DARTBROOK MINE

SPONTANEOUS COMBUSTION MANAGEMENT PLAN

23 August 2023

DOCUMENT CONTROL

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1. INTRODUCTION

1.1 BACKGROUND

Dartbrook Mine is owned by an unincorporated Joint Venture (Dartbrook Joint Venture) between Australian Pacific Coal (AQC) and Tetra Resources Pty Ltd (Tetra). Dartbrook Operations Pty Ltd (Dartbrook Operations) is the appointed operating management company and the Mine Operator under Section 5 of the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2022*. Dartbrook Operations will also be responsible for AQC Dartbrook Management Pty Ltd (ABN 62 007 377 577) which is the holder of the Development Consent and Environment Protection Licence), and AQC Dartbrook Pty Ltd (ABN 46 000 012 813) which is the holder of the relevant mining and coal authorities.

Dartbrook Mine is located approximately 10 kilometres (km) north-west of Muswellbrook and 4.5 km south-west of the village of Aberdeen in New South Wales (see **Figure 1**). Dartbrook operated as an underground longwall coal mine from 1993 until December 2006, when it was placed in care and maintenance by the previous owner, Anglo Coal (Dartbrook Management) Pty Ltd. The mine was acquired by AQC in 2017 and remained in care and maintenance throughout AQC's ownership.

Dartbrook Mine is authorised by Development Consent DA 231-07-2000 granted under the *Environmental Planning and Assessment Act 1979* (EP&A Act). DA 231-07-2000 was granted on 28 August 2001 and has been modified on seven occasions (as summarised in **Table 1**). DA 231-07-2000 enables mining operations to be carried out until 5 December 2027.

Table 1 Modifications to DA 231-07-2000

Modification	Approval Date	Activities
MOD 1	19 June 2002	MOD1 was an administrative modification to DA 231-07-2000 to alter the conditions regarding blasting notifications and structural inspections.
MOD 2	16 June 2003	MOD2 approved the construction and operation of an additional emergency tailings storage cell at the Coal Handling and Processing Plant (CHPP).
MOD 3	4 November 2003	MOD3 proposed the following changes to the site access arrangements: • Continued use of Dartbrook Road to provide access to the West Site; and • Use of local public roads by traffic associated with Dartbrook Mine. Prior to construction of the Kayuga Mine Access Road, access to the West Site was via Dartbrook Road. It was envisaged that Kayuga Mine Access Road would replace Dartbrook Mine as the primary access to the West Site. However, the Kayuga Mine Access Road was being used by trucks to haul coal to the CHPP. To avoid interactions between haul trucks and private vehicles, MOD3 proposed that Dartbrook Road should continue to be used as the primary access road for mine personnel. MOD3 also sought approval for locally based employees to access the West Site via local roads (Kayuga Road, Dartbrook Road and Blairmore Lane). For employees residing in the surrounding areas, these local roads provide more convenient access than the Western Access Road.
MOD 4	30 March 2004	DA 231-7-2000 allowed for truck haulage of coal to the CHPP over an 18-month period. Truck haulage was to be discontinued upon completion of the conveyor system for the Kayuga Seam, which would enable coal to be transferred to the CHPP via the Hunter Tunnel. MOD 4 extended the duration of truck haulage by 3 months to allow for haulage to continue until the completion of the Kayuga Seam conveyor system.

Modification	Approval Date	Activities
MOD 5	4 May 2005	MOD 5 facilitated changes to the rejects disposal system at Dartbrook Mine. The approved rejects disposal system involved the commissioning of a pipeline and pumping system for the transportation and disposal of reject materials. Engineering studies indicated that this method would pose significant technical risks due to the variability in relative quantities of coarse and fine rejects produced by the CHPP. MOD5 obtained approval for rejects to be transported to the Rejects Emplacement Area (REA) using trucks.
MOD 6	16 November 2005	MOD 6 provided approval for the following activities: • Establishment of four new ROM coal stockpiles and expansion of the existing emergency ROM coal stockpile at the CHPP; • Disposal of tailings within the Wynn Seam goaf; and • Operation of a Nitrogen Injection Plant to prevent the oxidation of coal.
MOD 7	11 March 2022	MOD 7 was determined by the NSW Independent Planning Commission (IPCN) on 9 August 2019. The IPCN approved the alternate mining method (bord and pillar mining) but not the proposed five-year extension to the duration of mining operations. Without the extension to operate under DA 231-07-2000 for a further five years, it was impractical to recommence mining at Dartbrook. In November 2019, an appeal was lodged against the IPCN's determination in the NSW Land and Environment Court. The court proceedings were resolved on 11 March 2022, with the proposed five-year extension of mining being approved. As a result, DA 231-07-2000 currently enables mining operations to be undertaken until 5 December 2027.

Dartbrook Operations is preparing to recommence mining activities in 2023, thereby transitioning Dartbrook Mine from care and maintenance back to an operational phase.

1.2 SITE LAYOUT

No mining or production activities occurred during care and maintenance. However, the mine surface infrastructure and facilities were maintained in reasonable order to enable recommissioning of operations.

The Dartbrook Mine generally consists of the following main components:

- West Site surface facilities including workshop and maintenance facilities, administration building, bathhouse, underground mine portals and water management infrastructure (see **Figure 2**);
- East Site surface facilities including the Coal Handling and Preparation Plant (CHPP), rail loop, train loading facilities, Rejects Emplacement Area (REA) and water management infrastructure (see **Figure 3**);
- Wynn Seam underground mine workings which are decommissioned and used for tailings disposal and mine water storage;
- Kayuga Seam underground mine workings, where future mining is proposed; and
- Hunter Tunnel which connects the underground mine workings to the East Site surface facilities.

A portion of the approved REA was developed during previous mining operations. This portion of the REA was capped and rehabilitated during care and maintenance.

1.3 REGULATORY REQUIREMENTS

Table 2 lists the conditions of Dartbrook's regulatory approvals that are relevant to the management of spontaneous combustion risk.

Table 2 Spontaneous Combustion Management Plan Requirements

Condition	Requirement	Reference
Development Consent DA 231-07-2000		
2.2	***Spontaneous Combustion*** The Applicant must prepare, prior to the recommencement of mining operations, a Spontaneous Combustion Management Plan to the satisfaction of the Resources Regulator. The plan must describe the measures to be implemented to prevent, detect and control spontaneous combustion	This Plan
3.2 (f)	<u>Management Plan Requirements</u> Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: (i) a summary of relevant background or baseline data; (ii) details of: • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures and criteria; and the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (iii) description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; (iv) a program to monitor and report on the: • impacts and environmental performance of the development; and • effectiveness of the management measures set out pursuant to paragraph (iii); (v) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (vi) a program to investigate and implement ways to improve the environmental performance of the development over time; (vii) a protocol for managing and reporting any: • incident, non-compliance or exceedance of any impact assessment criterion or performance criterion); • complaint; or • failure to comply with other statutory requirements; and (viii) a protocol for periodic review of the plan. *Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*	**Section 2.3** **Section 1.3** **Section 3** **Section 3** **Section 4.2** **Section 4.4** **Sections 4.2 & 4.3** **Section 4.4**
Emplacement Area (Section 126) Approval		
	In addition to these conditions, it is the requirement of the Department that a separate set of plans with the appropriate documentation be provided on the secure capping and sealing of reject material at Dartbrook.	This Plan

Condition	Requirement	Reference
	Important also is that an impermeable clay seal be applied to emplacement areas to ensure complete sealing and containment of material.	

The emplacement area approval listed in **Table 2** was issued under Section 126 of the former *Coal Mines Regulation Act 1982*. This approval only applies to the portion of the REA completed prior to 2007. The requirement for an emplacement area approval has been superseded by the requirement for a High Risk Activity (HRA) notification under Clause 35 of the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2022* (WHS Mine Regulation). An HRA notification will be prepared in respect of further development of the REA.

1.4 DOCUMENT PURPOSE

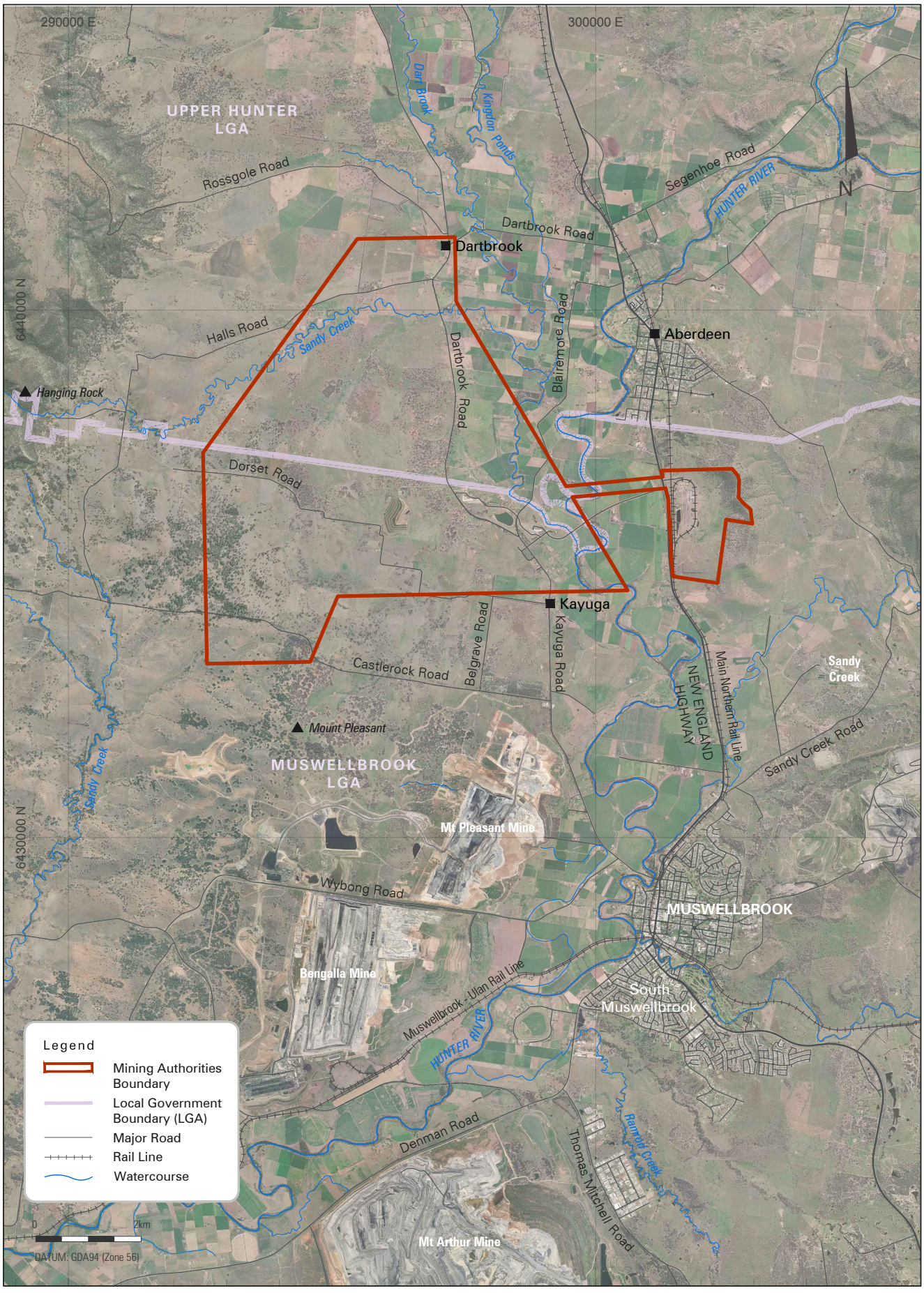
This Spontaneous Combustion Management Plan (SCMP) identifies the aspects of mining operations at Dartbrook Mine with a risk of spontaneous combustion and outlines the strategies to minimise the risk of combustion events occurring.

This document satisfies Schedule 2, Condition 2.2 of DA 231-07-2000 which requires the preparation of a Spontaneous Combustion Management Plan to the satisfaction of the Resources Regulator, prior to the recommencement of mining operations.

1.5 DOCUMENT STRUCTURE

This SCMP is structured as follows:

- **Section 2** describes the risks associated with spontaneous combustion and identifies the key areas of the Dartbrook Mine where this risk is applicable;
- **Section 3** outlines the management and monitoring measures to be implemented in relation to spontaneous combustion; and
- **Section 4** describes the processes for implementation of this management plan.



JBA 2188 DAR - F 01 SITE LOCALITY (14/03/2022)

DARTBROOK MINE

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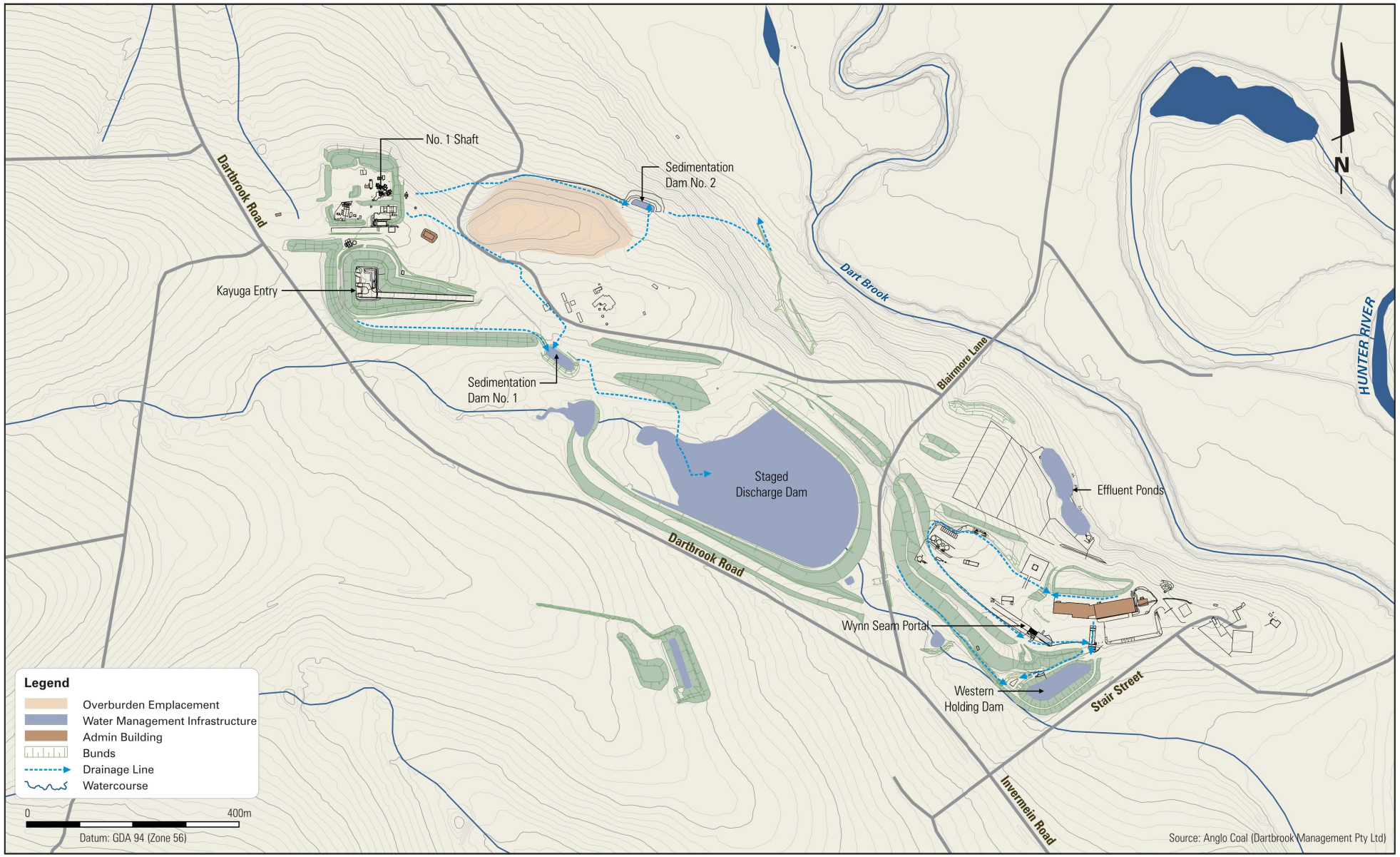
Regional Locality

FIGURE 1



JBA 2188 DAR - F 03 EXISTING SITE LAYOUT (WEST) (25/02/2022)

DARTBROOK MINE

Dartbrook Mine Layout - West Site

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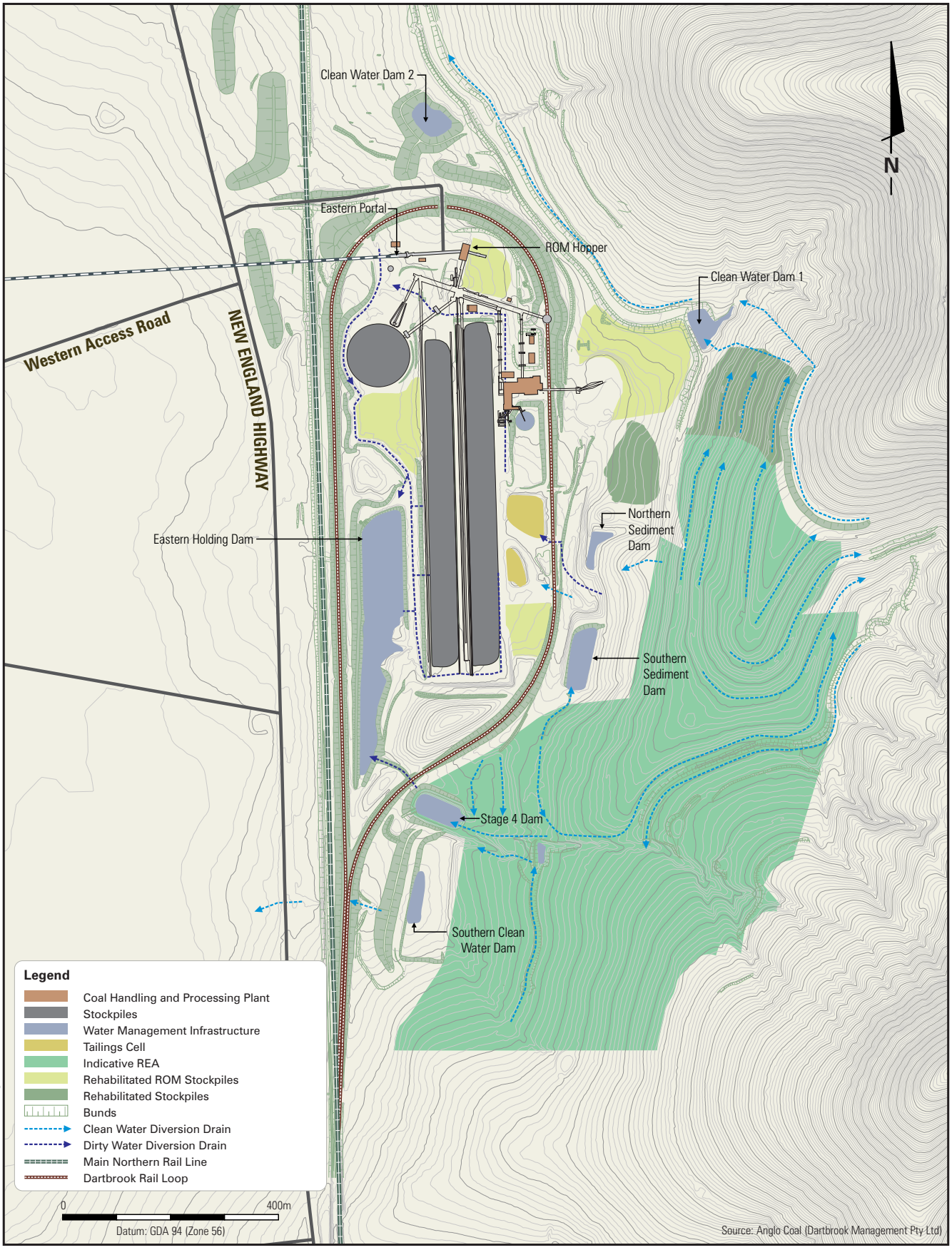
FIGURE 2



HB DARTBROOK Surface Water Management Plan HB1804 F1 East Site Infrastructure 17 07 2020

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Dartbrook Mine Layout - East Site

FIGURE 3

2. IDENTIFICATION OF RISK

2.1 NATURE OF THE RISK

The oxidation of coal and other materials is a natural reaction that creates heat and gases. Spontaneous combustion is the process by which certain materials can ignite due to reactions liberating heat faster than it can be lost to the environment.

Spontaneous combustion, if unmanaged, would pose significant safety and environmental risks such as fire and explosion hazards as well as the release of gases into confined spaces (Australian Pacific Coal, 2022).

2.2 KEY AREAS OF THE SITE

2.2.1 Coal and Reject Stockpiles

The capacities of the approved stockpiles at the East Site are outlined in **Table 3**. All stockpiles were cleared of carbonaceous material and several were rehabilitated during care and maintenance. It is anticipated that the rehabilitated stockpiles will not be required for future mining operations (i.e. these areas do not need to be re-disturbed).

The following stockpiles are expected to be utilised for future mining operations:

- The Circular Stockpile for storage of ROM coal;
- Product Stockpiles No.1 or No.2 for storage of product coal; and
- The Reject Stockpile for storage of reject materials.

Coal and reject stockpiles are identified as potential risk areas once carbonaceous material is reintroduced to these areas. A spontaneous combustion event in these areas would result in a safety incident as well as potential loss of coal resources.

Table 3 Coal Stockpile Status

Stockpile	Coal Type	Capacity (Tonnes Approx.)	Current Status
Emergency Stockpile	ROM	50,000	Rehabilitated
Circular Stockpile	ROM	80,000	Cleared of coal material
Eastern ROM Stockpile	ROM	185,000	Rehabilitated
Western ROM Stockpile	ROM	90,000	Rehabilitated
Southern ROM Stockpile	ROM	70,000	Rehabilitated
Northern ROM Stockpile	ROM	5,000	Rehabilitated
Product Stockpile No. 1	Product	200,000	Cleared of coal material
Product Stockpile No. 2	Product	200,000	Cleared of coal material
Reject Stockpile	Reject	20,000	Cleared of coal material
TOTAL		**900,000**	

2.2.2 Reject Emplacement Area

The existing reject emplacement area (REA) is located on the slopes of Browns Mountain to the east of the CHPP. The approved REA consists of the northern, central and southern portions (as shown in **Figure 4**). Reject materials generated by mining operations prior to 2007 were emplaced in the central portion of the REA. The completed portion of the REA was capped and rehabilitated during care and maintenance.

The REA will be recommissioned upon recommencement of mining operations and will continue to be utilised until the end of the operational phase. Future reject materials will be emplaced to the south of the completed portion of the REA and extend into the southern portion (see **Figure 4**).

A spontaneous combustion outbreak at the reject emplacement area would pose a significant fire safety risk. Measures to mitigate the combustion risk at the REA are described in **Section 3.2**.

2.2.3 Underground Workings

Underground mining is proposed to recommence in the Kayuga Seam, where longwall mining was undertaken immediately prior to the suspension of operations at the end of 2006. The previous owner of Dartbrook Mine also conducted longwall mining in the deeper Wynn Seam, prior to relocating operation to the Kayuga Seam. No further mining is currently proposed within the Wynn Seam.

Similar to other operations in the Hunter coalfield, the coal seams at Dartbrook have a propensity for spontaneous combustion. A combustion event within the underground workings would pose a serious health and safety risk due to production of gases including methane, carbon monoxide and carbon dioxide. Measures to mitigate the risk of spontaneous combustion in the underground workings are described in **Section 3.3**.

2.3 LEVEL OF RISK

2.3.1 Underground Activities

The previous owner encountered spontaneous combustion in the Wynn Seam during previous longwall mining. Since cessation of mining in this seam, the goaf has filled with water (both due to passive inflows and active water management). The Wynn Seam goaf is proposed to remain as a water storage for the remainder of the mining period. As such, the Wynn Seam goaf is not at risk of spontaneous combustion.

In underground mines, spontaneous combustion is commonly caused by leakage of air through cracks in the coal. Previous mining operations were conducted using longwall mining methods. Longwall mining induces significant cracking within the caved zone. The proposed bord and pillar workings are designed to be remain stable (i.e. no caving of the roof). For this reason, the proposed bord and pillar mining involves a much lower risk of spontaneous combustion than previous longwall mining.

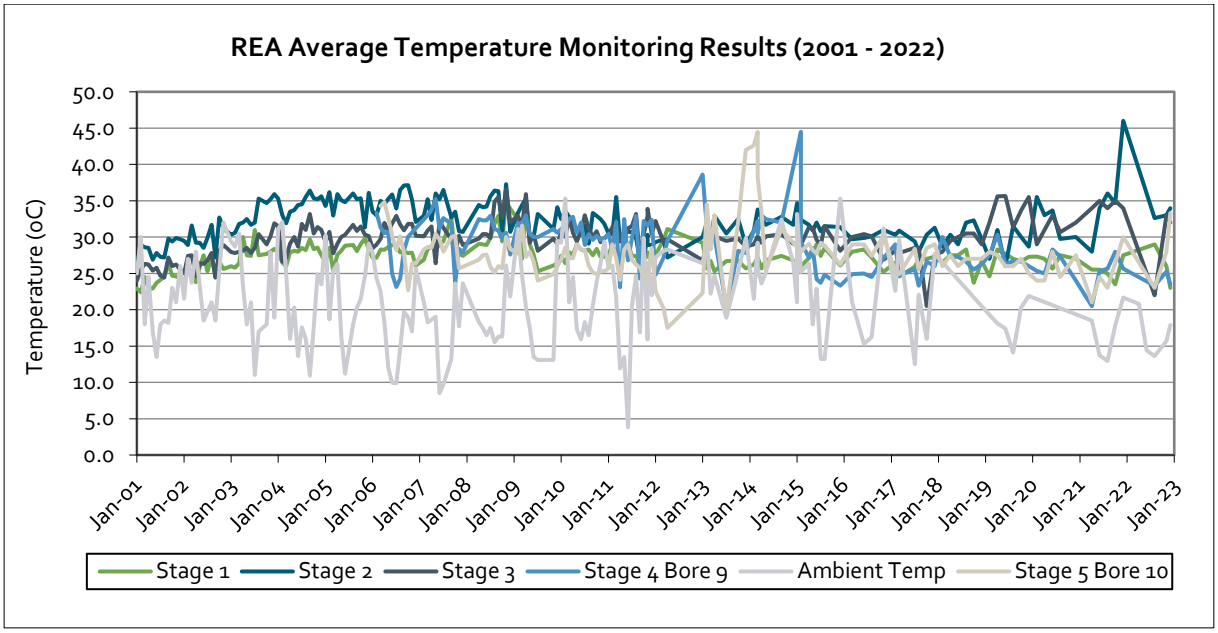
No spontaneous combustion was encountered during previous longwall mining in the Kayuga Seam; however it remains a relevant risk for mining operations in this seam. Mine Consulting Services (MCS, 2017) identified the overlying Mount Arthur Seam as having a very high propensity for spontaneous combustion. Connective cracking to the overlying Mount Arthur Seam would create a spontaneous combustion risk (if it occurred). The risk of cracking is significantly mitigated by the bord and pillar mining method.

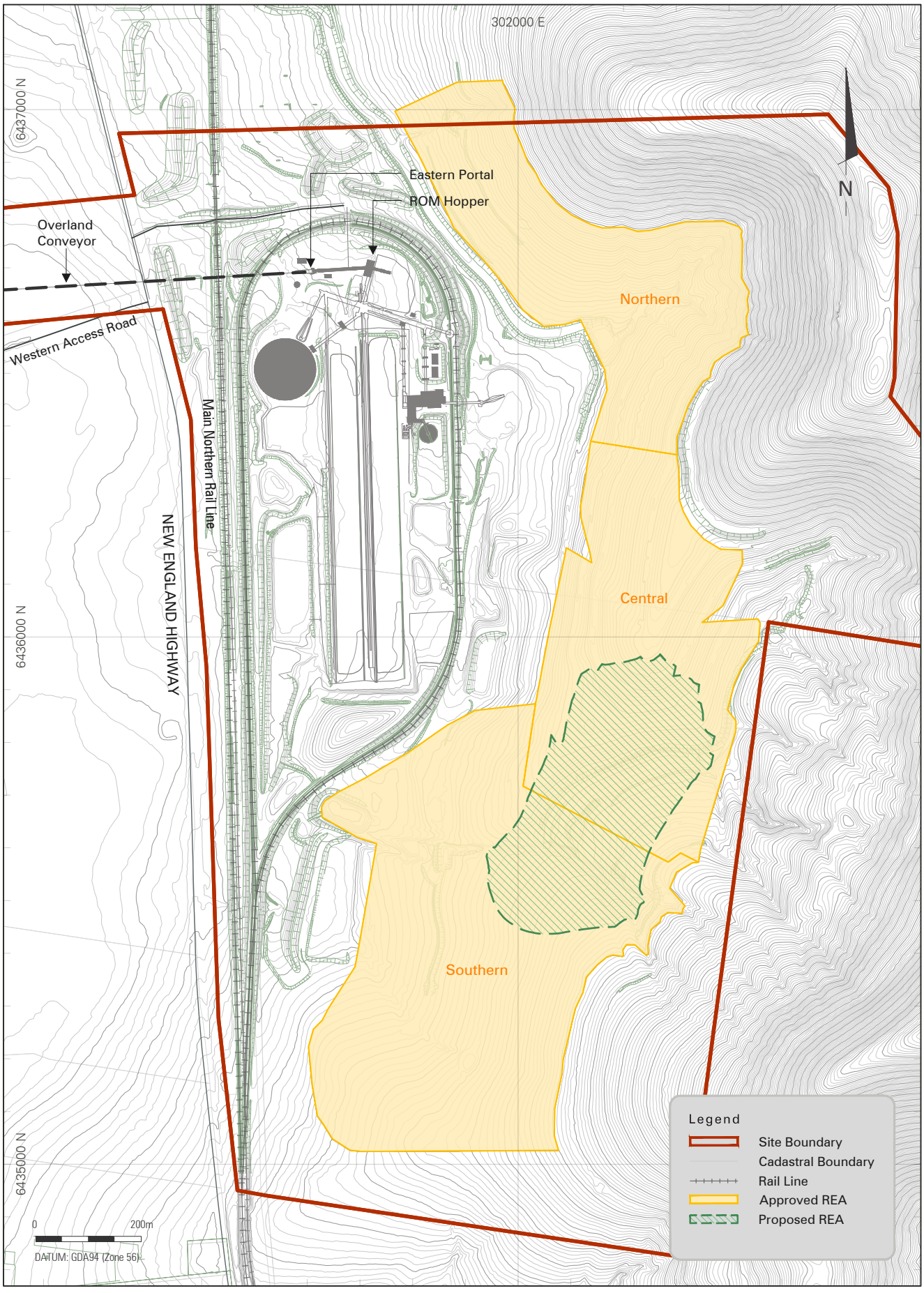
2.3.2 Surface Activities

The completed portion of the REA has not experienced any spontaneous combustion events. The long-term temperature monitoring results for the completed stages of the REA are shown in **Plate 1**. Temperatures within the REA have not exceeded the trigger value of 50°C either during active emplacement or following rehabilitation. This indicates that capping and rehabilitation have been effective at mitigating the risk of spontaneous combustion. Given that these practices will also be adopted for future development of the REA, it is expected that the risk of spontaneous combustion in this area will remain low.

Stockpile areas are regularly monitored and there are established principles for management of combustion risk, if any potential indicators are detected (see **Section 4.2**). With the implementation of suitable controls, the risk of spontaneous combustion within stockpiles is considered low.

Plate 1 **REA Temperature Monitoring Results**





JBA 2314 001 DBK - REA LAYOUT (9/05/2023)

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Reject Emplacement Area

FIGURE 4

3. MANAGEMENT AND MONITORING MEASURES

This section outlines the mitigation and management measures that will be employed to reduce the likelihood of a spontaneous combustion event occurring. Measures to deal with a combustion incident (if it occurs) are described in **Section 4.2**.

3.1 COAL STOCKPILES

3.1.1 Risk Controls

Coal stockpiles will be managed according to a 'first-in-first-out' principle to reduce the residency time of the coal in the stockpile.

All coal stockpiles are fitted with water sprays for dust suppression. These sprays can also assist in managing combustion events (although watering is considered a 'last resort' measure).

3.1.2 Monitoring Program

Regular visual inspections of stockpile areas are undertaken to identify signs of spontaneous combustion such as heat haze, smoke emissions or odour. If signs of spontaneous combustion are present, the frequency of inspections will be increased to suit the severity of the heating. If necessary, thermocouples will be installed to temperature of the stockpile will be measured with the installation of thermocouples.

Any outbreaks or indications of spontaneous combustion within the coal stockpiles will be reported to the Statutory Manager and the Environmental Officer.

3.2 REJECT EMPLACEMENT AREA

3.2.1 Risk Controls

The standard industry practice for management of spontaneous combustion is capping the emplaced reject materials with a layer of inert material, followed by rehabilitation. The previous owner's '*Sponcom Management Plan for Coal Stockpiles and Rejects Emplacement Area*' (Anglo American, 2016) suggests that the completed portion of the REA was compacted and capped with at least 1,200 mm of clay to prevent air and water ingress.

Reject materials generated by future mining operations will be capped with approximately 2 m of inert material. This is consistent with the Section 126 Approval for the REA, which states that:

> "*Two metres of inert capping material [...] is the optimal level of treatment found to effectively control self-heating within reject emplacement in the Muswellbrook area*" (Department of Mineral Resources letter C95/2265, dated 13 March 1996).

Although the Section 126 Approval only applies to the completed portion of the REA, the recommended capping will continue to be good practice for future development of the REA. The proposed capping thickness (~2 m) is consistent with industry best practice.

Progressive revegetation of the REA will be implemented to maintain the stability of the capping layer and reduce oxygen ingress into the reject material.

Further details on the capping and rehabilitation of the REA will be provided in an HRA notification prepared pursuant to Clause 35 of the WHS (Mines) Regulation.

3.2.2 Monitoring Program

Regular visual inspections and monitoring using strategically placed thermocouples will continue to be implemented across the REA. The existing temperature monitoring locations (thermocouples) are shown in

Figure 4. The thermocouple network will be expanded (as required) as reject emplacement progresses to the south.

The Statutory Manager and Environmental Officer will be notified of any outbreaks or indications of spontaneous combustion within the REA (Anglo American, 2016).

3.3 UNDERGROUND WORKINGS

3.3.1 Risk Controls

Spontaneous combustion generally arises due to the leakage of air through fractures in the coal. MCS (2017) recommends the following measures to reduce air leakage and heating potential:

- Developing higher numbers of headings, particularly main headings, to reduce ventilation pressure differentials from intake to return;
- Positively ventilating all open areas of the Kayuga Seam underground workings; and
- Installation of ventilation control devices (with shotcreting where required).

3.3.2 Monitoring Program

The Mine Operator has developed a monitoring program for bord and pillar workings in the Kayuga seam.

Real time gas monitoring will take place at return airways from production panels and upcast shafts, conveyor driveheads and boot-ends, auxiliary fans and continuous miners. The monitored gases will include methane, carbon monoxide, carbon dioxide and oxygen.

Tube bundle monitoring will be required at the surface air intake, return airways from production panels and upcast shafts and sealed production panels. Pressure monitoring will be conducted at the main fans and regulators.

Bag samples of the general atmosphere of the underground workings will be collected monthly for each monitoring station and will be analysed to determine gas concentration. The results will be reviewed to identify an increase in concentration or total flow of spontaneous combustion indicator gases.

All Statutory Mine Officials carry handheld Gas Monitors and can monitor the immediate mine environment in real time at any given moment at any given area underground. Statutory Mine Officials are underground 24/7 every shift.

4. IMPLEMENTATION

4.1 RESPONSIBILITIES

The key personnel with responsibility for environmental management on the mine site and ensuring that the requirements of this management plan are implemented during operations is the Environmental Officer.

Project Supervisor/s will be responsible for implementing mitigation measures specified in this plan under direction from the Planning and Approval Manager.

Environmental Officer

Specific responsibilities of the Environmental Officer will include:

- Monitoring underground workings, coal stockpiles and the REA for spontaneous combustion;
- Ensuring that employees and contractors are given adequate training in environmental awareness, legal responsibilities, and the requirements of the management plan;
- Reporting monitoring results to the Dartbrook CCC and in the Annual Review; and
- Reporting of incidents.

Project Supervisor/s

Specific responsibilities of the Project Supervisor/s and workforce include:

- Undertaking remedial actions as directed by the Planning and Approval Manager;
- Monitoring underground workings, coal stockpiles and the REA for spontaneous combustion; and
- In the event of any outbreaks or indications of spontaneous combustion, immediate notification of the Planning and Approval Manager.

Planning and Approval Manager

- Coordinating the response actions in **Table 4** (as required); and
- Coordinating emergency response procedures (if required).

4.2 CONTINGENCY PLAN

4.2.1 Trigger Action Response Plan

Potential indicators of spontaneous combustion will be managed through the Trigger Action Response Plan (TARP) outlined in **Table 4**. It describes the conditions that activate the TARP and the appropriate response actions for each key area of the site. The Planning and Approval Manager is responsible for coordinating the appropriate response actions. Most triggers will be managed without an emergency occurring. However, if a trigger escalates into an emergency, the Planning and Approval Manager will implement emergency response procedures in accordance with **Section 4.2.2**.

Occurrence of a trigger event under the TARP is not necessarily representative of an 'incident' (as defined under DA 231-07-2000). The responses to these triggers will often be sufficient to prevent material harm from occurring. However, if material harm occurs as a consequence of spontaneous combustion, incident reporting will be undertaken as described in **Section 4.3.2**.

Table 4 Spontaneous Combustion TARP

Area of Site	Trigger	Response Action	Responsibility
Coal Stockpiles	Observation of heat haze, smoke emissions or odour	Measures to manage localised hotspots within stockpiles may include: • Removing material from the localised hotspots spreading it to facilitate cooling; • Track rolling to disperse heat and reduce air ingress; • Recirculating the coal using the reclaimer and conveyor system to dissipate the heat; and/or • Application of water (only be used as a last resort and under the direct instruction from the Project Supervisor).	CHPP Manager
Reject Emplacement Area	Temperatures in excess of 50°C	Measures to manage localised hotspots within stockpiles may include: • Reshaping, compacting and sealing the REA; and • Removing localised hotspots and spreading the rejects to facilitate cooling.	CHPP Manager
Underground Workings	Observation of heat haze, smoke emissions or odour Specific indicator gases exceed the following triggers: • CO > 30 ppm • CH_4 > 2% • CO_2 > 1.25% • O_2 < 19.5%	Measures to manage localised hotspots within underground workings may include: • Withdrawing personnel to a safe location • Using water to flood the workings; and • Sealing the affected area of the workings. Electrical power to the underground mine will be isolated once the methane content exceeds 1.25%.	Mine Manager

4.2.2 Emergency Response Plan

Spontaneous combustion events can often be contained without an outbreak of fire occurring.

In the event of a fire at Dartbrook Mine, emergency services will be notified immediately via the 000 hotline. Local Rural Fire Brigades in the vicinity of Dartbrook Mine include the Kayuga Rural Fire Brigade (KRFB) and the Edinglassie Rural Fire Brigade (ERFB). The KRFB is equipped to control grass and bushfires and the ERFB, located approximately 7 km south of the site, is equipped to deal with fires that affect buildings or infrastructure. Dartbrook Mine will assist emergency services (as directed).

In the event of a fire, the Dartbrook Emergency Response Management System (including the relevant internal emergency response procedure) will be implemented. Site personnel will report to relevant Emergency Muster Areas to be accounted for and informed of the required emergency response actions.

4.3 REPORTING

4.3.1 Regular Reporting

In accordance with Condition 9.2 of the Development Consent, an Annual Review will be prepared by the end of March, each year and submitted to the Secretary. This review will:

(i) Describe the development (including any rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;

(ii) Include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, including a comparison of these results against the:

- *Relevant statutory requirements, limits or performance measures/criteria;*
- *Requirements of any plan or program required under the Development Consent;*
- *Monitoring results of previous years; and*
- *Relevant predictions in the documents referred to in Condition 1.1(a) of the Development Consent;*

(iii) Identify any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance or incident and avoid reoccurrence;

(iv) Evaluate and report on:

- *The effectiveness of the noise and air quality management systems;*
- *Socio-economic impact of the development including the workforce characteristics of the previous calendar year; and*
- *The surveillance of any prescribed dam on the site to the satisfaction of the DSC;*
- *The outcome of the water budget for the year, the quantity of water used from water storages and details of discharge of any water from the site; and*
- *Compliance with the performance measures, criteria and operating conditions in this consent;*

(v) Identify any trends in the monitoring data over the life of the development;

(vi) Identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and

(vii) Describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.

Preparation of the Annual Review involves evaluation of the development's environmental performance over the previous calendar year. The management of spontaneous combustion risk will be evaluated and any recommended improvements to management practices will be reflected in this plan.

Specific to the issue of spontaneous combustion, the Annual Review will include:

- Results of the REA monitoring program;
- The indicative level of spontaneous combustion risk; and
- Incidents or non-compliances.

The results of any REA monitoring or incidents will be presented at the biannual Dartbrook Mine CCC meetings.

4.3.2 Incident Reporting

In the event that an incident occurs, Dartbrook will immediately notify DPE and other relevant authorities of the incident in accordance with Condition 9.3(a) of the Development Consent. An 'incident' is defined as:

> *"an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance."*

In the event that a non-compliance occurs, Dartbrook will notify DPE in accordance with Condition 9.3 (b) of the Development Consent.

As per **Section 4.3.1,** all incidents are also reported in the Annual Review.

4.4 PERIODIC REVIEW OF THIS PLAN

Condition 3.2(f)(viii) of the Development Consent requires that all management plans include a protocol for periodic review of the plan. Further to this, Condition 3.2 (k) requires:

> *…the suitability of existing strategies, plans and programs be reviewed within three months of:*
>
> - *The notification of an incident under Condition 9.3 (a);*
> - *The submission of an Annual Review under Condition 9.2 (a);*
> - *The submission of an Independent Environmental Audit (IEA) under Condition 8.1 (a); or*
> - *The approval of any modification of the conditions of this consent (unless the condition specifies otherwise), the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.*

Condition 3.2 (l) of the Development Consent, also states:

> *… if necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Secretary. Where revisions are required, the revised document must be submitted to the Secretary for approval within six weeks of the completion of the review on Condition 3.2 (j).*
>
> *This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.*

This SCMP will be reviewed (and revised where necessary) in accordance with the above and/or prior to any changes to operational activities.

4. REFERENCES

- Anglo American (2016), *Dartbrook Mine, Sponcom Management Plan for Coal Stockpiles and Rejects Emplacement Area*
- Australia Pacific Coal (2022), *Spontaneous Combustion, Principal Hazard Management Plan*
- Hansen Bailey (2019), *Dartbrook Mine Care and Maintenance Bushfire Management Plan*
- JB Mining Services (2016), *Resource Update as at January 2016*
- Mining Consultancy Services (2017), *Kayuga Seam Underground Mine Feasibility Study*