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1.0 INTRODUCTION

1.1 The Proponent

Muswellbrook Coal Company Limited (MCC) has a long association with coal mining at Muswellbrook, located in the Upper Hunter Valley. Underground mining commenced in 1907, while open cut mining commenced in 1944. MCC was one of the first open cut coal mines in Australia. MCC is a wholly owned subsidiary of Apollo Resources Pty Limited, which in turn is part of the Idemitsu Kosan Co Ltd Group. Idemitsu Kosan Co Ltd Group is a Japanese energy company with commercial interests in various parts of the world.

1.2 Current Operations

Current mining operations are principally focussed on several major seam groups in MCC's No. 2 Open Cut. The seams being mined are, in descending order, the Fleming, Hallet, Muswellbrook, St Heliers, Lewis and Loder Seams. Open cut mining from the multiple seams has been performed using a combination of a face shovel, hydraulic excavator and front-end loaders working with a fleet of trucks (190 and 77 tonne capacity). The mining geology, while complex in some areas, is well understood.

1.2.1 Production

MCC currently operates two mines within one colliery holding. No 1 Open Cut mine produced approximately 250,000 tonnes (t) of coal since late 2000. No. 2 Open Cut currently produces 1.4 to 1.7 million tonnes per annum (Mtpa) and has a stand alone life of three years. The No. 2 Underground mine was closed suddenly in March 1997 due to unstable roof conditions. The mining operations produce low ash, high energy thermal coal for both export and domestic markets. The coal does not require beneficiation prior to sale.

1.2.2 Exploration Activities

MCC has two exploration licences in the Castlerock and Rosehill areas west of Muswellbrook and Aberdeen and exploration activities are currently underway. These exploration areas do not form part of this development application and are not further considered in this Environmental Impact Statement (EIS).

1.2.3 Workforce

The mine currently employs 69 permanent employees with the use of, on average, 39 contracted employees.

1.3 The Location

The Muswellbrook No. 1 Open Cut Mine is located on Coal Road, approximately 1.6 km to the east of the nearest residential areas of north Muswellbrook township, a major regional centre (**Figure 1.1**). Muswellbrook is approximately 130 km north-west of Newcastle.

1.4 The Proposal

MCC wishes to extend operations in the existing No. 1 Open Cut within its currently held Consolidated Coal Lease 713 (CCL 713). The mine plan allows for the No. 1 Open Cut Extension A (Extension A) to progress in an easterly direction for five years. No. 1 Open Cut Extension B (Extension B) envisages operations commencing at the north easterly limit of the identified resource and the continuation of operations in a south westerly direction for five years. The proposal, when combined with the No. 2 Open Cut operations has the potential to allow mining to continue for up to 10 years at a production rate of approximately 1.5 Mtpa. Extension A will intercept underground mine workings which may provide an alternate entry into the approved Sandy Creek Underground Colliery. A production rate of up to 2.0 Mtpa is possible if the Sandy Creek Underground Colliery becomes operational during the final years of the No. 1 Open Cut Extension. The general layout of the No. 1 Open Cut Extensions A and B and the extent of MCC's mining operations are shown in **Figure 1.2**.

1.5 Structure of the Environmental Impact Statement

This EIS has been prepared in accordance with the *Environmental Planning and Assessment (EP&A) Act, 1979* and its Regulation, particularly in response to the requirements of the Director-General of planningNSW and Schedule 2 of the *EP&A Regulation 2000*.

The contents of the EIS are as follows:

Abbreviations and Glossary of Terms

Executive Summary

Section 1.0: Introduction

Provides a background to the proposal.

Section 2.0: Planning Context, Approvals and Consultation

Explains the statutory process and approvals sought, as well as providing details of consultation undertaken with government authorities, neighbours and the wider community.

Section 3.0: Description of Existing Environment

Details the existing environment of the site including water resources, soil, land capability, flora and fauna, noise, air quality and archaeological aspects plus infrastructure and socio-economic characteristics.

Section 4.0: Existing Mining Operations

Describes the operations of the existing MCC coal mining operations.

Section 5.0: The Development Proposal

Provides a full description of the proposal objectives and all aspects of the proposed mining operations, coal handling and transport as well as the timing of the proposed activities.

Section 6.0: The Likely Impact on the Environment

Provides an assessment of the likely impact of the MCC No. 1 Open Cut Extension proposal on the natural, cultural and economic environment. This section draws upon specialist studies in areas of potential or actual impact.

Section 7.0: Measures Proposed to Mitigate Adverse Impacts on the Environment

Provides a description and assessment of measures proposed to eliminate or reduce identified or potential impacts arising from the proposal proceeding.

Section 8.0 Alternatives

Examines alternatives to the proposal and the consequences of not proceeding.

Section 9.0: Project Justification

Provides a justification for the proposal in terms of social, environmental and economic factors.

Section 10.0: References

The following appendices are contained in **Volume 2** of the EIS:

Appendix A: Copy of the Director-General's Requirements.

Appendix B: Copy of Muswellbrook Shire Council and Government Authority Responses.

Appendix C: Statutory Authorities Checklist.

Appendix D: Native Titles Searches.

Appendix E: Air Quality Impact Assessment – Holmes Air Sciences Pty Limited.

Appendix F: Flora and Fauna Investigation – HLA - Envirosciences Pty Limited.

Appendix G: Soils and Land Capability Study – R.J. Connolly Environmental Management Consulting Pty Limited.

Appendix H: Noise and Vibration Assessment – HLA - Envirosciences Pty Limited.

The following appendices are contained in **Volume 3** of the EIS:

Appendix I: Indigenous and Non Indigenous Heritage Assessment – HLA - Envirosciences Pty Limited.

Appendix J: Aboriginal Cultural Heritage Assessment – Upper Hunter Wonnarua Council Inc.

Appendix K: Water Management Study – HLA - Envirosciences Pty Limited.

Appendix L: Traffic Conditions Review – TPK & Associates Pty Ltd.

Traffic Impact Assessment of the Proposed Extension to Muswellbrook No. 2 Coal Mine
– Christopher Hallam & Associates Pty Ltd.

Appendix M: Community Consultation.

1.6 How to Read this EIS

The content of this EIS is largely determined by the requirements of the *Environmental Planning and Assessment Regulation 2000*, Schedule 2 and specific requirements for this proposal provided by the Director-General of planningNSW. In the formulation of the Director-General's Requirements regulatory bodies that have, or are likely to have, an involvement in the proposal have been consulted, including the Environment Protection Authority (EPA), the Department of Land and Water Conservation (DLWC) and the National Parks and Wildlife Service (NPWS).

To meet the Director-General's Requirements specialist practitioners have investigated technical issues. The assessments, conclusions and recommendations of these specialist studies are incorporated within the main body of the EIS. These reports are, at times and of necessity, somewhat complex to persons unfamiliar with the field of the specialist study. The specialist reports have been included in the EIS as Appendices, so that the conclusions drawn by the reports are transparent and open to scrutiny by regulatory agencies, other specialists in the respective field and by other interested parties.

The report is layered, with a summary, main text and specialist studies included as appendices. This enables the reader to choose the "layer" relevant to his or her depth of interest or requirements for particular information. A comprehensive Table of Contents enables the reader to locate relevant sections. Tables are incorporated within the text of the EIS while figures are generally located following the text of each section.

1.7 Study Team

This EIS has been prepared by HLA-Envirosciences Pty Limited in conjunction MCC. Various specialist consultants, who were coordinated by the principal parties, undertook the specialist studies. The personnel involved and their role is as follows:

Specialist Consultants

N. Holmes – Holmes Air Sciences	Air Quality Assessment
R. Connolly – RJ Connolly Environmental Management Consulting	Soils, Land Capability and Agricultural Suitability
W. & C. Bryant – Cactus Design	Drafting and Figures
Terry Keating – TPK & Associates	Traffic Review

Muswellbrook Coal Company Limited

Rob Mathieson	Managing Director
Shane Duffy	Mine Manager
Mark Howes	Environmental Officer
Ian Pankhurst	Mining Engineering Consultant
Brett Peterkin	Community Involvement Consultant

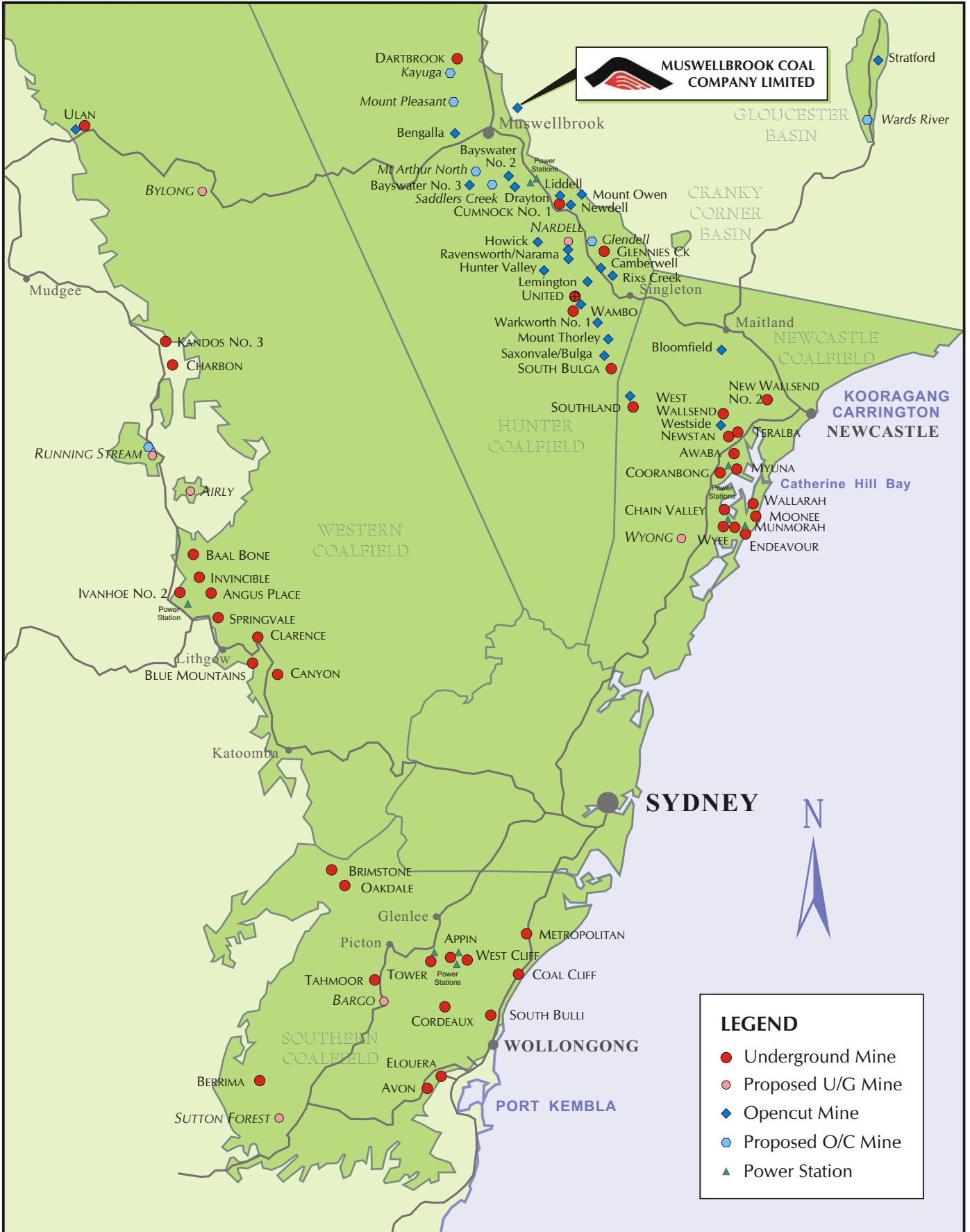
HLA-Envirosciences

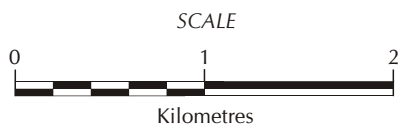
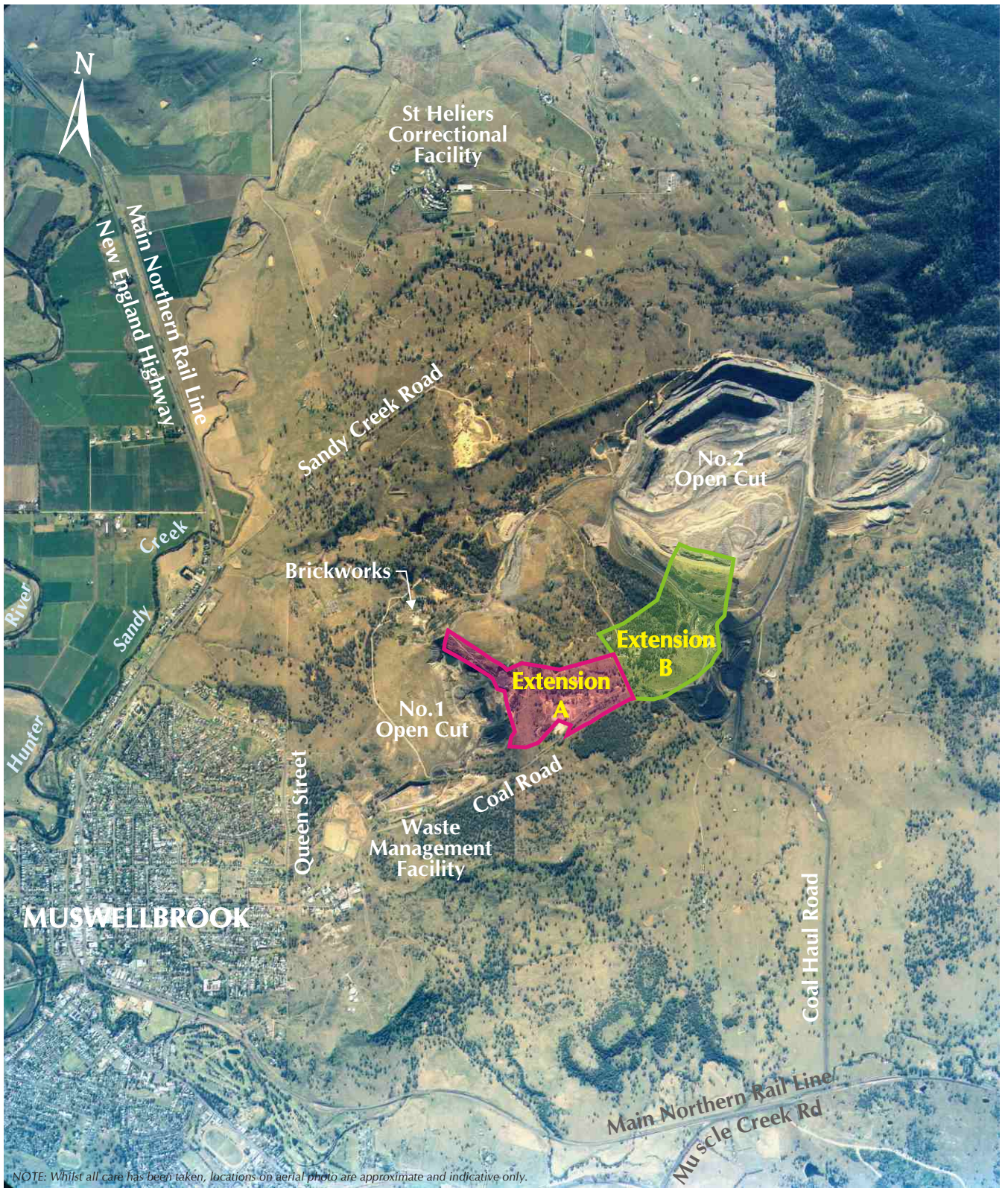
Alan Wells	Project Director
Colin Phillips	Project Manager
Angela Riepsamen	Text Production and Research
Neil Pennington, Ross Hodge	Noise and Vibration
Gary Freeland	Socio Economic Aspects, Planning Issues
Paul Tammetta	Water Management
Mark Aitkens	Flora and Fauna
Vanessa Hardy, Meaghan Russell	Archaeology
Lisa Elliott	Graphic Design
Laena French	Cover Design and Graphic Design
Olga Deakin, Michelle Horner, Lisa Gibbons	Word Processing

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- Department of Land and Water Conservation (DLWC);
- Department of Mineral Resources (DMR);
- Environment Protection Authority (EPA);
- Lower Hunter Wonnarua Council (LHWC);
- Mine Subsidence Board (MSB);
- Muswellbrook Shire Council (MSC);
- National Parks and Wildlife Service (NPWS);
- planningNSW;
- Roads and Traffic Authority (RTA);
- The Environment Committee of MSC;
- Upper Hunter Wonnarua Council Inc.;
- Wanaruah Local Aboriginal Land Council;
- Wonnarua Nation Aboriginal Corporation; and
- Wonnarua Tribal Council.





MUSWELLBROOK COAL COMPANY LIMITED

Layout of Mining Operations and the
No.1 Open Cut Extension **FIGURE 1.2**