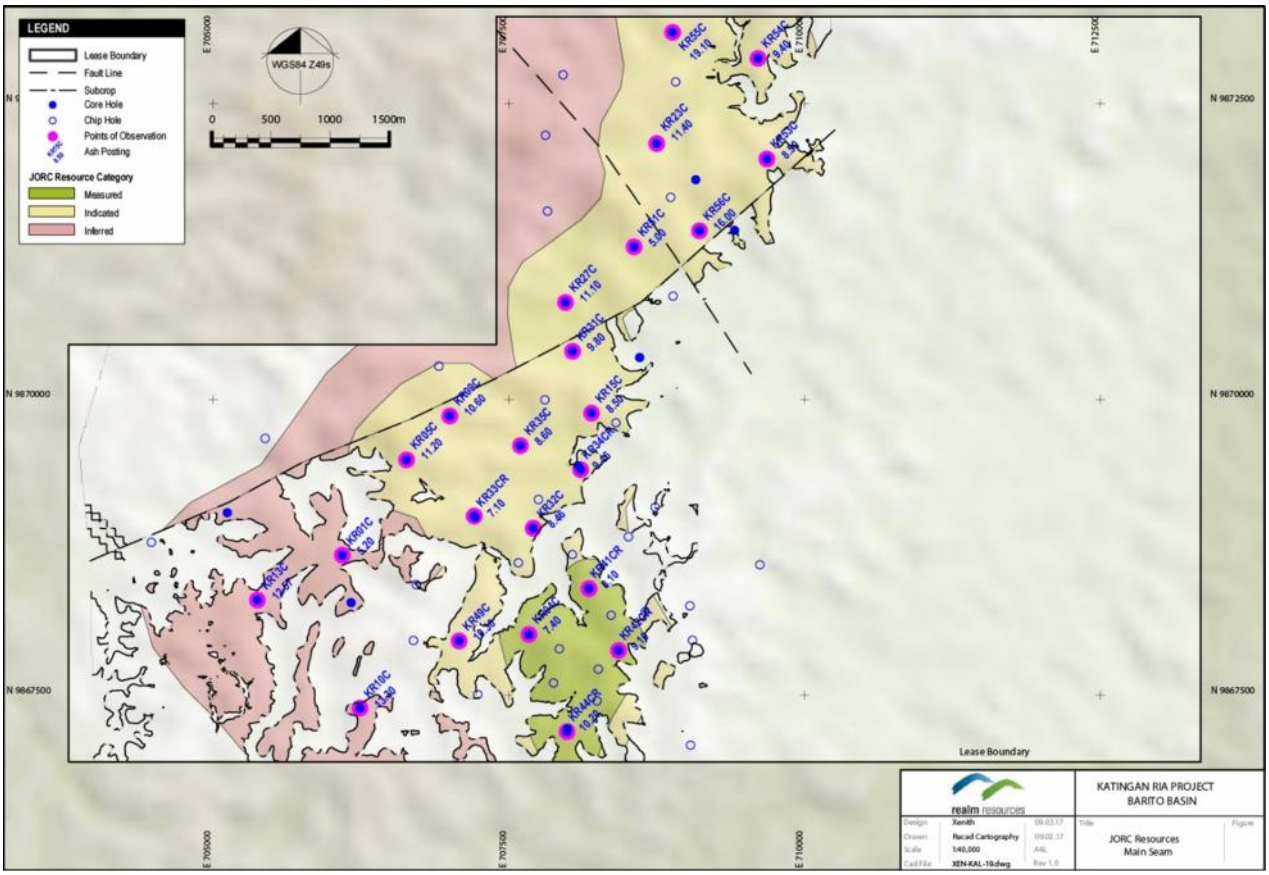
1. Figure 1 – Main Seam JORC Reserve Polygon



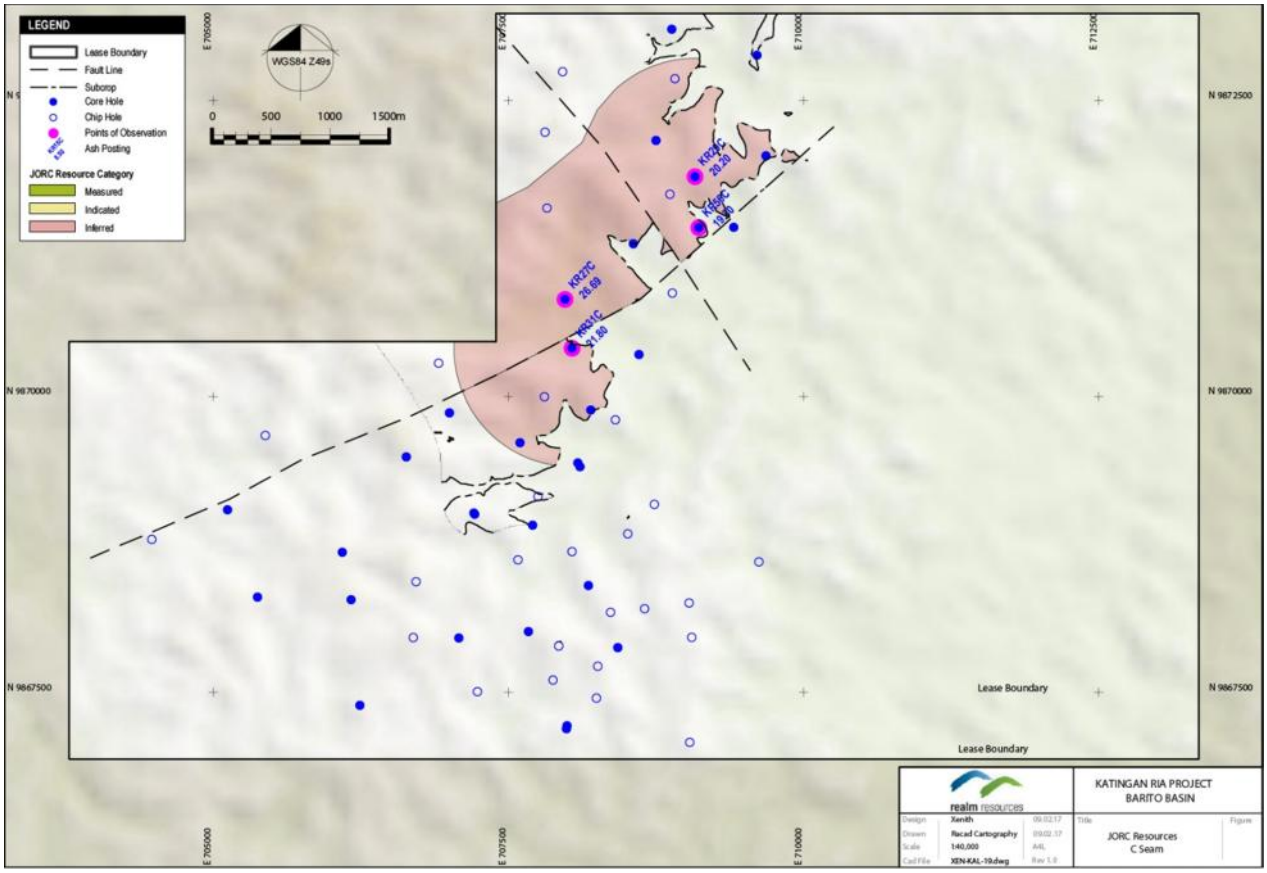
2. Figure 2 – B Seam JORC Reserve Polygon



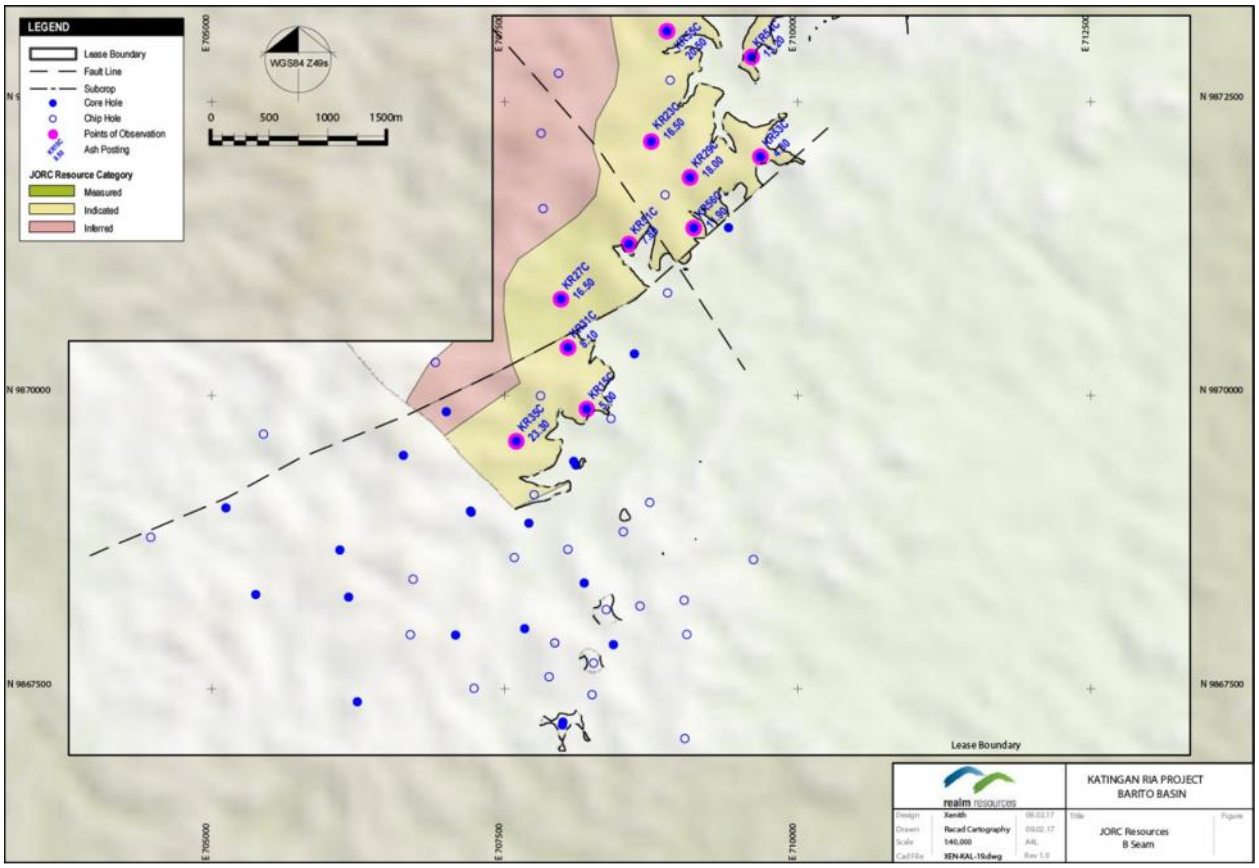
3. Figure 3 – Main Seam JORC Resource Polygon



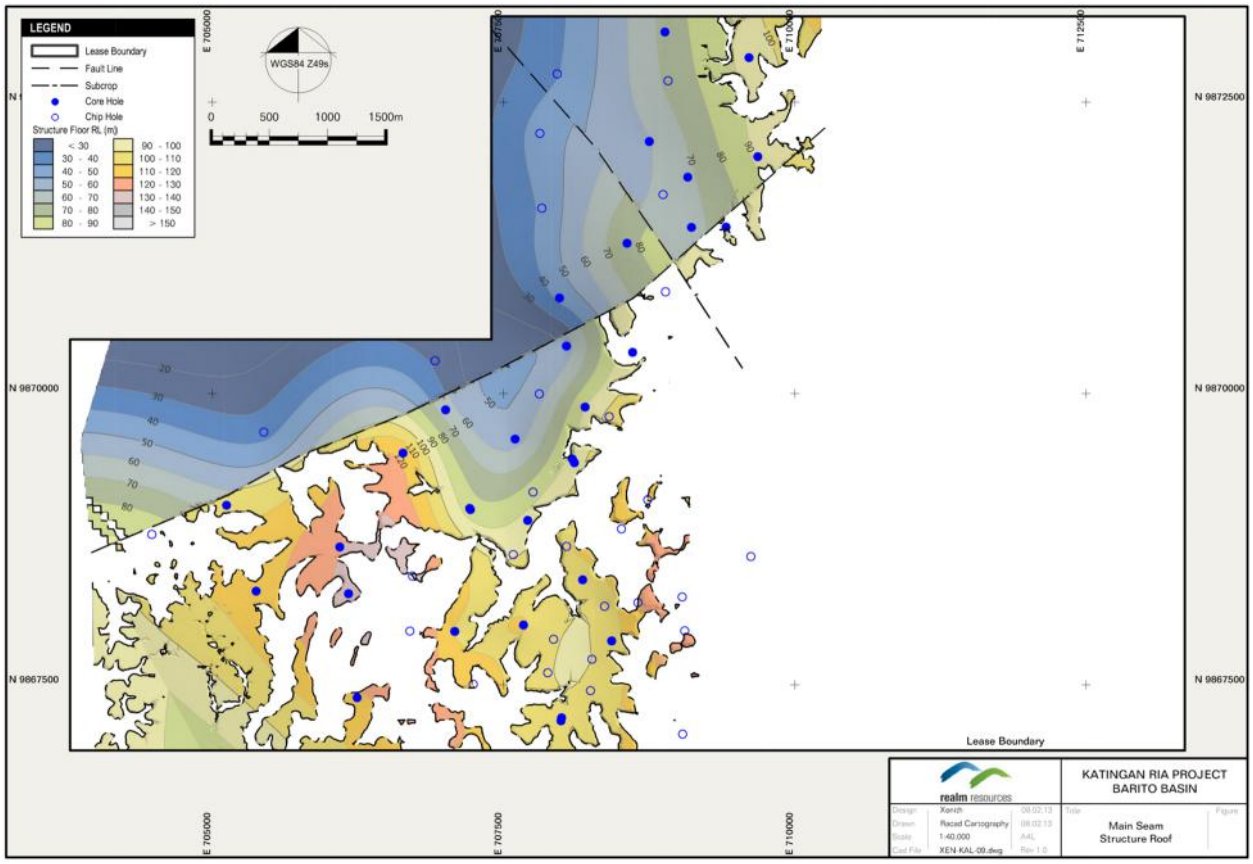
4. Figure 4 – C Seam JORC Resource Polygon



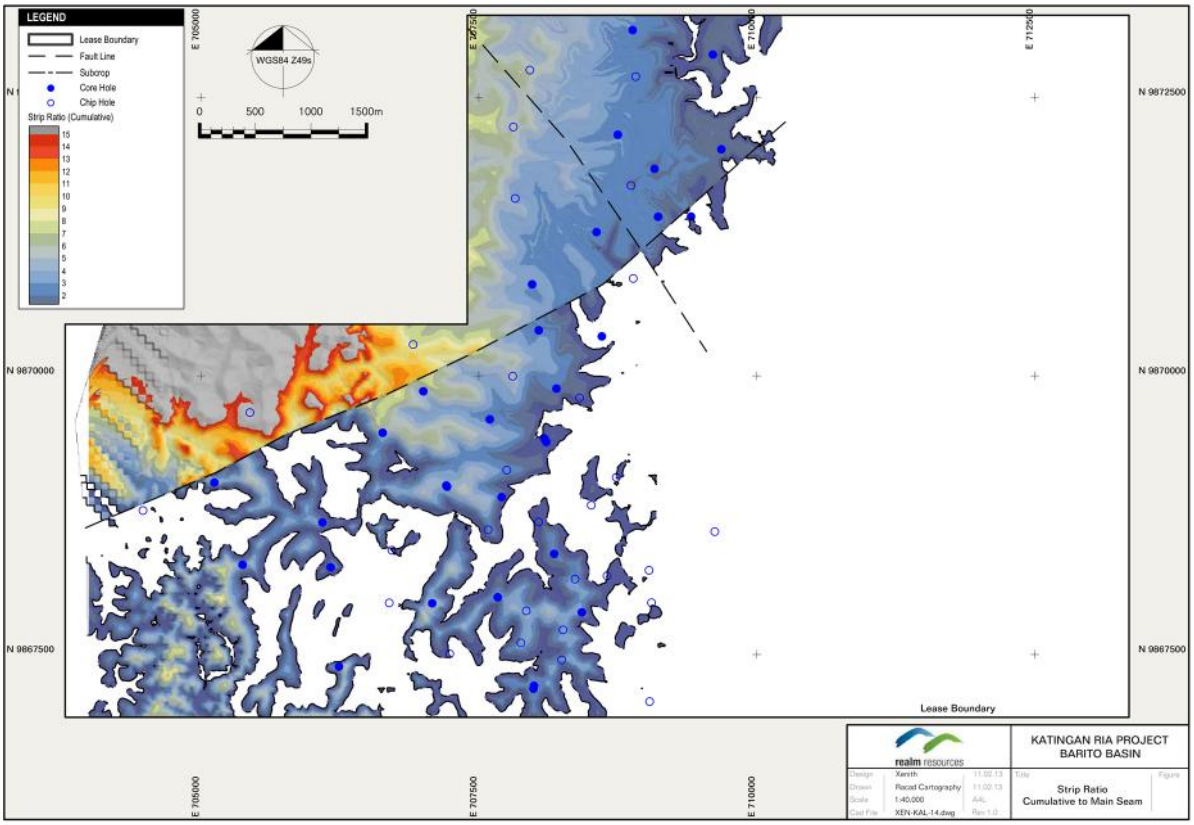
5. Figure 5 – B Seam JORC Resource Polygon



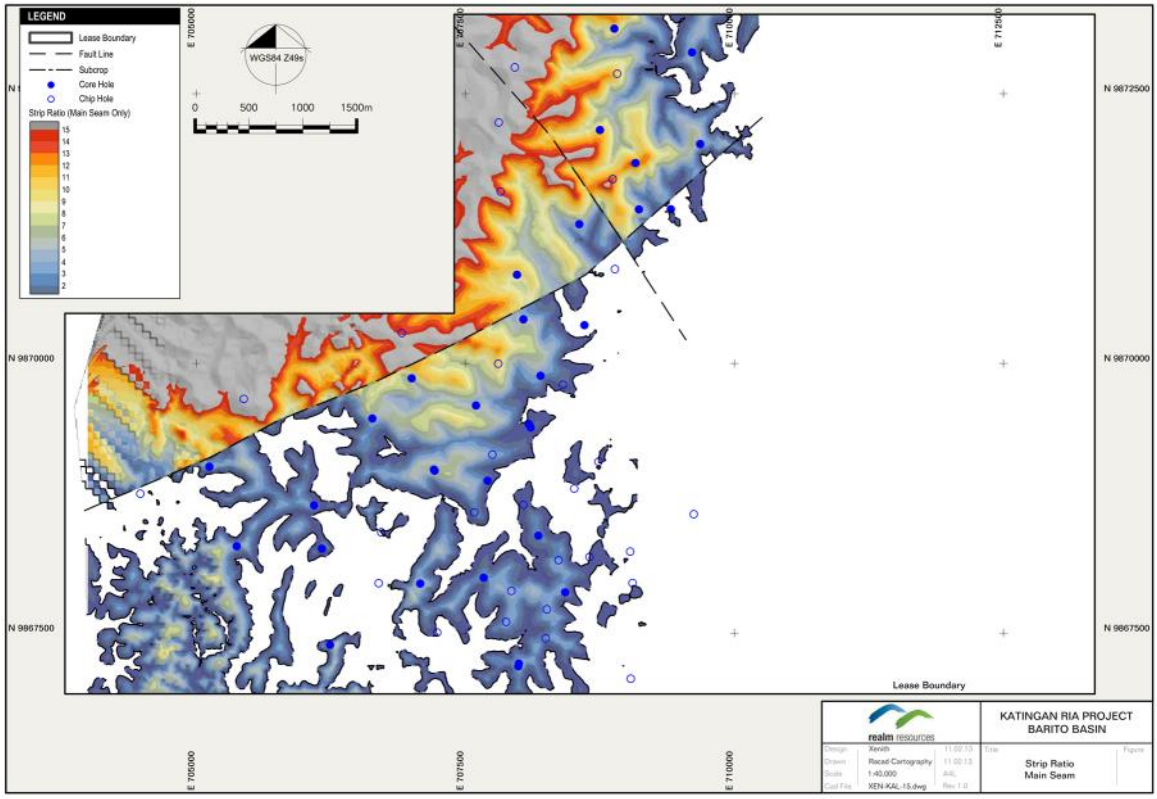
6. Figure 6 – Main Seam Roof Contours



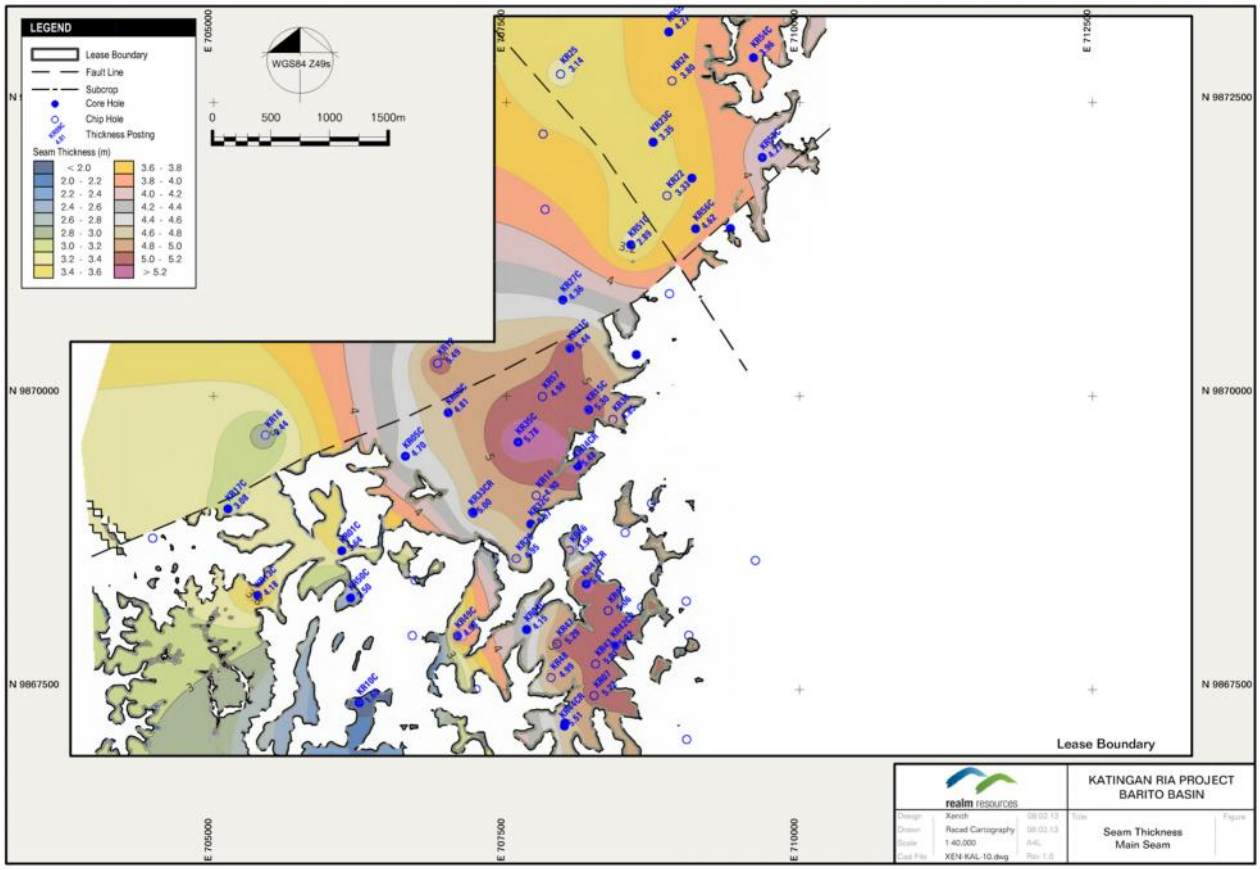
7. Figure 7 – Main Seam Strip Ratio (including overlying seams)



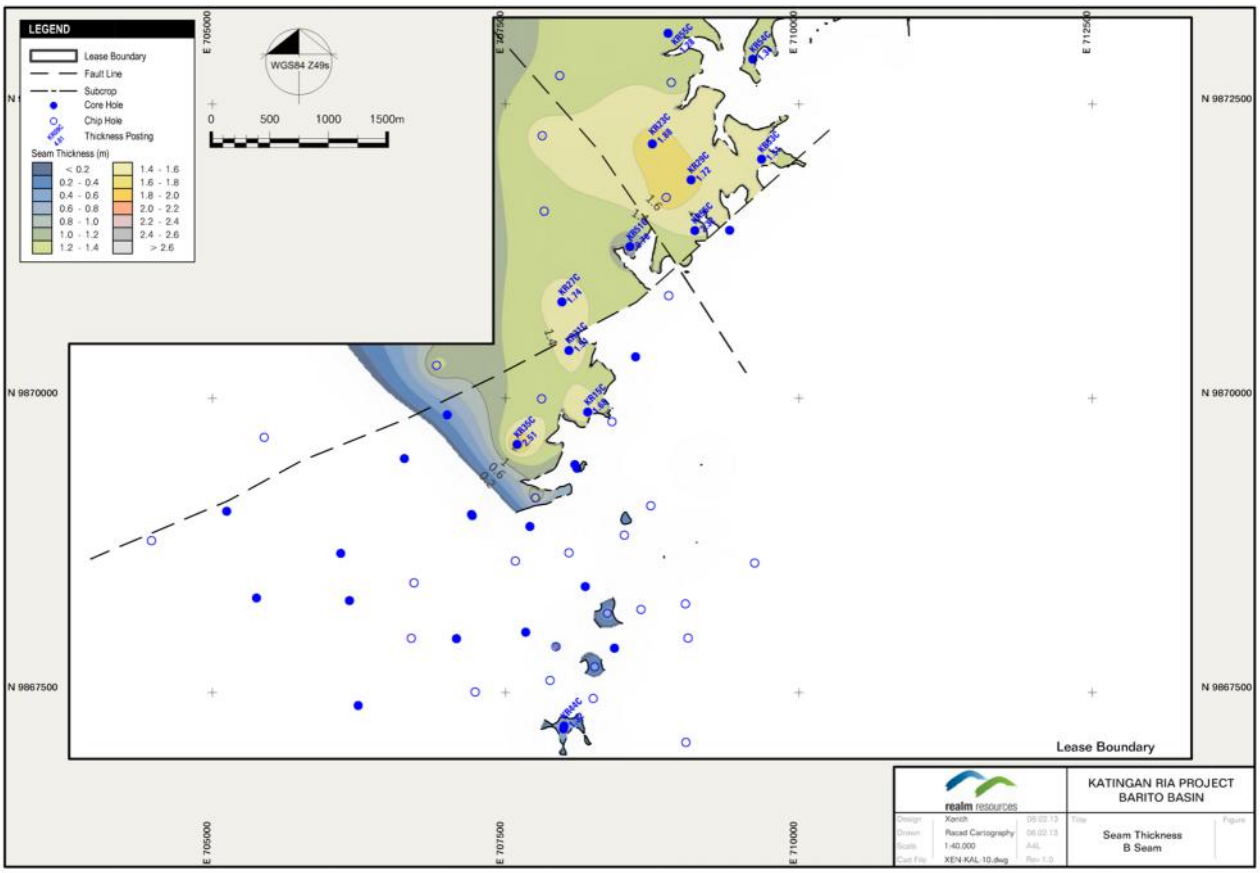
8. Figure 8 – Main Seam Strip Ratio (Main Seam only)



9. Figure 9 – Main Seam Thickness



10. Figure 10 – B Seam Thickness



APPENDIX 6 Drill Hole List

1. Table 1 - Seam Thickness

Borehole Survey Details						Seam Interception Thicknesses (m)																	
Hole	Easting	Northing	Elevation	TD	Dip	I	H3	H2	H1	G3	G2	G1	F	E	D3	D2	D1	C1	C	B	A2	A1	MAIN	2	3
KR01C	706094	9868683	140.7	63	-90																		3.64	0.42	0.88
KR02	708654	9868206	117.05	59	-90																			0.84	0.4
KR03	706719	9868433	136.34	54	-90																				0.76
KR04C	707671	9868013	126.26	66	-90																		4.15	0.51	0.44
KR05C	706637	9869489	146.72	74	-90																		4.7	0.76	
KR06	707240	9867505	113.33	51	-90																			0.25	0.50
KR07	708246	9867450	121.49	58.2	-90																		5.22	0.40	0.45
KR08	709623	9868601	89.02	30	-90																				
KR09C	707002	9869860	108.51	51.45	-90													1.45					4.81		
KR10C	706243	9867390	131.15	45.2	-90																		1.68	0.70	1.57
KR11	708737	9869088	112.84	34	-90																			0.75	0.25
KR12	706911	9870281	125.6	132.2	-90										0.59	0.49	0.49					0.88	5.49		
KR13C	705376	9868304	130.96	69	-90																		4.18	0.78	
KR14	707753	9869154	109.67	63	-90															1.60			4.90	0.30	0.40
KR15C	708200	9869884	113.14	54.2	-90															1.68			5.30	0.51	
KR16	705442	9869669	115.89	120	-90																0.69	0.90	2.44		
KR17C	705122	9869041	119.61	102	-90																		3.08		
KR18	704481	9868791	101.83	23.5	-90																				
KR19	707829	9871591	109.12	63	-90	1.51	0.60	0.83	0.70				1.47	0.59	0.46	1.57	0.57	0.75	0.45	1.44					
KR20	707583	9868618	113.61	63	-90																		4.95	0.52	0.55
KR21	706696	9867961	139.93	36	-90																				
KR22	708869	9871708	121.46	72	-90	2.77	0.87	1.69	0.61				0.81	0.72	0.43	1.53	0.50	0.90	2.40	1.90	0.68	0.39	3.33		
KR23C	708751	9872163	105.93	52.1	-90										0.47	1.41	0.62	1.23	2.40	1.88			3.35		
KR24	708912	9872685	121.96	69	-90										0.38	1.62	0.54	0.78	2.27	1.29	0.65	0.42	3.80		
KR25	707961	9872743	135.49	120	-90		0.80	0.93	0.45		1.33	0.60	0.40	0.62	0.44	1.02		1.10	0.40	1.19	0.44		3.14		
KR26	707812	9872233	153.54	126	-90		0.80	0.40	0.62	0.46	0.80	0.48	0.40	0.80	0.40	1.02	0.45	1.65	0.90	1.70		0.35			
KR27C	707980	9870820	94.33	93	-90										0.28	1.63	0.64	0.63	2.71	1.74			4.36	0.30	0.60
KR28	708890	9870873	93.47	38	-90																				
KR29C	709081	9871857.1	127.79	57.75	-90	2.11	0.90	0.97	1.15	0.52	1.25	0.98	0.63	1.20	0.58	1.56	0.92		1.40	1.72					
KR30C	708607.92	9870353.39	79.01	16.4	-90																			0.44	0.40
KR31C	708040	9870407	91.92	45.36	-90														1.51				5.44		
KR32C	707707	9868911	100.73	30.72	-90																		4.97	0.68	0.46
KR33C	707209	9869014	122.78	45.5	-90											0.96	0.75	0.19	1.57						
KR33CR	707216	9869004	122.58	45.45	-90																		4.89		
KR34C	708090	9869438	92.9	23	-90																			0.37	0.69
KR34CR	708108	9869406	100.01	13	-90																		5.48		
KR35C	707599	9869609	91.06	43.91	-90														3.16	2.51			5.78		
KR36	708407	9869802	108.77	31.5	-90																		4.85	0.60	0.45
KR37	709033	9868254	124	28	-90																				
KR38	709055	9867963	118.5	24	-90																			0.70	0.60
KR39	709037	9867077	119.5	16	-90																				
KR40	708512	9868838	103.5	35	-90																				
KR41CR	708179	9868401	125.9	45.5	-90																	0.26	5.61	1.06	0.51
KR42CR	708428	9867877	126.09	44.1	-90																		5.32	0.99	0.33
KR43	708259	9867719	123.94	57	-90															0.94			5.01	0.66	0.34
KR44C	707998	9867217	125.21	43.66	-90															1.32					
KR44CR	707993	9867191	123.98	40.7	-90																		5.51		
KR45	708367	9868174	124.64	48	-90															1.11			5.06	0.71	0.33
KR46	708040	9868688	112.08	48	-90																		3.56	0.37	0.33
KR47	707929	9867891	127.41	45	-90													0.32	0.80	0.44			5.29	0.77	
KR48	707879	9867603	123.98	36	-90																		4.99		
KR49C	707081	9867958	133.14	32.12	-90																		4.98		
KR50C	706169	9868282	139.27	11.18	-90																		2.50		
KR51C	708560	9871290	98.45	27.45	-90															0.78	0.85		2.89		
KR52C	709410	9871429	87.35	18.48	-90																				
KR53C	709682	9872033	113.76	28.87	-90														2.35	1.51	0.91	0.48	4.27		
KR54C	709607	9872883	110.37	23.6	-90															1.34	0.86	0.54	3.96		
KR55C	708885	9873103	119.94	57.41	-90										0.37	0.92	0.61	0.94	2.27	1.28		0.66	4.27		
KR56C	709113	9871426	97.15	34.71	-90													1.48	3.35	2.32	1.00	0.95	4.62		
KR57	707807	9869997	120.66	90	-90									1.64	0.57	1.39	0.57		1.99	1.34			4.98		