# WICET STAGE 1 MINE PRODUCTION SUMMARY FOR QCA (Redacted)

Prepared For
WIGGINS ISLAND COAL EXPORT
TERMINAL PTY LTD

Ву

John T. Boyd Company

Mining and Geological Consultants Brisbane, Australia



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Mr Warren Bamford

Wiggins Island Coal Export Terminal Pty Ltd

Level 2

443 Queen Street Brisbane QLD 4000

Subject: WICET Stage 1 Mine Production Summary

for QCA (Redacted)

**Dear Sirs** 

This report presents a summary of findings of John T Boyd Company's [BOYD] independent technical review of information provided to us regarding source mines nominated for participation in the Wiggins Island Coal Export Terminal Stage 1 development (WICET Stage 1).

This report is a redacted version of the report developed for provision to QCA with data tabulated by individual mine redacted.

Respectfully submitted,

JOHN T. BOYD COMPANY

John T Boyd II
President and CEO

By:

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#### 1.0 GENERAL STATEMENT

#### 1.1 Introduction

This report presents a summary of the findings of BOYD's May 2014 review of the production schedules for the mines and projects with a capacity allocation in Wiggins Island Coal Export Terminal Pty Ltd [WICET] Stage 1 port development.

WICET Group was granted preferred proponent status in October 2008 to develop the industry owned and financed Wiggins Island Coal Export Terminal (Terminal), located in Gladstone, Queensland.

The WICET Group, which consists of WICET Holdings Pty Ltd and its wholly owned subsidiary WICET, is currently owned by the eight coal companies having port capacity allocations in WICET Stage 1.

The mines and projects in WICET Stage 1 are:

| Company (Proponent)   | Mine/Project                              |
|---|---|
| <ol> <li>Glencore</li> <li>Wesfarmers Resources</li> <li>Cockatoo Coal</li> </ol> | Rolleston<br>Curragh<br>Baralaba/Wonbindi |
| <ol> <li>Yancoal</li> <li>New Hope Coal</li> </ol>                                | Yarrabee<br>Colton                        |
| 6. Aquila Resources   | Eagle Downs                               |
| 7. Caledon Resources  | Cook/Minyango                             |
| <ol><li>Bandanna Energy</li></ol>   | Springsure Creek                          |

Bandanna Energy Limited (Bandanna Energy) entered voluntary administration in September 2014 hence the potential for coal supply to WICET from the Springsure Creek coal project has been excluded from tonnage estimates presented in this review. BOYD has been informed that the Administrators of Bandanna are currently actively seeking opportunities for recapitalisation or acquisition of the Springsure Creek Project. BOYD considers that given the advanced status of the Project, there is potential for it to proceed to the production phase. However, the timing for commencement of production remains uncertain.

The construction programme for WICET Stage 1 anticipates coal delivery to the port will commence in the second quarter of 2015.

## 1.2 Scope of Work

For the purposes of this report, the findings of our report titled "5120.008 WICET Stage 1 Review May 2014" have been summarised to provide information regarding each Stage 1 mine's ability to satisfy their allocated WICET Stage 1 capacity.

The scope and objectives of our initial BOYD report were to: 1) analyse information provided by WICET Stage 1 participants, and 2) to opine regarding: date to first coal, production ramp up profile, and full production rates for each project. Our estimates were developed by assessing progress to date and extrapolating completion results using specified development schedules for each project or standard approval time frames for similar projects. Issues and risks to project completion were discussed for each project.

Information provided by each proponent was reviewed and a list of additional information required from each proponent was developed. This information varied depending on whether the proposed project is a greenfield development or a brownfields expansion. A meeting was held with each proponent to present the WICET Stage 1 review process and to discuss the additional data required.

The review of data for greenfield developments that have not received necessary mining lease approval (Colton and Minyango) primarily focused on the approvals process, feasibility studies and project development timelines. Review of brownfield expansions (Rolleston, Baralaba, Curragh and Yarrabee) focused on confirmation of expansion plans contained in the individual mine's medium term mine plans, tender processes and contracts for expansion activities. As a greenfield project under construction, the review of Eagle Downs Mine sought confirmation of construction activities and compared development progress to project development timelines. BOYD completed visits to all sites.

To assess the likely ramp up schedule for coal supply to WICET Stage 1, our review considered the key components of each mine development proposal as described in the sections below.

## 1.2.1 Mine Technical Feasibility

BOYD's review of Mine Technical Feasibility focused on development plans and the timelines proposed. All projects were expected to have detailed development plans in place and to be committing to project construction activities.

#### BOYD's review included:

- Current status of geological models and identified resources and reserves.
- Current status of studies of mine plan and mine infrastructure.
- Identification of key milestones in project development plans.
- Proposed mine development plans and resources for adequacy and completeness.

- Proposed mine development timeframes against typical current industry norms.
- Identification of key risks and issues for mine development.
- Comparison of the proposed mine development timeline with BOYD's estimated project delivery date and provision of an expected production ramp up schedule.
- Publicly available information, in comparison to information provided to BOYD with commentary on any issues arising including material differences.

## 1.2.2 Mining Tenure

BOYD developed an approvals timeline template by reviewing actual mine approvals progress. This template was applied to estimate the likely approval date for any Mining Lease Application. The standard timeline was adjusted for individual projects after assessing factors that may accelerate or delay the process. The review process included:

- Current status of environmental studies and Environmental Approval documentation.
- Current status of mining tenure and applications.
- Identification of key milestones in the project approval process.
- Plans and resources for securing Environmental Approvals and Mining Lease against typical current industry norms.
- Identification of the key risks and issues for the Source Mine in obtaining a Mining Lease.
- Estimation of the likely date of Mining Lease approval.
- Publicly available information, comparison of this with information provided to BOYD, and identification of any issues arising including material differences.

## 1.2.3 Other Connecting Infrastructure

Confirmation was sought that other connecting or supporting infrastructure necessary to the production and delivery of coal from the Source Mine, was likely to be approved and in place by the expected date of Mechanical Completion. The regional infrastructure included, as a minimum, water and power supply. In addition, any proposed connections to mainline rail infrastructure, such as rail loops and spurs, or haul roads, were assessed. The availability of mainline rail infrastructure was excluded from our scope of work.

The following was included in our review:

- Current status of the Source Mine's water and bulk power supply.
- Approvals required for routes associated with infrastructure provision.
- Status of negotiations with third parties including service providers and land owners.
- Current status of technical studies.
- Identification of key milestones in delivering infrastructure.
- Description of the key risks and issues for the Source Mine securing regional infrastructure.
- Opinion regarding the likelihood that the Source Mine would be able to access all required regional infrastructure.
- Publicly available information collected and compared with information provided to BOYD and identification of any issues arising including material differences.

#### 1.3 Limitations and Exclusions

Our review relied on information provided by each Source Mine as well as that sourced from the public domain. BOYD assessed the specified areas under our assigned scope of work for reasonableness within the context of industry standards, and our independent professional experience. We did not perform any independent verification of the source data.

BOYD's assessment specifically excluded all aspects of legal, commercial and financial, valuation, marketing, coal price, exchange rate, tenure/title agreements, and rail and port contracts, except for aspects that may directly influence our scope of work.

# 1.4 Report Qualifications

The findings and conclusions presented herein represent the independent opinions of BOYD based on available source documentation supplemented with our general industry knowledge. Our findings have been prepared in a manner consistent with prudent engineering practices and accepted industry standards.

WICET is in the process of developing Stage 1 of the terminal to export coal from a portfolio of coal mining projects which will utilise both open cut and underground mining methods.

There are inherent risks in all coal mining operations, including geological, operational, and market risks. The mining environment is exposed to a variety of hazards where both the probability of occurrence and the consequence of an event are not predictable with a high degree of confidence.

The ability of each mine to foresee and manage known and unforeseen risks and to achieve operational, quality and financial targets is dependent on numerous factors that are beyond the control of, and cannot be fully anticipated by BOYD. These factors include: mining and geologic conditions, the capability of management and employees, variation in domestic and international market conditions, the level of continued maintenance and investment in the operations, legislation and governance changes, etc. Unforeseen changes in domestic and international legislation, community standards, new industry developments and international economic conditions could substantially alter the projected performance of the WICET Stage 1 nominated source mines.

BOYD understands that WICET will provide this independent production forecast on a confidential basis to the Queensland Competition Authority (QCA) and Aurizon Network to inform discussions relating to rail tariffs. It may be published by the QCA, but with all tonnage numbers redacted. The report will also be provided to the above rail operators.

The findings and opinions presented herein are prepared exclusively for WICET and are not warranted in any manner, express, or implied.

Respectfully submitted,

JOHN T. BOYD COMPANY

By:

Garry McSpadden

**Principal Mining Engineer** 

Ian Alexander

Managing Director – Australia

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#### 2.0 SUMMARISED FINDINGS

### 2.1 Introduction

This report presents BOYD's independent review and assessment of the information provided to us in relation to the mines and projects with a port capacity allocation as part of WICET Stage 1.

Each mine was assessed regarding:

- · Mine approvals process and timing.
- Mine development schedule and capacity to produce coal to supply to WICET from April 2015.
- Production ramp up schedules and the proposed annual production for the first ten years of production.
- Supporting infrastructure including rail connection to main line, power, and water supply.

Risks to achieving WICET Stage 1 coal supply project schedules, production plans (i.e., ramp up schedule and consistent mine production over ten years) were identified.

It should be noted that all years refer to financial years (FY) ending 30 June.

# 2.2 Mine/Project Summary

The following table provides a summary of each of the mine/projects:

| Mine/Project          | Approvals  | Mine Development   | Infrastructure  |
|-----------------------|--|--|---|
| Rolleston             | All approvals in place.  | Expansion by 2 Mtpa. Equipment being delivered to site.                                | Minor upgrade to CHP and train load out to commence in second half of 2014. |
| Curragh               | All approvals in place.  | No expansion required.   | All infrastructure in place.  |
| Baralaba/<br>Wonbindi | Approval for 1 Mtpa.<br>EIS process in progress<br>for expansion to 3.5 Mtpa | Expansion from 0.5 Mtpa to 3.5 Mtpa.   | Requires new train load out and road haulage of coal to the load out.       |
| Yarrabee              | All approvals in place.  | Expansion from 2.7 to 3.2 Mtpa. Has operated at 3.2 Mtpa for two consecutive quarters. | All infrastructure in place.  |
| Colton                | EA and Mining Lease approval required.                                       | Not started.<br>Open cut mine at 0.5 Mtpa.   | Requires power supply and rail loop.  |

| Mine/Project        | Approvals                              | Mine Development   | Infrastructure   |
|---------------------|--|--|--|
| Eagle<br>Downs      | All approvals in place.                | Drift development commenced. New underground longwall mine requires drift to access coal seam and development of longwall panels.                      | All services contracted. Power supply on site.   |
| Cook                | All approvals in place.                | Mine expansion commenced.<br>Longwall equipment purchased<br>and development of longwall<br>panels nearing completion.                                 | Requires upgrade to CHPP, increased water and power usage from existing supply infrastructure. |
| Minyango            | EA and Mining Lease approval required. | Not started.  New underground longwall mine requires drift to access coal seam and development of longwall panels.                                     | Requires rail spur and train load out, power supply and water supply. New CHPP proposed.       |
| Springsure<br>Creek | EA and Mining Lease approval required. | Not started. Company in voluntary administration. New underground longwall mine requires drift to access coal seam and development of longwall panels. | Requires rail spur and train load out, power supply and water supply.                          |

## 2.3 Mine/Project Production Profile

BOYD estimated three production profiles (Mid, High, and Low) to provide a range of likely outcomes. The High and Low Case are not the extremes of potential outcomes, but instead reflect optimistic and pessimistic views of production assuming that the proposed development activities continue as planned. Annual production from each mine not contracted to other ports or domestic customers, for each production case, is shown in Table 2.1, (redacted from this report). The table reports projected annualised quarterly production between April 2015 and June 2021. Only technical risk has been considered in the schedules proposed. Economic risks are outside the scope of this review.

Mid Case: This was the outcome that BOYD considers most likely to occur. Mining lease approvals are expected to be completed as estimated by BOYD's mining approvals timeline template. Mine development activities were expected to be completed as per the Proposer's schedule provided this could be justified having consideration for durations typically achieved by other projects. For the open cut mines, annual production matched the Proposers' schedules. Where underground reserves were based on Measured Resources, underground mine annual production as provided in accordance with the Proposers' schedules, were accepted. For underground schedules predominantly based on Indicated Resources, annual production was de-rated following review of the productivity assumptions used in the proposed schedules. The assessment included consideration of potential improvements resulting from the deployment of new underground mining equipment.

<u>High Case</u>: Mining lease approvals and mine development activities were expected to be completed faster than typically observed, but not faster than has been achieved elsewhere. Open cut mine annual production was estimated as for the Mid Case. The Proposers' scheduled production capacity was accepted for all underground mines.

<u>Low Case</u>: Mining lease approvals were expected to be completed within the time frames achieved by the slowest projects not impacted by special causes, such as major court cases. Any accelerated mine development activities included in the Proposers' schedule were replaced with durations achieved by other projects that were not accelerated. Open cut mine annual production was estimated to underperform the Proposer's schedule by 10% for the first three years of production. Underground mine annual production was reduced for all mines.

The aggregated High, Mid and Low Case production tonnes potentially available to WICET are shown graphically below (redacted from this report) and are listed by quarter from April 2015 to June 2021 in Table 2.2, (redacted from this report).



These tonnes include BOYD's estimate of tonnage produced by each mine contracted to WICET Stage 1 plus tonnage that the mines produce that is not contracted to any other export terminal or domestic customer. The proportion of this potentially available tonnage that is actually exported through WICET will depend on a range of factors that are both internal and external to WICET. The graph and tables simply present the total tonnage the producers may have available to export through WICET, should WICET capacity be available and exporting through WICET is the most beneficial option available to the individual producers.

# Following this chapter are:

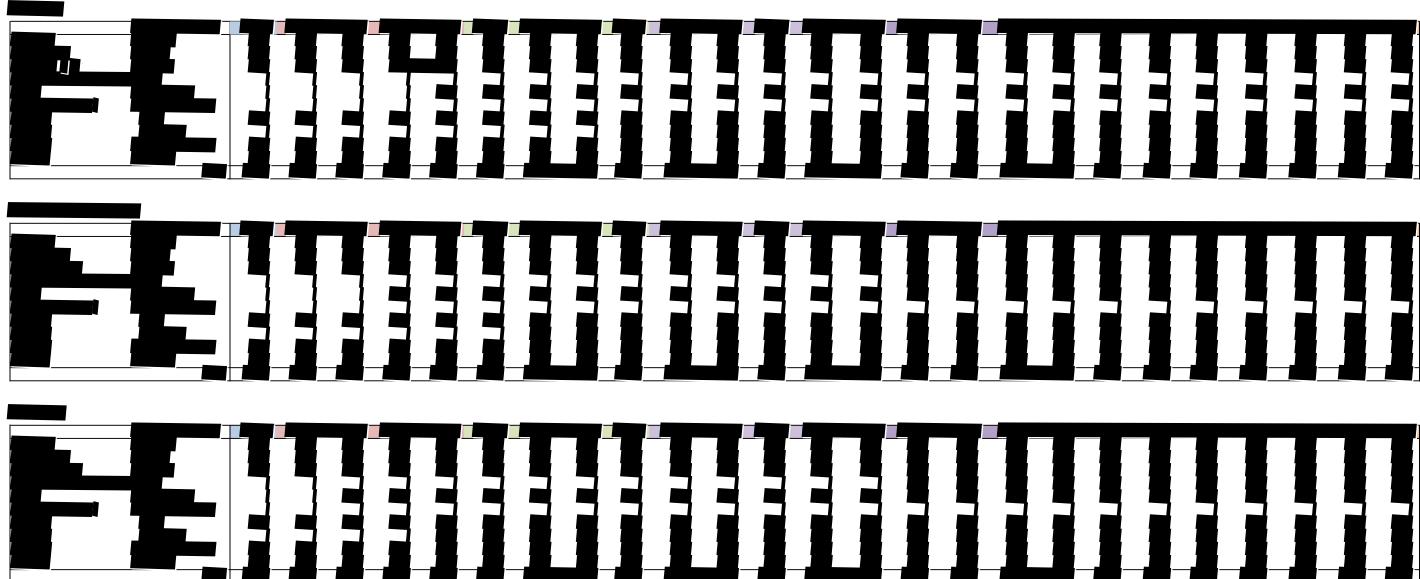
# **Tables**

- 2.1: Estimated Production Profile by Mine WICET Contracted Allocation Plus Production not Contracted to Other Ports (Redacted from this report)
- 2.2: Aggregate Estimated Production Profile (Redacted from this report)

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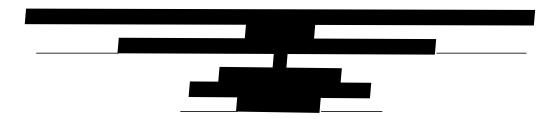
TABLE 2.1





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TABLE 2.2





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