PRCP schedule

Environmental Protection Act 1994

PRCP schedule P-PRCP-100875920_V2

This is the approved form for a PRCP schedule issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994*.*

PRCP schedule: P-PRCP-100875920

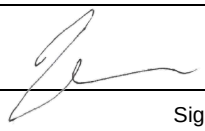
PRCP schedule holder(s)

Name(s)	Registered address
Kestrel Coal Resources Pty Ltd	Level 22 10 Eagle Street BRISBANE CITY QLD 4000 Australia
Mitsui Kestrel Coal Investment Pty Limited	Level 24 480 Queen Street BRISBANE CITY QLD 4000 Australia

Location(s)
ML1978, ML70330, ML70301, ML70302 and ML70481

Take effect

In accordance with section 202B of the *Environmental Protection Act 1994* (EP Act), the PRCP schedule has effect on the day the environmental authority for carrying out relevant activities on land to which the schedule relates takes effect. Pursuant to section 202C of the EP Act, a PRCP schedule continues in force until the environmental authority for the relevant activities to which the PRCP schedule relates is cancelled or surrendered, even if the resource tenure expires or is cancelled and even if the relevant environmental authority is suspended under Chapter 5, part 11 or 11A of the EP Act.

	21 November 2025
Signature	Date

Juliana McCosker
Department of the Environment, Tourism, Science and Innovation
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Business Centre Coal
PO Box 3028, Emerald QLD 4720
Phone: (07) 4987 9320
Email: CRMining@detsi.qld.gov.au

Queensland Government

Obligations under the *Environmental Protection Act 1994*

Pursuant to section 202E of the EP Act, if there is an inconsistency between an environmental authority and a PRCP schedule, the environmental authority prevails to the extent of the inconsistency.

Pursuant to section 285 of the EP Act:

- The holder of a PRCP schedule must commission an audit of the schedule by a rehabilitation auditor for the following periods (each an audit period) —

  (a) the 3-year period starting on the day the schedule takes effect

  (b) each 3-year period starting on the day after the previous audit period ended.

- The holder must, within 4 months after the end of each audit period, give the administering authority -

  (a) the rehabilitation auditor's report (an audit report) about the audit that complies with section 286 of the EP Act, and

  (b) a declaration for the audit report that complies with section 285 of the EP Act.

In addition to the requirements found in the conditions of this PRCP schedule, the holder must also meet their obligations under the environmental authority, the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the EP Act:

- General environmental duty (section 319)
- Duty to notify environmental harm (section 320-320G)
- Offence of causing serious or material environmental harm (sections 437-439)
- Offence of causing environmental nuisance (section 440)
- Offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- Offence to place contaminant where environmental harm or nuisance may be caused (section 443).

PRCP schedule

The PRCP schedule incorporates the following sections:

- Section A - Conditions of PRCP schedule
- Section B - Final site design and reference maps
- Section C - Post mining land uses
- Section D - Appendices

Section A - Conditions of PRCP schedule

Pursuant to section 206A of the EP Act:

- It is a condition of this PRCP schedule that, in carrying out a relevant activity under the schedule, the holder must comply with a requirement stated in the environmental authority relevant to carrying out the activity.
- It is a condition of this PRCP schedule that the holder must comply with the following matters stated in the schedule -

  (a) Each rehabilitation milestone and management milestone

  (b) When each rehabilitation milestone and management milestone is to be achieved

General conditions

PRCP1 For each rehabilitation area the holder must achieve the rehabilitation milestone criteria (milestone reference):

(a) For the cumulative area available specified in this schedule; and

(b) By the milestone completion date specified in this schedule.

PRCP2 Where land becomes 'available for rehabilitation' earlier than the date nominated in this schedule, the holder must notify the administering authority in writing within 30 days of the land being assessed as becoming 'available for rehabilitation'. The written notification must include:

(a) Precise details of the relevant land area and the date when that land became 'available for rehabilitation'; and

(b) Whether or not it considers that it would be reasonable and appropriate to apply to the administering authority to amend this schedule in a way that maximises the progressive rehabilitation of the land to a stable condition; and

(c) Within 30 days of any notification to the administering authority that it considers an amendment application would be reasonable and appropriate, apply to the administering authority to amend this schedule in a way that maximises the progressive rehabilitation of the land to a stable condition.

PRCP3 When an area achieves a rehabilitation milestone, the holder must (except in circumstances of temporary land use where the underlying landholder or lessee has undertaken cropping activities within their legal rights):

(a) Continue to achieve the milestone criteria for that rehabilitation milestone until:

i. The next rehabilitation milestone is achieved; or

ii. A progressive certification area has satisfied the provisions of section 318ZB(4) of the EP Act; or

iii. Until a surrender is approved.

PRCP4 The holder must maintain a risk register that identifies the risks to not achieving a stable condition for post-mining land uses, and how the risks are being managed or minimised. The risk register must be reviewed every 3 years.

PRCP5 The holder must undertake monitoring and maintenance as described in this schedule and the rehabilitation planning part for the activity. Where there is any inconsistency between this schedule and the rehabilitation planning part the schedule criteria prevail to the extent of the inconsistency.

PRCP6 The holder must make and keep up to date records, where relevant on:

(a) Achievement and maintenance of achievement of each rehabilitation milestone criteria of this schedule.

(b) Rehabilitation activities and the results of those activities (including but not limited to, actions taken, date, location, methods, data collected, QA/QC, photos, waste tracking and disposal records, appropriately qualified person (AQP) details and assumptions);

(c) Maintenance of rehabilitation and the results of maintenance activities;

(d) Monitoring of rehabilitation and the results of monitoring;

(e) The Subsidence Register and the details required as per condition PRCP17;

(f) Details and results of rehabilitation trials;

(g) Designs, drawings, specifications and any similar documents developed in accordance with good professional practice in relation to rehabilitation milestones or milestone criteria;

(h) All documents in relation to the requirements of this schedule, including reports (e.g. site investigation report), statements (e.g. site suitability statement), certifications, assessments, investigations, inspections, audits or any similar documents developed in relation to rehabilitation milestones or milestone criteria;

(i) Landholder agreements which specifically relate to the milestone criteria of this PRCP Schedule;

(j) The community consultation register relating to rehabilitation and closure activities.

PRCP7 Records made under PRCP6 must be kept until the relevant environmental authority has been surrendered or cancelled.

PRCP8 Records made under PRCP6 must be provided to the administering authority in the specified format within 10 business days of a written request.

PRCP9 By 2042, the holder must progressively assess and report on PRCP monitoring data to demonstrate that surface and groundwater quality will achieve the water quality criteria of this schedule.

PRCP10 The groundwater model (KCB 2022a and KCB 2022b) and water balance model (WRM 2020) in Appendix F of the PRC Plan must be recalibrated and predictions rerun prior to the end of mining operations.

PRCP11 Where the groundwater or water balance model, as per PRCP10, indicate a risk to achieving stable condition, an amendment application to this PRCP Schedule must be submitted to the administering authority to address the risk within 3 months of the risk being identified.

PRCP12 By 10 December 2030, the holder must submit to the administering authority:

(a) An amended groundwater monitoring network; and

(b) Amended groundwater quality parameters and limits.

PRCP13 All AQP designs, specifications, certifications, assessments and any similar documents developed in accordance with good professional practice must include documented consideration of any relevant guideline or publication material.

PRCP14 Within 5 years post approval of the PRCP schedule (V1), an AQP must review the existing and permanent co-disposal storage facility final design and drainage structures and certify that they are appropriate to the landform, materials and PMLU, with consideration given to their performance, stability, maintenance requirements, and residual risk in a post closure context; and provides for the achievement of stable condition as per the *Environmental Protection Act 1994*.

PRCP15 As a result of PRCP14, the holder must notify the administering authority of any proposed changes to the criteria of the cover system, and amend the PRCP to reflect the change.

PRCP16 At least 3 months prior to installation of the cover system, a monitoring program to assess the performance of the CDSF cover system is to be developed by an AQP and:

(a) Submitted to the administering authority for review; and

(b) Any recommendations from the review under PRCP16(a) addressed to the satisfaction of the administering authority.

PRCP17 Subsidence Register

The holder must keep a register of all longwall panels detailing:

(a) The surface area (ha) and depth within each subsided panel, including dry subsidence areas as well as areas with temporary and permanent/residual ponds;

(b) The locations of pre-existing drainage lines and drainage lines to be established to prevent/manage ponding;

(c) The locations of proposed and existing infrastructure;

(d) The pre-subsidence (baseline) condition of the vegetation and land condition, informed by the latest version of the Kestrel PRC planning part and including at a minimum:

i. Site hydrology and fluvial networks;

ii. Soil types, properties and productivity;

iii. Land stability (pre-existing degradation/erosion and predisposition to ongoing stability issues;

iv. Flora species, composition and structure;

v. Regional ecosystem details if remnant, and BioCondition assessed in accordance with latest version of the BioCondition Assessment Methodology (Queensland Herbarium*). Methodology may include digital surface model or terrain model generated via LiDAR survey ; and

(e) Spatial data for each area including each temporary and permanent/residual pond modelled/predicted, and/or authorised ponded areas.

The register must be provided to the administering authority upon request.

PRCP18 Rehabilitation analogue site-based attributes as per **Appendix VII, Table 9: Rehabilitation analogue site-based attributes** must be finalised and submitted to the administering authority prior to 10 December 2027.

PRCP19 Rehabilitation of supporting surface activities as permitted in the EA, and carried out in areas identified as 'Supporting Surface Activities' on **Figure 2: Reference Map** must:

(a) Commence as soon as practical and at least within six months of the completion of works relevant to that aspect of surface disturbance, and

(b) Be rehabilitated to a stable condition that achieves the relevant PMLU as indicated by **Figure 1: Final Site Design**.

END OF CONDITIONS

Definitions

Appropriately qualified person (AQP) means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

Permanent ponding or residual ponding means the accumulation of surface water in a surface depression caused as a direct result of longwall mining subsidence for greater than 3 consecutive months following the wet season (Nov-Mar). The wet season ponding does not apply to ponding that may exist in riparian areas whether subsidence induced or not.

Rehabilitation activity means any activity that the holder is required to carry out in relation to this PRCP schedule.

Residual brine is a material with a total dissolved solid concentration greater than 40,000 mg/l and if not sufficiently encapsulated could impact the stable condition of the assigned PMLU, as assessed by an AQP.

Suitability qualified person (SQP) for performing a regulatory function under chapter 7, part 8 (Contaminated Land) of the EP Act or another function prescribed under a regulation, means a person who—

(a) has qualifications and experience relevant to performing the function; and

(b) if a regulation prescribes an organisation for this paragraph—is a member of the organisation.

Supporting Surface Activities (SSA)

SSAs typically refer to ancillary activities conducted on the surface of the land to support the underground mining operation, and are limited to the following:

a) single drill sites not exceeding 1 hectare of disturbance and multi-drill sites not exceeding 1.5 hectares of disturbance, including associated sumps and equipment;

b) geophysical, geotechnical, geological, topographic and cadastral surveys (including seismic, sample/test/geotechnical pits, core holes);

c) ventilation and/or cooling infrastructure;

d) gas drainage infrastructure;

e) linear infrastructure, such as powerlines, pipelines, and access tracks/roads;

f) laydown areas; and

g) supporting infrastructure/activities to maintain compliance with the conditions of the environmental authority, such as erosion and sediment control measures.

Section B - Final site design and reference maps

Figure 1: Final Site Design

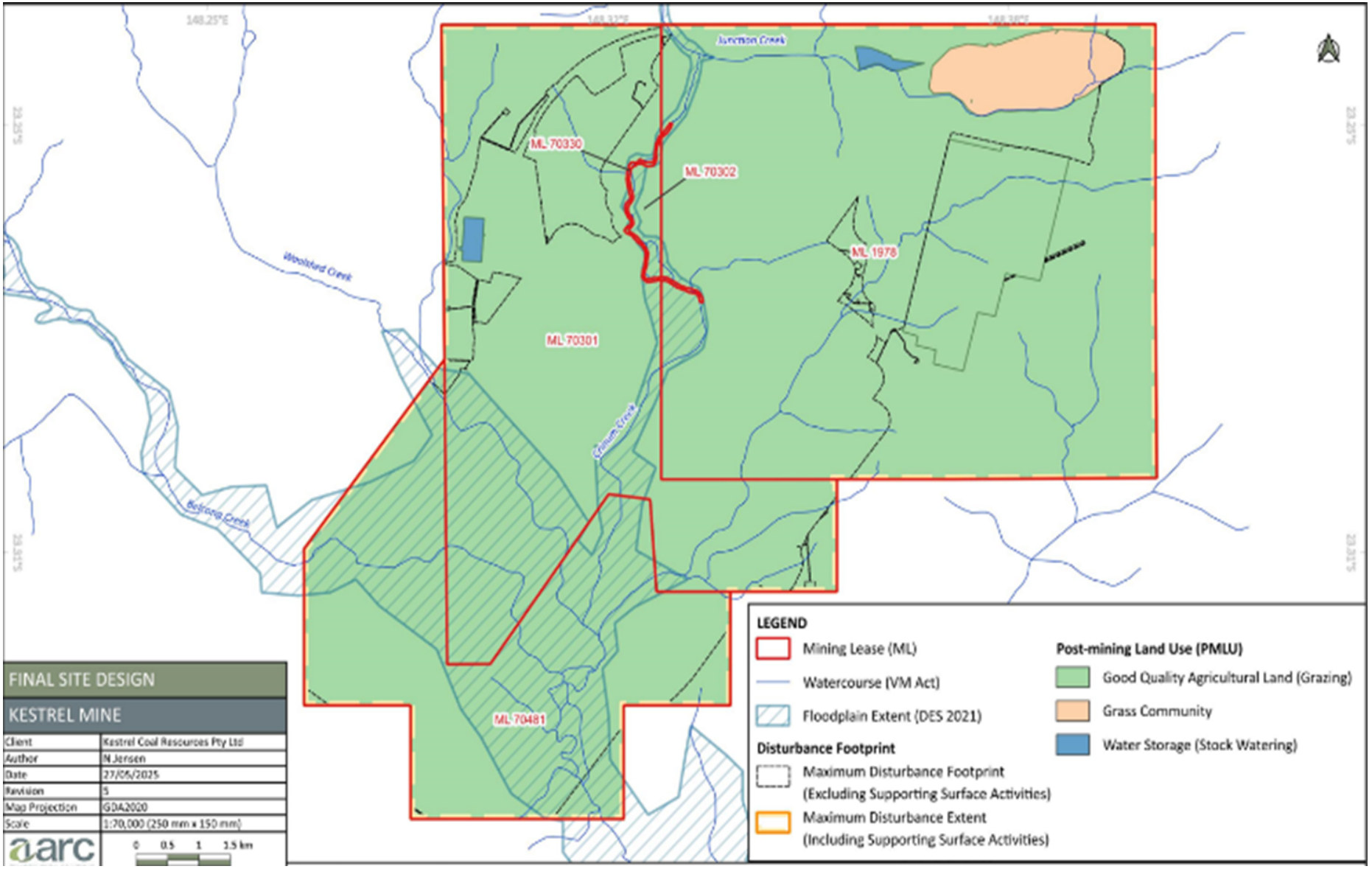
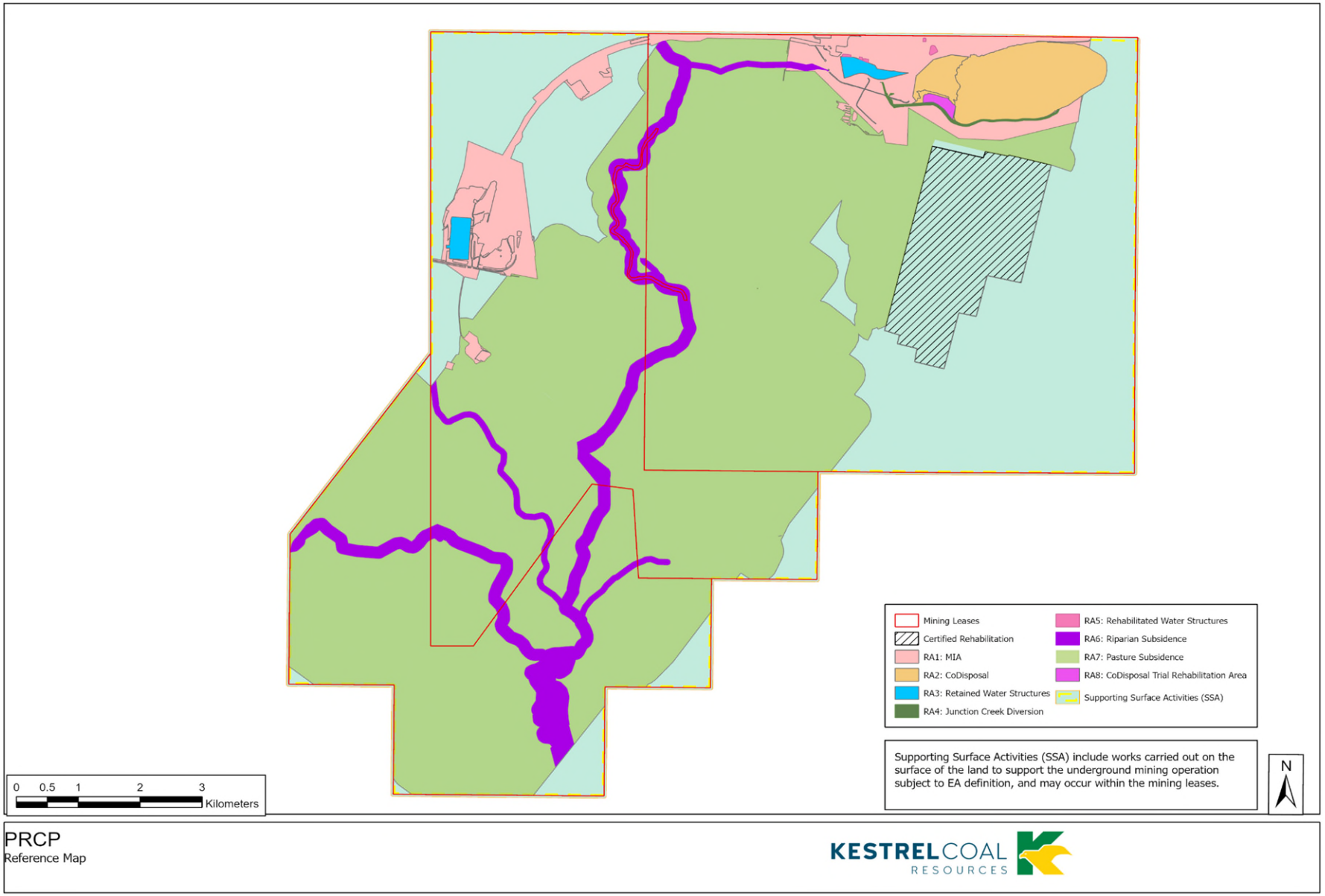


Figure 2: Reference Map



Section C – Post mining land uses

(RA1) Rehabilitation area 1

Post-mining land uses (PMLU)						
Rehabilitation area	RA1					
Relevant activities	MIA outside of subsidence zones (incl. roads and access tracks, CHPP, product and ROM stockpile areas, buildings, offices)					
Total rehabilitation area size (ha)	708.6					
Commencement of first milestone: RM1	Land available commencing from 10/12/2035					
PMLU	Good quality agricultural land (grazing)					
Date area is available	10/12/2035					
Cumulative area available (ha)	708.6	708.6	708.6	708.6		
Milestone completed by	10/12/2040	10/12/2045	10/12/2050	10/12/2065		
Milestone Reference	**Cumulative area achieved (ha)**					
RM1	708.6					
RM2	708.6					
RM3	708.6					
RM7		708.6				
RM8		708.6				
RM12			708.6			
RM17				708.6		

(RA2) Rehabilitation area 2

Post-mining land uses (PMLU)										
Rehabilitation area	RA2									
Relevant activities	CDF (including Rejects Return Dam and brine dam evaporation ponds)									
Total rehabilitation area size (ha)	302.1 ha									
Commencement of first milestone: RM1	10/12/2038									
PMLU	Grass Community									
Date area is available	10/12/2038	10/12/2040	10/12/2045							
Cumulative area available (ha)	257.4	257.4	257.4	302.1	302.1	302.1	302.1			
Milestone completed by	10/12/2040	10/12/2045	10/12/2048	10/12/2050	10/12/2055	10/12/2060	10/12/2065			
Milestone Reference	**Cumulative area achieved (ha)**									
RM1	257.4	257.4	257.4	302.1	302.1					
RM2		257.4	257.4	257.4	302.1					
RM6		257.4	257.4	257.4	302.1					
RM7		257.4	257.4	257.4	302.1					
RM9			257.4	257.4	257.4	302.1				
RM13				257.4	257.4	257.4	302.1			
RM17							302.1			

(RA3) Rehabilitation area 3

Post-mining land uses (PMLU)								
Rehabilitation area	RA3							
Relevant activities	Water management infrastructure Environmental Dam & Holding Dam							
Total rehabilitation area size (ha)	42.9							
Commencement of first milestone: RM1	10/12/2041							
PMLU	Water storage (stock water)							
Date area is available	10/12/2041	10/12/2043	10/12/2045	10/12/2060				
Cumulative area available (ha)	42.9	42.9	42.9	42.9				
Milestone completed by	10/12/2043	10/12/2045	10/12/2050	10/12/2065				
Milestone Reference	**Cumulative area achieved (ha)**							
RM1	42.9							
RM2		42.9						
RM7		42.9						
RM15			42.9					
RM17				42.9				

(RA4) Rehabilitation area 4

Post-mining land uses (PMLU)									
Rehabilitation area	RA4								
Relevant activities	Water management infrastructure (retained creek diversion)								
Total rehabilitation area size (ha)	10.7								
Commencement of first milestone: RM1	10/12/2033								
PMLU	Good quality agricultural land (grazing)								
Date area is available	10/12/2033								
Cumulative area available (ha)	10.7	10.7	10.7	10.7	10.7				
Milestone completed by	10/12/2035	10/12/2040	10/12/2045	10/12/2055	10/12/2065				
Milestone Reference	**Cumulative area achieved (ha)**								
RM1	10.7								
RM5		10.7							
RM7		10.7							
RM10			10.7						
RM16				10.7					
RM17					10.7				

(RA5) Rehabilitation area 5

Post-mining land uses (PMLU)									
Rehabilitation area	RA5								
Relevant activities	Water storages (not retained)								
Total rehabilitation area size (ha)	2.9								
Commencement of first milestone: RM1	10/12/2037								
PMLU	Good quality agricultural land (grazing)								
Date area is available	10/12/2037								
Cumulative area available (ha)	2.9	2.9	2.9	2.9	2.9				
Milestone completed by	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2065				
Milestone Reference	**Cumulative area achieved (ha)**								
RM1	2.9								
RM2	2.9								
RM3		2.9							
RM7		2.9							
RM8			2.9						
RM12				2.9					
RM17					2.9				

(RA6) Rehabilitation area 6

Post-mining land uses (PMLU)										
Rehabilitation area	RA6									
Relevant activities	Subsided land – riparian (excluding MIA)									
Total rehabilitation area size (ha)	591.6 ha									
Commencement of first milestone: RM4	Land available prior to 2023 (PRCP implementation) / All other land available commencing from 10/12/2027									
PMLU	Good quality agricultural land (riparian)									
Date area is available	Prior 2023	10/12/2027	10/12/2030	10/12/2035	10/12/2040					
Cumulative area available (ha)	204.4	364.3	529.2	591.6	591.6	591.6	591.6	591.6	591.6	
Milestone completed by	10/12/2027	10/12/2030	10/12/2035	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	
Milestone Reference	**Cumulative area achieved (ha)**									
RM4	204.4	364.3	490.3	591.6						
RM7	204.4	204.4	468.6	529.2	591.6					
RM11		204.4	204.4	468.6	529.2	591.6				
RM14				204.4	204.4	468.6	591.6	591.6		
RM17									591.6	

(RA7) Rehabilitation area 7

Post-mining land uses (PMLU)										
Rehabilitation area	RA7									
Relevant activities	Subsided land– pasture (excluding MIA)									
Total rehabilitation area size (ha)	6739.4 ha									
Commencement of first milestone: RM1	Land available prior to 2023 (PRCP implementation) / All other land available commencing from 10/12/2027									
PMLU	Good quality agricultural land (grazing)									
Date area is available	Prior 2023	10/12/2027	10/12/2030	10/12/2035						
Cumulative area available (ha)	2798.0	4301.9	5677.3	6739.4	6739.4	6739.4	6739.4	6739.4		
Milestone completed by	10/12/2027	10/12/2030	10/12/2035	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2065		
Milestone Reference	**Cumulative area achieved (ha)**									
RM1	2798.0	4055.0	5384.6	6739.4						
RM3	2798.0	3355.8	4889.3	6091.3	6739.4					
RM7	2526.8	3355.8	4581.8	5922.7	6739.4	6739.4				
RM8		2526.8	3355.8	4581.8	5922.7	6739.4	6739.4			
RM12			2526.8	3355.8	4581.8	5922.7	6739.4			
RM17								6739.4		

RA8 Rehabilitation area 8

Post-mining land uses (PMLU)										
Rehabilitation area	RA8									
Relevant activities	CDF Rehabilitation Trial Area									
Total rehabilitation area size (ha)	9.4ha									
Commencement of first milestone: RM9	Commenced rehabilitation prior to implementation of PRCP									
PMLU	Grass Community									
Date area is available	Prior 2023									
Cumulative area available (ha)	9.4	9.4	9.4							
Milestone completed by	10/12/2027	10/12/2030	10/12/2065							
Milestone Reference	**Cumulative area achieved (ha)**									
RM9	9.4									
RM13		9.4								
RM17			9.4							

Rehabilitation area milestones

Milestone reference	Rehabilitation milestone	Milestone criteria
RM1	Infrastructure decommissioning and removal	**Built Infrastructure** 1.1 All infrastructure that is not compatible with the PMLU and unless subject to a written landholder agreement by the post mining landholder or required for monitoring for subsequent milestone criteria, must be decommissioned and removed offsite. Infrastructure includes: a) Buildings and associated infrastructure b) Hardstand and concrete areas; c) Roads (bitumen, blue metal, aggregate); d) Machinery, equipment and pipelines; e) Underground drifts, shafts, tunnels and portals; f) Fencing not compatible with the PMLU requirements; g) Surface water drainage infrastructure; h) Sediment ponds and sumps; i) Drillholes and boreholes; j) Waste; and k) Services. 1.2 Where appropriate, dams to be rehabilitated are dewatered and desilted. 1.3 Where appropriate, and unless subject to a landholder agreement, synthetic (plastic and geofabric) liners have been removed from all dams and disposed of appropriately. 1.4 Any residual brine must be removed and transported to a facility that can lawfully reuse, recycle or dispose of such waste under the *Environmental Protection Act 1994.* 1.5 All infrastructure to be retained onsite must achieve a stable condition.
RM2	Identification, remediation and removal of contaminated land	2.1 Contaminated Land Investigation Document completed in accordance with the *Environmental Protection Act 1994*, including a site investigation report, and, where required, a Validation Report and/or a draft Site Management Plan. 2.2 Contaminated and hazardous material either remediated in-situ or removed/transported to an approved landfill for disposal and waste tracking information recorded and submitted.

Milestone reference	Rehabilitation milestone	Milestone criteria
		2.3 A declaration from a Suitably Qualified Person (SQP) that no contamination unsuitable for the PMLU remains.
RM3	Landform development (reshaping, reprofiling, topdressing, seed bed preparation, soil amelioration) of good quality agricultural land (grazing))	3.1 All earthworks completed to final landform design specifications. 3.2 Regrading of tracks not being retained in the final landform. 3.3 Landform profiled to a maximum slope gradient of ≤5% (RA5 only). 3.4 Backfilling and sealing of declines/portal area and ventilation shafts with waste rock material in accordance with engineering designs and to form a free draining final surface. 3.5 An AQP has prepared an As-Constructed Report that details the works undertaken, and certifies that: a) Construction and backfilling of underground openings meets the design intent; and b) Underground opening certified as safe. 3.6 Establishment of drainage lines to design specifications to ensure effective drainage of subsidence-resulting ponded areas and certified by an AQP. 3.7 An AQP certifies that permanent ponding only occurs within the 500 series to a total maximum extent, per discreet area, of 200m^2 (applicable to RA7 only). 3.8 Contour banks removed/regraded from land affected by subsidence. 3.9 Where topsoil is required to support vegetation (RA1 and RA5), topsoil health and suitability is assessed and documented by an AQP prior to placement on the landform to confirm soil is suitable for target vegetation establishment to support the relevant PMLU as per **Appendix II, Table 2: Soil quality criteria.** 3.10 Where the topsoil tested under RM3.10 does not meet the suitability targets, soil ameliorants such as fertiliser, gypsum and/or organic matter have been applied at rates determined by an AQP and documented. 3.11 Where topsoil is required to support revegetation, topsoil placement to a minimum depth of 0.3 m. 3.12 Deep ripping of compacted surfaces, at least 300mm into soil/ subsoil profile for all areas where topsoil is applied (RA1 and RA5).
RM4	Landform development (reshaping, reprofiling, topdressing, seed bed preparation, soil amelioration) of good quality agricultural land (riparian))	4.1 Establishment of drainage lines to design specifications to ensure effective drainage of subsidence-resulting ponded areas and certified by an AQP. 4.2 Contour banks removed/regraded from land affected by subsidence.

Milestone reference	Rehabilitation milestone	Milestone criteria
		4.3 Stream condition survey including vegetation condition undertaken by an AQP, and a recommendation made for a rehabilitation strategy to support stabilisation of beds and banks adversely affected by subsidence. 4.4 Implementation of the recommended rehabilitation strategy and records maintained to demonstrate implementation. 4.5 Where topsoil is required to support vegetation, topsoil health and suitability is assessed and documented by an AQP prior to placement on the landform to confirm soil is suitable for target vegetation establishment to support the relevant PMLU as per **Appendix II, Table 2: Soil quality criteria.** 4.6 Where the topsoil tested under RM4.6 does not meet the suitability targets, soil ameliorants such as fertiliser, gypsum and/or organic matter have been applied at rates determined by an AQP and documented. 4.7 Where topsoil is used in rehabilitation activities, topsoil placement to a minimum depth of 0.3 m.
RM5	Landform development (reshaping, reprofiling, topdressing, seed bed preparation, soil amelioration) of good quality agricultural land (permanent creek diversion)	5.1 All landform works completed to final landform design specifications. 5.2 Installation of rock armouring and rip rap with small to medium rocks of 250 to 500 mm diameter where modelling indicates shear stress exceeds 50 N/m^2. 5.3 Certification provided by an AQP confirms that the permanent creek diversion: a) Is constructed to design specifications; b) Is constructed to convey flow during a 0.1% AEP flood event; c) Will not impact the stability of the co-disposal storage facility; and d) Will allow natural non-erosive drainage on site. 5.4 Records demonstrate that the recommendations in the rehabilitation strategy has been implemented. 5.5 Where topsoil is required to support vegetation, topsoil health and suitability is assessed and documented by an AQP prior to placement on the landform to confirm soil is suitable for target vegetation establishment to support the relevant PMLU as per **Appendix II, Table 2: Soil quality criteria.** 5.6 Where the topsoil tested under RM5.5 does not meet the suitability targets, soil ameliorants such as fertiliser, gypsum and/or organic matter have been applied at rates determined by an AQP and documented. 5.7 Topsoil placement to a minimum depth of 0.3 m.

Milestone reference	Rehabilitation milestone	Milestone criteria
RM6	Landform development and capping installation of CDSF for grass community	6.1 An AQP certifies that the as constructed landform achieves design criteria with: a) 1(V) in 6(H) for existing southern end outer slopes; b) 1(V) in 10(H) for all other slopes; c) A Factor of Safety (FOS) ≥ 1.5; and d) Nominated drainage and erosion and sediment control features installed/constructed. 6.2 Installation of surface capping layer(s) in accordance with engineering design specification and certified by an AQP (Cover option 4 (ATCW 2023b): a) Reduced permeability clay cover layer placed over co-disposed materials (minimum depth 0.3 m); b) Placement of rock mulch (minimum depth 0.9 m); c) Topsoil (minimum depth 0.3 m); and d) Placement, in relation to material compaction, moisture content, in-situ permeability, to be in accordance with final construction/design specification. 6.3 Installation of appropriate monitoring equipment and network to determine the performance of the adopted cover system and monitoring has commenced. 6.4 Topsoil health and suitability is assessed and documented by an AQP prior to placement on the landform to confirm soil is suitable for target vegetation establishment to support the relevant PMLU as per this schedule **Appendix II, Table 2: Soil quality criteria**. 6.5 Where the topsoil tested under RM6.4 does not meet the suitability targets, soil ameliorants such as fertiliser, gypsum and/or organic matter have been applied at rates determined by an AQP and documented. 6.6 Stock exclusion has been established to prevent stock from accessing the CDSF.
RM7	Revegetation	7.1 Seeding is completed in accordance with **Appendix III, Table 3: Seed mix.** 7.2 Records are kept demonstrating species used, seeding rates, area sown, germination certificate, and seed origin. 7.3 Stock exclusion has been established to prevent stock from grazing seeded areas.
RM8	Achievement of surface stability (good quality agricultural land (grazing) PMLU)	8.1 Vegetative groundcover is ≥70% of representative analogue sites.

Milestone reference	Rehabilitation milestone	Milestone criteria
		8.2 Dominant pasture species identified in representative analogue sites provided in **Appendix VII, Table 9: Rehabilitation analogue site-based attributes**, are present. 8.3 For surfaces that have undergone seeding in RM7.1, Evidence of natural recruitment of species: a) Used in the rehabilitation seed mix in **Appendix III, Table 3: Seed Mix**; or b) Present (native and 3P pasture species) in the immediate surrounding area at the time of seeding/planting. 8.4 Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP during rehabilitation monitoring events. Less than 5% of declared weeds (as defined in the *Biosecurity Act 2014*). 8.5 No evidence of erosion classified as 'moderate' or 'severe' as defined by **Appendix I, Table 1: Erosion classification framework**. 8.6 Corrective action arising from routine monitoring programs have been undertaken may include weed control, erosion repair, livestock management. 8.7 Representative surface water runoff samples comply with **Appendix IV, Table 5: Surface water quality limits.** 8.8 Remediated subsidence-induced ponded areas are draining effectively following rainfall events with no individual permanent ponding areas resulting having an area greater than 200m^2.
RM9	Achievement of surface stability (grass community PMLU)	9.1 Total percentage of ground cover is ≥75%. 9.2 A species presence that is consistent with those used in the rehabilitation seed mix in **Appendix III, Table 3: Seed** Mix with evidence of natural recruitment. 9.3 Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP during rehabilitation monitoring events. Less than 5% of declared weeds (as defined in the *Biosecurity Act 2014*). 9.4 Vegetation consists of: a) ≥3 native grass species composing >20% of the total grass species; b) ≥3 forbs species; c) Organic litter >1.3%.

Milestone reference	Rehabilitation milestone	Milestone criteria
		9.5 No evidence of erosion classified 'moderate' or 'severe' as defined by **Appendix I, Table 1: Erosion classification framework**. 9.6 No rills or gully erosion present ≥0.3m deep. 9.7 No evidence of scouring, gullying, or rilling in or adjacent to drains, and confirmed by an AQP report. 9.8 An AQP certifies that any erosion present will not compromise the achievement of a PMLU to a stable condition. 9.9 Assessed as geotechnically stable with a factor of safety (FOS) of ≥1.5 by an AQP. 9.10 Where applicable, installation of rock armouring in drainage lines has been completed to design specifications as certified by an AQP. 9.11 No evidence of surface water ponding or settlement as certified by an AQP. 9.12 Corrective action arising from routine monitoring programs have been undertaken may include weed control, erosion repair, livestock management. 9.13 Representative surface water runoff samples comply with **Appendix IV, Table 5: Surface water quality limits.** 9.14 Livestock excluded from the area.
RM10	Achievement of surface stability (good quality agricultural land (permanent creek diversion))	10.1 Total percentage of ground cover (i.e. ground foliage cover, woody debris, organic litter and rock) is ≥70% consisting of vegetation cover >50%. 10.2 Dominant pasture species identified in representative analogue sites, provided in **Appendix VII, Table 9: Rehabilitation analogue site-based attributes**, are present. 10.3 Vegetation surveys demonstrate that plant cover, grass species richness, tree species richness, shrub species richness, forb/other species richness, native perennial grass cover (%) and organic litter (%) is >25% that of analogue sites. 10.4 For surfaces that have undergone seeding in RM7.1, Evidence of natural recruitment of species: a) Used in the rehabilitation seed mix in **Appendix III, Table 3: Seed Mix**; or b) Present (native and 3P pasture species) in the immediate surrounding area at the time of seeding/planting.

Milestone reference	Rehabilitation milestone	Milestone criteria
		10.5 Weed presence is less than 10% of total vegetative groundcover confirmed by an AQP during rehabilitation monitoring events. Less than 5% of declared weeds (as defined in the *Biosecurity Act 2014*). 10.6 No evidence of erosion classified 'moderate' or 'severe' as defined by **Appendix I, Table 1: Erosion classification framework**. 10.7 Assessment by an AQP confirms that the diversion is self-sustaining and trending towards a stable condition in accordance with the design plan. 10.8 Corrective action arising from routine monitoring programs have been undertaken may include weed control, erosion repair, livestock management. 10.9 Representative surface water runoff samples comply with **Appendix IV, Table 5: Surface water quality limits**.
RM11	Achievement of surface stability (good quality agricultural land (riparian))	11.1 Vegetative groundcover is ≥70% of representative analogue sites. 11.2 For surfaces that have undergone seeding in RM7.1, evidence of natural recruitment of species: a) Used in the rehabilitation seed mix in **Appendix III, Table 3: Seed Mix**; or b) Present (native and 3P pasture species) in the immediate surrounding area at the time of seeding/planting. 11.3 Weed presence is less than 10% of total vegetative groundcover confirmed by an AQP during rehabilitation monitoring events. Less than 5% of declared weeds (as defined in the *Biosecurity Act 2014*). 11.4 Vegetation surveys demonstrate that plant cover, grass species richness, tree species richness, shrub species richness, forb/other species richness, native grass species richness and organic litter (%) is >50% that of analogue sites. 11.5 No evidence of erosion classified 'moderate' or 'severe' as defined by **Appendix I, Table 1: Erosion classification framework.** 11.6 Creek beds and banks are trending towards a geomorphologically stable condition, demonstrated by evidence from stream condition surveys undertaken by an AQP. 11.7 Corrective action arising from routine monitoring programs have been undertaken may include weed control, erosion repair, livestock management.

Milestone reference	Rehabilitation milestone	Milestone criteria
		11.8 Representative surface water runoff samples comply with **Appendix IV, Table 5: Surface water quality limits.**
RM12	Achievement of target post-mining land use to safe and sustainable condition (good quality agricultural land (grazing) PMLU)	12.1 Vegetation groundcover is ≥90% of representative analogue sites. 12.2 3P (perennial, persistent and palatable) pasture species used in RM7 including legumes and grasses, remain present and in rehabilitation monitoring data. 12.3 Rehabilitation polygons have a median fractional vegetative cover greater than the first quartile of analogue polygons for at least 85% of all sample times, as determined using the satellite-derived fractional vegetative cover method (RA7 only). 12.4 Analogue site polygons utilised for comparison in accordance with RM12.3 are those specified in **Appendix VII: Rehabilitation Analogue Sites**. 12.5 Weed (as defined under the *Biosecurity Act 2014*) presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP during rehabilitation monitoring events. Less than 5% of total vegetative groundcover is declared weeds (as defined in the *Biosecurity Act 2014*). 12.6 Where *Leucaena leucocephala* (leucaena) has been established for grazing prior to mining, leucaena must be actively managed to: a) reduce the risk of dispersal through local drainage lines; and b) ensure plant density is compatible with the PMLU. 12.7 Certification of rehabilitation to a land suitability class similar to the pre-mining land suitability by an AQP as assessed under the latest relevant guideline. 12.8 No evidence of erosion classified as 'moderate' or 'severe' as defined by **Appendix I, Table 1: Erosion classification framework**. 12.9 Surface water runoff has been collected across representative areas of rehabilitation when surface flows occur. The representative samples are non-polluting to receiving waters and comply with **Appendix IV, Table 5: Surface water quality limits**. 12.10 Exploration activities outside the area shown in **Figure 1: Final Site Design** are rehabilitated in accordance with the relevant parts of the latest version of the *Eligibility Criteria and Standard Conditions for Exploration and Mineral Development Projects* (ESR/2016/1985).

Milestone reference	Rehabilitation milestone	Milestone criteria
		12.11 Assessment by an AQP confirms: a) The extent and frequency of surface cracking of the mined land is comparable to the unmined land. b) Drainage features within the subsided areas are comparable with the pre-mining drainage features of the land as confirmed by a LiDAR Survey. 12.12 All remaining infrastructure removed.
RM13	Achievement of target post-mining land use to safe and sustainable condition (grass community PMLU)	13.1 Vegetative groundcover >75%. 13.2 Vegetation consists of: a) ≥3 native grass species composing >39% of the grass species; b) ≥3 forbs species; c) Organic litter >1.3%. 13.3 Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP during rehabilitation monitoring events. Less than 5% of total vegetative groundcover is declared weeds (as defined in the *Biosecurity Act 2014*). 13.4 No evidence of erosion classified as 'moderate' or 'severe' as defined by **Appendix I, Table 1: Erosion classification framework** and verified by an AQP. 13.5 No evidence of scouring in, or adjacent to, drains as confirmed by an AQP. 13.6 No acid or saline seepage areas capable of causing environmental harm. 13.7 Certification from an AQP that the landform is geotechnically stable with FOS ≥1.5. 13.8 Representative surface water runoff samples comply with **Appendix IV, Table 5: Surface water quality limits.** 13.9 Infiltration rates and net flux are no greater than the defined performance objectives: a) Less than 10% of total rainfall depth reports as net infiltration per year; b) The number of days with infiltration exceeding 100 mm/day is less than 10 days per year. 13.10 Hazard and Safety Assessment completed by an AQP assesses hazards to be low risk with no significant increase in risk expected over time.

Milestone reference	Rehabilitation milestone	Milestone criteria
RM14	Achievement of target post-mining land use to safe and sustainable condition (good quality agricultural land (riparian) PMLU)	14.1 Vegetation groundcover is ≥90% of representative analogue sites. 14.2 Vegetation surveys demonstrate that plant cover, grass species richness, tree species richness, shrub species richness, forb/other species richness, native grass species richness and organic litter (%) is >75% than that of analogue sites. 14.3 Evidence of woody tree species reproduction and/or recruitment (e.g. flowering/fruiting, naturally regenerated individuals), for the dominant species present at the time of monitoring. 14.4 Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP during rehabilitation monitoring events. Less than 5% of total vegetative groundcover is declared weeds (as defined in the *Biosecurity Act 2014*). 14.5 No evidence of erosion classified as 'moderate' or 'severe' as defined by **Appendix I, Table 1: Erosion classification framework** and verified by an AQP. 14.6 All fencing used to prevent stock access to revegetation has been removed, except where fencing is agreed to be retained by the landholder as evidenced by a signed landholder agreement. 14.7 Hazard and Safety Assessment completed by an AQP demonstrates hazards in rehabilitation areas are consistent with the type and severity of hazards typical of the adjacent equivalent land use. Remaining hazards are considered to be low risk with no significant increase in risk expected over time. 14.8 Assessment by an AQP confirms the extent and frequency of surface cracking of the mined land is comparable to the unmined land. 14.9 Assessment by an AQP confirms creek banks of subsided land are stable. 14.10 Creek beds and banks demonstrate a similar geomorphologically stable condition to upstream and downstream sections of the creek as certified by an AQP.
RM15	Achievement of target post-mining land use to safe and sustainable condition (retained water storage PMLU)	15.1 An AQP confirms that all retained water storages are in a stable condition. 15.2 Retained water storages must meet water quality parameters that are below the trigger values for livestock drinking water defined in Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018) for a minimum of 5 years.

Milestone reference	Rehabilitation milestone	Milestone criteria
RM16	Achievement of target post-mining land use to safe and sustainable condition good quality agricultural land (permanent creek diversion) PMLU	16.1 Vegetation surveys demonstrate that plant cover, grass species richness, tree species richness, shrub species richness, forb/other species richness, native grass species richness and organic litter (%) is >75% that of analogue sites. 16.2 Vegetative groundcover is ≥70% of representative analogue sites. 16.3 Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP during rehabilitation monitoring events. Less than 5% of total vegetative groundcover is declared weeds (as defined in the *Biosecurity Act 2014).* 16.4 No evidence of erosion classified 'moderate' or 'severe' as defined by **Appendix I, Table 1: Erosion classification framework.** 16.5 Diversion bed and banks demonstrate a geomorphologically stable condition as determined by an AQP considering the following characteristics: a) Incorporates natural features (including geomorphic and vegetation) present at the location of the diversion. b) Maintain the pre-existing hydrologic characteristics of surface water and groundwater systems for the area in which the watercourse diversion is located. c) Displays hydraulic characteristics similar to other local watercourses and suitable for the area in which the diversion is located without using artificial structures that require on-going maintenance. d) Maintain sediment transport and water quality regimes that allow the diversion to be self-sustaining, while minimising any impacts to upstream and downstream water quality, geomorphology, or vegetation. e) Maintains equilibrium and functionality in all substrate conditions at the location of the diversion. 16.6 Diversion bed and banks have: a) No erosion classified as 'moderate' or 'severe' nor gully erosion or washout features; and b) No active erosion present as demonstrated by no increase in erosion ratings over 3 consecutive years.

Milestone reference	Rehabilitation milestone	Milestone criteria
		16.7 All fencing used to prevent stock access to revegetation has been removed, except where fencing is agreed to be retained by the landholder as evidenced by a signed landholder agreement. 16.8 Hazard and Safety Assessment completed by an AQP demonstrates hazards in rehabilitation areas are consistent with the type and severity of hazards typical of the adjacent equivalent land use. Remaining hazards are considered to be low risk with no significant increase in risk expected over time. 16.9 Creek beds and banks demonstrate a similar geomorphologically stable condition to upstream and downstream sections of the creek as certified by an AQP.
RM17	Surface water and groundwater demonstrate non-polluting landform	17.1 For a minimum of five consecutive years groundwater quality must be monitored quarterly at, *but not limited to,* compliance bores/locations specified in **Appendix V, Table 6: Groundwater quality monitoring bores**, for all quality characteristics listed in **Appendix V Table 7: Groundwater quality limits**. 17.2 Groundwater quality results must not exceed the limits in **Appendix V, Table 7: Groundwater quality limits**, for 3 consecutive results. 17.3 Surface water quality results monitored monthly during flow at, but not limited to, downstream locations specific in **Appendix IV, Table 4: Surface water monitoring locations**. Surface water monitoring locations must not exceed the limits in **Appendix IV, Table 5: Surface water quality limits**, for a minimum of 5 consecutive years. 17.4 If the surface water quality exceeds criteria RM17.3, the applicable upstream site must be compared to the downstream site result; and quality result measured at a downstream site must be equal to or less than the quality result measured at the applicable upstream site. 17.5 Where the surface water quality at the downstream site exceeds the upstream site result as per RM17.4, an AQP must complete: a) An assessment to determine if the exceedance is a result of a rehabilitation area: and b) Where the assessment under a) verifies that the exceedance is a result of a rehabilitation area:

Milestone reference	Rehabilitation milestone	Milestone criteria
		i) If there is no or a low risk to achieving a stable condition, then no further action is to be taken; or ii) If there is a risk greater than low to achieving a stable condition, then an assessment of potential environmental harm, and any changes or rectification actions to rehabilitation activities must be determined and implemented. iii) RM17.5bii) can only be triggered 3 times over 5 consecutive years prior to surrender. 17.6 If condition RM17.5bii is triggered, the relevant 5-year timeframe under criteria RM17.3 is reset. 17.7 The assessment/s under RM17.5b must be completed and provided to the administering authority within 3 months of receiving the relevant sampling results.

Section D – Appendices

Appendix I – Erosion classification framework

Table 1: Erosion classification framework

Erosion classification	Minor	Moderate	Severe
Sheet erosion	Shallow soil deposits downslope	Partial exposure of roots; moderate soil deposits downslope	Loss of surface horizon; subsoil exposure; root exposure; substantial soil deposits downslope
Rill/gully erosion	<0.3m deep <15 rills per transect*	<0.3m deep 15-30 rills per transact*	>0.3m deep >30 rills per transect* and/or any
Gully erosion	Absent	>0.3m deep Gullies are linear, continuous, and restricted to primary of minor drainage lines	>0.3m deep Gullies are continuous or discontinuous, and either tend to branch away from primary drainage lines and on to foot slopes, or have multiple branches within drainage lines
Tunnel erosion	Absent	Absent	Present
Mass movement	Absent	Absent	Present

Source: NCST (2009) *Australian Soil and Land Survey Field Handbook, 3rd edition*. The National Committee on Soil and Terrain. CSIRO Publishing, Collingwood, Australia.
*Transect 100 m across the contour (Source: Tongway, D. J. and Hindley, N. L. 2005. *Landscape Function Analysis: Procedures for Monitoring and Assessing Landscapes*. CSIRO Publishing, Canberra, Australia).

Appendix II – Soil quality criteria

Table 2: Soil quality criteria

Parameter	Criteria
	RM3/RM4/RM5/RM6
pH	6-8.5
$EC_{1:5}$ (µS/cm)	<1000
Exchangeable Sodium Percentage [ESP] (%)	<6
Emmerson class	>3
Bicarbonate extractable-p mg/kg	≥8
Total organic carbon (%)	≥1

Appendix III – Seed mix

Table 3: Seed Mix

Common name	Scientific name	Classification	Good Quality Agricultural Land PMLU (grazing)	Good Quality Agricultural Land PMLU (riparian)	Grass community PMLU
Desert Bluegrass*	*Bothriochloa ewartiana*	Grass	✓	✓	✓
Golden-Beard Grass / Ribbon grass	*Chrysopogon fallax*	Grass	✓	✓	✓
Spreading umbrella grass	*Digitaria divaricatissima*	Grass	✓	✓	✓
Feathertop Wiregrass*	*Aristida latifolia*	Grass	✓	✓	✓
White Wiregrass*	*Aristida leptopoda*	Grass	✓	✓	✓
Curly Mitchell Grass	*Astrebla lappacea*	Grass	✓	✓	x
Forest Bluegrass	*Bothriochloa bladhii*	Grass	✓	✓	✓
Satin Top*	*Bothriochloa erianthoides*	Grass	✓	✓	✓
King Bluegrass*	*Dichanthium queenslandicum*	Grass	✓	✓	✓
Queensland Bluegrass*	*Dichanthium sericeum*	Grass	✓	✓	✓
Cup Grass*	*Eriochloa crebra*	Grass	✓	✓	✓
Black Spear Grass*	*Heteropogon contortus*	Grass	✓	✓	✓
Native Millet*	*Panicum decompositum*	Grass	✓	✓	✓
Kangaroo Grass	*Themeda triandra*	Grass	✓	✓	✓
Red Flinders Grass	*Iseilema vaginiflorum*	Grass	✓	✓	x
Nineawn*	*Enneapogon truncatus*	Grass	✓	✓	✓
Cotton Panic Grass*	*Digitaria brownii*	Grass	✓	✓	✓
Curly Bluegrass	*Dichanthium fecundum*	Grass	✓	✓	x
Rhodes grass	*Chloris gayana*	Grass	✓	x	✓
Purple Pidgeon Grass	*Setaria incrassate*	Grass	✓	x	x
Japanese Millet	*Echinochloa esculenta*	Grass	x	x	✓
Yabila Grass	*Panicum queenslandicum*	Grass	✓	✓	✓
Hairy Trefoil*	*Desmodium rhytidophyllum*	Forb (legume)	x	x	✓
Butterfly pea	*Clitoria ternatea*	Forb (legume)	✓	x	x
Sensitive plant	*Neptunia gracilis*	Forb (legume)	✓	✓	x
Rhyncho	*Rhynchosia minima var. australis*	Forb (legume)	✓	✓	x
Dwarf Morning Glory	*Evolvulus alsinoides*	Forb (legume)	✓	✓	x
Snail Flower	*Galactia tenuiflora*	Forb (legume)	✓	✓	x
Australian wild soybean*	*Glycine latifolia*	Forb (legume)	✓	✓	✓
Woolly Glycine*	*Glycine tomentella*	Forb (legume)	✓	✓	✓
Nine-leaved Indigo	*Indigofera linnaei*	Forb (legume)	✓	✓	✓
Native bean	*Vigna lanceolata*	Forb (legume)	✓	✓	x

Common name	Scientific name	Classification	Good Quality Agricultural Land PMLU (grazing)	Good Quality Agricultural Land PMLU (riparian)	Grass community PMLU
Sorghum spp.		Forb (legume)	✓	✓	✓
Dolichos	*Lablab purpureus L*	Forb (legume)	✓	✓	x
Cooba*	*Acacia salicina*	Tree	✓	✓	x
Silver-leaved Ironbark	*Eucalyptus melanophloia*	Tree	✓	✓	x
Mountain Coolibah*	*Eucalyptus orgadophila*	Tree	✓	✓	x
Coolibah	*Eucalyptus coolabah*	Tree	✓	✓	x
Northern Bean Tree	*Lysiphyllum carronii*	Tree / shrub	✓	✓	x
Sandalwood	*Santalum lanceolatum*	Tree	✓	✓	x
Yellowwood	*Terminalia oblongata*	Tree	✓	✓	x
Gidgee	*Acacia cambagei*	Tree	✓	✓	x
Shoestring acacia	*Acacia stenophylla*	Tree	✓	✓	x
Weeping myall	*Acacia pendula*	Tree	✓	✓	x
Rosewood	*Alectryon oleifolius*	Tree	✓	✓	x
Red Bloodwood	*Corymbia erythrophloia*	Tree	✓	✓	x
Lignum	*Duma florulenta*	Shrub	✓	✓	x
False sandalwood	*Eremophila mitchellii*	Tree	✓	✓	x
Narrow-leaved ironbark	*Eucalyptus crebra*	Tree	✓	✓	x
Silver-leaved Ironbark	*Eucalyptus melanophloia*	Tree	✓	✓	x
Poplar box	*Eucalyptus populnea*	Tree	✓	✓	x
Sandalwood	*Santalum lanceolatum*	Tree	✓	✓	x
River Red Gum	*Eucalyptus camaldulensis*	Tree	✓	✓	x
Black tea-tree	*Melaleuca bracteata*	Tree	✓	✓	x
	Minimum sowing rate		10kg/ha (RA1, RA5, RA7 and RA9)#	10kg/ha (RA4 and RA6)#	15kg/ha (RA2)

^Preferred species are listed, however, for RA6 and RA7 at the time of seeding, consideration must be given to the vegetation composition of the immediate surrounds

Seeding rate applicable for all areas where topsoil has been applied and/or assessed in RM3, RM4 and RM5

*Denotes grass species from RE11.8.11 technical description.

Notes:

1. *Dichanthium sericeum* must be included in the seed mix applied at RA2.

2. Where seed for a specific species as listed in this table is not available in sufficient quality or quantity, it will be supplemented by a comparable native species from the technical descriptions RE11.3.3, 11.3.3a, 11.3.8, 11.8.4, 11.8.5 or 11.8.11

Appendix IV – Surface water quality

Table 4: Surface water monitoring locations

Monitoring Locations	Receiving waters location description	Location		
		Latitude (decimal degree, GDA94)	Longitude (decimal degree, GDA94)	Location on a map
Upstream monitoring locations				**In accordance with Appendix VI, Figure 3: Surface Water Monitoring Locations**
CLOS1	Upstream of the CDSF along Junction Creek	-23.23834	148.39981	
W1	Woolshed Creek upstream	-23.23824	148.28547	
W3	Liskeard Gully at Lilyvale Road crossing	-23.26336	148.25719	
SW4	Belcong Creek upstream	-23.284	148.24	
Lily01	Crinum Creek upstream	-23.2078	148.33789	
Downstream monitoring locations				
J1	Junction Creek upstream	-23.24261	148.36422	
J2	Junction Creek downstream	-23.23878	148.35462	
SW2	<6km downstream of the confluence of Junction and Crinum Creek	-23.279950	148.329074	
SW3/SW3a	Woolshed Creek downstream	-23.27155	148.28724	
C3	Crinum Creek downstream	-23.32917	148.30711	
C4	1.5km U/S of Crinum Ck and Wyuna Rd, 12km D/S of RP2 and 17km D/S of RP1. Gauging station.	-23.35754	148.32062	
Water Storage*				
HD01*	Retained Dam	-23.26316	148.2953	
Enviro_A*	Retained Dam	-23.23586	148.35686	

*Note: *Water storages (HD01 and Enviro A) must meet water quality parameters specified in RM15.2 and are therefore not subject to surface water quality limits specified in Table 5.*

Table 5: Surface water quality limits

Quality characteristic (units)	Limit	Comment on limit
pH (Field)	6.5-8.5	Lower Nogoa/Theresa Creek Sub-basin waters WQO
Electrical Conductivity (Field) (µS/cm) - Crinum and Junction Creeks	700	Site-specific – 80th percentile of B1
Electrical Conductivity (Field) (µS/cm) – Woolshed Creek	430	Site-specific – 80th percentile of W1
Turbidity (NTU) (Field) - Crinum and Junction Creeks	577	Site-specific - 80th percentile of reference sites
Turbidity (NTU) (Field) - Woolshed Creek	220	Site-specific – 95th percentile of W1
Sulphate (mg/L) - Crinum and Junction Creeks	82	Site specific – 80th percentile of B1
Sulphate (mg/L) - Woolshed Creek	25	Lower Nogoa/Theresa Creek Sub-basin waters WQO
Aluminium - dissolved (µg/L)	84	Site-specific – REMP proposed value
Arsenic - dissolved (µg/L)	13	ANZG 2018
Cadmium - dissolved (µg/L)	0.2	ANZG 2018 (Based on upstream data)
Chromium - dissolved (µg/L)	1	ANZG 2018
Cobalt - dissolved (µg/L)	1.4	ANZG 2018 - no data
Copper - dissolved (µg/L)	3	Site-specific – based on upstream data
Lead - dissolved (µg/L)	3.4	ANZG 2018 - no data
Manganese (µg/L)	1,900	ANZG 2018
Nickel - dissolved (µg/L)	11	ANZG 2018
Vanadium - dissolved (µg/L)	6	ANZG 2018 (Based on upstream data)
Zinc - dissolved (µg/L)	13	Site-specific – REMP proposed value
Nitrate (µg/L)	810	Site-specific – based on 95th percentile of upstream data
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	For interpretation purposes only	
Hardness (mg/L)	For interpretation purposes only	

- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- Lower Nogoa/Theresa Creek Sub-basin waters WQO - https://environment.desi.qld.gov.au/__data/assets/pdf_file/0026/88802/fitzroy_nogoa_river_wqo_290911.pdf
- ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection)

Appendix V – Groundwater quality

Table 6: Groundwater quality monitoring bores

Monitoring Bore	Hydrogeological Unit	Location		
		Latitude (decimal degree, AGD84)	Longitude (decimal degree, AGD84)	Location on a map
202	Permian	-23.277558	148.35853	**In accordance with Appendix VI, Figure 4: Groundwater Monitoring Locations**
303	Permian	-23.267073	148.335335	
3009R	Permian	-23.264849	148.321725	
300-MB04	Basal Sand	-23.2468	148.3189	
300-MB11	Basal Sand	-23.2421	148.3252	
300-MB36	Basal Sand	-23.2442	148.3279	
301N	Permian	-23.276126	148.336002	
3028D	Permian	-23.315014	148.316989	
3033R	Basal Sand	-23.256875	148.34189	
3067R	Basalt	-23.240102	148.356841	
3069R	Basal Sand	-23.2387	148.3579	
3072R	Basalt	-23.240876	148.35292	
CD01	Basalt	-23.233859	148.371643	
CD03	Basalt	-23.23409	148.378222	
CD04	Basal Sand	-23.2328	148.3927	
CD05	Basalt	-23.2424	148.3918	
CD06	Basalt	-23.24725	148.37355	
JFRR03	Basalt	-23.24214	148.364514	
KC23B	Basal Sand	-23.237775	148.344875	
KC29B	Basal Sand	-23.237306	148.358494	
KS1D	Permian	-23.245811	148.328135	
KS1E	Basal Sand	-23.246093	148.327932	
KS1F	Basal Sand	-23.246201	148.327933	
KS2A	Basalt	-23.24179	148.34426	
KS2B	Basal Sand	-23.241826	148.344368	

Monitoring Bore	Hydrogeological Unit	Location		
		Latitude (decimal degree, AGD84)	Longitude (decimal degree, AGD84)	Location on a map
KS4A	Permian	-23.273651	148.330776	**In accordance with Appendix VI, Figure 4: Groundwater Monitoring Locations**
MB7 RDH1304	Permian	-23.25953	148.28985	
NB1	Basalt	-23.2397	148.3918	
NB2	Basalt	-23.24706	148.367809	
NB5	Basalt	-23.237009	148.367697	
NF1a	Basalt	-23.2651	148.3561	
NF1b	Basal Sand	-23.2651	148.3561	
NF2a	Basalt	-23.267	148.3709	
NF3b	Basal Sand	-23.2692	148.3894	
NF5	Permian	-23.301064	148.328282	
NF6	Basalt	-23.3023	148.3419	
NS3	Basal Sand	-23.2454	148.3691	
P1	Permian	-23.239282	148.331276	
P2	Permian	-23.23386	148.39005	
P3	Permian	-23.25147	148.358129	
P4	Permian	-23.251226	148.356084	
Regional 13	Permian	-23.332084	148.288687	
Regional 14	Permian	-23.351473	148.31057	
Regional 15a	Basalt	-23.3069	148.357	
Regional 16	Basalt	-23.256951	148.288609	
Regional 18	Basalt	-23.2958	148.3689	
SDB03B	Basal Sand	-23.2933	148.2876	
SDB05A	Basalt	-23.2542	148.3557	
SDB05B	Basal Sand	-23.2542	148.3556	
SDB06A	Basalt	-23.2495	148.3699	
SDB06B	Basal Sand	-23.2495	148.37	
SDB07A	Basalt	-23.2556	148.3718	

Monitoring Bore	Hydrogeological Unit	Location		
		Latitude (decimal degree, AGD84)	Longitude (decimal degree, AGD84)	Location on a map
SDB07B	Basal Sand	-23.2556	148.3718	**In accordance with Appendix VI, Figure 4: Groundwater Monitoring Locations**
SDB08A	Basalt	-23.251	148.3862	
SDB08B	Basal Sand	-23.2511	148.3862	
T1 (MB1 composite)	Basalt	-23.233786	148.381004	

Table 7: Groundwater quality limits

Quality characteristic (units)	Monitoring Bore	Limit	Comment on limit
pH (pH units)	All bores	6.5-8.5	
Electrical conductivity (µS/cm)	All bores, except 300-MB04, SDB08B, SDB03B, SDB05B	2,500	Site-specific
Electrical conductivity (µS/cm)	300-MB04, SDB08B	3,800	Site-specific
Electrical conductivity (µS/cm)	SDB05B	7,721	Site-specific
Electrical conductivity (µS/cm)	SDB03B	11,560	Site-specific
Sulfate (mg/L)	All bores, except 3069R and SDB03B	85	Site-specific
Sulfate (mg/L)	3069R	441	Site-specific
Sulfate (mg/L)	SDB03B	680	Site-specific
Aluminium - dissolved (µg/L)	All bores	55	ANZG 2018
Arsenic - dissolved (µg/L)	All bores	17	Site-specific
Cadmium - dissolved (µg/L)	All bores	0.2	ANZG 2018
Chromium - dissolved (µg/L)	All bores	1	No data - ANZG 2018
Cobalt - dissolved (µg/L)	All bores	1.4	No data - ANZG 2018
Copper - dissolved (µg/L)	All bores	6	Site-specific
Lead - dissolved (µg/L)	All bores	3.4	ANZG 2018 – 6 data points
Manganese (µg/L)	All bores	1,900	No data - ANZG 2018
Nickel - dissolved (µg/L)	All bores	11	No data - ANZG 2018
Vanadium - dissolved (µg/L)	All bores	6	No data - ANZG 2018
Zinc - dissolved (µg/L)	All bores	8	No data - ANZG 2018
Nitrate (µg/L)	All bores	1100	
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	All bores	For interpretation purposes only	
Hardness (mg/L)	All bores	For interpretation purposes only	

Notes:

- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection)

Appendix VI – Groundwater and Surface Water Monitoring Locations

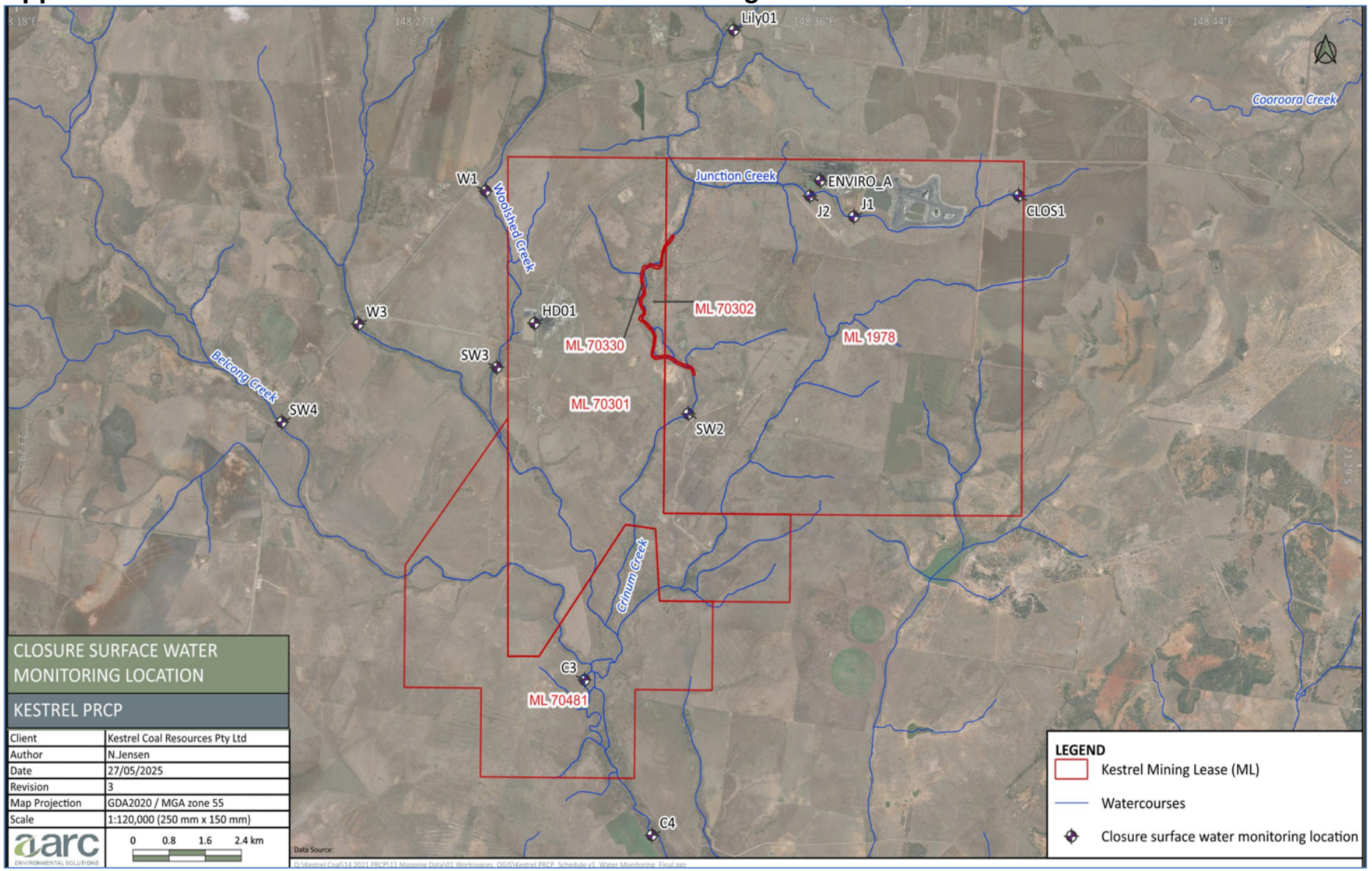


Figure 3: Surface Water Monitoring Locations

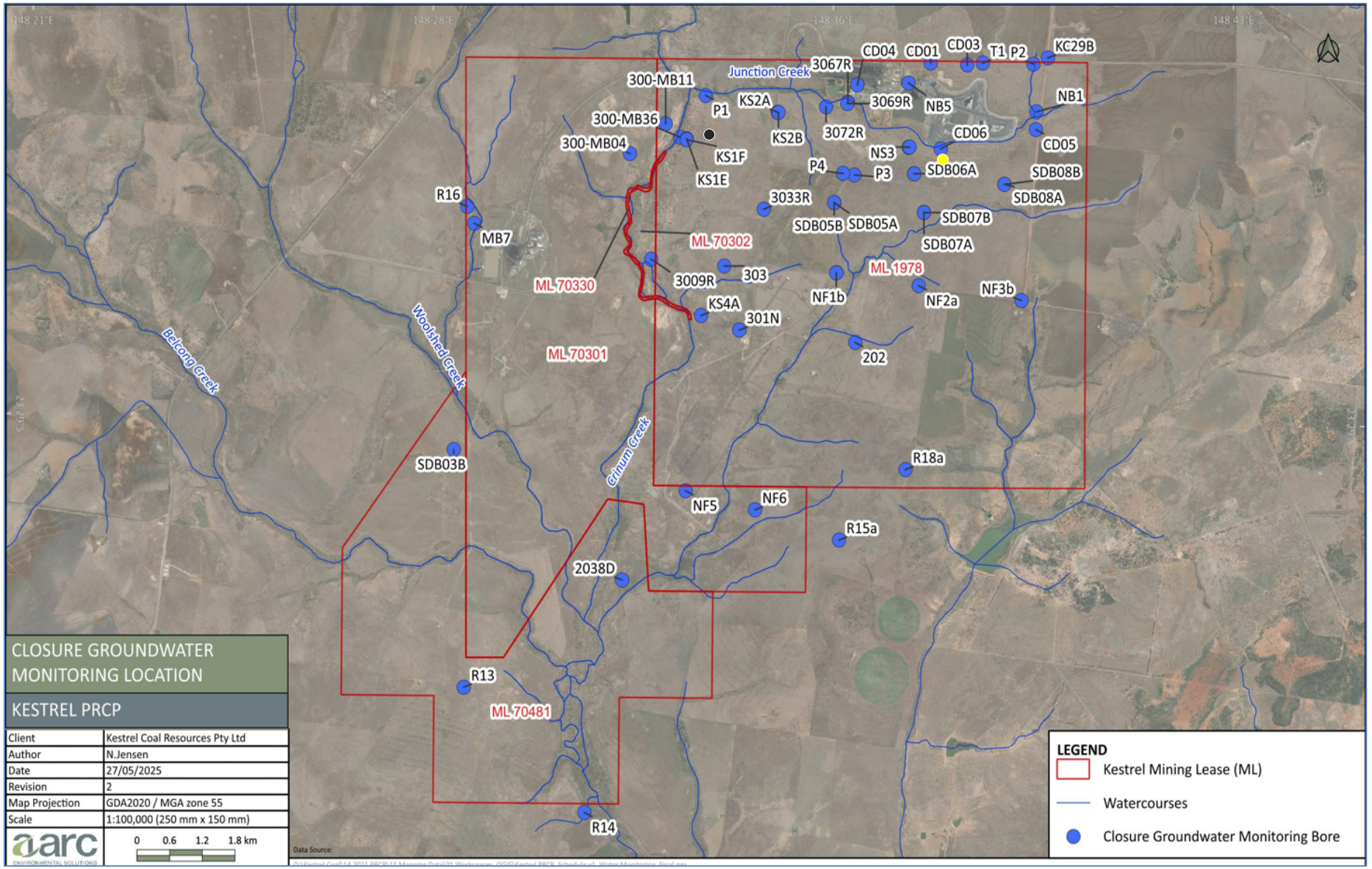


Figure 4: Groundwater Monitoring Locations

Appendix VII: Rehabilitation Analogue Sites

Table 8: Rehabilitation analogue sites

Site	Easting	Northing	Domain Reference
Proposed Analogue Sites as per Appendix E*			
A	632226.24	7430083.80	RA1, RA5, RA7
B	632246.82	7425115.66	RA1, RA5, RA7
C	638926.22	7427911.41	RA1, RA5, RA7
D	642911.22	7429826.42	RA1
E	641170.30	7427466.89	RA1, RA5, RA7
F	638699.91	7424831.63	RA1, RA5, RA7
G	637481.55	7421545.71	RA1, RA5, RA7
H	635683.91	7419404.79	RA5, RA7
I	634465.80	7427306.07	RA6
J	631970.71	7426463.78	RA6
K	634541.41	7422881.28	RA6
L	632001.42	7423992.36	RA6
M	634119.87	7417678.63	RA6
N	642910.15	7429382.95	RA4
O	631940.44	7421802.65	RA6
P	638797.07	7426005.10	RA6

Note: Coordinates are nominal, with precise ground-truthed coordinates to be provided to the Department by 10 December 2027.

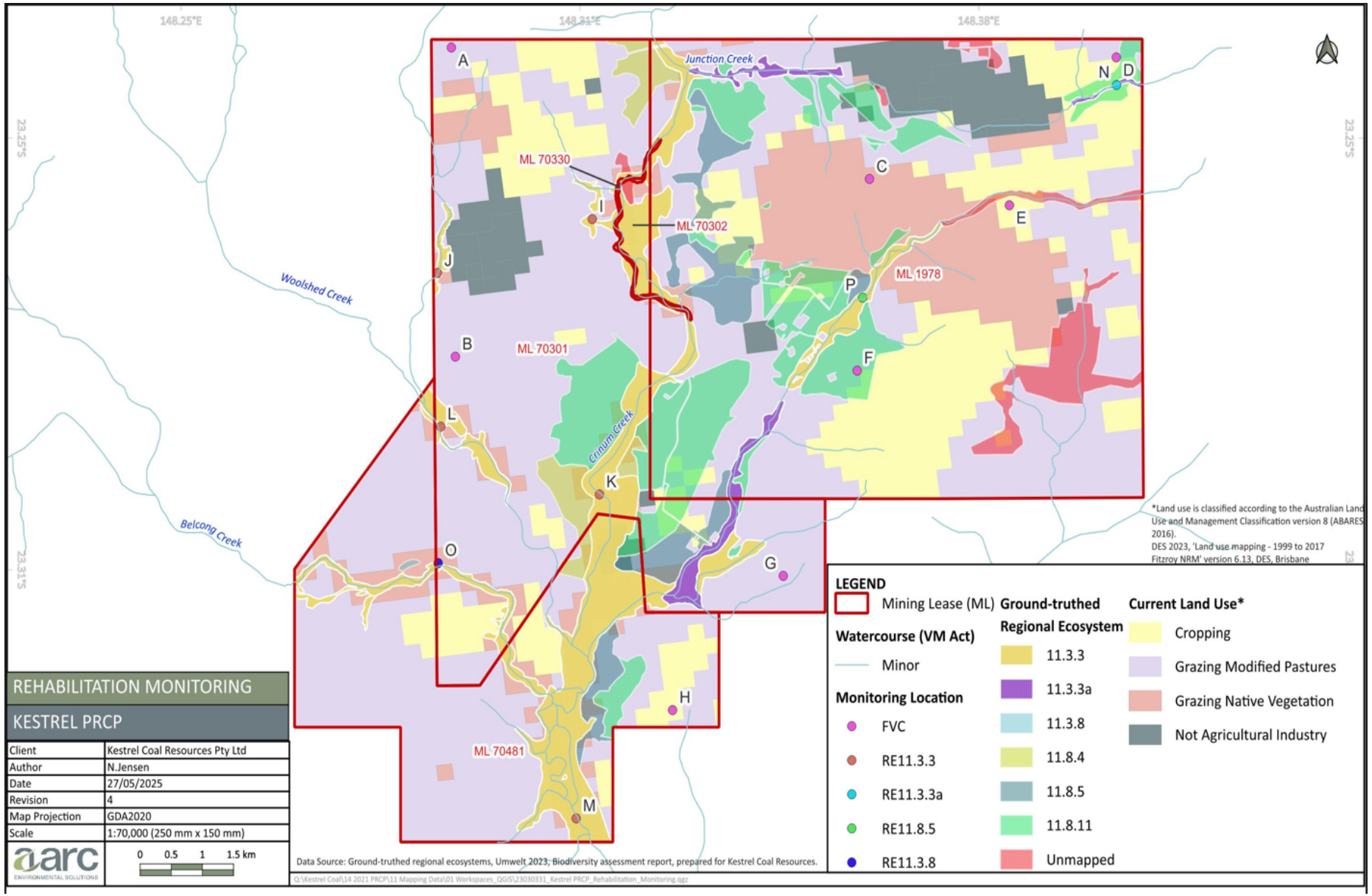


Figure 5: Rehabilitation Monitoring Locations

Table 9: Rehabilitation analogue site-based attributes

Site	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Domain Function	RA1, RA5, RA7	RA1, RA5, RA7	RA1, RA5, RA7	RA1	RA1, RA5, RA7	RA1, RA5, RA7	RA1, RA5, RA7	RA5, RA7	RA6	RA6	RA6	RA6	RA6	RA4	RA6	RA6
Ground truthed Regional Ecosystem/ Existing Land Uses	Grazing modified pastures	Grazing modified pastures	Grazing native vegetation	Cropping	Certified Rehab	RE11.8.11	Grazing modified pastures	Cropping	RE11.3.3	RE11.3.3	RE11.3.3	Grazing native vegetation	RE11.3.3	RE11.8.11	Grazing native vegetation	RE11.3.3
Site-Based Attributes																
Number of large native trees (where relevant)																
Tree canopy height (where relevant)																
Recruitment of woody perennial species (in EDL) (%)																
Tree canopy cover (where relevant)																
Native shrub layer cover (%)																
Coarse woody debris																
Native tree species richness (where relevant)																
Native grass species richness																
Native forbs/other																

species richness																
Non-native plant cover (%)																
Native perennial grass cover (%)																
Organic litter cover (%)																

END OF **PRCP** SCHEDULE