Mount Robert Project Table 1

The following table provides a summary of important assessment and reporting criteria used at Mount Robert for the reporting of exploration results and coal resources 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)*. Criteria in each section apply to all preceding and succeeding sections.

SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	Commentary
Sampling techniques	• A combination of open hole (predominantly for structural) and cored (for coal quality (CQ) and geotechnical) have been used.
Drilling techniques	• A total of 1,107 drill holes (107,599m) support this maiden Resource estimate. Cored drilling represents 25% of the total metres and open hole drilling 75%. The drill holes are up to 518m in length and average 97m. The drill holes were all nominally recorded as vertical. Boreholes that deviated by more than 5% were to be re-drilled by contractor. • Coring has predominantly been done using a HQ3-sized (63mm) bit and open hole drilling to an equivalent hole diameter size. In addition 8 large diameter (LD) holes, assumed to be 200mm (8") in diameter, have been drilled.
Drill sample recovery	• Standardised Rio Tinto Coal Australia logging systems are utilised for all drilling logging and sampling. • Core recovery is recorded by the geologist while logging the drill hole. If core recovery for a coal ply is less than 95%, then that section of the hole is redrilled to ensure a representative sample is taken. • Ply samples are checked for representativeness using a theoretical mass that is determined using analysed relative density, sample thickness and core diameter prior to composite definition. • Open hole chip recovery is assessed qualitatively by the rig geologist.
Logging	• Core is geologically and geotechnically logged and open hole chip samples are taken every 1m and logged for lithology changes. Logging for lithology, grainsize, weathering and hardness is conducted using standard dictionary definitions. Colour and any additional qualitative comments are also recorded. • All core is photographed on both a core table (0.5m increment) and a 8m tray basis. Chips are photographed as laid out by 1m intervals. • All holes are logged using a comprehensive suite of downhole geophysics tools (calliper, gamma, density, neutron, and sonic), with acoustic scanner (for geotechnical assessment) also run on selected cored holes.
Sub-sampling techniques and sample preparation	• Core sampling is completed at the drill site and based on set of standard criteria (determined by lithology and structure). Samples are bagged at the drill site and then transported to an external accredited laboratory for analysis as a complete hole batch. • All samples are weighed, air-dried and then re-weighed before being crushed to a 19mm top size. A rotary splitter is used to divide the sample into portions (¼ for raw coal) and (¾ for wash and clean coal). • CQ analysis is by a three-stage method involving raw analysis on all plies followed by washability and product testing on composite samples as defined by the geologist. • All sample treatment and analysis is conducted according to procedures which adhere to Australian (or International equivalent) standards in a National Association of Testing Authorities certified laboratory.
Quality of assay data and laboratory tests	• A non-formalised quality assurance/quality control (QA/QC) involving duplicate sample is completed. In addition, Rio Tinto Coal Australia checks laboratory round robin and basic reproducibility tests provided by the primary lab. All results are assessed via cross-plots and statistics for precision and accuracy.
Verification of sampling and assaying	• All CQ sampling and analysis is overseen and checked by other Rio Tinto personnel.
Location of data	• The topographic surface is derived from Lidar data processed to a vertical accuracy of

points	0.1m within the Mount Robert tenements by AAM in 2011. Where Lidar coverage was lacking drill hole collar elevation data was used. The digital topographic model was created in Minescape with an 8m $\times$ 8m cell size triangulation at 0.5m decimation.
	• All surveyed co-ordinates are within Australian Geodetic Datum 1984 MGA Zone 55.
	• Drill hole collars were surveyed post drilling by licensed surveyors using differential global positioning system with an accuracy of ±10mm.
	• Downhole surveying has been undertaken using downhole verticality and calliper tools.
Data spacing and distribution	• Drilling traverses have historically been orientated across strike at a spacing of 200 – 1,000 m, but typically around 500 m. The drill holes on each traverse are usually at intervals of 50 – 100m. The length of the drill traverses ranges from 300 – 1,800 m, though typically in the range of 800 – 1,200 m.
	• All core samples are composited within defined seam boundaries.
Orientation of data in relation to geological structure	• The coal seams within the Mount Robert Project are part of the Hail Creek syncline have relatively consistent layering with a westward dipping trend that varies from 15-20 degrees in the north and steepens to 45 degrees in the south. The orientation of drilling is considered suitable for these stratified deposits.
Sample security	• Core samples taken at the drill site were transported daily to the Mount Robert drill camp for. Once completed week the samples are transported to the laboratory via a dedicated courier service.
Audits or reviews	• No external audits have been performed.
	• Internal Rio Tinto Coal Australia peer and technical reviews have been completed, and are ongoing.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	Commentary
Mineral tenement and land tenure status	• The Mount Robert Project is owned by the Hail Creek Joint Venture (HCJV), owners of the Hail Creek Mine. The partners of the HCJV include Queensland Coal Pty Ltd (82 per cent), Nippon Steel Australia Pty Ltd (8 per cent), Marubeni Coal Pty Ltd (6.67 per cent) and Sumisho Coal Development Pty Ltd (3.33 per cent). The HCJV is currently managed by Rio Tinto Coal Australia.
	• The MRP area consists of 4 tenements including EPC 658, EPC 689, MDL 353 and MDL 435 as shown in both Table 1 and Figure 1.

Table 1: Mount Robert tenements

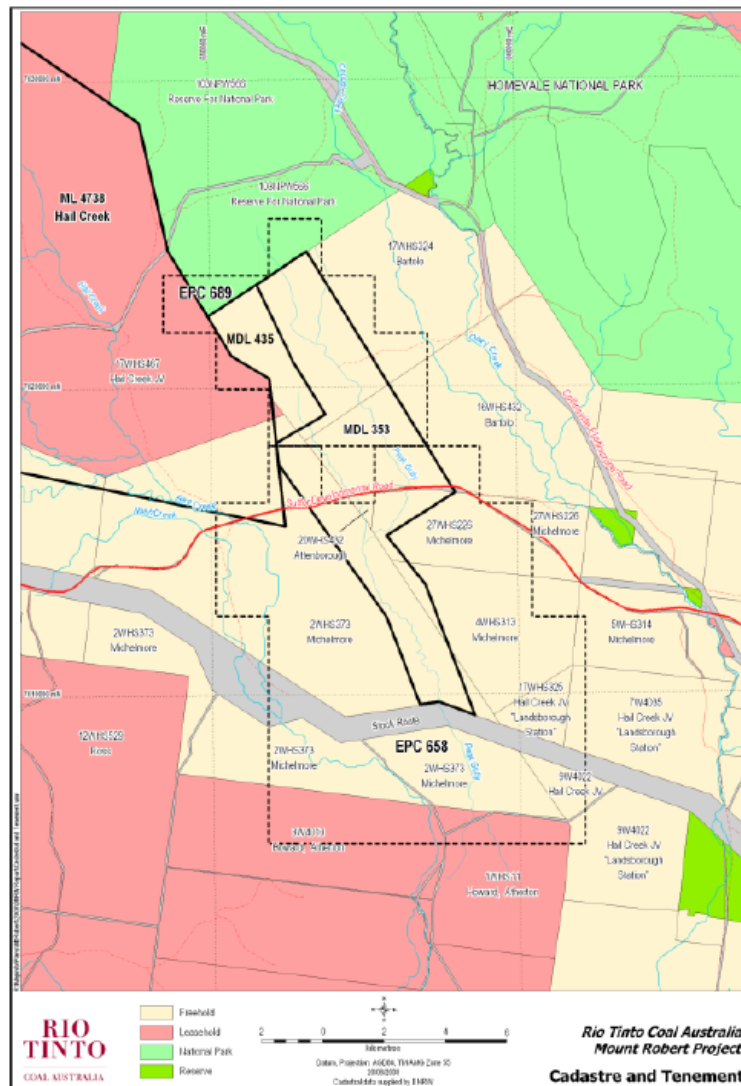| Title	Type	Area	Grant Date
EPC 689	Exploration Permit for Coal	12 sub-blocks	09/08/1999
EPC 658	Exploration Permit for Coal	32 sub-blocks	17/11/1997
MDL 353	Mineral Development Licence	3859.8 ha	18/11/2004
MDL 435	Mineral Development Licence	718.9 ha	12/12/2012

• An application for the consolidation of all tenements into one MDL for Mount Robert was submitted to DNRM on 4 November 2015.

Figure 2: Mount Robert tenement boundaries

Exploration done by other parties	• The Mount Robert Project has had numerous companies explore the area since the early 1970s including The Geological Survey of Queensland, Thiess Peabody Mitsui Coal Pty Ltd, Mines Administration Pty Ltd, CRA Exploration Pty Ltd, Thiess Dampier Mitsui Coal Pty Ltd, BHP Mitsui Coal Pty Ltd, Thiess Pty Ltd, Australian Bulk Minerals Pty Ltd and Eastern Coal Joint Venture Pty Ltd. The bulk of the drilling was aimed at the Rangal and Moranbah Coal Measures.
Geology	• The Mount Robert Project is located in the north-eastern portion of the Bowen Basin, on the eastern limb of the Nebo synclinorium which contains numerous important coal producing intervals in the Permian stratigraphy. The sequences of economic interest include the Late Permian Exmoor Formation, Moranbah Coal Measures, Fort Cooper Coal Measures and Rangal Coal Measures. The main rock types of these sub-groups are sandstone, siltstone with minor stratigraphic layers of conglomerate, and tuffaceous bands.
Drill hole information	• A total of 1,107 drill holes support this maiden Resource estimate. Cored drilling represents 280 of the total holes and open hole drilling represents 827.
Data aggregation	• Ply samples are combined to create composites (for washability and product coal

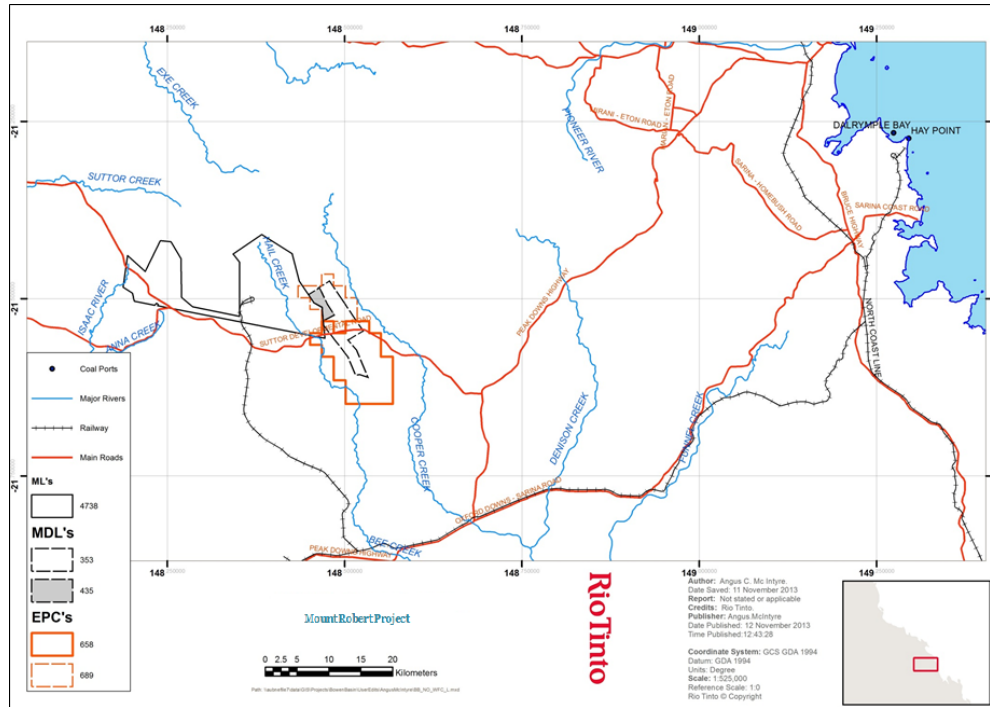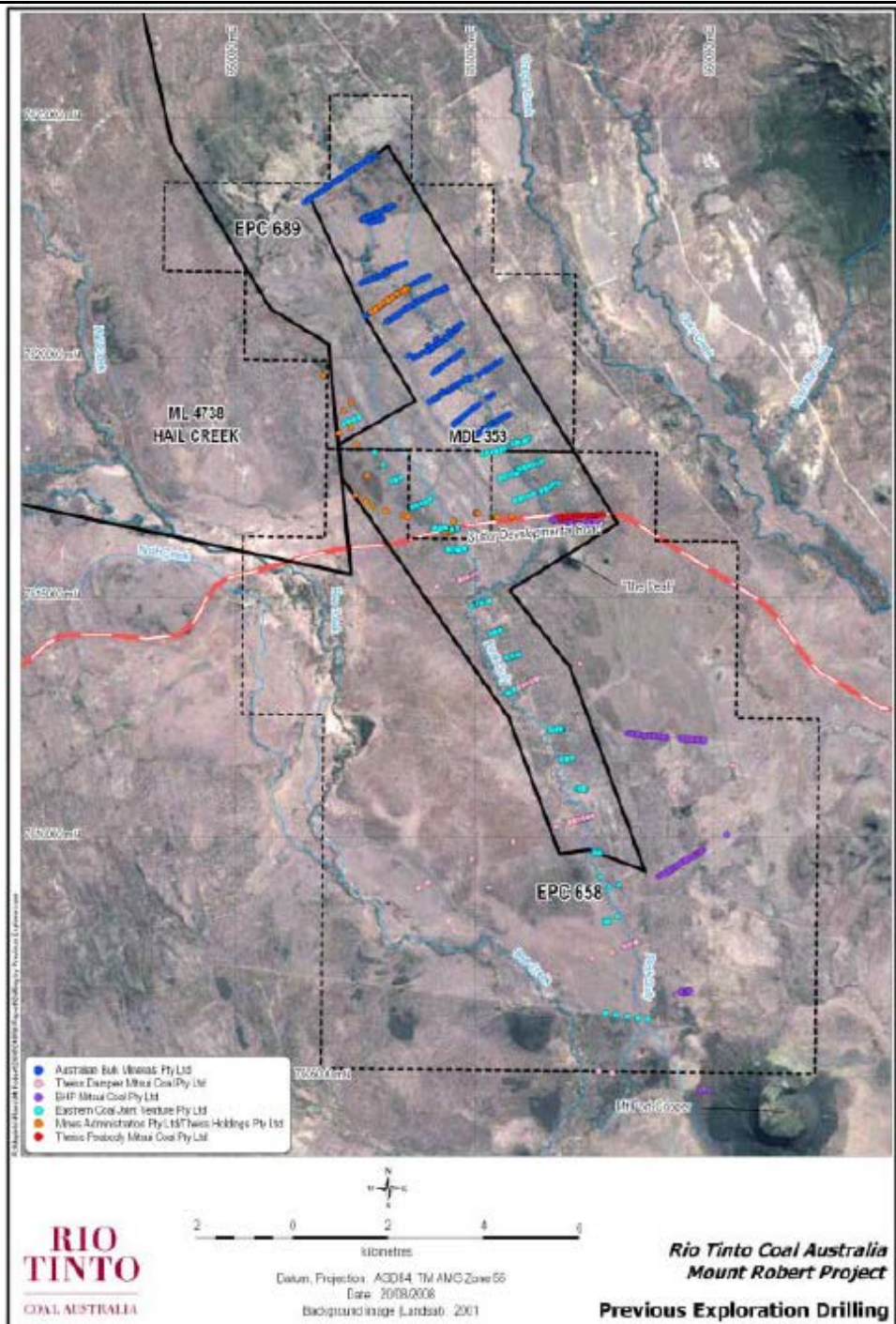| methods	analyses) representing mineable seam working sections.
Relationship between mineralisation widths and intercept lengths	• Based on drilling techniques and stratigraphy, the coal seam intercepts therefore approximate the true coal thickness.
Diagrams	

Figure 3: Mount Robert location
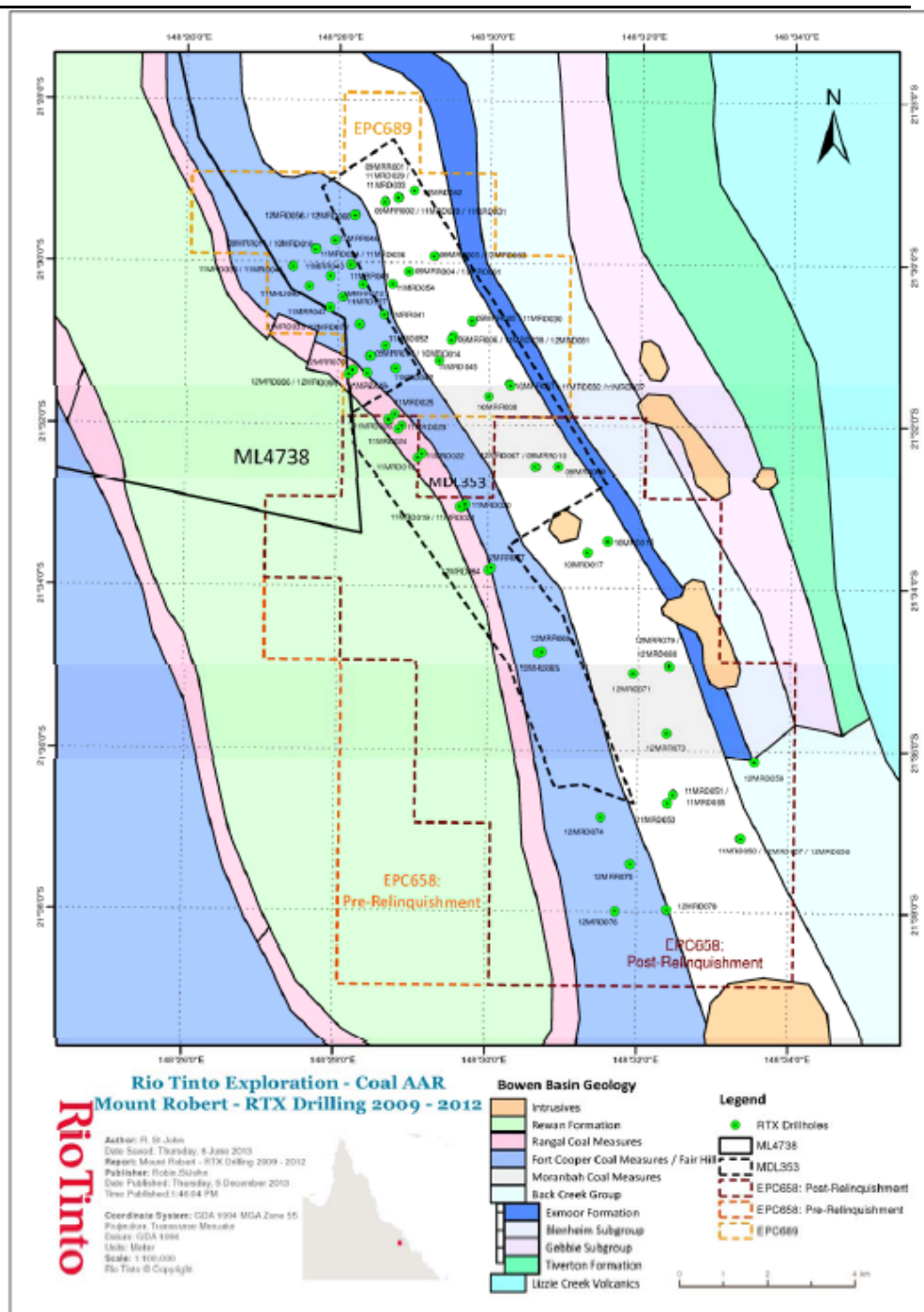
Figure 4: Historical Drilling

Figure 4: Local Geology and Recent Drilling

Balanced reporting	• Not applicable. Rio Tinto Coal Australia has not specifically released exploration results for these deposits.
Other substantive exploration data	• No other exploration apart from surface exploration drilling has been collected at Mount Robert.
Further work	• A further programme of surface/aerial geophysics, seismic survey and drilling has been planned but not implemented to date.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	Commentary
Database integrity	• All drill hole data are securely stored in a database (in Brisbane) and are backed up daily. • Data are validated at the drill site and also prior to loading into the database by the responsible geologist. • The database contains automated validation processes which are activated during data loading and prevent un-validated data being loaded.
Site visits	• The Resources Competent Person has not visited the project site.
Geological interpretation	• The deposit is well known and tabular for the Exmoor Formation, Moranbah Coal Measures, Fort Cooper Coal Measures and Rangal Coal Measures with most major structures defined. New drill holes have supported and refined the model. The current interpretation is thus considered to be robust.
Dimensions	• The deposit trends 17km northwest to the southeast following the Hail Creek syncline and is 9km in width. The deposit extends to a depth of ~200m below the topographic surface.
Estimation and modelling techniques	• Modelling was undertaken in 2015 using resource modelling software. For structural modelling a Finite Element Method (FEM) interpolator is used. For CQ an inverse distance squared interpolator with search radius of 20,000m is used. All surfaces and coal qualities are interpolated into grids with 50m $\times$ 50m node spacing. • The models are of the coal seams only with waste modelled by default and not assigned any grade. Resource estimates are therefore of the coal plies only. • Modelling is completed on an iterative basis with checking of cross-sections and contours of structural. Database values are posted on contours as a further check. A volume/tonnage check between the model and its predecessor are completed as a final validation.
Moisture	• All tonnages are estimated on an in situ moisture basis, which is estimated as 5%. This assumption was based on the adjacent Hail Creek mine.

Cut-off parameters	• Based on the adjacent Hail Creek Operation it is expected that coal from Mount Robert would be is washed to produce three types of products:
	  o a premium low-ash (8.5 per cent) prime hard coking product
	  o a higher ash (10 per cent) hard coking product.
	• In addition a 23% air-dried ash thermal product would be expected. Since semi-anthracite coal occurs within the Moranbah Coal Measures this would be expected as an additional product. More work into specifications and marketing is required before this type of product coal is defined.
	• For all Hail Creek products, product moisture is 11%. Air-dried moisture is quoted at a 3% moisture basis.
	• Economic resources are defined by a "break even" ($0 margin) Lerchs-Grossman optimised shell for opencast coal – this effectively sets the maximum depth or lowermost seam considered. For underground resources the limits are based on either an order of magnitude study or standard set of rules (i.e. coal below "break even" shell, less than 600m deep and greater than 1.8m thick).

Mining factors or assumptions	• Development of this maiden Mineral Resource estimate assumes mining using standard Rio Tinto Coal Australia equipment. Due to the steep dips at Mount Robert the assumed conventional truck and shovel open-cut coal mining.
Metallurgical factors or assumptions	• It is assumed that a combination of density separation (magnetite/water) and fines flocculation processes used by Rio Tinto Coal Australia at the adjacent Hail Creek Operation will be applicable for the processing of Mount Robert coal.
Environmental factors or assumptions	• Rio Tinto Coal Australia has an extensive environmental and heritage approval and compliance process. No issues are expected that would impact on the Mineral Resource estimate.

Bulk density	• In some areas, for some plies, there is limited borehole data which are reported as relative density (RD). • The in situ relative density; i.e. the density of materials at an in situ moisture basis, was calculated using the Preston and Sanders equation: $$RD2=[RD1*(100-M1)]/[100+RD1*(M2-M1)-M2]$$ • Where analysed density is not available a default in situ density of 1.4 g/cc is used.
Classification	• The classification of the maiden Mineral Resources into varying confidence categories is based on a standardised process of utilising points of observation (PoO) (i.e. drill holes) according to their reliability and value in estimation. The PoO are used to categorise structure and quality continuity (or both) or support continuity. • Radii of influence are then plotted around PoO maps for structure and quality. The radii of influence were determined by consideration of the perceived and observed variability in structure and CQ for seam groups, and by examining histograms and statistics of ash content of the seam groups. As there are many plies at Mount Robert, seam groups (equivalent to the seam names) were used for categorisation. • Areas of confidence (low, medium, high) are produced from these plots (structure and CQ for each seam group). These are finally combined to produce areas of Measured, Indicated, and Inferred which are used to subdivide the Resource tonnage estimates. • In summary structural radii are 250m for high confidence, 500m for medium and 1,500-2,000m for low; and, for CQ 250-500m radii for high, 500-1,000m for medium and 2,000-3,000m for low confidence respectively • The Competent Person is satisfied that the stated Mineral Resource classification reflects the geological controls interpreted and the estimation constraints of the deposits.
Audits or reviews	• No formal audits have been completed on the estimation and reporting of Mineral Resources at Mount Robert to-date.
Discussion of relative accuracy/ confidence	• Rio Tinto Coal Australia operates multiple mines in New South Wales (NSW) and Queensland (QLD). The Mineral Resource data collection and estimation techniques used for the Mount Robert deposit are consistent with those applied at other deposits which are being mined, and is indicative of a robust process. • Accuracy and confidence of Mineral Resource estimation estimate has been accepted by the Competent Person.