18 AUGUST 2016

TABLE 1 – CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA (THE JORC CODE, 2012 EDITION)

The following table provides a summary of important assessment and reporting criteria used for the Tarrawonga Mine in accordance with the Table 1 Checklist of Assessment and Reporting Criteria, in The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code) 2012 Edition. Criteria in preceding sections apply, where applicable, to the succeeding sections.

Section 1 - Sampling Techniques and Data

Criteria	Explanation
Sampling Techniques	Coal intervals have been determined by sinking vertical drill holes and creating systematic geological descriptions of the strata encountered by visual determination. Data from mining operations in the area were also used. Drill hole types were: Non-cored where field geological logs are initially created by describing chip samples recovered at 1 m intervals. Coal seam intercept depths are initially estimated to within about 0.5 m. Coal seam roof and floor depths are adjusted to match downhole geophysical logs with horizon boundaries reported to 0.10 m, and non-coal bands within seams to about 0.05 m. Cored where strata is geologically logged in the field to within 0.01 m, and field logging checked against downhole geophysical logs where available. Coal seams intersected by non-cored drill holes were not sampled for quality analysis. Coal seams intersected by cored drill holes were visually logged in detail by seam brightness profiling. Sample intervals within a seam were determined after examination of the geological and geophysical logs, and the sampling scheme adopted for surrounding drill holes. All coal and in-seam stone bands were sampled. The standard downhole geophysical logging suite is Calliper, Natural Gamma and Density. These logs are not used to estimate coal quality parameters for resource calculations, and are only used for the identification of coal seam roof/floor levels, the identification of stone bands within the seams or to confirm the presence of igneous intrusions in non-cored holes. All full seam intersections are considered potential working sections. Resources were determined on full seam sections. Core recovery was maximised by: Using triple tube core barrels Using minimum HQ core diameter Employing experienced coal drilling contractors.
Drilling techniques	8C core (200 mm diameter), 4C core (100 mm diameter), HQ Triple Tube core (61 mm diameter), NQ Triple Tube core (45 mm diameter), Percussion and rotary open hole methods.
Drill sample recovery	Chip samples were not used to assess coal quality. Recent drill core is logged in accordance with Whitehaven Coal procedure. Coal intervals are logged in detail by describing its coal brightness profile. Volumetric recoveries determined by the analysing laboratory are primarily used to assess core recoveries. Volumetric recoveries are recalculated following adjustments using downhole geophysical logs made to sample length for broken core intervals. Where volumetric core recoveries are not available (e.g. historical data), linear core recoveries are used. Core losses are recorded as a logged interval within WHC geological logs. They are estimated following adjustment against downhole geophysical logs. HQ TT wireline coring is used to maximise sample recovery. Coal quality full seam points of observation used in this report are those where: • Volumetric recoveries were 80% or more • In the absence of volumetric recovery values, a linear recovery of 90% or more. There is no known relationship between coal quality and sample recovery.
Logging	Core and chip samples were logged by geologists experienced in coal resource investigation and evaluation using standardised codes and WHC procedures. The standard and level of detail is considered appropriate for mineral resource estimation. Drill core has been cleaned of surface contaminants before logging by washing with clean water and a soft brush. Borehole cores are stored in core trays in a secure facility until sampled. All holes were wireline logged if possible (i.e. not blocked). The minimum suite of logs is gamma, density,



Criteria	Explanation
	and calliper. All core was photographed (digitally, since 2006). Total aggregate length of cored holes in the geological model is 12 965 m, in 85 drillholes. Total aggregate length of non-cored holes is 40 191 m, in 473 drillholes.
Sub-sampling techniques and preparation	Full cores were used for coal quality testing. Chip samples were not used to assess coal quality. HQ, 8C & 4C coring used to ensure sample is representative, and that sufficient material is available for sub-samples. Sample preparation, sub-sampling and quality control procedures ensured by using NATA accredited commercial labs employing recognised QA procedures and following Australian Standards for coal testing. HQ, 8C & 4C coring used to ensure that sufficient mass and particle numbers are available for representative subsamples. Linear core recoveries are recorded and results of seam samples with less than 90% recovery were excluded from the model at the discretion of the Competent Person.
Quality of assay data and laboratory tests	Sample preparation, sub-sampling and quality control procedures ensured by using commercial labs employing recognised QA procedures and following Australian Standards for coal testing. Samples were split and reserves retained where sufficient mass remained after testing. Coal quality was not estimated from geophysical measurements. Standards, blanks, duplicates, external laboratory checks have not been used by WHC. Acceptable levels of accuracy and precision are maintained by using commercial labs that are regularly benchmarked by external auditors against ISO 17025. These labs employ regular internal and external blind proficiency programs to provide a demonstration that results are controlled (may not have occurred for historic testing).
Verification of sampling and assaying	Coal intersections used in the geological model were verified by geophysical measurements obtained by wireline logging, carried out by an independent contractor, and more recently by digital photographs. Coal intersection depths and seam correlations have been validated by independent reviewers/auditors and/or alternative company personnel (Database Geologist). Twinned holes are not used. Data acquisition and verification protocols are in place. Drillhole collar, lithology and basic raw coal quality data is stored in a LogCheck database and exported to a Ventyx Minescape GDB database for modelling. Other coal quality data may be imported directly into the GDB database. Source field records, lab reports, core photographs, survey data etc. are stored in electronic form on the Whitehaven Coal network, and hard copy in borehole folders at the company's Gunnedah office. The moisture basis of coal quality data may have been adjusted. Values stored in the GDB database are on an air dried basis.
Location of data points	Borehole collars were surveyed by a Registered Surveyor, using either triangulation or Real Time Kinematic differential GPS methods. Three boreholes, either without unweathered seam intersections or already mined through, have co-ordinates derived from handheld GPS. Surveyor's Reports are not available for some boreholes, however every effort was made to verify borehole locations from old reports etc. The grid system used is the Map Grid of Australia (MGA) Zone 56 based on the Geocentric Datum of Australia 1994 (GDA94) values. Older survey data may have been converted from ISG. Topographic control is provided by a LiDAR survey dated 31 March 2016 and the March 2016 end of month mine survey.
Data spacing and distribution	Many boreholes intersect only part of the sequence i.e. were spudded stratigraphically below one or more seams, or were not drilled deep enough to intersect lower seams. Borehole spacing therefore needs to be considered on a seam-by-seam basis. Cored holes (coal quality data points) are spaced at <500m for most of the North Block Open Cut resource. Spacing may be >500m for the South Block. The data spacing and distribution is considered by the Competent Person to be sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Where coal intersections have been sampled in multiple sections per seam, compositing of samples, on a length x RD basis has been applied.
Orientation of data in relation to geological structure	The orientation of data in relation to geological structure is not believed to have introduced any sampling bias.
Sample security	Core samples were either delivered to the lab by the field geologist, courier or collected by lab personnel.
Audits or reviews	The borehole database was independently audited in 2011. An entirely new drillhole database was created and validated by independent consultants and WHC geological personnel in 2014. Boreholes drilled since data base creation were audited for the previous resource report, in May 2015, and adjustments made in LogCheck where necessary. The geological model was validated for the previous resource report, using reports, tables,



Criteria	Explanation
	contour plans and cross-sections.



Section 2 – Reporting of Exploration Results

Criteria	Explanation
Mineral tenement and land tenure status	The original Development Consent for the Tarrawonga Open Cut mine was granted on 9 November 2005. A new Project Approval, PA11_0047, was granted on 22 Jan 2013 for the life of mine and expires on 31 December 2030. Mining Lease ML1579 was granted on 3 April 2006 for 21 years. Mining Lease ML1685 was granted on 18 Dec 2013 until 14 Nov 2032. Mining Lease ML1693 was granted on 14 Oct 2013 for 21 years. Exploration Licence EL5967 was granted on 24 July 2002, and a renewal sought in 2015. A Mining Operations Plan is current until 31 December 2020. Boggabri Coal Pty Ltd has an interest (30% of open cut coal) in ML1579, 1685, 1693. The Competent Person is aware of native claims which exist with respect to EL5967, ML1579 and ML1693 and their management. All property overlying the resource is owned by Whitehaven Coal.
Exploration done by other parties	Amax-BHP joint venture 1976–1978 (AB series holes). Boggabri Coal 2010 (BC series holes on ML1685).
Geology	The coal is contained within the Cisuralian (early Permian) Maules Creek Formation in the Maules Creek sub-basin of the Gunnedah Basin. Gently folded multiple coal seams. Regional dip gently to the NE and seams subcrop against basement in the west. Major NW trending fault dissects the resource. Minor normal faults with small throws striking east-west. Mafic sills and dykes are known to occur in the southern part of the current opencut.
Drill hole information	There are 601 drillholes in the Tarrawonga Project database. Of which, 558 are used in the geological model and 85 used as coal quality points of observation.
Data aggregation methods	Coal intersections may have been sampled in multiple sections per seam/ply, so compositing of samples, on a length x RD basis has been applied. Where quoted coal quality is for the full seam or ply. Grade cut-offs have not been applied to exploration results in the database. Generally, carbonaceous material in excess of 40–50% ash is recognised in the field and not sampled or sampled separately to allow integrity of coal ply analysis. Where available, analyses in excess of the resource cut-off of 35% may be included in modelled data.
Relationship between mineralisation widths and intercept depths	All drillholes were (nominally) vertical. Coal thicknesses quoted are for downhole intercept lengths, which may have been exaggerated slightly by seam dips. Coal resource modelling and estimation takes this effect into account.
Diagrams	Drillhole Location Plan is appended.
Balanced reporting	There is no preferential reporting of results.
Other substantive exploration data	Geotechnical, groundwater, ground magnetic and geochemical studies have been completed.
Further Work	There is an ongoing annual drilling program for each mining strip, carried out ahead of the pre-strip operation. Additional cored holes will be required to increase confidence in grade continuity for areas in the north and at depth. Additional LOX line, and structure definition drilling will be required in some areas.



Section 3 – Estimation and Reporting of Mineral Resources

Criteria	Explanation
Database integrity	Borehole collar locations and RL's were checked against surveyors' reports, field records (handheld GPS) and the DTM. Lithological logs and coal intersection depths were reconciled with wireline logs. Coal quality data were cross-checked against lab reports and sample depths were correlated with the lithological database. Acquisition, validation and entry of data is per WHC Procedures (refer to Section 1 above). All survey, lithological and quality data are compiled in a LogCheck database.
Site visits	The Competent Person has made frequent visits to the site, and has regular consultations with the Mine Geologist and other technical staff. The most recent visit was on the 27 th of July 2016.
Geological interpretation	The geological interpretation is based on reports from the mine, surface mapping of outcrop, and borehole data. The drillhole database is extensive and an alternative interpretation is highly unlikely. The main factor affecting coal seam continuity is the interplay of seam dip, depth of weathering and surface topography which determines seam subcrop. Most seams show good continuity of grade. Seam specific influences include the consistent, predictable development of a stone band within a seam to form a seam split, some regional trends of deterioration and also locally developed stone lenses which are mainly responsible for the bullseyes in the ash contours.
Dimensions	The maximum length of the resource is ~5 km, maximum width is ~2 km, and maximum depth approximately 270 m. A fault separates the resource into two blocks (North and South).
Estimation and modelling techniques	The geological model was developed by the Competent Person, using Ventyx Minescape software. The current estimate is an update to the previous Report dated August 2015. There is a history of resource reports for Tarrawonga dating back to 2002. There are no known deleterious elements of economic significance. There is no assumption of selective mining. Full coal thickness roof to floor is modelled for all seams. The deposit is sufficiently characterised by drilling to allow the chosen modelling parameters to operate freely without interpreted geological controls such as dummy boreholes or extrapolated survey data. The resource model is cut by either the base of weathering grid or the mined surface. A maximum raw ash content of 35% (ad) has been imposed as a resource cut-off. ROM coal that does not meet product specifications is washed at WHC's Gunnedah CHPP. A recent reconciliation exercise shows that recovery (ROM production) is approximately 96% of the in situ resource (i.e. net of geological and mining losses, dilution and moisture adjustments). There is a high degree of repeatability in the resource estimates prepared each year since 2010. Acquisition, validation and entry of data is per WHC Procedures (refer to Section 1 above). The geological model is validated by generating and inspecting reports, tables, cross sections, contour plans and comparisons with posted drillhole values.
Moisture	The basis of the tonnage estimate is in situ moisture (Mis). Mis was estimated for each seam using the "Meyers" model based on non-linear multivariable analysis (Meyers et al 2003).
Cut-off parameters	Coal tenement boundaries. Coal extraction boundaries as at 31 March 2016. Subcrop against base of weathering. Minimum coal thickness for open cut coal is 0.20 m. Maximum overburden ratio is ~20:1 bcm/tonne for the North Block. Maximum overburden ratio is 15:1 bcm/tonne for the South Block. Minimum coal thickness for underground coal is 1.8 m. Maximum stone (interburden) thickness at split line for underground resources is 0.4 m. Maximum raw ash for all coal resources is ~35% (air dried).
Mining factors or assumptions	It is planned that the resource will be mined by open cut methods, in a similar configuration and using similar equipment to the current operation. A scoping study has been prepared for South Block (Tarrawonga South) open cut mining. Underground mining studies are of a conceptual nature only.
Metallurgical factors or assumptions	Only raw coal variables are modelled. ~50% of the coal is washed at the Gunnedah CHPP, for an average yield of 81%. The remainder is bypassed and blended. It is assumed that the coal will continue to be mined cleanly and/or blended and/or washed to a saleable specification, as has been the case to date.
Environmental factors or assumptions	The entire deposit is covered by an Environmental Assessment. Required Project Approval and Mining Operations Plan (refer to Section 2 above), and the necessary environmental licences are in place (refer to the Whitehaven Coal website whitehavennews.com.au for details).
Bulk density	Air dried relative density (Standard RD) was gridded, using SRD values determined for each



Criteria	Explanation
	core sample and composited on a seam-by-seam basis. For each seam average SRD was adjusted to an in situ basis (RDis) by applying the "Preston-Sanders" (Preston & Sanders, 1993) equation, using a global estimate for in situ moisture.
Classification	Resource classification has been considered by the Competent Person to align with the Australian Guidelines for Estimating and Reporting Coal Resources (2014). Due to the repeatability of the resource estimates since 2010 and a mining recovery comparable to the geological model the historical distance classification used at the Tarrawonga mine are deemed as adequate to guide for resource classification. The use of these distances is moderated by factors such as geological continuity. The result reflects the Competent Person's view of the deposit.
Audits or reviews	This resource estimate update is based on the geological model used for the 2015 resource estimate. No changes were made to the geological model, or estimation and reporting criteria, with the exception of accounting for depletion of the resource by production in the twelve months since the previous report.
Discussion of relative accuracy/confidence	An informed but qualitative judgement of the accuracy of the global resource estimate, is that it is generally within +/-10% confidence limits. Reconciliation exercises are carried out by Whitehaven personnel and were available to the Competent Person.



Section 4 – Estimation and Reporting of Ore Reserves

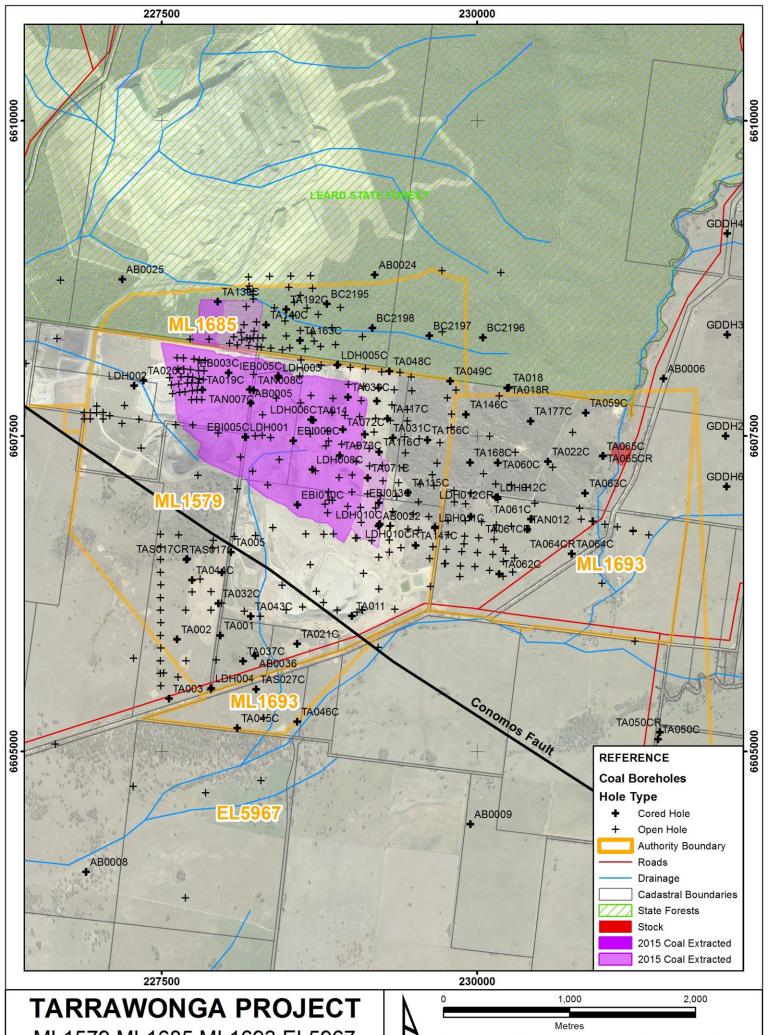
Criteria	Explanation
Mineral Resource estimate for conversion to Ore Reserves	The Mineral Resource estimate used as the basis for this Coal Reserves Statement is described in the document "Coal Resources Report for the Tarrawonga Open Cut Coal Mine and Adjacent Exploration Areas. Coal Tenements ML1579, ML1685, ML1693, EL5967. Gunnedah Coalfield, NSW, Australia." August 2016. Prepared by Mr. Ben Thompson. The Competent Person, Mr. Thompson, has sufficient expertise that is relevant to the style of mineralisation and type of deposit and activity to qualify as a Competent Person as specified under the JORC Code and is a member of the Australian Institute of Mining and Metallurgy. The Resources Statement was compiled in accordance with The JORC Code 2012 Edition. The Coal Resources reported are inclusive of the Coal Reserves.
Site visits	A site visit to the Tarrawonga Mine was undertaken by the Reserves Competent Person ("CP") in 2015. The outcome of this visit was observation of the Project area to better understand location, environmental, social, groundwater and existing infrastructure consideration. The CP visited the nearby WHC-owned Mines and the existing Gunnedah CHPP and train loading facility. A site visit was not undertaken in 2016 as part of the preparation of this Report as the CP believed there had been no material change in site conditions since the 2015 site visit.
Study status	Tarrawonga is an operating mine and the Modifying Factors have been informed by operational experience. As such, the level of confidence in the data and assumptions exceed those of a Prefeasibility Study. WHC last completed a Life of Mine Plan for the mine in 2013. WHC has undertaken considerable work in ROM coal reconciliation, the results of which have been reflected in the LOM Plan Modifying Factors. The LOM plan integrates the northern extension into ML1685, for which a boxcut has been developed, as well as the Tarrawonga South Pit.
Cut-off parameters	A 35% (ad) ash cut off has been applied to the Resource model. No additional cut off has been applied based on ROM ash.
Mining factors or assumptions	Margin Ranking, pit design and LOM planning have been used as the basis of converting Coal Resources to Coal Reserves. The mining method is a conventional truck and excavator mining method with dozer push operations on the Nagero Seam interburden. Waste is primarily hauled to inpit dumps. This method is proven at the mine and considered appropriate for future planning based upon geology and strip ratio. WHC has received geotechnical advice regarding the stable slope design criteria for the Tarrawonga Pit. No specific geotechnical advice has been sought for the Tarrawonga South Pit and similar slope design criteria have been applied. WHC completed a margin rank on the deposit as part of the 2013 LOM planning process. The results guided the pit limits for the 2013 LOM plan. The Reserves CP confirmed this result through break even strip ratio analysis using current costs and revenue factors. The mining factors used were: - Minimum coal mining thickness of 0.2 m; - Minimum parting mining thickness of 0.3 m; - Overall geological loss of 1.5% and mining loss of 1%; - For coal >0.5m in thickness: - Mineable coal section roof loss of 0.065 m; - Mineable coal section floor loss of 0.045 m; - Mineable coal section floor loss of 0.045 m; - Mineable coal section floor dilution of 0.045 m; - For coal <=0.5m in thickness: - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.05 m; - Mineable coal section floor loss of 0.06 m; - The quality of diluting material is relative density of 2.4 t/bcm, and ash of 76% (ad); and - In situ moisture assumed to be 13%. ROM m



Criteria	Explanation
	All necessary infrastructure is in place and operational.
Metallurgical factors or assumptions	Gunnedah CHPP is currently operating and processing Tarrawonga coal. The metallurgical process is appropriate for the mine. Processing logic based on WHC Gunnedah plant performance data as outlined below: - If coal thickness is < 0.5m or In situ Ash > 16(ad) then 100% High Ash Bypass. Ash is assumed to be at ROM ash value - If Coal thickness is >0.5 and In situ Ash < 16% then; · 50% washed at 82% yield to achieve a product that is estimated to be In situ Ash – 0.5% · Low Ash Bypass % estimated from regression based on in situ ash. Low ash bypass coal is assumed to have an ash value equal to the in situ ash. · Mid Ash Bypass % derived from total bypass and Low Ash bypass values. The Mid Ash Bypass ash is estimated from the ROM ash and Low Ash Bypass ash values to achieve an ash balance. - Washed product coal moisture is assumed to be 11.5% (ar) and the Bypass product coal is assumed to be as per the ROM moisture of 9.5% (ar). - WHC achieve a thermal coal by blending washed and low ash bypass coal with the Mid and High ash bypass coal to achieve the required specification. The remaining coal is sold as a low ash PCI product. No allowance has been made for deleterious elements. Last dot point is not applicable for coal
Environmental	Tarrawonga has the necessary environmental approvals in place for the current operations in the Tarrawonga Pit. Approval is required for the Tarrawonga South Pit. Waste rock characterisation results and operational experience indicates that the waste does not require special placement requirements or procedures in the dumps.
Infrastructure	All necessary infrastructure is in place and operational for the current operation. ROM pad will be relocated during remaining mine life. A section of Goonbri Road requires diversion around the project.
Costs	All major infrastructure is in place at Tarrawonga. The primary ongoing capital requirements are for equipment replacement and this is included in the economic model All operating costs were based on the 2015 actuals and 2016 Tarrawonga 3 year budget estimates provided by WHC and include allowances for royalties, commissions, mining costs, ship loading and administration. Current long-term exchange rate assumptions were provided by WHC. Transport charges based on actual contracted prices. Product Coal Benchmark specifications were provided by WHC and logic for penalties for failure to meet specification confirmed. RPM reviewed all costs and they are considered reasonable.
Revenue factors	The long term thermal coal price is based on the April 2016 Consensus Forecast. The long term SSCC and PCI prices are as per the WHC Long Term estimates. These assumptions are considered reasonable the purposes of estimating Reserves.
Market assessment	A detailed Market Study has not been carried out specifically for Tarrawonga however markets are well established for the mine's product coal blends. WHC blend product coal from its mines in the Gunnedah region to meet product specifications prior to shipment through the Port of Newcastle. This allows WHC a lot of flexibility in preparing shipments. WHC typically produce three main products: - Thermal at approx. 11-15% ash (ad); - PCI at approx. 6-8% ash (ad); and - SSCC at approx. 6% ash (ad). Based upon these products and specifications, RPM anticipates no foreseeable issues in demand for these products.
Economic	The inputs to the economic analysis of the Tarrawonga Mine are derived capital and operating cost estimates outlined in the "Costs" section of Table 1. The source of the inputs is real and the confidence satisfactory. The economic modelling is in real terms and a range of discount rates between 6% and 10% have been used in assessing NPV. The NPV results produced from economic modelling generated positive and acceptable NPV's for all discount rates and the Project is considered economic from an NPV stand-point.



Criteria	Explanation
	The NPV at 8% discount rate has been assessed for variations of +/- 20% in the key value drivers of revenue, operating costs, exchange rate and capital costs. In some instances the NPV becomes negative and the Project is highly sensitive to changes in exchange rate, revenue and operating costs.
Social	WHC has key stakeholder agreements in place.
Other	All mining projects operate in an environment of geological uncertainty. RPM is not aware of any other potential factors, legal, marketing or otherwise, that could affect the operation's viability. RPM understands that the pit shells that the Statement is based on extend into existing EL's in the Tarrawonga South area. Updating of approvals is an ongoing process and it is reasonably expected that any modifications to existing agreements or additional agreements that may be required can be obtained in a timely manner.
Classification	Classification of Ore Reserves has been derived by considering the Measured and Indicated Resources and the level of mine planning. - For the Tarrawonga Pit, Measured Coal Resources are classified as Proved Coal Reserves and Indicated Resources classified as Probable Coal Reserves, as the mine is currently operating and the level of mine planning is considered adequate to support this level of certainty in the Reserves estimate. - At Tarrawonga South, all Coal Reserves are classified as Probable for both Measured and Indicated Resources, as the pit is not currently operating, the level of mine planning is regarded as preliminary and approvals are not in place. The Inferred Coal Resources have been excluded from the Reserve estimates. The result reflects the Competent Persons view of the deposit.
Audits or reviews	Internal peer review and reconciliation by RPM of the Reserves estimate has been completed.
Discussion of relative accuracy/ confidence	The pit shell is supported by approximately 80% of Measured Coal Resources. The basis of the estimate is the 2015 actual Tarrawonga operating costs and 3 year budget forecasts. CHPP and infrastructure are in place and operating Analysis of the coal quality has been undertaken by independent laboratories working under international standards of method and accuracy. Tarrawonga product coal is produced from blended washed and bypass coal products. The level of accuracy will continue to be dependent on the ongoing update of the geological model and monitoring of the Modifying Factors affecting the coal estimate. Geotechnical studies have been completed for Tarrawonga and will be required for Tarrawonga South prior to development. Internal peer review and reconciliation by RPM of the Reserves estimate has been completed. Dot point 2 is not applicable for coal WHC has an ongoing reconciliation process aimed at testing the appropriateness of the assumed Modifying Factors for the mine



ML1579 ML1685 ML1693 EL5967

DRILLHOLES, TENURE AND COAL EXTRACTION LIMITS

