MALABAR

MAXWELL UNDERGROUND MINE

COAL RESOURCE RECOVERY PLAN

WOODLANDS HILL LONGWALLS 1 – 4

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1 INTRODUCTION

1.1 Background

Maxwell Ventures (Management) Pty Ltd (Maxwell), a wholly owned subsidiary of Malabar Resources Limited (Malabar) owns and operates the Maxwell Underground Mine (the site). The site is located in the Upper Hunter Valley of New South Wales (NSW), east-southeast of Denman and south-southwest of Muswellbrook. The site is approved to extract a maximum of 8 million tonnes of run-of-mine coal per year over a period of 26 years. The site boundary is shown in **Figure 1**.

The site consists of the following areas:

- Underground area comprising the area of underground mining operations and the mine entry area (MEA) to support underground mining and coal handling activities and provide for personnel and materials access;
- Maxwell Infrastructure (formerly Drayton mine) comprising previous open cut mining areas, existing coal handling and preparation plant (CHPP), train load-out facilities and rail loop, Antiene rail spur and other infrastructure and services; and
- Transport and services corridor between the MEA and Maxwell Infrastructure comprising the site access road, covered overland conveyor (to be constructed), power supply and other ancillary infrastructure and services.

The area within and surrounding the site, which has previously been known as Mt Arthur South, Saddlers Creek and Drayton South, has long been identified as having a significant in-situ coal resource. Prospecting for coal commenced in the late 1940s, with exploration intensifying during the 1960s and 1970s. Open cut coal extraction and mining activities commenced at Maxwell Infrastructure in 1983 and ceased in October 2016. The previous open cut mining area is currently in the rehabilitation phase of the mine operations.

The development consent for State Significant Development 9526 (SSD 9526) was granted on 22 December 2020 under clause 8A of the *State Environmental Planning Policy (State and Regional Development) 2011* and section 4.5(a) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The development consent was modified on 19 November 2021 (Maxwell MOD1) to allow for the repositioning of infrastructure primarily at the MEA and realignment of a section of the site access road. The development consent was further modified (Maxwell MOD2) on 19 October 2022 to allow for the following:

- Re-orientation of the longwall panels in the Woodlands Hill, Arrowfield and Bowfield Seams resulting in a minor increase in the approved underground mining extent.
- Reduction in the width of some of the longwall panels in the Woodlands Hill Seam.
- Repositioning of the upcast ventilation shaft site and associated infrastructure.
- Other minor works and ancillary infrastructure components (e.g. access road and ancillary water management infrastructure for the repositioned ventilation shaft site).

Another modification was made to the development consent (Maxwell MOD3) on 22 September 2025 to allow for the transfer of tailings Mt Arthur Coal to the Maxwell UG Mine East Void, and tailings and coarse rejects from the Maxwell CHPP to the North Void.

Development Consent DA 106-04-00 for the existing rail loop and Antiene Rail Spur was granted on 2 November 2000 under Section 76(A)9 and 80 of the EP&A Act and is still current. DA 106-04-00 was modified on 18 September 2023 (Antiene MOD1) to align with the approved operating life of the Maxwell Underground Mine (i.e. until 2047).

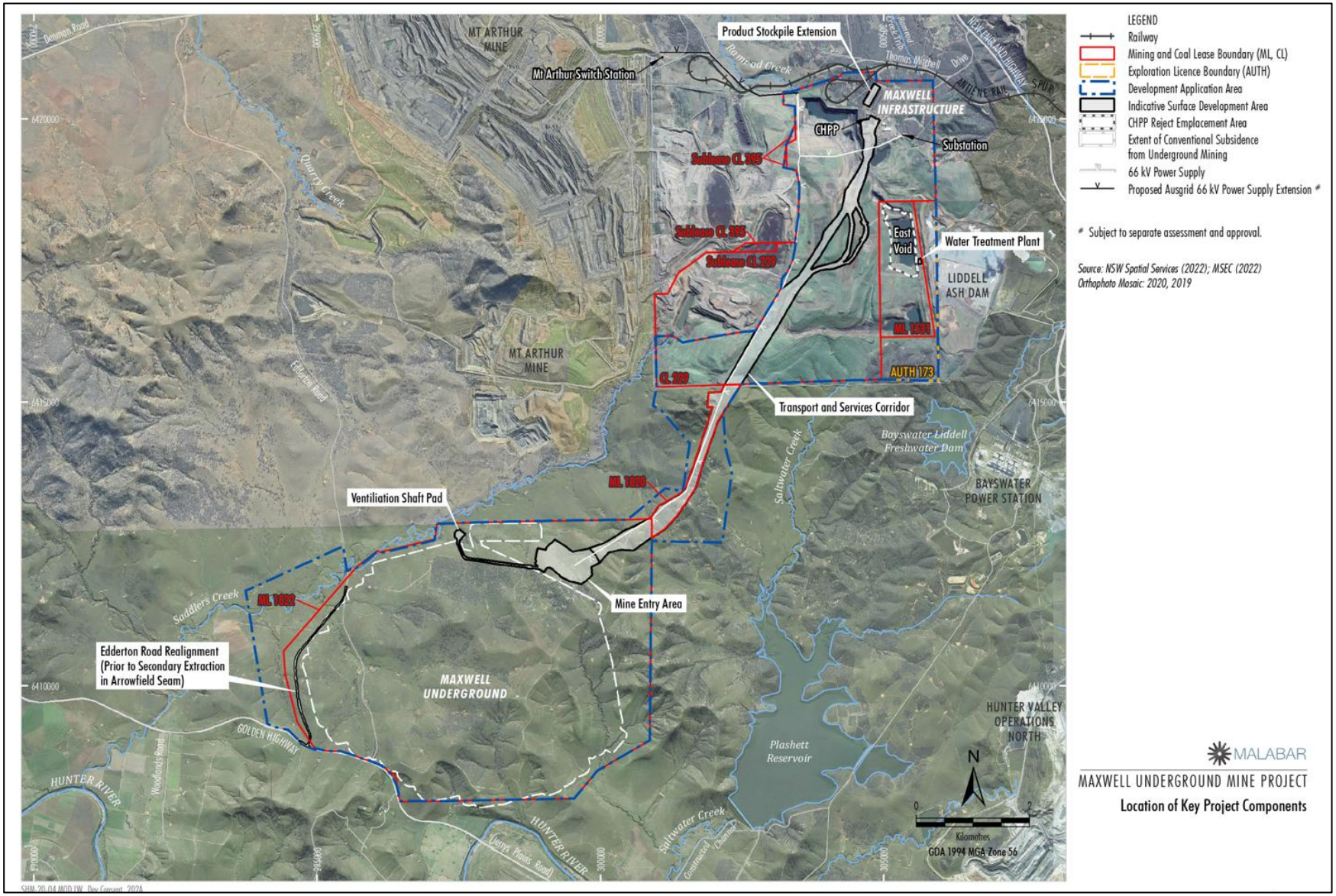


Figure 1. Maxwell Underground Mine

1.2 Purpose and Scope

The purpose of this Coal Resource Recovery Plan (CRRP) for the Woodlands Hill Longwalls 1 to 4 (hereafter referred to as WHLW1 to WHLW4) is to detail the statutory requirements and to demonstrate the effective recovery of the available resource at the site. This CRRP is one of a series of Environmental Management Plans that together form the Environmental Management System for the site.

In accordance with Schedule 2, Part C, Condition C9 of SSD 9526, Maxwell will not undertake second workings in any seam until the relevant Extraction Plan is approved by the Planning Secretary. Maxwell will implement all Extraction Plans as approved by the Planning Secretary and further extraction plans will be prepared to the satisfaction of the Planning Secretary prior to any second workings in the Woodlands, Arrowfield and Bowfield Seams.

The following graphical plans (in **Appendix 1**) have been prepared in accordance with the then NSW Department of Planning and Environment (DPE) (now known as the Department of Planning, Housing and Infrastructure [DPHI]) (2022) *Extraction Plan Guideline*:

- Plan 1 - Existing, Proposed and Future Workings
- Plan 2 - Longwalls 1 to 4 Surface Features
- Plan 3 - Geological and Seam Data
- Plan 4 - All Workings: Seam and Depth of Cover
- Plan 5 - Mining Titles and Land Ownership
- Plan 6 - Geological Section and Geotechnical Logs
- Plan 7 - Subsidence Monitoring Program

1.3 Objectives

The objectives of this CRRP are to:

- Detail all relevant statutory requirements to be met;
- Describe the coal resource;
- Provide plans 1 to 7 for the Woodlands Hill Longwalls 1-4 Extraction Plan; and
- Demonstrate effective recovery of coal.

2 PLANNING

2.1 Regulatory Requirements

This CRRP has been prepared in accordance with the *Extraction Plan Guideline* (DPHI, 2022).

2.2 Maxwell Mine EIS and Supporting Document Commitments

A subsidence assessment was undertaken for the Maxwell Underground Mine Environmental Impact Statement (Maxwell EIS) (published on 14 August 2019) and included subsidence predictions for proposed underground mining operations including the maximum predicted surface effects for mining in the Woodlands Hill Seam.

Further subsidence assessments were undertaken for the Maxwell MOD2 (June 2022) and for the Woodlands Hill Longwalls 1-4 Extraction Plan (MSEC 2025).

2.3 Preparation and Consultation

Schedule 2, Part C, Condition C8(a) of SSD 9526, requires that the Extraction Plan be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary. Maxwell has engaged the specialists listed in **Table 1** to assist with the preparation of the Woodlands Hill Longwalls 1-4 Extraction Plan and associated management plans. A copy of the endorsement by the Planning Secretary is included in **Appendix 2**.

In accordance with Schedule 2, Part C, Condition C13 of SSD 9526, Maxwell will pay all reasonable costs incurred by the Department to engage a suitably qualified, experienced and independent person/s to review the adequacy of any aspect of an Extraction Plan.

Table 1. Specialist engaged to prepare the Woodlands Hill Longwalls 1-4 Extraction Plan.

Specialist	Role
James Barbato - Mine Subsidence Engineering Consultants Pty Ltd (MSEC)	Preparation and/or review of relevant subsidence components, including predictions of subsidence effects and subsidence impacts, Subsidence Monitoring Program, Built Features Management Plan and Land Management Plan
Greg Roads - WRM Water & Environment Pty Ltd	Preparation and/or review of surface water components of the Water Management Plan
Noel Merrick - HydroAlgorithmics Pty Ltd	Preparation and/or review of groundwater components of the Water Management Plan
Dr Colin Driscoll - Hunter ECO Pty Ltd	Preparation and/or review of relevant flora and fauna components of the Biodiversity Management Plan
Geordie Oakes - AECOM Australia Pty Ltd	Preparation and/or review of Aboriginal cultural heritage components of the Heritage Management Plan

3 RESOURCE DESCRIPTION

3.1 Geological Details

The site is located in the Hunter Coalfield in the northern part of the Permo-Triassic Sydney Basin, which forms the southern portion of the Sydney-Gunnedah-Bowen Basin (DMR, 1988). The Wittingham Coal Measures (as shown in **Figure 2**) occur widely within the Hunter Coalfield and contain many recoverable seams. The site targets mining of the Whynot, Woodlands Hill, Arrowfield and Bowfield Seams. The target seams are within the Jerrys Plains Subgroup, forming part of the upper and middle units of the Wittingham Coal Measures. Above the target seams, the stratigraphy of the area consists of a sequence of sandstone, siltstone and laminate units within the Wittingham Coal Measures.

3.2 Geological structures

The south-southeast trending Muswellbrook Anticline is located approximately 7 kilometres (km) east of the targeted mining area. The strata dip steeply along this structure with gradients varying between 35 to 85 per cent (MSEC 2025). On the western side of the anticline, the strata dip gently with gradients varying between 2 and 3 percent (MSEC 2025).

There is an anticline within the mining area with a west-northwest to east-southeast orientation at the western ends of WHLW2 and WHLW3 transitioning to a north-northwest to south-southeast orientation near the mid-length of WHLW4. The north-south trending Calool Syncline is located on the eastern side of the mining area.

A complex north-northwest orientated graben structure is located more than 1 km west of WHLW1 to WHLW4 (MSEC 2025). The structure comprises the East Graben Fault and the Randwick Park Fault and it is part of a regional graben system.

A north-east to south-west orientated normal fault (reference F16) and dykes (reference D16) are located on the north-western side of the mining area. The surface expression of the fault may be coincident with Saddlers Creek.

A north-northwest to south-southeast orientated normal fault (reference F12) is also located on the northern side of the mining area. A north-south orientated dyke (reference D2) crosses the eastern end of WHLW4.

The low likelihood structures include approximate north-south orientated faults (references F11 and F33) within the mining area and a north-west to south-east orientated fault (reference F7) located on the eastern side of the mining area.

The geological structures will be better defined with ongoing investigations and the development of first workings. It is not expected that increased subsidence will occur due to the presence of these geological structures.

A dolerite sill has intruded into the overlying Whynot Seam, referred hereafter as the Whynot Sill. The thickness of the sill varies between 1 m and 5 m above the mining area. The Edderton Sill has also intruded into the interburden between the Whynot and Woodlands Hill Seams. This sill is located approximately 110 m to 130 m above the Woodlands Hill Seam and extends across the mining area and has a thickness of approximately 20 m (MSEC 2025).

3.3 Soils and Land Capability

The surface soils are predominately derived from the Jerrys Plains Subgroup of the Wittingham Coal Measures. Quaternary material is mapped along the alignments of Saddlers Creek.

The Land and Soil Capability (LSC) Assessment Scheme uses the biophysical features of the land and soil including landform position, slope gradient, drainage, climate, soil type and soil characteristics to derive detailed rating tables for a range of land and soil hazards (OEH 2012). The LSC Class gives an indication of the land management practices that can be applied to a parcel of land.

The LSC Class has been mapped across the majority of the site and surrounds. Within the site, LSC Classes 4 and 6 are dominant. LSC Class 4 is considered to be moderately capable land and Class 6 is considered low capability land. In general, the land is capable of supporting grazing land use with small areas capable of opportunistic cropping and a smaller area capable of supporting a more frequent cropping regime.

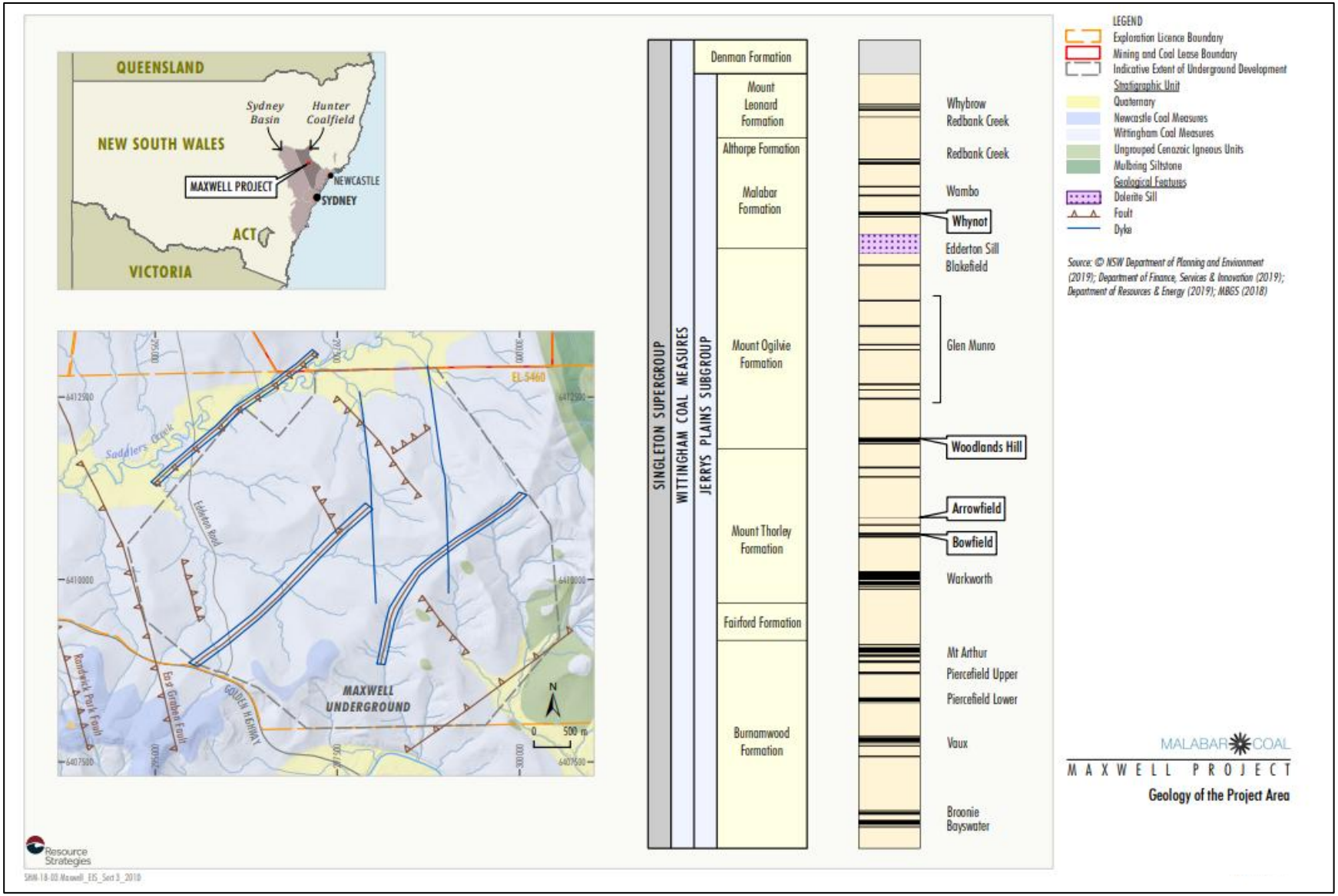


Figure 2. Geology of the area

4 RESOURCE RECOVERY

4.1 Mining Method

Longwall mining methods are proposed for the extraction of coal in the Woodlands Hill Seam. Longwall extraction is an underground mining method that involves the extraction of rectangular panels of coal defined by underground roadways constructed around each longwall. The longwall mining machine travels back and forth across the width of the coal face, progressively removing coal in slices from the panel. As each slice of the coal face is removed from the longwall face, the hydraulic roof supports move forward, allowing the roof and a section of the overlying strata to collapse behind the longwall machine (referred to as forming the 'goaf').

Construction of development main headings, maingates and tailgates will be undertaken using continuous miners.

WHLW1 to WHLW4 would be mined under single-seam mining conditions.

4.2 Surface and Seam

The land above WHLW1 to WHLW4 generally falls towards Saddlers Creek (i.e. north of the mining area). The surface elevations directly above WHLW1 to WHLW4 vary from a low point of 127 m above Australian Height Datum (mAHD) to a high point of 194 mAHD (MSEC 2025). The target seam within the mining area generally dips from the north-northwest towards the south-southeast.

The depth of cover within the mining area varies from a minimum of 130 m to a maximum of 235 m. WHLW1 to WHLW4 will be mined from west to east (i.e. retreat mining towards the main headings). The working section within the mining area varies between 2.4 m and 2.9 m with an average value of 2.7 m and it is intended that the full working section will be extracted by longwall mining. The longwall face widths excluding the first workings are 140 m.

4.3 Mining Geometry

The lengths of longwall extraction excluding the installation headings are approximately 10 m less than the overall void lengths provided in Table 3. The longwall face widths excluding the first workings are 140 m. The longwalls will be mined from west to east, i.e. retreat mining towards the main headings. A summary of the overall dimensions of WHLW1 to WHLW4 is provided in **Table 3**.

WHLW1 to WHLW4 are located north-west of Panels 2 to 5 in the Whynot Seam and will therefore be mined under single-seam mining conditions.

Table 2. Dimension of Longwalls 1 to 4

Panel	Overall panel lengths (m)	Overall void widths (m)	Overall tailgate chain pillar widths (m)
WHLW1	1485	150	-
WHLW2	1665	150	30
WHLW3	1960	150	30
WHLW4	2485	150	30

4.4 Resource Recovery

Malabar would seek to maximise resource recovery within geological, environmental and tenement constraints. The overall coal recovery within WHLW1 to WHLW4 including both first and second workings is approximately 82 per cent.

4.5 Mining Schedule

The site operates on a continuous basis, 24 hours per day, seven days per week. Maxwell is currently undertaking first workings associated with the site.

The proposed sequence of mining of WHLW1 to WHLW4 under this Extraction Plan, and anticipated start and completion dates are summarised in **Table 4**.

Table 3. Proposed Mining Schedule (Secondary Extraction)

Panel	Estimated Start Date	Estimated Duration	Estimated Completion Date
WHLW1	April 2026	5 months	September 2026
WHLW2	October 2026	7 months	May 2027
WHLW3	May 2027	6 months	November 2027
WHLW4	December 2027	4 months	April 2028

4.6 Predicted Subsidence Impacts

The maximum anticipated vertical subsidence for WHLW1 to WHLW4 is 1100 millimetres (mm), which is primarily concentrated directly above WHLW1 to WHLW4 within the inner study area (based on the 26.5° angle of draw) (MSEC 2025).

The maximum anticipated conventional strains resulting from the extraction of WHLW1 to WHLW4, derived by applying a factor of 10 to the maximum predicted curvatures, are 7 mm/m tensile and 12 mm/m compressive (MSEC, 2025). These maximum strains occur where the depths of cover are shallowest in the western part of the mining area.

The range of surface cracking above WHLW1 to WHLW4 has been estimated based on the observations from the NSW coalfields for similar mining geometries and at similar depths of cover. The crack widths are estimated to be typically between 25 mm and 50 mm in approximately 50 per cent of cases, between 50 mm and 100 mm in approximately 30 per cent of cases, between 100 mm and 150 mm in approximately 15 per cent of cases and greater than 150 mm in approximately 5 per cent of cases. Multiple cracks resulting in deformations of several hundred millimetres could also occur in some locations (i.e., less than 1 per cent of cases) (MSEC, 2025).

Surface compression heaving and stepping may also occur above WHLW1 to WHLW4, with deformation heights generally expected to be less than 100 mm (MSEC, 2025). However, in some areas, vertical shear could exceed 300 mm in height (MSEC, 2025). In addition, sills may partially extend across the corners of the longwalls, leading to localized and irregular movements where the cover depth is shallowest. It is anticipated that localized surface cracking and stepping caused by these sills will generally be less than 50 mm in areas with the shallowest cover (MSEC, 2025).

The maximum predicted total conventional tilt is between 0.5 mm to 19 mm. These elevated tilts are predominantly observed around and within the perimeters of the panels, particularly in regions with greater depths of cover. The maximum predicted conventional curvatures are 0.45 km^{-1} for hogging and 1.0 km^{-1} for sagging.

The land above the mining area is mostly owned by Maxwell (with the exception of Edderton Road) and it is primarily used for cattle grazing. Agricultural improvements include fences and farm dams. The main risk is the potential for mining induced surface cracking and deformations to injure cattle, leasees, workers (land management or environmental contractors) or unauthorised people accessing the area (for firewood or hunting).

Edderton Road crosses the western end of WHLW4 and is owned by Muswellbrook Shire Council. The road is located at distances ranging between 140 m and 500 m west of the commencing (i.e. western) ends of WHLW1 to WHLW3. It is expected that Edderton Road can be maintained in a safe and serviceable condition with the implementation of the appropriate monitoring and management measures. An Asset Management Plan has been developed for Edderton Road in consultation with the Muswellbrook Shire Council and is included as part of the Built Features Management Plan.

An 11 kV powerline owned by Ausgrid crosses the western part of the WHLW1 to WHLW4. The powerline follows the alignment of Edderton Road and crosses the western end of WHLW4. The powerline is located at distances ranging between 140 m and 500 m west of the commencing (i.e. western) ends of WHLW1 to WHLW3. It is recommended that the powerline is visually monitored during active subsidence during the mining of WHLW4, to maintain it in a safe and serviceable condition. An Asset Management Plan has been developed in consultation with Ausgrid and is included as part of the Built Features Management Plan.

4.7 Mine Plan Justification

The sequence of underground mining at the site has been adopted to maximise coal resource recovery within geological and environmental constraints. Plan 1 (in **Appendix 1**) presents the WHLW1 to WHLW4 layout which has been developed in consideration of detailed exploration drilling and key environmental studies as described in the Maxwell EIS and Maxwell MOD2 (Maxwell, 2022). Maxwell considers the layout to provide the most efficient resource recovery given the constraints.

5 DOCUMENT INFORMATION

5.1 Document Review History

A summary of the document history is outlined in **Table 5**.

Table 5. Document Revision Status

Issue	Issue Date	Review Team	Details of Change / Communication
1	June 2025	Donna McLaughlin Rob Hayes Daniel Cherry	Document prepared for the Woodlands Hill Longwalls 1-4 Extraction Plan.
2	January 2026	Donna Tiananga Trescinda Brown	Updated to include approval of Modification 3 for SSD 9526.

5.2 References

Department of Planning, Housing and Infrastructure (2022) Extraction Plan Guideline

Mine Subsidence Engineering Consultants (2022) - Maxwell Underground Mine Project: Modification Application – Subsidence Assessment

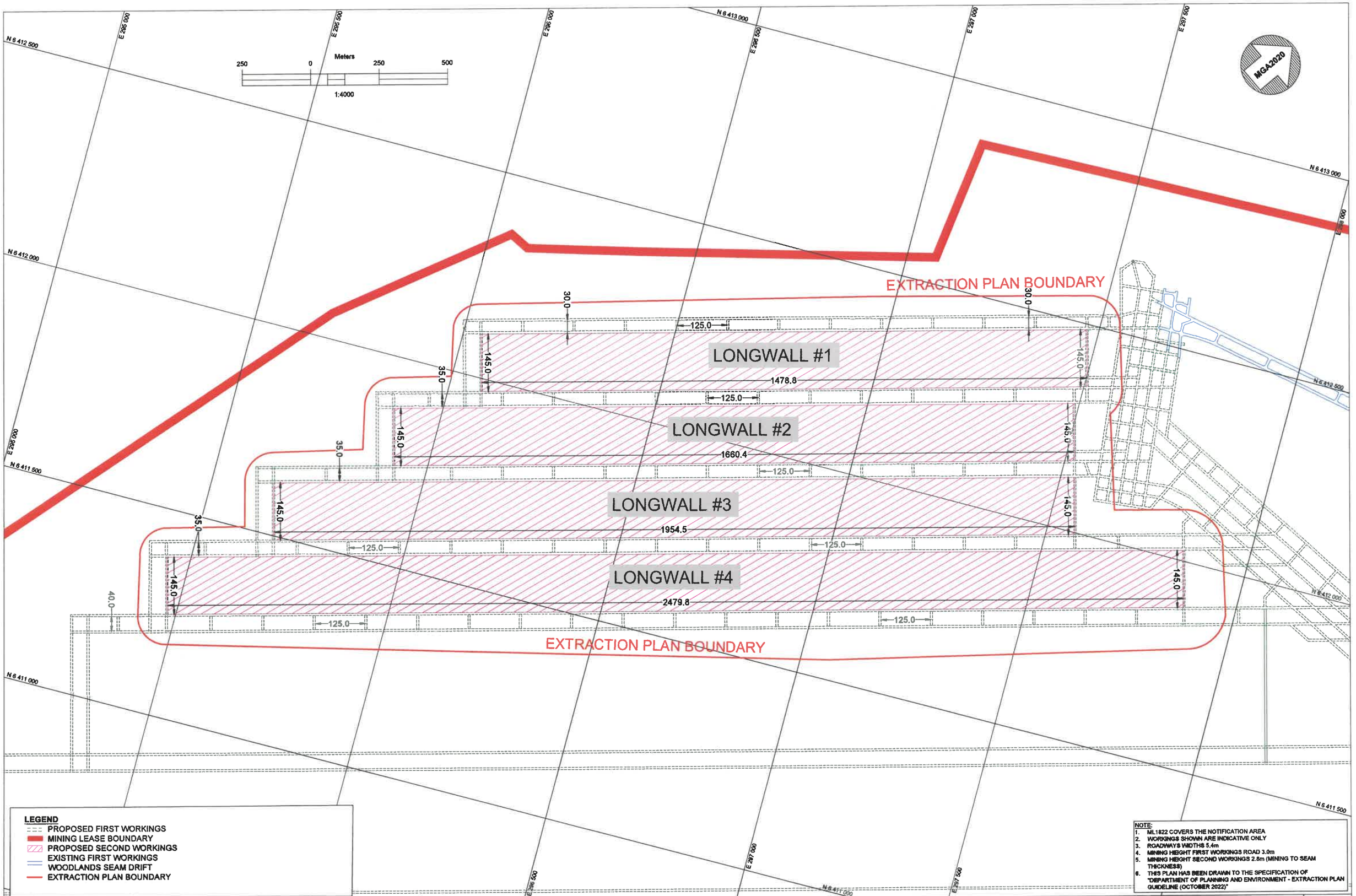
Mine Subsidence Engineering Consultants (2025) - Maxwell Underground Mine Project: Extraction Plan Application – Subsidence Assessment for Woodlands Hill Longwalls 1-4

State Significant Development Consent 9526

5.3 Definitions and Abbreviations

Term	Definition
Antiene MOD1	Drayton Rail Loop and Antiene Rail Spur (DA 106-04-00) Modification 1
CHPP	Coal Handling and Preparation Plant
CRRP	Coal Resource Recovery Plan
DA	Development Approval
DPE	NSW Department of Planning and Environment (now NSW Department of Planning, Housing and Infrastructure)
DPHI	NSW Department of Planning, Housing and Infrastructure
EP&A	Environmental Planning and Assessment
km	Kilometres
kV	Kilovolt
m	Metres
Maxwell MOD1	Maxwell Underground Project (SSD 9526) Modification 1
Maxwell MOD2	Maxwell Underground Project (SSD 9526) Modification 2
Maxwell MOD3	Maxwell Underground Project (SSD 9526) Modification 3
MEA	Mine Entry Area
mm	Millimetres
NSW	New South Wales
PA	Project Approval
SSD	State Significant Development
WHLW1 to WHLW4	Woodlands Hill Longwalls 1 to 4

APPENDIX 1 - PLANS



REVISIONS	REV.	DATE	BY	DESCRIPTION
	0	12/03/25	D.C.	ORIGINAL SUBMISSION

APPROVED BY: D Carey DATE: 26/3/25
DAVID CAREY - MINING ENGINEERING MANAGER

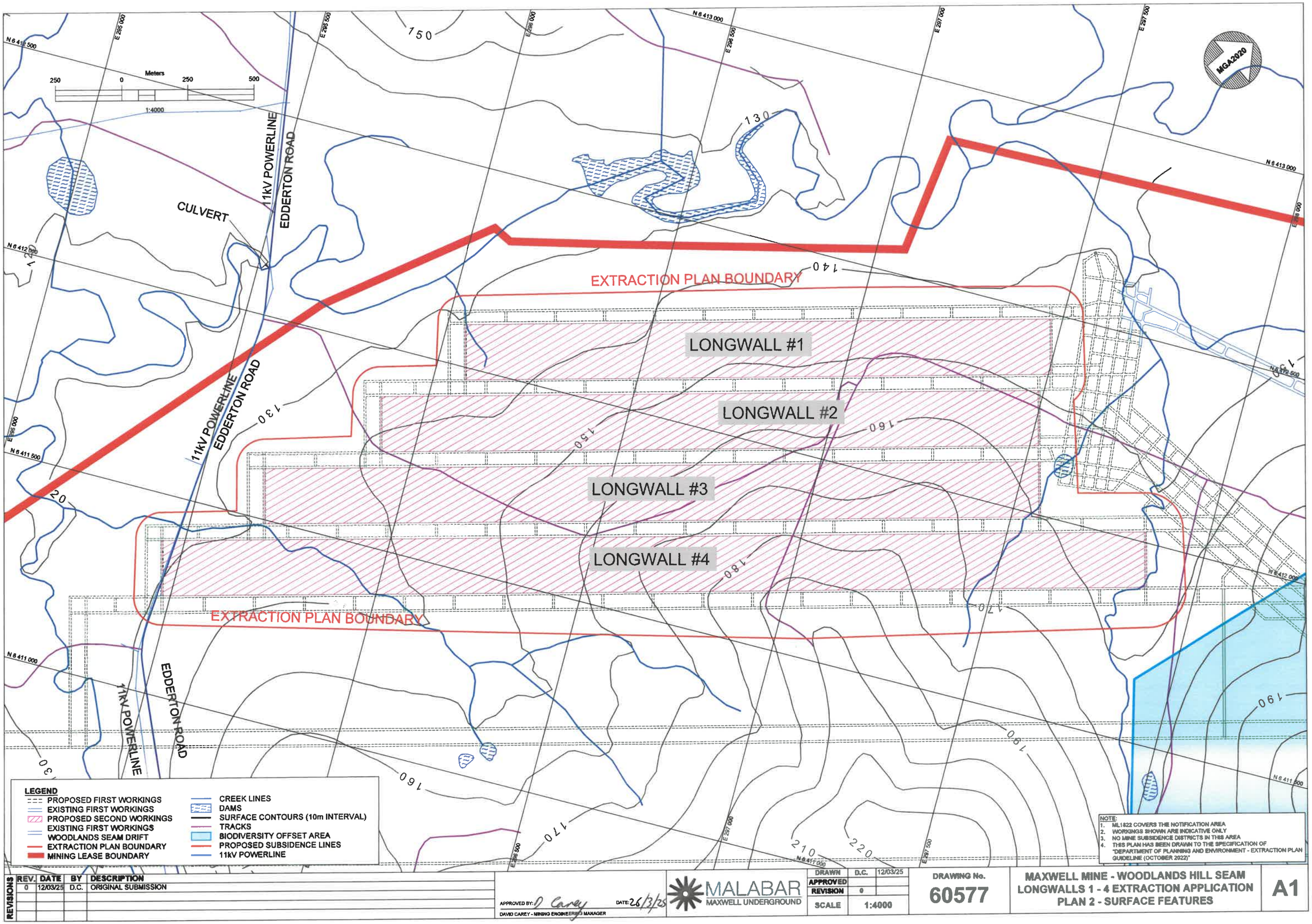
MALABAR MAXWELL UNDERGROUND

DRAWN	D.C	12/03/25
APPROVED		
REVISION	0	
SCALE	1:4000	

DRAWING No. 60576

MAXWELL MINE - WOODLANDS HILL SEAM LONGWALLS 1 - 4 EXTRACTION APPLICATION PLAN 1 - EXISTING AND PROPOSED WORKINGS

A1



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MALABAR MAXWELL UNDERGROUND

DRAWN	D.C.	12/03/25
APPROVED		
REVISION	0	
SCALE	1:4000	

DRAWING No. 60577

MAXWELL MINE - WOODLANDS HILL SEAM LONGWALLS 1 - 4 EXTRACTION APPLICATION PLAN 2 - SURFACE FEATURES

A1

LONGWALL #1

LONGWALL #2

LONGWALL #3

LONGWALL #4

EXTRACTION PLAN BOUNDARY

EXTRACTION PLAN BOUNDARY

Meters
250 0 250 500
1:4000

MGA2020

LEGEND

- PROPOSED FIRST WORKINGS
- MINING LEASE BOUNDARY
- PROPOSED SECOND WORKINGS
- EXISTING FIRST WORKINGS
- WOODLANDS SEAM DRIFT
- EXTRACTION PLAN BOUNDARY
- DEPTH OF COVER ISOPACS
- SEAM THICKNESS ISOPACS
- INFERRED FAULTS
- INFERRED DYKES
- OUTCROP

NOTE:
1. ML1822 COVERS THE NOTIFICATION AREA
2. WORKINGS SHOWN ARE INDICATIVE ONLY
3. THIS PLAN HAS BEEN DRAWN TO THE SPECIFICATION OF "DEPARTMENT OF PLANNING AND ENVIRONMENT - EXTRACTION PLAN GUIDELINE (OCTOBER 2022)"

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APPROVED BY: D Carey DATE: 26/3/25
DAVID CAREY - MINING ENGINEERING MANAGER

MALABAR
MAXWELL UNDERGROUND

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SCALE	1:4000	

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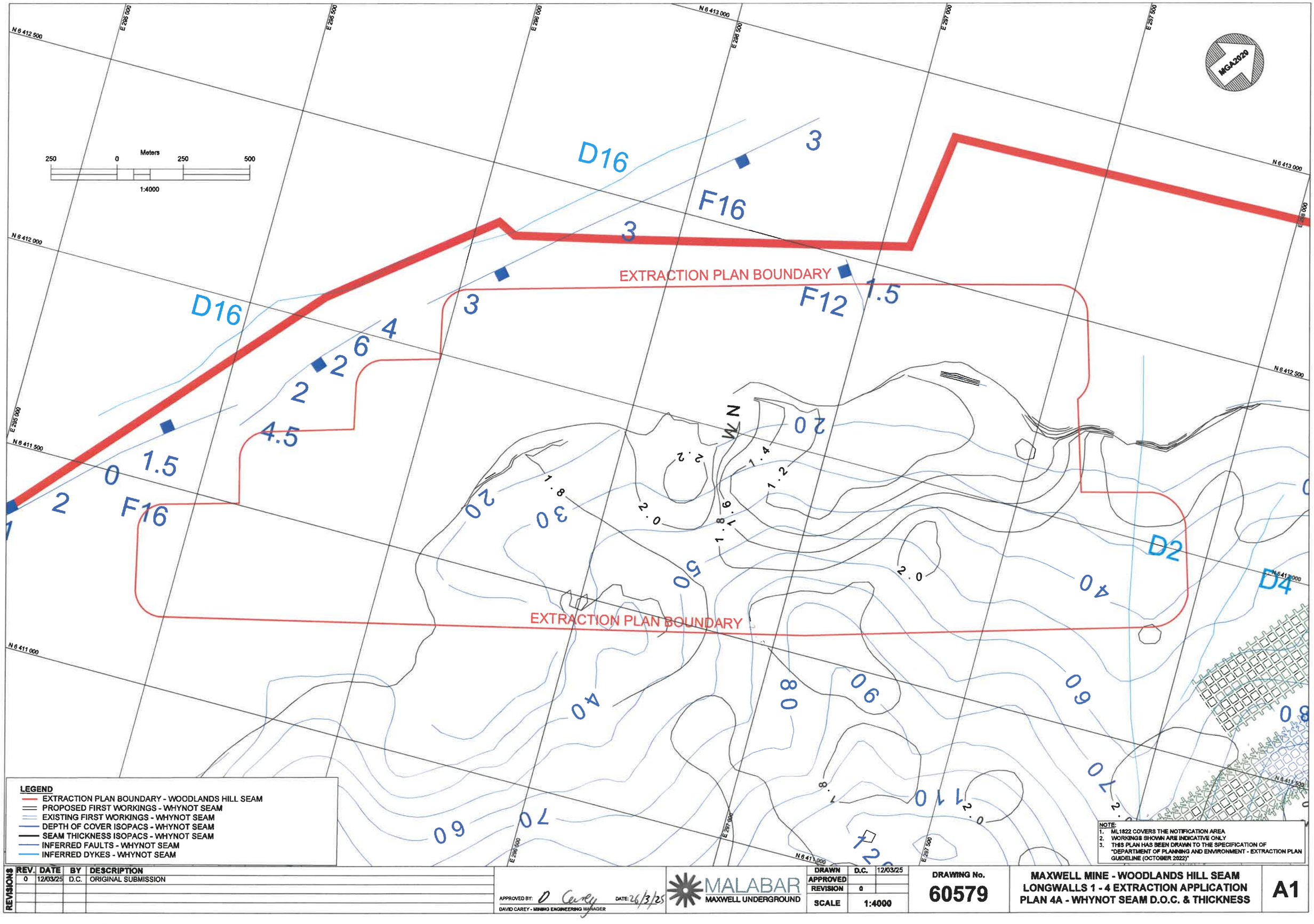
MAXWELL MINE - WOODLANDS HILL SEAM
LONGWALLS 1 - 4 EXTRACTION APPLICATION
PLAN 3 - WOODLANDS HILL SEAM D.O.C. & THICKNESS

A1



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MALABAR MAXWELL UNDERGROUND

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SCALE	1:4000	

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MAXWELL MINE - WOODLANDS HILL SEAM LONGWALLS 1 - 4 EXTRACTION APPLICATION PLAN 4A - WHYNOT SEAM D.O.C. & THICKNESS

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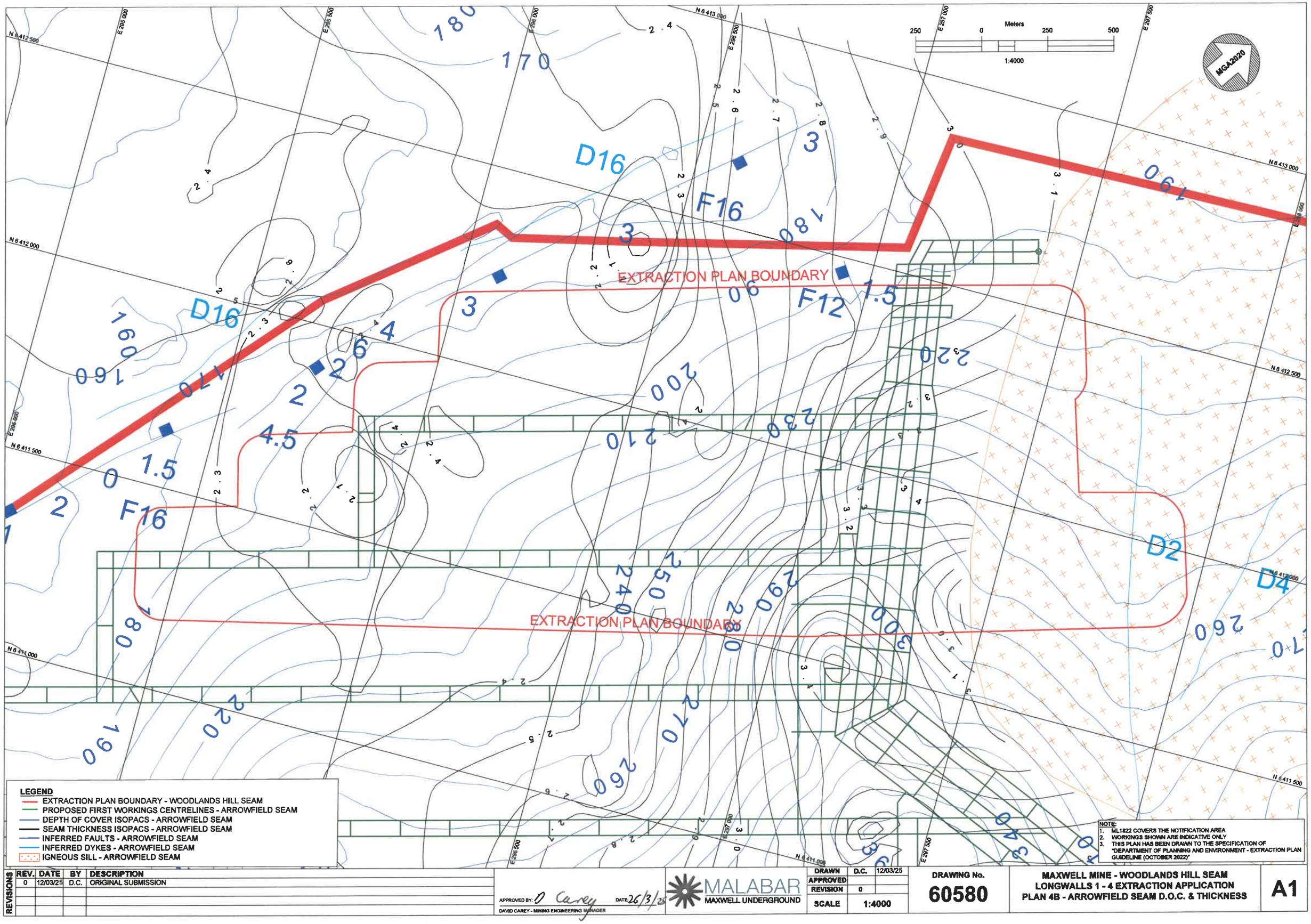

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DAVID CAREY - MINING ENGINEERING MANAGER

MALABAR
MAXWELL UNDERGROUND

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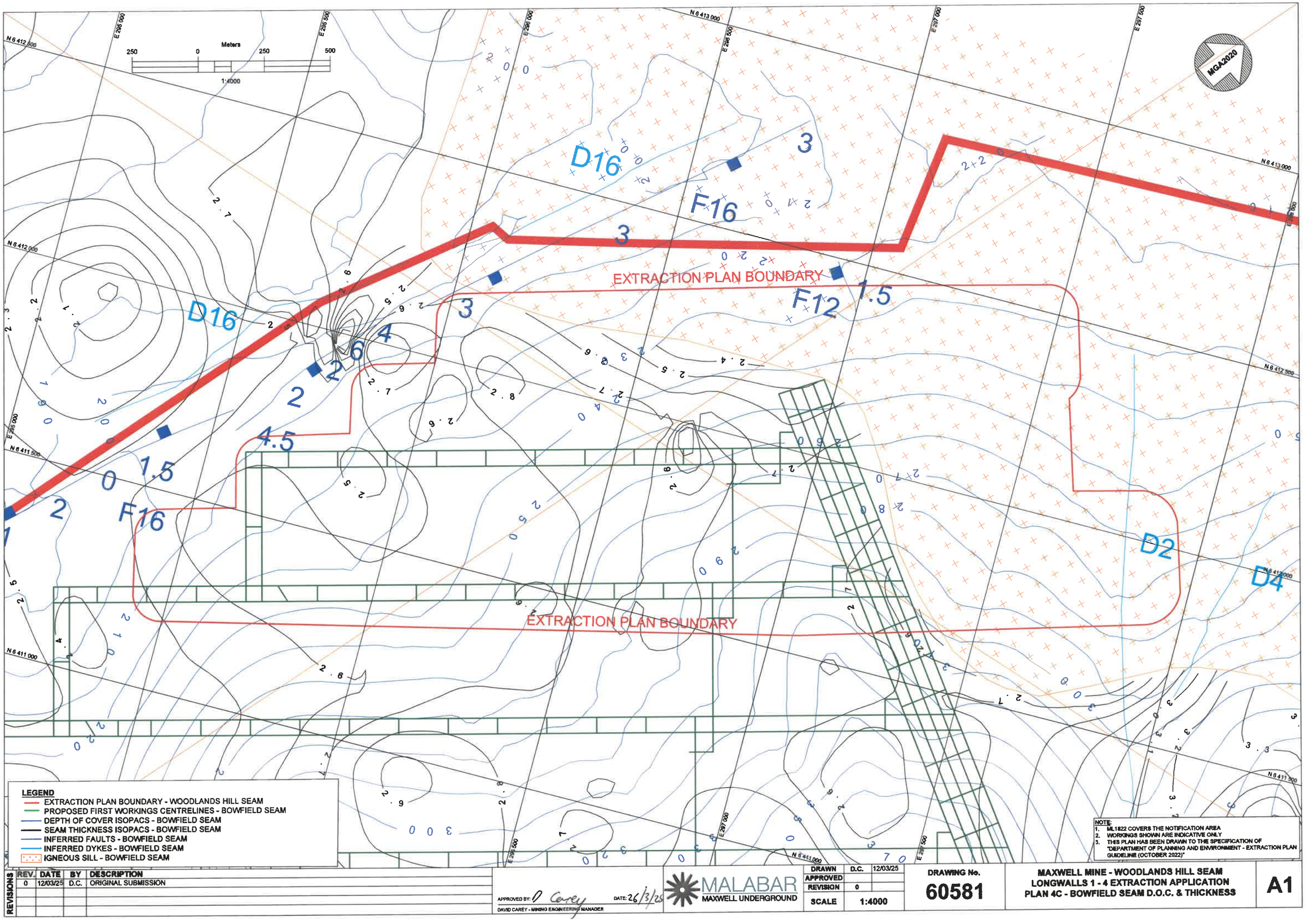
REVISION	0	
SCALE	1:4000	

DRAWING No.
60580

MAXWELL MINE - WOODLANDS HILL SEAM
LONGWALLS 1 - 4 EXTRACTION APPLICATION
PLAN 4B - ARROWFIELD SEAM D.O.C. & THICKNESS

A1



LEGEND

- EXTRACTION PLAN BOUNDARY - WOODLANDS HILL SEAM
- PROPOSED FIRST WORKINGS CENTRELINES - BOWFIELD SEAM
- DEPTH OF COVER ISOPACS - BOWFIELD SEAM
- SEAM THICKNESS ISOPACS - BOWFIELD SEAM
- INFERRED FAULTS - BOWFIELD SEAM
- INFERRED DYKES - BOWFIELD SEAM
- IGNEOUS SILL - BOWFIELD SEAM

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DAVID CAREY - MINING ENGINEERING MANAGER

MALABAR MAXWELL UNDERGROUND

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REVISION	0	
SCALE	1:4000	

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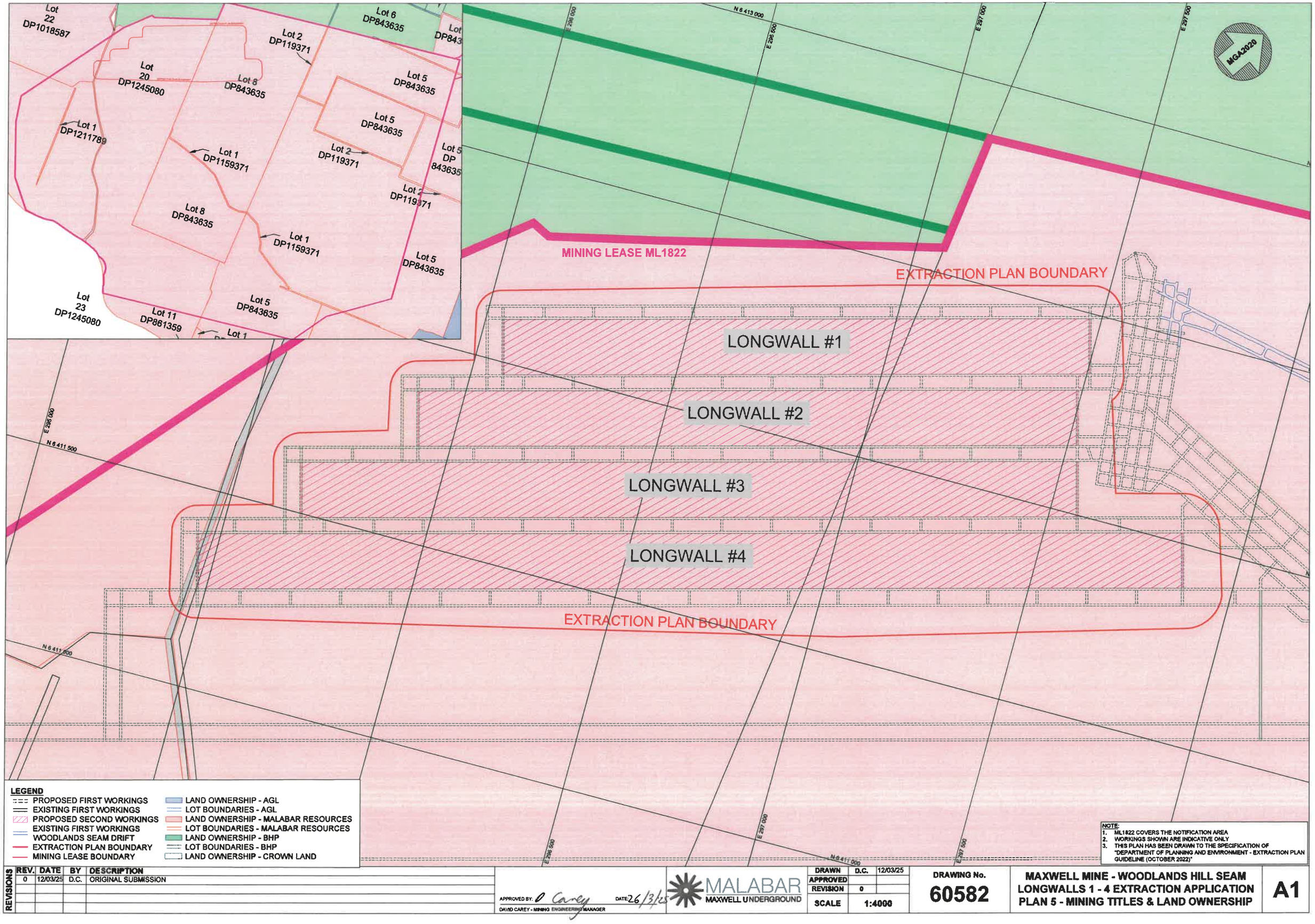
MAXWELL MINE - WOODLANDS HILL SEAM LONGWALLS 1 - 4 EXTRACTION APPLICATION PLAN 4C - BOWFIELD SEAM D.O.C. & THICKNESS

A1



LEGEND

- PROPOSED FIRST WORKINGS
- EXISTING FIRST WORKINGS
- PROPOSED SECOND WORKINGS
- EXISTING FIRST WORKINGS WOODLANDS SEAM DRIFT
- EXTRACTION PLAN BOUNDARY
- MINING LEASE BOUNDARY
- LAND OWNERSHIP - AGL
- LOT BOUNDARIES - AGL
- LAND OWNERSHIP - MALABAR RESOURCES
- LOT BOUNDARIES - MALABAR RESOURCES
- LAND OWNERSHIP - BHP
- LOT BOUNDARIES - BHP
- LAND OWNERSHIP - CROWN LAND

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REV.	DATE	BY	DESCRIPTION
0	12/03/25	D.C.	ORIGINAL SUBMISSION

APPROVED BY: D Carey DATE: 26/3/25
DAVID CAREY - MINING ENGINEERING MANAGER

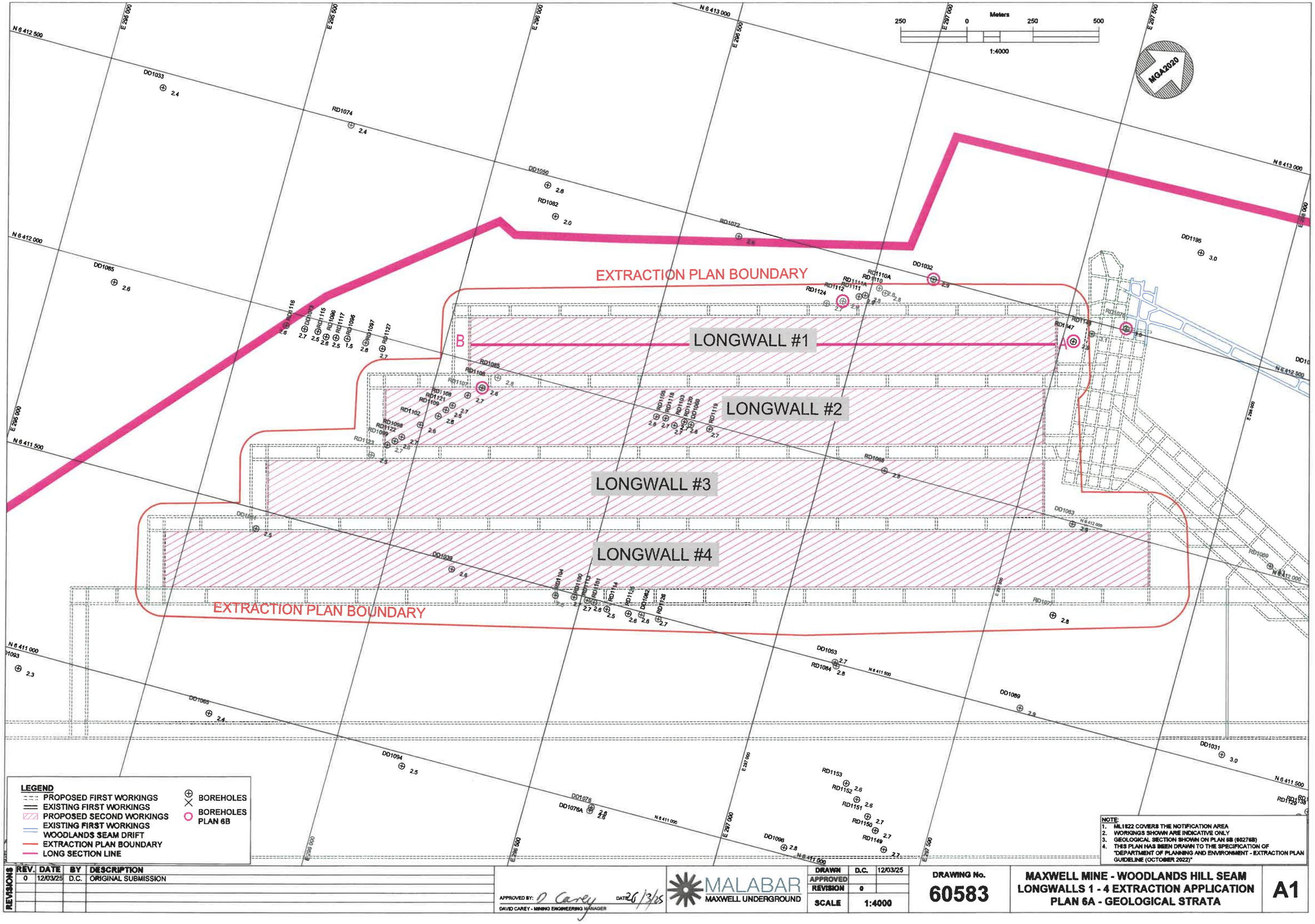
MALABAR MAXWELL UNDERGROUND

DRAWN	D.C.	12/03/25
APPROVED		
REVISION	0	
SCALE	1:4000	

DRAWING No. 60582

MAXWELL MINE - WOODLANDS HILL SEAM LONGWALLS 1 - 4 EXTRACTION APPLICATION PLAN 5 - MINING TITLES & LAND OWNERSHIP

A1



LEGEND

- PROPOSED FIRST WORKINGS
- EXISTING FIRST WORKINGS
- PROPOSED SECOND WORKINGS
- EXISTING FIRST WORKINGS WOODLANDS SEAM DRIFT
- EXTRACTION PLAN BOUNDARY
- LONG SECTION LINE
- BOREHOLES
- BOREHOLES PLAN 6B

NOTE:
1. ML1822 COVERS THE NOTIFICATION AREA
2. WORKINGS SHOWN ARE INDICATIVE ONLY
3. GEOLOGICAL SECTION SHOWN ON PLAN 6B (662768)
4. THIS PLAN HAS BEEN DRAWN TO THE SPECIFICATION OF "DEPARTMENT OF PLANNING AND ENVIRONMENT - EXTRACTION PLAN GUIDELINE (OCTOBER 2022)"

REVISIONS

REV.	DATE	BY	DESCRIPTION
0	12/03/25	D.C.	ORIGINAL SUBMISSION

APPROVED BY: D Carey DATE 26/3/25
DAVID CAREY - MINING ENGINEERING MANAGER

MALABAR MAXWELL UNDERGROUND

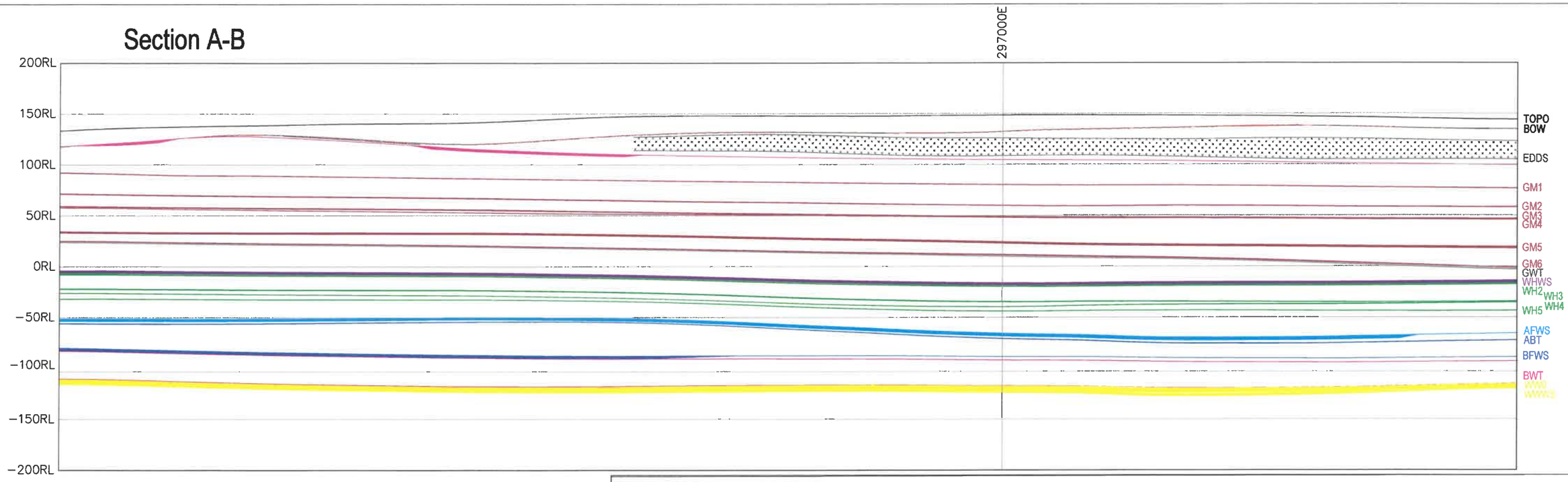
DRAWN	D.C.	12/03/25
APPROVED		
REVISION	0	
SCALE	1:4000	

DRAWING No. 60583

MAXWELL MINE - WOODLANDS HILL SEAM LONGWALLS 1 - 4 EXTRACTION APPLICATION PLAN 6A - GEOLOGICAL STRATA

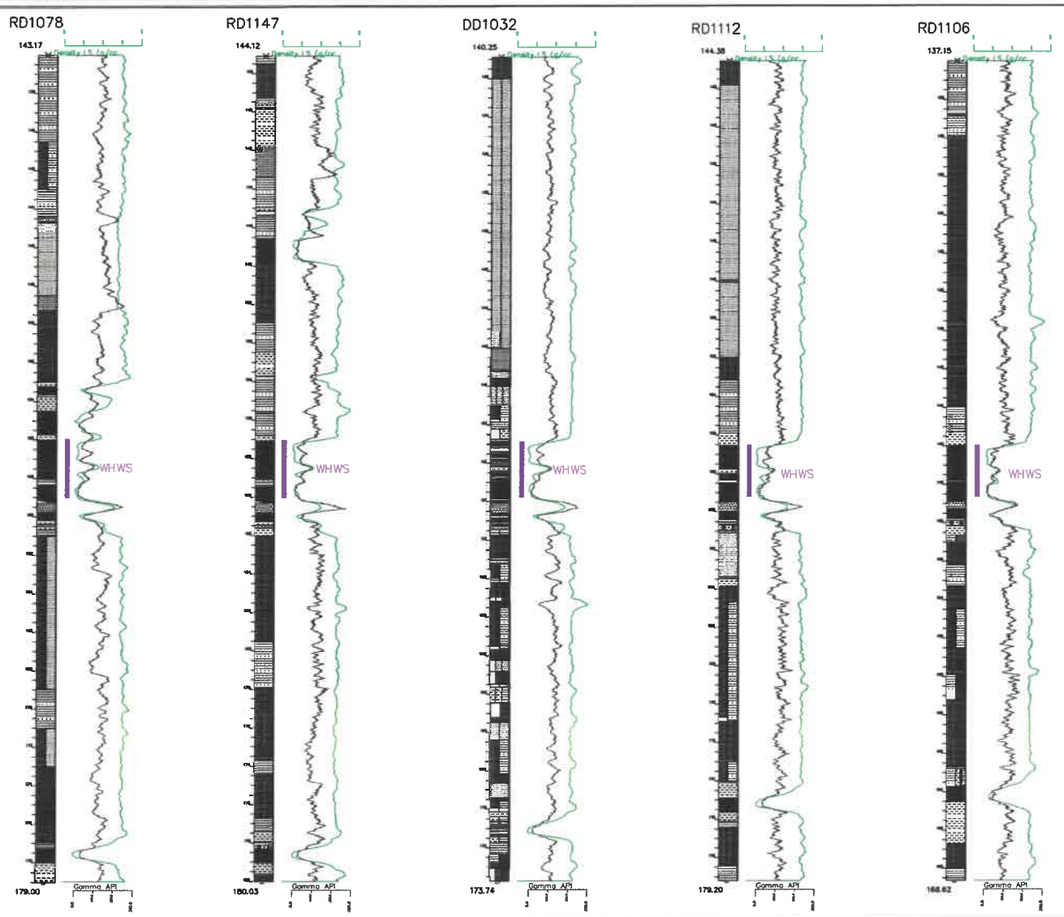
A1

Section A-B



SEAM LEGEND

Seam WL2	Seam WA2	Seam WH5
Seam WL1	Seam WYNS	Seam WHIG
Seam WSS	Seam WN	Seam IGS1
Seam DEN	Seam EDDS	Seam AFWS
Seam PLAS	Seam BKC	Seam ABT
Seam WBC	Seam GM1	Seam BFWS
Seam WB3	Seam GM2	Seam BF3
Seam ALT	Seam GM3	Seam BWT
Seam RB11	Seam GM4	Seam WW0
Seam RB12	Seam GM5	Seam WRT
Seam RB13	Seam GM6	Seam WW11
Seam RB2	Seam GWT	Seam WW12
Seam IGS3	Seam WHWS	Seam WWWS
Seam RB3	Seam WH142	Seam WW211
Seam RB41	Seam MCS	Seam WW212
Seam RB42	Seam WH2	Seam WW22
Seam RB43	Seam WH3	Seam WW31
Seam WA1	Seam WH4	



Lithology Reference

coal,cobbles	KL
ZM	MS
CH	NR
CC	SA
TF	SD
BS	SH
XC	SL
coal,cement	ST
CA	SO
DO	SS
IG	SF
CG	SM
CL	SC
YS	XT
GV	XS
	NL

NOT TO SCALE

REVISIONS	REV.	DATE	BY	DESCRIPTION
	0	12/03/25	D.C.	ORIGINAL SUBMISSION

APPROVED BY: D Carey DATE: 26/3/25
JAMES JOHNSON - MINING ENGINEERING MANAGER

MALABAR
MAXWELL UNDERGROUND

DRAWN	D.C.	12/03/25
APPROVED		
REVISION	0	
SCALE	AS SHOWN	

DRAWING No. 60584

MAXWELL MINE - WOODLANDS HILL SEAM
LONGWALLS 1 - 4 EXTRACTION APPLICATION
PLAN 6B - GEOLOGICAL STRATA

A1

I, Daniel Patrick Cherry, a Mining Surveyor registered under the Surveying and Spatial Information Act 2002, hereby certify that the proposed and existing mine workings depicted on this plan, has been prepared in accordance with the requirements of the Survey & Drafting Directions for Mining Surveyors and is an accurate representation of the mine.

Signed: Date: 26/3/25

Meters 250 0 250 500

1:4000

MGA2020

CULVERT

11kV POWERLINE

EDDERTON ROAD

XL1 XL2A XL2B XL3

EXTRACTION PLAN BOUNDARY

LONGWALL #1

LONGWALL #2

LONGWALL #3

LONGWALL #4

CL LW1A CL LW1B

CL LW2A CL LW2B

CL LW3A CL LW3B

CL LW4A CL LW4B

LEGEND

- PROPOSED FIRST WORKINGS
- EXISTING FIRST WORKINGS
- PROPOSED SECOND WORKINGS
- EXISTING FIRST WORKINGS WOODLANDS SEAM DRIFT
- EXTRACTION PLAN BOUNDARY
- MINING LEASE BOUNDARY
- CREEK LINES
- DAMS
- SURFACE CONTOURS (10m INTERVAL)
- TRACKS
- BIODIVERSITY OFFSET AREA
- PROPOSED SUBSIDENCE LINES
- 11kV POWERLINE

NOTE:
1. ML1822 COVERS THE NOTIFICATION AREA
2. WORKINGS SHOWN ARE INDICATIVE ONLY
3. NO MINE SUBSIDENCE DISTRICTS IN THIS AREA
4. THIS PLAN HAS BEEN DRAWN TO THE SPECIFICATION OF "DEPARTMENT OF PLANNING AND ENVIRONMENT - EXTRACTION PLAN GUIDELINE (OCTOBER 2022)"

REVISIONS	REV.	DATE	BY	DESCRIPTION
	0	12/03/25	D.C	ORIGINAL SUBMISSION

APPROVED BY: D Carey DATE 26/3/25
DAVID CAREY - MINING ENGINEERING MANAGER

MALABAR MAXWELL UNDERGROUND

DRAWN	D.C	12/03/25
APPROVED		
REVISION	0	
SCALE	1:4000	

DRAWING No. 60585

MAXWELL MINE - WOODLANDS HILL SEAM LONGWALLS 1 - 4 EXTRACTION APPLICATION PLAN 7 - SUBSIDENCE MONITORING

A1

APPENDIX 2 - PLANNING SECRETARY ENDORSEMENT

Department of Planning, Housing & Infrastructure

Our ref: SSD-9526-PA-139

Dominic Brown
Environment and Community Superintendent
Malabar Resources Limited
Thomas Mitchell Drive
Muswellbrook NSW 2333

24/07/2024

Subject: Appointment of Suitably Qualified and Experienced Persons

Dear Mr Brown

I refer to your request dated 15 July 2024 seeking the Planning Secretary's endorsement of the following persons as suitably qualified and experienced under Condition C8 of Schedule 2 of SSD-9526:

- Dr James Barbato (subsidence expert);
- Mr Greg Roads (surface water expert);
- Dr Noel Merrick (groundwater expert);
- Dr Colin Driscoll (biodiversity expert);
- Mr Geordie Oakes (Aboriginal cultural heritage expert);
- Mr Josh Peters (overall preparation and review of the Extraction Plan); and
- Ms Donna McLaughlin, Mr Dominic Brown, Mr James Johnson, Mr Shane Pegg, Mr Tim Britten and Mr Peter Sergeant, Maxwell Mine personnel, would also be involved in the preparation of the Extraction Plan.

The Department has reviewed the nominations and information you have provided and is satisfied that the above persons are suitably qualified and experienced. Accordingly, I can advise that the Planning Secretary endorses the appointment of these persons to prepare the Extraction Plan for the Woodlands Hill Panels 1 to 4 of the Maxwell Underground Coal Mine Project.

If you wish to discuss the matter further, please contact Joe Fittell on (02) 4908 8696.

Yours sincerely

Stephen O'Donoghue
Director
Resource Assessments

As nominee of the Planning Secretary

4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150 www.dphi.nsw.gov.au 1
Locked Bag 5022, Parramatta NSW 2124

Department of Planning, Housing & Infrastructure

Our ref: SSD-9526-PA-143

Donna McLaughlin
Environment, Community and Approvals Manager
Level 26, 259 George Street
Sydney, NSW, 2000

06/02/2025

Subject: Appointment of Experts – Woodlands Hill Seam Panels 1 to 4 Extraction Plan

Dear Ms McLaughlin

I refer to your request dated 7 January 2025 seeking the Planning Secretary's endorsement of the following persons as suitably qualified and experienced under Condition C8 of Schedule 2 of SSD 9526:

- Robert Hayes, Acting General Manager;
- Russel Howarth, Acting Underground Mine Manager; and
- Daniel Cherry, Registered Mine Surveyor.

The Department has reviewed the nominations and is satisfied that the above persons are suitably qualified and experienced. Accordingly, I can advise that the Planning Secretary endorses the appointment of the above persons to prepare the Woodlands Hill Panels 1 to 4 Extraction Plan for the Maxwell Underground Coal Mine Project.

If you wish to discuss the matter further, please contact Jack Turner on 9995 5387.

Yours sincerely

Jack Turner
A/ Team Leader
Resource Assessments

As nominee of the Planning Secretary

APPENDIX 3 - PLANNING SECRETARY APPROVAL

Department of Planning, Housing and Infrastructure

Our ref: SSD-9526-PA-201

Alex Newton
Environmental Coordinator
Maxwell Ventures (Management) Pty Ltd
Via Major Projects Portal

18/02/2026

Subject: Update to Woodlands Hill LW 1-4 Extraction Plan - Modification 3

Dear Mr Newton

I refer to the Woodlands Hill Extraction Plan which was updated following SSD-9526-Mod-3 as required by condition E7 of Schedule 2 of the consent for the Maxwell Underground Coal Mine Project (SSD-9526). The Department notes the updates are minor and administrative.

Accordingly, as nominee of the Planning Secretary, I approve the Woodlands Hill Longwalls 1-4 Extraction Plan (January 2026). The Department notes the Biodiversity Management Plan, Heritage Management Plan and Water Management Plan have been submitted separately to the Major Projects Portal for approval.

You are reminded that if there are any inconsistencies between the Plan and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Jack Turner on 9995 5387.

Yours sincerely

Stephen O'Donoghue
Director
Resource Assessments

As nominee of the Planning Secretary

4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150 www.dphi.nsw.gov.au 1
Locked Bag 5022, Parramatta NSW 2124