

ASHTON COAL PROJECT
ANNUAL REHABILITATION REPORT
31 December 2022 – 30 DECEMBER 2023



April 2024

SUMMARY TABLE

ASHTON COAL OPERATIONS PTY LIMITED		
ANNUAL REHABILITATION REPORT TABLE		
Name of Operation:	Ashton Coal Project	
Name of Lease Holder(s):	White Mining (NSW) Pty Limited	
Name of Operator:	Ashton Coal Operations Pty Limited	
Annual Rehabilitation Report Reporting Period:	31 December 2022 – 31 December 2023	
Annual Rehabilitation Report Revision Dates and Version Numbers:	Version 1	March 2024
Mining Lease(s) / Lease Numbers / Expiry Dates:	ML 1533	Expiry: 26/02/2024
	ML 1529	Expiry: 11/11/2030
	ML 1623	Expiry: 30/10/2029
	ML 1834	Expiry: 03/06/2033
	ML 1835	Expiry: 31/12/2023
	ML 1836	Expiry: 31/12/2023
	ML 1837	Expiry: 01/10/2043
	ML 1861	Expiry: 14/09/2044
Date of Submission:	12 April 2024	

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Owner: Phil Brown		
Last Review: 12/04/2024	Next Review: 01/01/2025	Revision Number: 1

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1 APPLICANT DETAILS

1.1 Applicant's Name

White Mining (NSW) Pty Limited

1.2 Australian Company Number

089 414 595

1.3 Mine

Ashton Coal Mine

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2 MINE DETAILS

2.1 Project Description

Ashton Coal Operations Pty Limited (ACOL) operates the ACP, located approximately 14km north-west of Singleton, NSW. The approved ACP includes:

- A now exhausted and predominantly rehabilitated North East Open Cut (NEOC), where the final void is utilised for reject and tailings disposal
- Multi-seam underground mine using longwall mining methods (Ashton Underground and ACOL-operated Ravensworth Underground Mine)
- Associated surface infrastructure for the underground mine that includes gas management and extraction infrastructure
- A CHPP, rail siding, site office and associated infrastructure
- Bowmans Creek Diversion which allows coal recovery from the underground mine while protecting surface water

The ACP was granted planning approval under Development Consent 309-11-2001-i, in October 2002 (as modified 6 July 2022). The current approval (approved in 2022) allows for extraction of ROM coal at a rate of up to 5.45 Mtpa and for the undertaking of associated coal mining activities.

2.2 Estimated Life of Mine

11

2.3 Current Development Consents, Leases and Licences

2.3.1 Development consents granted under the Environmental Planning and Assessment Act 1979.

- Development Consent 309-11-2001-i (modified 6 July 2022)

2.3.2 Authorisations covering the mining area granted under the Mining Act 1992.

- ML 1533
- ML1529
- ML 1623
- ML 1834
- ML 1835
- ML 1836
- ML 1837
- ML 1861

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2.3.3 Any other approvals, licences, or authorities issued by government agencies that are relevant to the progress of mining operation and rehabilitation activities.

N/A

2.3.4 If there have been changes to the status of these approvals during the annual reporting period, the lease holder must include a summary of the scope and/or purpose of the new applications or modifications to existing approvals.

N/A

2.4 Land Ownership and Land Use

No changes to land ownership and land use related to the land has occurred during the Annual Reporting Period (ARP) (31 December 2022 to 30 December 2023).

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3 COMPLAINTS

3.1 Complaints Received

3.1.1 Were any complaints received during the reporting period in relation to rehabilitation?

No.

3.1.2 Attach any relevant documentation. Please compress your files into one file (i.e. zip folder) if you have multiple files to attach.

N/A

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4 STAKEHOLDERS

4.1 Stakeholder Consultation

4.1.1 This section must summarise, in a table, stakeholder consultation about rehabilitation undertaken during the annual reporting period.

Date dd/mm/yyyy	Relevant Stakeholder	Consultation Activities and Forms of Consultation 500 CHARACTERS	Matters Subject to Consultation 500 CHARACTERS	Actions taken by the lease holder in response to matters raised by any stakeholder in relation to rehabilitation 500 CHARACTERS
04/01/2023	Resources Regulator	Via email	Review of ACP Final Landform and Rehabilitation Plan (FLRP) and Rehabilitation Objectives (ROBJ) and request for resubmission by 17/02/2023.	Yancoal organised a meeting with Resources Regulator to discuss comments received on the Yancoal sites FLRP and ROBJ.
18/01/2023	Resources Regulator	Online Meeting	Discussion of the comments received on the ROBJs and FLRPs of Yancoal sites.	Resubmitted ACP FLRP and ROBJ on 17/02/2023. Provided an email on 17/02/2023 that detailed how the Resources Regulator's review comments were incorporated into the revised FLRP and ROBJ submission.
17/02/2023	Resources Regulator	Via email	Submission of a TICON for the ACP.	ACOL submitted a TICON application via the Resources Regulator Portal. Confirmation of the application was received via email.
20/02/2023	Resources Regulator	Via email	Approval of the ACP TICON.	Resources Regulator approved the ACP TICON on 20/02/2023. Confirmation was received via email.

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Date dd/mm/yyyy	Relevant Stakeholder	Consultation Activities and Forms of Consultation 500 CHARACTERS	Matters Subject to Consultation 500 CHARACTERS	Actions taken by the lease holder in response to matters raised by any stakeholder in relation to rehabilitation 500 CHARACTERS
13/07/2023	Resources Regulator	Via email.	Review of ACP ROBJ and request for resubmission by 23/08/2023.	<p>Incorporated Resources Regulator's review comments into the revised dataset resubmission.</p> <p>Resubmission of ACP ROBJ on 23/08/2023 via the Resources Regulator Portal.</p> <p>Provided an email on 25/08/2023 that detailed how the Resources Regulator's review comments were incorporated into the revised FLRP and ROBJ submission.</p>
13/07/2023	Resources Regulator	Via email.	Review of ACP FLRP and request for resubmission by 23/08/2023.	<p>Incorporated Resources Regulator's review comments into the revised dataset resubmission.</p> <p>Resubmission of ACP FLRP on 23/08/2023 via the Mine Rehabilitation Portal.</p> <p>Provided an email on 25/08/2023 that detailed how the Resources Regulator's review comments were incorporated into the revised FLRP and ROBJ submission.</p>
14/09/2023	Resources Regulator	Via email.	Review of ACP ROBJ and request for resubmission by 29/09/2023.	<p>Incorporated Resources Regulator's review comments into the revised dataset resubmission.</p> <p>Resubmission of ACP ROBJ on 28/09/2023 via the Resources Regulator Portal.</p>
03/10/2023	Resources Regulator	Via email.	Approval of the ACP ROBJ.	<p>Resources Regulator approved the ACP ROBJ on 03/10/2023. Confirmation was received via email.</p> <p>ACOL amended the ACP Rehabilitation Management Plan to substitute the proposed ROBJ with the approved version.</p>

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Date dd/mm/yyyy	Relevant Stakeholder	Consultation Activities and Forms of Consultation 500 CHARACTERS	Matters Subject to Consultation 500 CHARACTERS	Actions taken by the lease holder in response to matters raised by any stakeholder in relation to rehabilitation 500 CHARACTERS
03/10/2023	Resources Regulator	Via email.	Approval of the ACP FLRP.	Resources Regulator approved the ACP FLRP on 03/10/2023. Confirmation was received via email. ACOL amended the ACP Rehabilitation Management Plan to substitute the proposed FLRP with the approved version.

4.1.2 Attach any relevant documentation. Please compress your files into one file (i.e. zip folder) if you have multiple files to attach.

Zip folder to be submitted.

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5 SURFACE DISTURBANCE ACTIVITIES

5.1 Surface Disturbance and Rehabilitation Activities

5.1.1 Describe the surface disturbance and rehabilitation activities that were conducted, and, an analysis of the progress against the schedule presented in the previous annual rehabilitation report and forward program, as well as any relevant development consent.

During the ARP, surface disturbance was limited to the construction of three gas well pads, access tracks, and pipeline trenching. Rehabilitation activities were limited to ongoing management and maintenance in portions of:

- the NEOC;
- Bowman’s Creek Diversion; and
- the impacted “farmland” above the underground mine.

Rehabilitation works also consisted of the remediation of surface cracking associated with the LW206B.

During the ARP, rehabilitation areas are considered to be in the ecosystem and land use development phase of rehabilitation.

No areas of rehabilitation at the ACP are considered to have matured to a level where target revegetation outcomes have completely achieved the approved ACP Rehabilitation Objectives (ROBJs) and proposed rehabilitation completion criteria (RCC) (i.e. rehabilitation completion).

5.1.2 Describe any rehabilitation planning activities that were conducted, including any specialist studies. Examples: contamination, heritage, landform design and demolition.

During the ARP, no specialist studies have been conducted at the ACP for rehabilitation planning purposes.

5.1.3 Provide an overview of any subsidence repair and/or remediation works undertaken.

Subsidence repair and/or remediation works undertaken at the ACP during the reporting period included the LW206B sump subsidence crack repairs near U/S blockbank (eastern BCD).

Ongoing subsidence monitoring is undertaken in accordance with the Subsidence Effects Monitoring Program incorporated into the approved Extraction Plan.

5.1.4 Provide an overview of rehabilitation management and maintenance activities. Examples: reseeding, weed and feral animal control and erosion works.

Ongoing management and maintenance of rehabilitation areas at the ACP has been undertaken by ACOL and suitably qualified persons (where relevant) to monitor that rehabilitated areas are maturing to achieve a standard capable of relinquishment.

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Ongoing rehabilitation management and maintenance activities include:

- Weed and pest animal control of rehabilitation areas.
- Native vegetation rehabilitation management and agricultural monitoring.

During the ARP, maintenance activities focused on the improvement of woodland and pasture across rehabilitation areas, biodiversity conservation areas and buffer land.

Active weed control treatment undertaken targeted African boxthorn (*Lycium ferocissimum*), African olive (*Olea europaea* subsp. *cuspidata*), African Love Grass (*Eragrostis Curvula*), African pigeon grass (*Setaria sphacelate*), Balloon vine (*Cardiospermum grandiflorum*), blackberry (*Rubus fruticosus*), blue heliotrope (*Heliotropium amplexicaule*), castor oil (*Ricinus communis*), coolatai grass (*Hyparrhenia hirta*), galenia (*Galenia pubescens*), green cestrum (*Cestrum parqui*), lantana (*Lantana camara*), mother of millions (*Kalanchoe daigremontiana*), madeira Vine (*Anredera cordifolia*), prickly pear (*Opuntia stricata*), rhodes grass (*Chloris gayna*), St John's wort (*Hypericum perforatum*), sweet briar (*Rosa rubiginosa*) (isolated infestations), tiger pear (*Opuntia aurantiaca*) and general weeds.

Pest control included two 1080 baiting programs and continuation of the feral pig management program.

5.1.5 Detail any rehabilitation actions taken as required by any letters, notices or directions issued by government agencies, including the NSW Resources Regulator.

No letters, notices or directions issued by government agencies (including the NSW Resources Regulator) have been issued. As such, there has been no directive to undertake specific rehabilitation actions.

5.1.6 Detail any rehabilitation areas that have achieved the final land use (as set out in clause 6 of Schedule 8A to the Mining Regulation 2016, in the reporting period. That is, rehabilitation areas where the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of the relevant application by the lease holder.

Rehabilitation areas at the ACP are moving towards achieving the final land use as soon as reasonably practicable. To date, no rehabilitation areas have achieved the final land use to a standard that would warrant ACOL's submission of an ESF2 to the NSW Resources Regulator.

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5.2 Key Production Milestones

5.2.1 Provide an outline of the key production milestones that underpin the proposed rehabilitation schedule.

Material	Unit	Year 1	This report
Stripped topsoil (if applicable)	m ³	-	0
Rock/ overburden	m ³	-	0
Ore	Mt	-	0.7
Reject material	Mt	-	0.4
Product	Mt	-	0.4

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6 PLAN 1

6.1 Mine Rehabilitation Portal Spatial Data Themes

Spatial data themes to be submitted to support Plan 1:

1. Rehabilitation.
2. Disturbance.
3. Project approval boundary.
4. Current landform contours.

6.2 Submission of Plan 1 Electronic Copy (PDF)

Attach an electronic copy (PDF) of Plan 1, which must be prepared using the spatial data submitted through the mine rehabilitation portal.

The Plan 1 electronic copy must reference the mine rehabilitation portal submission ID numbers for each theme. Submission ID numbers are unique identifiers generated by the mine rehabilitation portal to identify the data submission for each data theme uploaded by the lease holder and can be found in the "files submitted" tab after data has been successfully submitted.

6.2.1 Attach Plan 1A – Status of mining and rehabilitation at completion of annual reporting period. Please compress your files into one file (i.e. zip folder) if you have multiple files to attach.

Plan 1A attached.

6.2.2 Attach Plan 1B – Status of mining and rehabilitation at completion of annual reporting period. Please compress your files into one file (i.e. zip folder) if you have multiple files to attach.

Plan 1B attached.

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7 DISTURBANCE AND REHABILITATION

7.1 Disturbance And Rehabilitation Statistics

7.1.1 Current disturbance and rehabilitation progression.

	Year 1	This report
Total disturbance footprint – surface disturbance	-	AUTO-GENERATED
Total active disturbance (ha)	-	AUTO-GENERATED
Rehabilitation – land preparation (ha)	-	AUTO-GENERATED
Ecosystem and land use establishment (ha)	-	AUTO-GENERATED
Ecosystem and land use development (ha)	-	AUTO-GENERATED
Rehabilitation completion (ha)		AUTO-GENERATED

7.1.2 Rehabilitation key performance indicators.

	Year 1	This report
G: Total new active disturbance area during reporting period (ha)	-	AUTO-GENERATED
H: Area of land proposed for active rehabilitation during reporting period (ha)	-	AUTO-GENERATED
J: Annual rehabilitation to disturbance ratio	-	AUTO-GENERATED
I: Established rehabilitation (ha)	-	AUTO-GENERATED
K: % rehabilitated land to total mine footprint	-	AUTO-GENERATED

7.1.3 Progressive achievement of established rehabilitation.

	Year 1	This report
L: Established rehabilitation for agricultural land uses (%)	-	AUTO-GENERATED
M: Established rehabilitation for native ecosystem final land uses (%)	-	AUTO-GENERATED
N: Established rehabilitation for other / non-vegetated final land uses (%)	-	AUTO-GENERATED

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8 REHABILITATION MONITORING AND RESEARCH FINDINGS

8.1 Rehabilitation Monitoring

8.1.1 Provide a summary of the rehabilitation monitoring carried out in the annual reporting period, at established rehabilitation areas and at analogue sites, in accordance with the monitoring program detailed in the rehabilitation management plan.

This summary must include monitoring activities, such as inspections undertaken following the completion of key rehabilitation steps and phases of rehabilitation, in accordance with the rehabilitation quality assurance process in the rehabilitation management plan.

Rehabilitation monitoring summary:

During the ARP, rehabilitation monitoring was conducted by ACOL and DnA Environmental in accordance with the Rehabilitation Quality Assurance Processes and Rehabilitation Monitoring Program detailed in Sections 7 and 8 of the ACP RMP, respectively.

Photographic Monitoring

Permanent photo-points along vegetation transects have been utilised to record woodland monitoring sites in the NEOC rehabilitated areas. The 20 x 20m quadrat is positioned such that the base line forms the basis for the LFA transect. The transects have been established in proximal areas to the ACP which represent the varying landscapes and target communities planned for each rehabilitation areas. Vegetation monitoring has been undertaken during the ARP by DnA Environmental (15 to 25 May 2023).

Landscape Function Analysis

The results of Landscape Function Analysis (LFA), vegetation dynamics and habitat complexity monitoring (i.e. EFA) are used at the ACP to monitor progress towards rehabilitation completion and to determine a trajectory towards self-sustaining ecosystems.

Rehabilitation monitoring at the ACP during the ARP included a visual assessment, comprising:

- monitoring of soil erosion status and the effectiveness of erosion control methods;
- usage of habitat enhancement features;
- evaluating the behaviour of placed topsoil;
- evaluating threats posed to rehabilitated areas posed by weed infestation and pest animals; and
- opportunistic flora and fauna observations.

LFA was undertaken by DnA Environmental.

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Ecosystem Characteristics

During the ARP, an assessment of ecosystem characteristics was undertaken to provide quantitative data that measures changes in:

- floristic diversity including species area curves and growth forms;
- ground cover diversity and abundance;
- fire;
- vegetation structure and habitat characteristics (including ground cover, cryptogams, logs, rocks, litter, projected foliage cover at various height increments);
- understorey density and growth (including established shrubs, direct seeding and tubestock plantings and tree regeneration);
- overstorey characteristics including tree density, health and survival; and
- other habitat attributes such as the presence of hollows, mistletoe and the production of buds, flowers and fruit.

As described above, revegetation monitoring, including ecosystem characteristics monitoring of NEOC rehabilitation, was undertaken between 15 to 25 May 2023 by DnA Environmental.

8.2 Status of Performance Against Rehabilitation Objectives and Rehabilitation completion Criteria

8.2.1 Provide details about the monitoring program that has been implemented to evaluate how rehabilitation is progressing against the approved, or if not yet approved, the proposed rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan.

Rehabilitation at the ACP is monitored on a regular basis to ensure vegetation is establishing in the rehabilitation areas and to determine the need for any maintenance and/or contingency measures (e.g. supplementary plantings, weed or erosion control). The monitoring also aims to demonstrate the effectiveness of the rehabilitation techniques and track the progression of rehabilitation towards achieving the approved ACP ROBJs and proposed RCCs.

Rehabilitation monitoring conducted during the ARP utilised a combination of the following:

- LFA;
- Soil Analysis;
- Assessment of Ecosystem Characteristics;
- Pasture Productivity Assessment;
- Land Capability Assessment;
- Photographic Monitoring; and

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- Subsidence Monitoring.

Rehabilitation areas at the ACP are moving towards achieving the final land use as soon as reasonably practicable. To date, no rehabilitation areas have achieved the final land use to a standard that would warrant ACOL's submission of an ESF2 to the NSW Resources Regulator.

Notwithstanding, ACOL will continue to monitor how rehabilitation is progressing against the ACP ROBJs, RCCs and Final Landform and Rehabilitation Plan (FLRP) to ensure the final land uses are achieved as soon as reasonably practicable.

8.2.2 Are all rehabilitation areas in the Landform Establishment phase or higher represented in the monitoring program to assess performance against the approved, or if not yet approved, the proposed rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan?

Yes.

8.2.3 Include an appraisal of whether rehabilitation is moving towards achieving the approved, or if not yet approved, the proposed rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan.

Rehabilitation at the ACP is progressing against the approved ACP ROBJs and FLRP and proposed RCCS.

Rehabilitation of disturbed areas in undertaken progressively and concurrently with ongoing mining operations (i.e. as soon as reasonably practicable), to achieve the final land use.

Ecological performance indicators obtained from the mixed eucalypt woodland habitat and present exotic pastures on the NEOC, demonstrate rehabilitation areas have typically developed into highly functional and stable communities that are functionally similar to the local woodlands and native grasslands, with some minor exceptions.

The outcomes of the 2023 rehabilitation monitoring demonstrate that rehabilitation of the NEOC is moving towards achieving the final land use as soon as reasonably practicable with many completion criteria targets met, with some exceptions. Ecological performance indicators for the mixed eucalypt woodland habitat and exotic pastures demonstrate these rehabilitated areas have generally developed into highly functional and stable communities, functionally comparable to the local woodlands and native grasslands. They were, however, dominated by exotic understorey species and during the 2023 reporting period most sites had a slightly higher diversity of exotic species compared to the reference sites.

Notwithstanding, ACOL will continue to monitor how rehabilitation is progressing against the ACP ROBJs, RCCs and FLRP.

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8.2.4 Please select the best description of the appraisal:

- Rehabilitation is moving towards achieving the final land use as soon as reasonably practicable.

OR

- There are performance issues preventing rehabilitation moving towards achieving the final land use as soon as reasonably practicable.

8.2.5 Include summaries of the findings of the rehabilitation monitoring program, including specialist reports (e.g. ecology, water quality, agronomy).

Specialist reports relevant to rehabilitation prepared during the ARP include the 2023 NEOC Rehabilitation Monitoring Report prepared by DnA Environmental (2023) for ACOL.

For the NEOC rehabilitation area, DnA Environmental (2023) relevantly concluded that monitoring demonstrates that many completion targets have been met, with some exceptions. Ecological performance indicators for the mixed eucalypt woodland habitat and exotic pastures demonstrate these rehabilitated areas have generally developed into highly functional and stable communities, functionally comparable to the local woodlands and native grasslands. It was also noted that the extreme seasonal conditions experienced over the past 15 years, combined with simultaneous changes in total grazing pressure (both livestock and macropods), has had a significant impact on the composition and diversity of both the NEOC vegetation and the reference sites.

8.2.6 Include any performance issues and their causes including identification of any knowledge gaps that must be addressed to rectify identified performance issues. If none identified, type "Nil".

Nil

8.3 Outcomes Of Rehabilitation Research And Trials

8.3.1 List of active rehabilitation research and trials.

Project/trial name	Objective of trial/project 200 CHARACTERS	Methodology 500 CHARACTERS	Expected date of completion dd/mm/yyyy	Status	On track
N/A	-	-	-	-	-

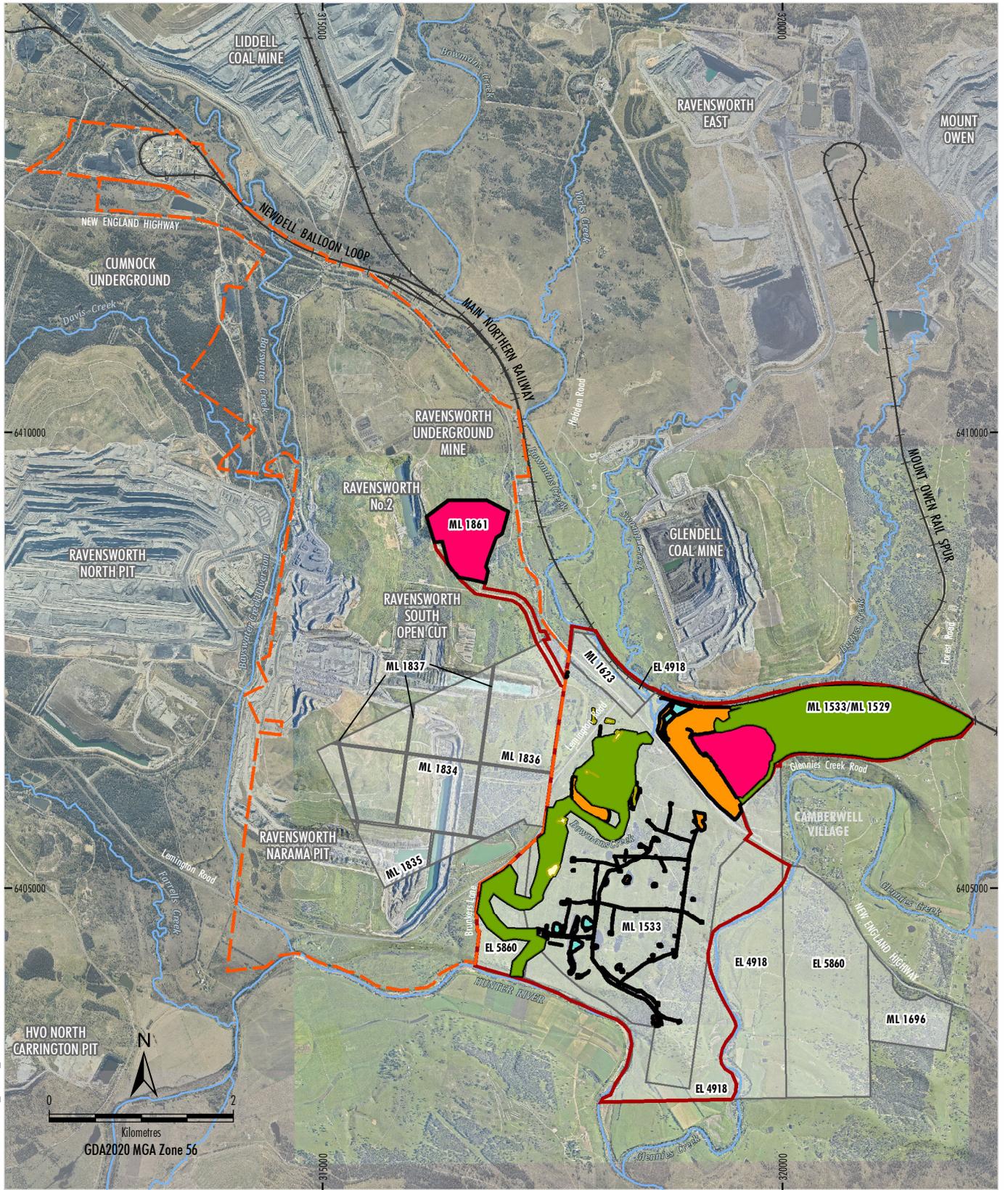
8.3.2 List of inactive rehabilitation research and trials.

Project/trial name	Objective of trial/project 200 CHARACTERS	Methodology 500 CHARACTERS	Expected date of completion dd/mm/yyyy	Status	On track
N/A	-	-	-	-	-

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ACQ-18-03A.ARR.2023 v1_Plan 1A_Rev A



- LEGEND**
- DA 309-11-2001-i Project Approval Boundary
 - DA 104/96 RUM Project Approval Boundary
 - Coal - Current Titles
 - Railway
 - Watercourse
 - Rehabilitation Phase**
 - Landform Establishment
 - Ecosystem and Land Use Development
 - Mining Domain Type**
 - Infrastructure Area
 - Overburden Emplacement Area
 - Tailings Storage Facility
 - Underground Mining Area (SMP)
 - Water Management Area

Source: ACOL (2024); RUM (2024); NSW Spatial Services (2024)
 Orthophoto Mosaic: Ashton Coal (Dec 2021); Ravensworth (2021)

Date prepared: 12-04-2024



ASHTON COAL MINE
ANNUAL REHABILITATION REPORT 2023

Current Status
 of Mining and Rehabilitation

ACO-18-03-ARR-2022.v1_PLAN 1B_Rev A



Source: ACOL (2023); RUM (2023); NSW Spatial Services (2023)
 Orthophoto Mosaic: Ashton Coal (Dec 2021); Ravensworth (2021)
 Date prepared: 29-03-2023

-  LEGEND
-  DA 309-11-2001-i Project Approval Boundary
-  DA 104/96 RUM Project Approval Boundary
-  Coal - Current Titles
-  Railway
-  Watercourse
-  Final Landform Contours
-  Index Contour (20 m interval)
-  Intermediate Contour (5 m interval)



ASHTON COAL MINE
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Current Landform Contours

Plan 1B