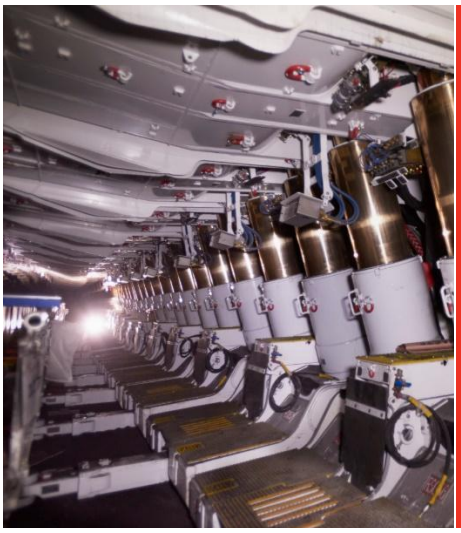
YANCOAL
兖煤澳大利亚有限公司
MOOLARBEN COAL



UG4 LONGWALLS 409 TO 414 BUILT FEATURES MANAGEMENT PLAN TELSTRA

Version	Issue Date *(Month/YYYY)*	Revision Detail *(Include the main areas reviewed, trigger / why the change)*	Author *(Name/s)*	Review Team *(Name/s)*
1	September 2024	Original BFMP for Telstra Assets for the UG4 Longwalls 409-414 Extraction Plan	MCO	MCO
2	January 2025	Updated to Adress Agency Consultation	MCO	MCO
3	April 2026	Updated to Address Agency Consultation	MCO	MCO

Document	Version	Issue Date	Status	Author
MCO_BFMP_TELSTRA	3	April 2026	Approved	MCO

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1.0 INTRODUCTION

The Moolarben Coal Complex is an open cut and underground coal mining operation located approximately 40 kilometres north of Mudgee in the Western Coalfield of New South Wales (NSW) (**Figure 1**).

Moolarben Coal Operations Pty Ltd (MCO) is the operator of the Moolarben Coal Complex on behalf of the Moolarben Joint Venture. MCO is a wholly owned subsidiary of Yancoal Australia Limited.

The UG4 Underground Mine (UG4) is a component of the approved Moolarben Coal Complex (**Figure 2**). First workings for UG4 commenced in October 2020 (**Figure 3**). Secondary extraction in UG4 of the first Longwall (LW) 401 commenced in July 2022. LW401 to 407 were completed in January 2026. The extraction of LW409 to 414 (hereafter referred to as LW409-414) within UG4 is scheduled to commence in September 2026.

Mining operations at the Moolarben Coal Complex are currently approved until 31 December 2038 and continue to be carried out in accordance with Project Approval (05_0117) (Moolarben Coal Project Stage 1) (as modified) and Project Approval (08_0135) (Moolarben Coal Project Stage 2) (as modified).

1.1 PURPOSE AND SCOPE

This UG4 Longwalls 409 to 414 Built Features Management Plan - Telstra (LW409-414 BFMP-Telstra) has been prepared to satisfy the requirements of Condition 77(g), Schedule 3 of Project Approval (05_0117) for the management of potential impacts to the Telstra infrastructures due to secondary extraction of LW409-414.

This LW409-414 BFMP-TELSTRA forms a part of the Extraction Plan developed for LW409-414 of the approved UG4. This LW409-414 BFMP-TELSTRA has been prepared by MCO, with input from Mine Subsidence Engineering Consultants (MSEC), to satisfy the requirements of Project Approval (05_0117) as modified and the *Extraction Plan Guideline* (NSW Department of Planning and Environment [DPE], 2022). The appointment of the team of suitably qualified and experienced persons (which includes representatives of MCO and MSEC) was endorsed by the Secretary of the Department of Planning, Housing and Infrastructure (DPHI) on 9 May 2024 (Attachment 2 of the Extraction Plan).

Purpose: This LW409-414 BFMP-TELSTRA outlines the management of potential subsidence impacts on the Telstra telecommunication cables resulting from the extraction of LW409-414.

Scope: This LW409-414 BFMP-TELSTRA covers the copper telecommunication cables within and in the vicinity of the LW409-414 Study Area[1] (**Figure 4**).

[1] The LW409-414 Study Area is defined as the area of land within the furthest extent of the 26.5 degree (°) angle of draw and 20 millimetres (mm) predicted subsidence contour. The copper cable runs along Saddlers Creek Road, which would be undermined.

Figure 1: Regional Location

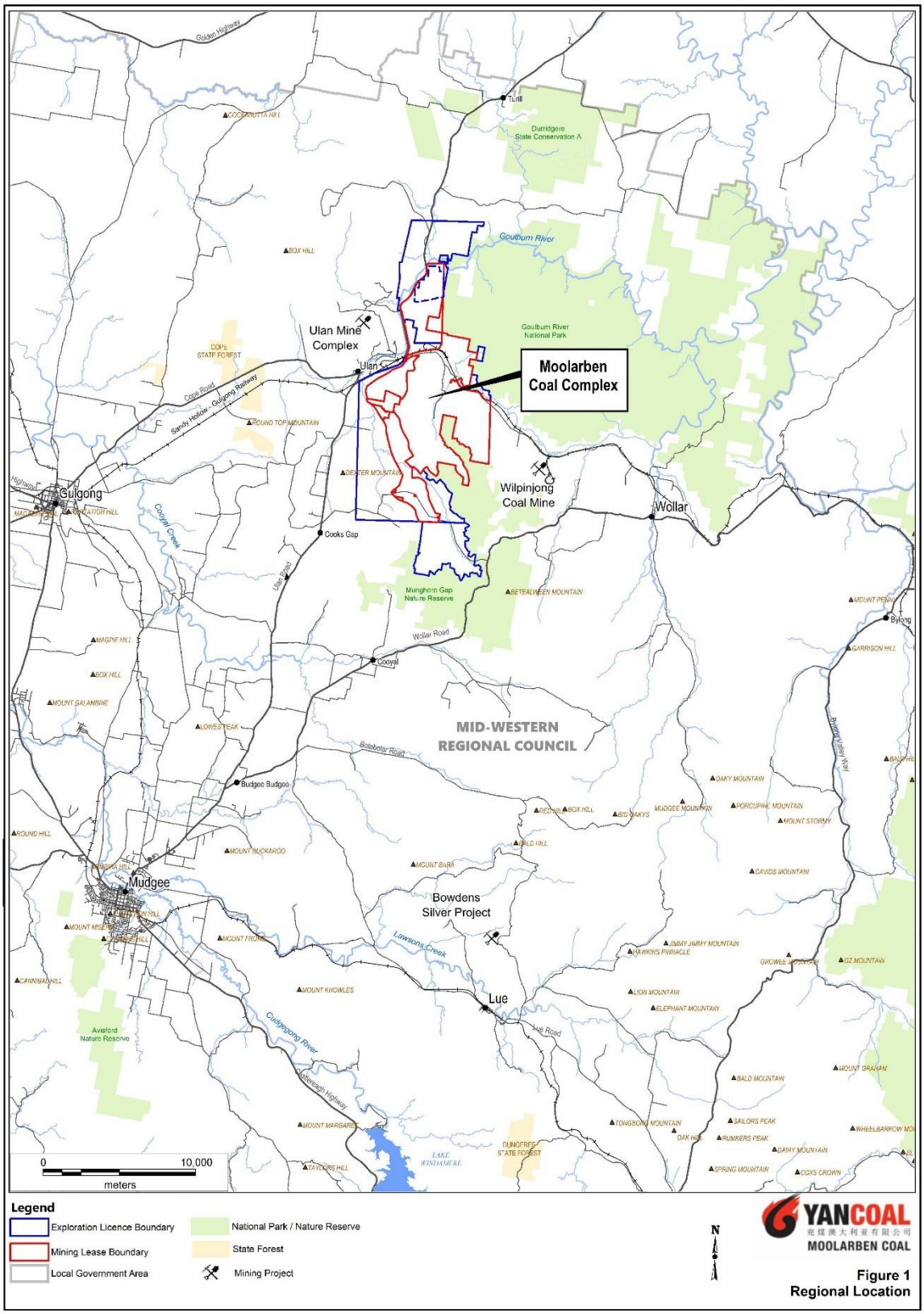

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Figure 2: Moolarben Coal Complex Layout

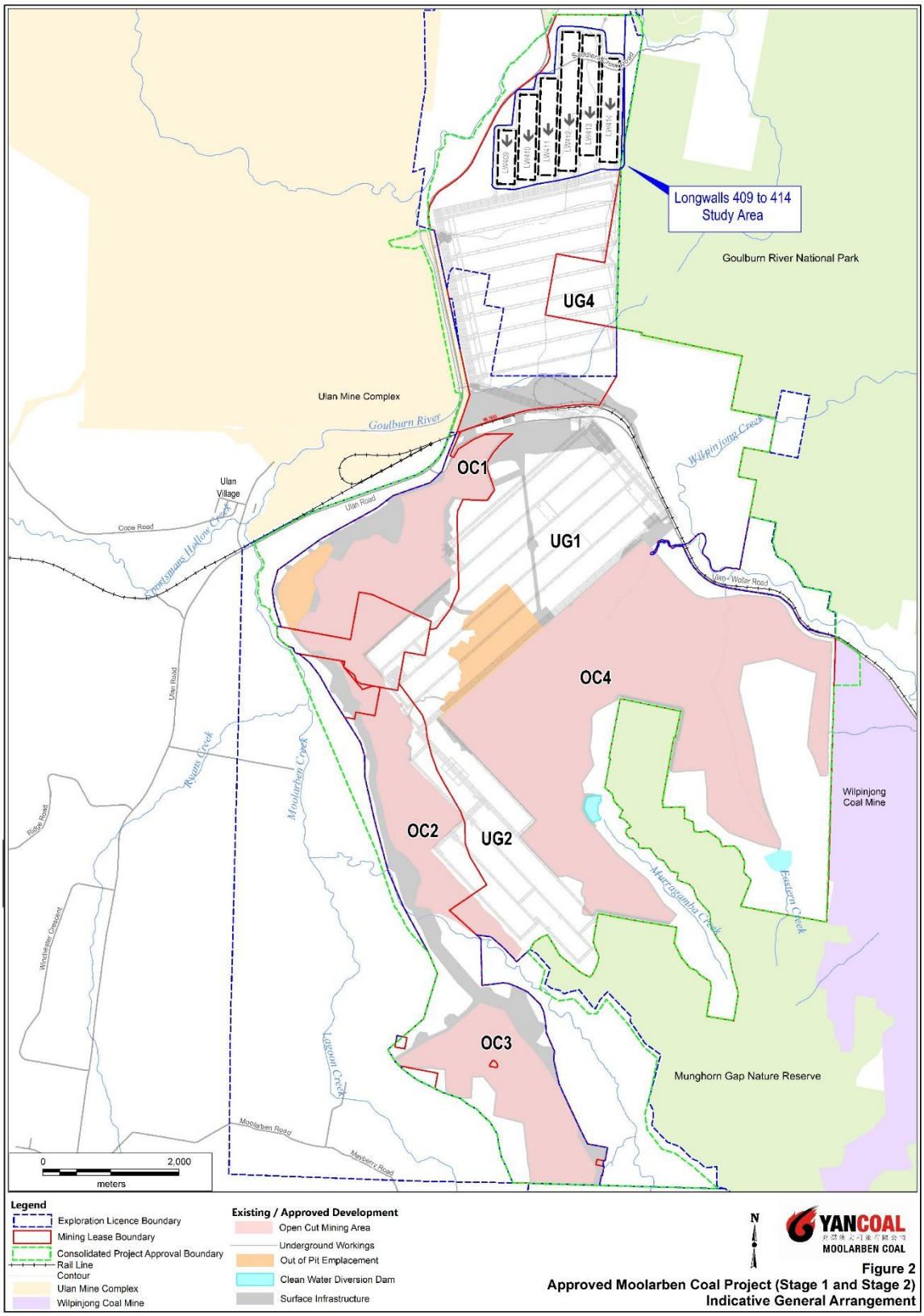

Figure 3: UG4 Longwall 409 to 414 Layout

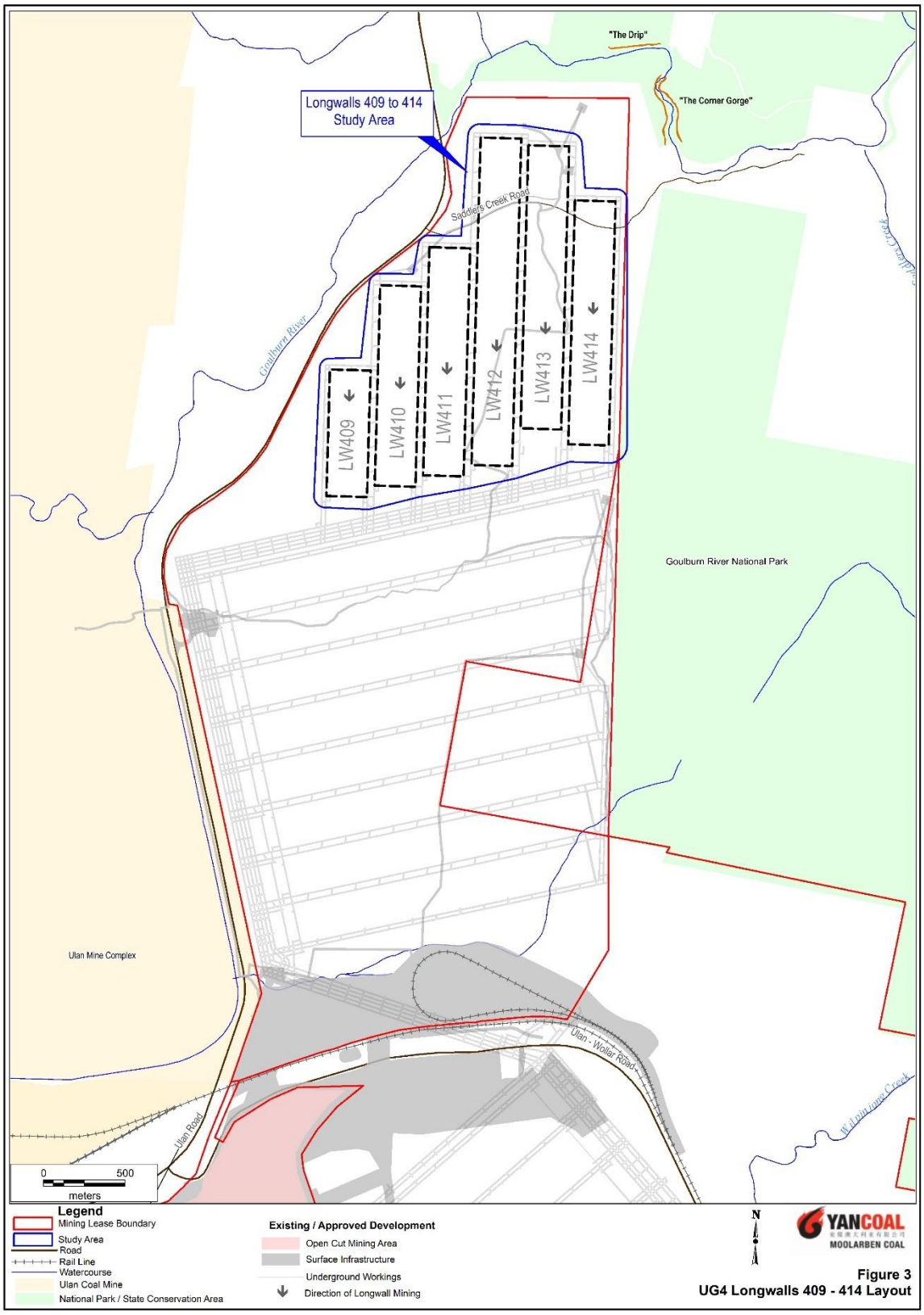

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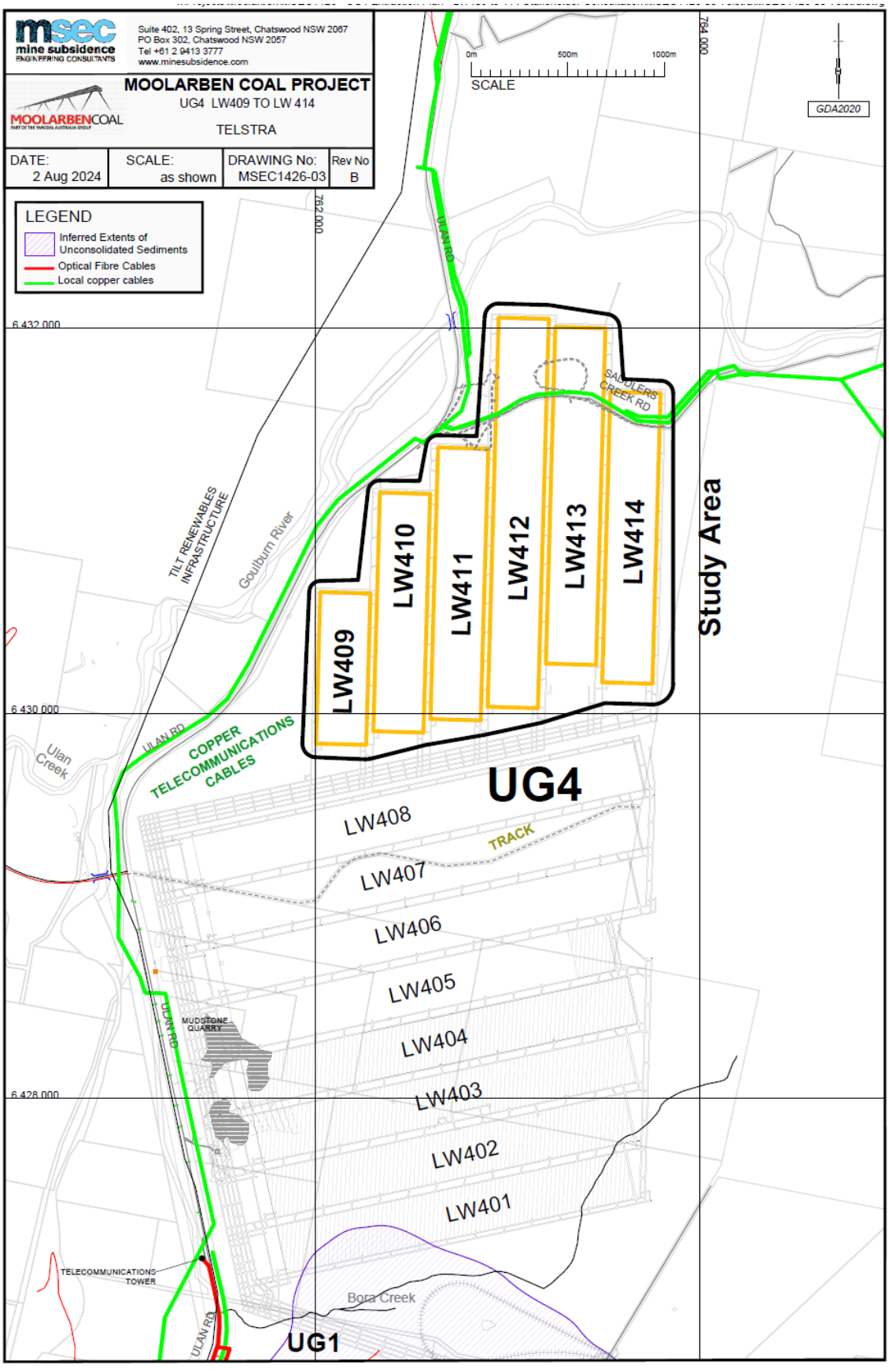
Figure 4: Telstra Assets



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Telstra-owned copper cables run along Ulan Road and Saddlers Creek Road. The copper cables along Saddlers Creek Road are located within the LW409-414 Study Area, and are directly undermined by LW412-414. The copper cables along Ulan Road are located outside the LW409-414 Study Area (**Figure 4**). Impacts, predictions and management of the subsidence impacts on Ulan Road and Saddlers Creek Road are discussed in a separate document (Appendices E1 and E2 of the Extraction Plan).

1.2 STRUCTURE OF THE LONGWALLS 409 TO 414 BUILT FEATURES MANAGEMENT PLAN – TELSTRA

The remainder of the LW409-414 BFMP-TELSTRA is structured as follows:

Section 2: Describes the review and update of the LW409-414 BFMP-TELSTRA.

Section 3: Outlines the statutory requirements applicable to the LW409-414 BFMP-TELSTRA.

Section 4: Provides baseline data, extraction schedule, revised assessment of the potential subsidence impacts and environmental consequences for LW409-414, as well as the outcomes of the risk assessment.

Section 5: Details the performance measures relevant to Telstra assets.

Section 6: Describes the monitoring program.

Section 7: Describes the management measures that will be implemented.

Section 8: Details the performance indicators that will be used to assess against the performance measures.

Section 9: Provides a contingency plan to manage any unpredicted impacts and their consequences.

Section 10: Describes the Trigger Action Response Plan (TARP) management tool.

Section 11: Describes the roles and responsibilities for MCO personnel and key contacts.

Section 12: Describes the Annual Review, audits, regular reporting, improvement of environmental performance and the program to collect sufficient baseline data for future Extraction Plans.

Section 13: Outlines the management and reporting of incidents.

Section 14: Outlines the management and reporting of complaints.

Section 15: Outlines the management and reporting of non-compliances with statutory requirements.

Section 16: Lists the references cited in this LW409-414 BFMP-TELSTRA.

2.0 LONGWALLS 409 TO 414 BUILT FEATURES MANAGEMENT PLAN – TELSTRA REVIEW AND UPDATE

In accordance with Condition 5, Schedule 5 of Project Approval (05_0117), this LW409-414 BFMP-TELSTRA will be reviewed as follows:

> *5. Within 3 months of the submission of:*
>
> *(a) the submission of annual review under condition 4 above;*
>
> *(b) the submission of an incident report under condition 7 below;*
>
> *(c) the submission of an audit under condition 9 below; or*
>
> *(d) any modification to the conditions of this approval (unless the conditions require otherwise),*
>
> *the Proponent shall review and, if necessary, revise the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval*

2.1 ACCESS TO INFORMATION

In accordance with Condition 11, Schedule 5 of Project Approval (05_0117) MCO will make the approved LW409-414 BFMP-TELSTRA publicly available on the Yancoal's website.

3.0 STATUTORY REQUIREMENTS

MCO's statutory obligations are contained in:

- the conditions of the Project Approval (05_0117) (as modified);
- the conditions of Commonwealth Approvals (EPBC 2007/3297, EPBC 2013/6926 and EPBC 2008/4444 and 2017/7974);
- relevant licences and permits, including conditions attached to the Environment Protection Licence No. 12932 and mining leases (MLs) (i.e. ML 1605, ML 1606, ML 1628, ML 1691 and ML 1715); and
- other relevant legislation.

Obligations relevant to this LW409-414 BFMP-TELSTRA are described below.

3.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 APPROVAL

Condition 77(g), Schedule 3 of Project Approval (05_0117) requires the preparation of a Built Features Management Plan as a component of the Extraction Plan. In addition, Conditions 75, 77(n), 77(p) and 78, Schedule 3 and Condition 3, Schedule 5 of Project Approval (05_0117) outline general management plan requirements that are applicable to the preparation of this LW409-414 BFMP-TELSTRA.

Table 1 presents the relevant Project Approval requirements and indicates where they are addressed within this LW409-414 BFMP-TELSTRA.

Table 1: Management Plan Requirements

Project Approval (05_0117) Condition	LW409-414 BFMP-TELSTRA Section
Condition 75, Schedule 3	
Notes: *...* • *The Proponent will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or Public Safety Management Plan (see condition 74 below).* • *Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.* • *Requirements under this condition may be met by measures undertaken in accordance with the Mine Subsidence Compensation Act 1961.* *...*	**Section 7** **Sections 6** **Section 9**
Condition 77(g), Schedule 3	
(g) include a Built Features Management Plan, which has been prepared in consultation with Resources Regulator and the owners of affected public infrastructure, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which: *i. addresses in appropriate detail all items of key public infrastructure and other public infrastructure and all classes of other built features;* *ii. has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;* *iii. recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate all predicted impacts on potentially affected built features in a timely manner; and* *iv. in the case of all key public infrastructure, and other public infrastructure except roads, trails and associated structures, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner) and provides for annual auditing of compliance and effectiveness during extraction of longwalls which may impact the infrastructure;*	**Section 4.1** **Section 4.4** **Sections 7 & 9** **Section 13.1**
Condition 77(n), Schedule 3	
(n) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 18 and 19, or where any such exceedance appears likely;	**Section 9**
Condition 77(p), Schedule 3	
(p) include a program to collect sufficient baseline data for future Extraction Plans.	**Section 12**
Condition 78, Schedule 3	
78. The Proponent shall ensure that the management plans required under conditions 77(g)-(l) above include: *(a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this approval; and* *(b) a detailed description of the measures that would be implemented to remediate predicted impacts.*	**Section 4** **Section 7**

Table 1 (Continued): Management Plan Requirements

Project Approval (05_0117) Condition	LW409-414 BFMP-TELSTRA Section
Condition 3, Schedule 5	
3. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:	
(a) detailed baseline data;	**Section 4.1**
(b) a description of:	
• *the relevant statutory requirements (including any relevant approval, licence or lease conditions);*	**Section 3**
• *the relevant limits or performance measures/criteria;*	**Section 5**
• *the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;*	**Section 8**
(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	**Sections 7 & 9**
(d) a program to monitor and report on the:	**Sections 6, 8 & 13**
• *impacts and environmental performance of the project;*	
• *effectiveness of any management measures (see c above);*	
(e) a contingency plan to manage any unpredicted impacts and their consequences;	**Section 9**
(f) a program to investigate and implement ways to improve the environmental performance of the project over time;	**Sections 6 & 13**
(g) a protocol for managing and reporting any:	
• *incidents;*	**Section 14**
• *complaints;*	**Section 15**
• *non-compliances with statutory requirements; and*	**Section 16**
• *exceedances of the impact assessment criteria and/or performance criteria; and*	**Section 9**
(h) a protocol for periodic review of the plan.	**Section 2**

3.2 OTHER LEGISLATION

MCO operates the Moolarben Coal Complex consistent with Project Approval (05_0117) (as modified) and Project Approval (08_0135) (as modified) and any other legislation that is applicable under the *Environmental Planning and Assessment Act 1979*.

The following Acts may be applicable to, but are not limited to, the conduct of the Moolarben Coal Complex:

- *Crown Land Management Act 2016;*
- *Fisheries Management Act 1994;*
- *Heritage Act 1977;*
- *Coal Mine Subsidence Compensation Act 2017;*
- *Mining Act 1992;*
- *National Parks and Wildlife Act 1974;*
- *Biodiversity Conservation Act 2016;*

- *Protection of the Environment Operations Act 1997;*
- *Roads Act 1993;*
- *Water Act 1912;*
- *Water Management Act 2000;*
- *Work Health and Safety Act 2011;* and
- *Work Health and Safety (Mines and Petroleum Sites) Act 2013.*

Relevant licences or approvals required under these Acts will be obtained as required.

4.0 TELECOMMUNICATION CABLES

4.1 BASELINE DATA

Telstra infrastructure in the vicinity of the Study Area includes Telstra-owned copper cables that follow the general alignment of Ulan Road to the west of LW409-414 and Saddlers Creek Road, which is undermined by LW412-414 (**Figure 4**).

Copper cables are located along Ulan Road to the west of LW409-414. The nearest point of the copper cables along Ulan Road is approximately 80 metres (m) between LW411 and the Telstra cables (MSEC, 2024a).

The copper cables along Saddlers Creek Road will be mined beneath by LW412-414. The length of the Telstra copper cable within the Study Area is approximately 1,090 m. The depth of cover beneath the cable to the extracted seam varies from approximately 122 m above LW412, to 136 m above LW413 (MSEC, 2024a). The cable in the main impact areas along Sadlers Creek Road between LW412 and LW414 is in good condition (Telstra InfraCo and Azalea Consultancy Pty Ltd, 2025).

4.2 LONGWALLS 409 TO 414 EXTRACTION SCHEDULE

LW409-414 and the area of land within the furthest extent of the 26.5° angle of draw and 20 mm predicted subsidence contour (i.e. the LW409-414 Study Area) are shown on **Figure 3**. Longwall extraction will occur from the north to the south for each panel. The longwall layout includes approximately 260 m panel widths (void) with 35 m width pillars (solid). The provisional extraction schedule for LW409-414 is provided in **Table 2**.

Table 2: Provisional Extraction Schedule

Longwall	Estimated Start Date	Estimated Duration (months)	Estimated Completion Date
LW409	September 2026	3	November 2026
LW410	December 2026	3	March 2027
LW411	April 2027	3	July 2027
LW412	August 2027	4	December 2027
LW413	January 2028	4	May 2028
LW414	June 2028	4	September 2028

Note: In June 2026, the extraction timing was administratively updated to ensure consistency with the approved June versions of the LW409-414 Water Management Plan and LW409-414 Subsidence Monitoring Program. This update does not otherwise amend the approved April version of this Plan.

4.3 REVISED SUBSIDENCE AND IMPACT PREDICTIONS

Revised Subsidence predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings have been prepared by MSEC (2024), incorporating any relevant information obtained since approval (e.g. additional data from underground mining in UG1 and LW401-408 to date), in accordance with Condition 77(e), Schedule 3 of Project Approval (05_0117).

The LW409-414 BFMP-TELSTRA has incorporated the subsidence predictions and impacts as described below, in **Attachment 1** and **Technical Report 1** of the Extraction Plan.

A summary of the subsidence impacts and predictions is provided below:

- Copper telecommunications cables can typically tolerate significant tensile strains of up to 20 mm/m without adverse impacts. The predicted strains along the Saddlers Creek Road alignment are no greater than 20 mm/m but significant strains are expected to occur (greater than 10 mm/m). Therefore, it is possible that the copper cables along Saddlers Creek Road could be impacted as a result of the proposed mining (MSEC, 2024a, 2024b).
- It is unlikely that the proposed mining would result in any significant impacts on the copper telecommunications cables within the Study Area. Any impacts on these cables would be expected to be relatively infrequent and readily repairable (MSEC, 2024a, 2024b).
- The copper cables located outside the Study Area boundary are not expected to be subjected to measurable conventional vertical subsidence, tilt, curvature or strain. Based on the low magnitude of mine subsidence movements outside the Study Area boundary the development of adverse impacts to the copper cables due to extraction of LW409-414 is considered to be unlikely to occur (MSEC, 2024a, 2024b).

It is expected that the copper cables can be maintained in serviceable condition with the implementation of the appropriate monitoring and management strategies (**Sections 6** and **7**).

4.4 RISK ASSESSMENT

In accordance with the *Extraction Plan Guideline* (DPE, 2022), potential risks and potential risk control measures and procedures have been considered for the Telstra infrastructure in the vicinity of LW409-414. The built features management plan risk assessment for Telstra was completed on 1 May 2024.

Attendees at the risk assessment meeting included representatives from MCO (including the Underground Technical Services Manager and Environment and Community Manager), MSEC and a risk assessment facilitator (AXYS Consulting Pty Ltd).

The assessment included:

- Confirmation of relevant Telstra assets.
- Review of the revised subsidence predictions and potential impacts on Telstra assets (including consideration of past experience for UG1, UG4 LW401-408 and in the Western Coalfield).
- Consideration and discussion of the proposed monitoring program, management measures and contingency measures.

The potential risks were identified as the copper cables becoming unserviceable due to mining of LW409-414. MCO would be required to compensate Telstra for any necessary repairs.

A number of risk control measures and procedures were identified during the risk assessment which have been incorporated where relevant in this LW409-414 BFMP-TELSTRA and the program for implementation is summarised in **Table 3**.

MCO considers all risk control measures and procedures to be feasible to manage all identified risks.

Table 3: Program for Implementation of Proposed Risk Control Measures and Procedures

	Risk Control Measure / Procedure	LW409- 414 BFMP-TELSRTA Section	Proposed Timing
Baseline Data / Validation			
1	Request confirmation from Telstra that all services have been identified and documented in the LW409-414 BFMP-TELSTRA.	**Section 6.2**	Prior to secondary extraction of LW409
2	Installation of UG4 subsidence effect monitoring line and commencement of the subsidence monitoring program for LW409-414.	**Section 6**	Prior to secondary extraction of LW409
Management / Monitoring / Response Measures			
3	Establish key contacts list in the LW409-414 BFMP-TELSTRA.	**Section 11.1**	Complete
4	Include a schedule of times/frequency of communication with Telstra for the status of mining of LW409-414 in the LW409-414 BFMP-TELSTRA.	**Section 7** and **Table 6**	Complete
5	Include in the TARP triggers for conditions that may need to be actioned by MCO and/or Telstra.	**Section 10** and **Attachment 2**	Complete

5.0 PERFORMANCE MEASURES

The performance measures specified in Table 15, Schedule 3 of Project Approval (05_0117) relevant to the Telstra telecommunication cables, as a built feature, are listed in **Table 4**.

Table 4: Built Features Subsidence Impact Performance Measures

Feature	Subsidence Impact Performance Measure
Other infrastructure:	
Other built features* and improvements, including fences	Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.

Source: Table 15 in Schedule 3 of Project Approval (05_0117).

* Telstra's telecommunications cables.

In accordance with Condition 75, Schedule 3 of Project Approval (05_0117), MCO must ensure that there is no exceedance of the performance measures listed in Table 15, Schedule 3 of Project Approval (05_0117), to the satisfaction of the Secretary of the DPHI.

Section 6 outlines the monitoring that will be undertaken to assess the impact of LW409-414 against the performance measures in relation to the telecommunication cables. Management measures for the telecommunication cables are outlined in **Section 7** and performance indicators for the performance measures are summarised in **Section 8**.

6.0 MONITORING

A monitoring program will be developed in order to monitor the impacts of the extraction of LW409-414 on the telecommunication cables to identify potential loss of serviceability during or after mining. Key components of the monitoring program are summarised in **Table 5**.

As recommended by MSEC, baseline monitoring is recommended for comparison, should subsidence related ground movements be measured to the west of longwalls during extraction of LW409-414 (MSEC, 2024a, 2024b).

The frequency of monitoring will be reviewed either:

- in accordance with the Annual Review; or
- if monitoring determines there has been no impact to the copper cable and/or no exceedance of the performance measures listed in **Table 4**, MCO in consultation with Telstra will review the frequency of this monitoring component; or
- if triggered as a component of the Contingency Plan as outlined in **Section 9** of this LW409-414 BFMP-TELSTRA.

6.1 SUBSIDENCE PARAMETERS

Subsidence parameters measured by survey lines ('SCR Line' and 'U Line') (i.e. Easting, Northing, vertical subsidence, tilt, tensile strain and compressive strain) associated with mining will be measured in accordance with the UG4 Longwalls 409 to 414 Subsidence Monitoring Program (LW409-414 SMP).

Relevant to the telecommunication cables, surveys will be conducted to measure subsidence movements in three dimensions using a total station survey instrument. Subsidence movements (i.e. subsidence, tilt, tensile strain and compressive strain) will be measured along subsidence lines that have been positioned across the general landscape.

Monitoring of subsidence parameters specific to the telecommunication cables along Saddlers Creek Road will be measured by a survey line ('SCR Line') and specific to telecommunication cables along Ulan Road will be measures by a survey line ('U Line'). These survey lines will monitor the general movement about the longwalls and the data will allow evaluation of the likely ground movements about the cable line (by comparison between measured and predicted movements).

Unless otherwise agreed with Telstra, inspection sheets detailing the outcome of the subsidence impact inspections will be provided, following confirmation of any observed ground movements above predictions.

Table 5: Telecommunication Cables Monitoring Program Overview

Monitoring Component	Parameter	Timing/Frequency	Responsibility
Pre-mining			
UG4 subsidence monitoring lines as described in the LW409-414 SMP.	Installation of survey monitoring program and initial ground survey (including 'SCR Line' and 'U Line'). Monitoring parameters include: • Easting; • Northing; • vertical subsidence; • tilt; • tensile strain; and • compressive strain.	Prior to the secondary extraction of LW409.	Underground Technical Services Manager.
During and After Mining			
UG4 subsidence monitoring lines as described in the LW409-414 SMP.	Survey monitoring program for subsidence parameters measured along the 'U Line', including: • Easting; • Northing; • vertical subsidence; • tilt; • tensile strain; and compressive strain.	Within 1 month of first 300 m of secondary extraction of each LW409-412.	Underground Technical Services Manager.
	Survey monitoring program for subsidence parameters measured along the 'SCR Line', including: • Easting; • Northing; • vertical subsidence; • tilt; • tensile strain; and compressive strain.	Prior to the secondary extraction of LW412. Within 1 month of secondary extraction of 300 m past Saddlers Creek Road for each of LW412-414.	Underground Technical Services Manager.

6.2 SUBSIDENCE IMPACTS

Telstra have confirmed that all services have been identified and documented in the LW409-414 BFMP-TELSTRA prior to the secondary extraction of LW409 commencing (Telstra InfraCo and Azalea Consultancy Pty Ltd, 2025).

In accordance with the UG4 Longwalls 409 to 414 Built Features Management Plan – Mid-Western Regional Council (LW409-414 BFMP-MWRC) and the UG4 Longwalls 409 to 414 Built Features Management Plan – Saddlers Creek Road (LW409-414 BFMP-SCR), a baseline visual inspection will be conducted by MCO of Ulan Road within 400 m of LW409-414 prior to commencement of LW409 and of Saddlers Creek Road prior to mining within 100 m of the Road. Visual inspections will also be undertaken regularly during mining:

- Ulan Road – within 1 month of secondary extraction of first 300 m of each of LW409-412.
- Saddlers Creek Road – within 1 month of secondary extraction of 300 m of past Saddlers Creek Road for each of LW412-414.

Opportunistic observations of subsidence impacts will be conducted during routine works by MCO (and its contractors).

If subsidence related ground movements result in a detectable change from the pre-mining baseline condition and/or greater than predictions described in **Section 4.3**, Telstra will be immediately notified to determine if any signal loss has been caused to the copper cables (as outlined in **Table 6)**.

Inspections of the cables will be conducted by Telstra as required, in accordance with Telstra's routine inspection program or if triggered by a signal loss or transmission fault (**Table 5**).

MCO and Telstra will compare the results of the subsidence impact monitoring against the built features performance measure and indicators (**Sections 5** and **8**). In the event the observed subsidence impacts from the LW409-414 exceed the performance measure or indicators, MCO and Telstra will assess the consequences of the exceedance in accordance with the Contingency Plan described in **Section 9**.

7.0 MANAGEMENT MEASURES

A number of potential management measures in relation to the telecommunication cables are considered to be applicable (including stabilisation methods if required) and potential contingency measures are summarised in **Section 9.1**.

Follow-up inspections will be conducted to assess the effectiveness of the management measures implemented and the requirement for any additional management measures. A summary of management measures (if required) will be reported in the Annual Review. Key management actions and timing is summarised in **Table 6**.

Table 6: Telecommunication Infrastructure Key Management Actions

Management Measure	Timing/Frequency	Responsibility
Pre-mining		
Notification to Telstra prior to commencement of secondary extraction.	Prior to secondary extraction of LW409.	Underground Technical Services Manager.
During Mining		
Notification to Telstra during longwall mining of LW409-414.	If/when ground surveys identify an exceedance of the predicted subsidence monitoring parameters measured along the 'SCR Line' and 'U Line'. If visual monitoring of Ulan Road/ Saddlers Creek Road in accordance with the BFMP-MWRC and/or BFMP-SCR detects subsidence-related impacts.	Underground Technical Services Manager.
Notification to Telstra if management measures are considered to be required.	During LW409-414 extraction.	Underground Technical Services Manager.
Implement TARP (**Attachment 2**).	During LW409-414 extraction.	Underground Technical Services Manager.
Post Mining		
Provision of **inspection sheets** detailing the outcome of the subsidence impact monitoring program to Telstra.	Following exceedance of the predicted subsidence monitoring parameters and/or subsidence related impact inspections (unless otherwise agreed by Telstra).	Underground Technical Services Manager.
Notification to Telstra to inform longwall mining of LW409-414 is completed.	Following completion of active mining of LW414 (within 3 months).	Underground Technical Services Manager.

Notes: If monitoring determines there has been no impact to the copper cable and/or no exceedance of the performance measures listed in **Table 4**, MCO in consultation with Telstra will review the frequency of management measures.

MCO will continue ongoing consultation with Telstra regarding management actions.

8.0 ASSESSMENT OF PERFORMANCE INDICATORS AND MEASURES

In accordance with Condition 77(d), Schedule 3 of Project Approval (05_0117), performance indicators have been developed for the performance measure listed in **Table 4** (**Section 5**).

The performance indicators proposed to ensure that the performance measure for the copper cables are achieved in relation to subsidence movements, include:

- negligible transmission loss from mine subsidence impacts; and
- negligible impacts on structural integrity of the cable lines from mine subsidence.

Monitoring conducted to inform the assessment of secondary extraction of LW409-414 against the performance indicators for the performance measure relevant to Telstra's communication cables as a built feature is outlined in **Section 6**.

Assessment of monitoring results against the performance indicators and performance measure would include review of 'SCR Line' and 'U Line' monitoring data to confirm if ground movements in excess of survey accuracy have occurred.

If a performance measure is considered to have been exceeded, the Contingency Plan outlined in **Section 9** of this LW409-414 BFMP-TELSTRA will be implemented.

9.0 CONTINGENCY PLAN

In the event the performance measures relevant to the telecommunication cables as built features, summarised in **Table 4**, are considered to have been exceeded or are likely to be exceeded, MCO will implement the following Contingency Plan:

- The observation will be reported to the Underground Technical Services Manager and the Environment and Community Manager within 24 hours.
- The likely exceedance will be reported in an Incident Report (refer to the Extraction Plan).
- MCO will provide the Incident Report to relevant stakeholders (i.e. DPHI, the Resources Regulator and Telstra).
- MCO will conduct an investigation to identify and evaluate contributing factors to the exceedance, including re-survey of the relevant subsidence monitoring lines, analysis of predicted versus observed subsidence parameters and a review of the subsidence monitoring program with updates to the program where appropriate.
- An appropriate course of action will be developed in consultation with relevant stakeholders and government agencies including proposed contingency measures (**Section 9.1**), and a program to review the effectiveness of the contingency measures.
- The course of action will be approved by, and implemented to the satisfaction of DPHI, Telstra and the Resources Regulator.
- This LW409-414 BFMP-TELSTRA and the performance indicators will be reviewed to adequately manage future potential impacts within the limits of Project Approval (05_0117).

MCO will comply with the *Coal Mine Subsidence Compensation Act 2017* (formerly NSW *Mine Subsidence Compensation Act 1961)* in the event that property damages occur as a result of mining LW409-414.

9.1 CONTINGENCY MEASURES

Contingency measures will be developed in consideration of the specific circumstances of the feature (e.g. the location, nature and extent of the impact, and the assessment of environmental consequences).

Potential contingency measures that could be considered in the event the performance measure for the telecommunication cables is exceeded include:

- Failure in copper telecommunication cables to be rectified by repairs.

In the event of any disruption to services, MCO will provide temporary replacement satellite communications for affected users, until any damage is repaired and serviceability is restored.

10.0 TRIGGER ACTION RESPONSE PLAN

The framework for the various components of this LW409-414 BFMP-TELSTRA are summarised in the TARPs shown in **Attachment 2**. The TARPs illustrate how the various predicted subsidence impacts, monitoring components, performance measures, and responsibilities are structured to achieve compliance with the relevant statutory requirements, and the framework for management and contingency actions.

The TARPs comprise:

- baseline conditions;
- predicted subsidence impacts;
- trigger levels from monitoring to assess performance; and
- triggers that flag implementation of contingency measures.

The TARPs system provides a simple and transparent snapshot of the monitoring of environmental performance and the implementation of management and/or contingency measures.

11.0 ROLES AND RESPONSIBILITIES

Key responsibilities of MCO personnel in relation to this LW409-414 BFMP-TELSTRA are summarised in **Table 7**. Responsibilities may be delegated as required.

Table 7: Responsibility Summary

Responsibility	Task
General Manager	• Ensure resources are available to MCO personnel to facilitate the completion of responsibilities under this LW409-414 BFMP-TELSTRA.
Underground Technical Services Manager	• Ensure the LW409-414 SMP is implemented. • Ensure monitoring required under this LW409-414 BFMP-TELSTRA is carried out within specified timeframes, adequately checked and processed and prepared to the required standard. • Undertake relevant monitoring and implementation of management measures summarised in **Tables 5** and **6** respectively.
Environment and Community Manager	• Liaise with relevant stakeholders regarding subsidence impact management and related environmental consequences.
Registered Mine Surveyor	• Undertake all subsidence monitoring to the required standard within the specified timeframes and ensure data are adequately checked, processed and recorded.

11.1 KEY CONTACTS

The details of key contacts and phone numbers in relation to this LW409-414 BFMP-TELSTRA are summarised in **Table 8**.

Table 8: Key Personnel Contacts

Organisation	Position	Phone Number
MCO	Underground Technical Services Manager	02 6376 1500
	Environment and Community Manager	02 6376 1500
	Moolarben Coal Hotline	1800 556 484
Telstra	Network Integrity/Central Field Consultant	0418 618 737
	Underground Technical Manager	0428 970 826
	Damages	132 203

12.0 REVIEW AND IMPROVEMENT OF ENVIRONMENTAL PERORMANCE

12.1 ANNUAL REVIEW

In accordance with Condition 4, Schedule 5 of Project Approval (05_0117), MCO will conduct an Annual Review of operations conducted at the Moolarben Coal Complex (including the performance of the LW409-LW414 BFMP-TELSTRA) prior to 31 March for the preceding calendar year, or as otherwise agreed by the Secretary of the DPHI.

The Annual Review will:

- describe the works carried out in the previous calendar year, and the development proposed to be carried out over the current calendar year;
- include a comprehensive review of the monitoring results and complaints records of the Project over the previous calendar year, including a comparison of these results against the:
  - relevant statutory requirements, limits or performance measures/criteria;
  - monitoring results of previous years; and
  - relevant predictions in the Environmental Assessment.
- identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- identify any trends in the monitoring data over the life of the Project;
- identify any discrepancies between the predicted and actual impacts of the Project, and analyse the potential cause of any significant discrepancies; and
- describe what measures will be implemented over the next year to improve the environmental performance of the Project.

In accordance with Condition 11, Schedule 5 of Project Approval (05_0117), the Annual Review will be made available on the Yancoal's website. As described in **Section 2**, this LW409-414 BFMP-TELSTRA will be reviewed within three months of the submission of an Annual Review, and, if necessary, revised to ensure the plan is updated on a regular basis and to incorporate any recommended measures to improve environmental performance.

12.2 AUDITS

In accordance with Condition 9, Schedule 5 of Project Approval (05_0117), the most recent independent environmental audit of the Moolarben Coal Complex was conducted in July 2024, and will continue to be conducted every three years. A copy of the independent environmental audit will be provided to the Secretary of the DPHI and made available on the Yancoal's website.

The independent environmental audit will be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary of the DPHI. The independent environmental audit will assess the environmental performance of the Project and assess whether it is complying with the requirements of Project Approval (05_0117), and any other relevant approvals, and recommend measures or actions to improve the environmental performance of the Project.

12.3 FUTURE EXTRACTION PLANS

In accordance with Condition 77(p), Schedule 3 of Project Approval (05_0117), MCO will collect baseline data for future Extraction Plans (e.g. for the next underground mining domain.). In addition to the baseline data collection, consideration of the environmental performance and management measures, in accordance with the review(s) conducted as part of this LW409-414 BFMP-TELSTRA, will inform the appropriate type and frequency of monitoring of the assets relevant to any future Extraction Plan at the Moolarben Coal Complex.

13.0 INCIDENTS

An incident is defined in Project Approval (05_0117) as a set of circumstances that:

- causes or threatens to cause material harm to the environment; and/or
- breaches or exceeds the limits or performance measures/criteria in Project Approval (05_0117) (as modified).

In the event that an incident which causes, or threatens to cause, material harm to the environment occurs, the incident will be managed in accordance with the Pollution Incident Response Management Plan.

The reporting of incidents will be conducted in accordance with Condition 7, Schedule 5 of Project Approval (05_0117).

MCO will notify the Secretary of DPHI and any other relevant agencies of any incident associated with the LW409-414 which causes or threatens to cause material harm to the environment immediately after MCO confirms that an incident has occurred. For any other incident associated with the LW409-414, MCO will notify the Secretary of DPHI and any other relevant agencies as soon as practicable after becoming aware of the incident. Within seven days of the date of the incident, MCO will provide the Secretary of DPHI and any relevant agencies with a detailed report on the incident. The report will:

- describe the date, time and nature of the exceedance/incident;
- identify the cause (or likely cause) of the exceedance/incident;
- describe what action has been taken to date; and
- describe the proposed measures to address the exceedance/incident.

14.0 COMPLAINTS

MCO maintains a Community Complaints Line (Phone Number: 1800 556 484) that is dedicated to the receipt of community complaints. The Community Complaints Line is publicly advertised and operates 24 hours per day, seven days a week, to receive any complaints from neighbouring residents or other stakeholders.

MCO has developed a Community Complaints Procedure which details the process to be followed when receiving, responding to and recording community complaints. The Community Complaints Procedure is supported by a Complaints Database.

The Community Complaints Procedure is a component of the MCO Environmental Management Strategy which requires the recording of relevant information including:

- the nature of complaint;
- method of the complaint;
- relevant monitoring results and meteorological data at the time of the complaint;
- site investigation outcomes;
- any necessary site activity and activity changes;
- any necessary actions assigned; and
- communication of the investigation outcome(s) to the complainant.

In accordance with Condition 11, Schedule 5 of Project Approval (05_0117), the complaints register will be updated monthly and made available on the Yancoal's website.

15.0 NON-COMPLIANCES WITH STATUTORY REQUIREMENTS

A protocol for the managing and reporting of non-compliances with statutory requirements has been developed as a component of MCO's Environmental Management Strategy and is described below.

Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contractors) employed on or in association with the Moolarben Coal Complex.

The Environmental and Community Manager (or delegate) will undertake regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance.

As described in **Section 14**, MCO will notify the Secretary of the DPHI, and any other relevant agencies, of any incident associated with LW409-414 immediately after MCO becomes aware of the incident. Within seven days of the date of the incident, MCO will provide the Secretary of the DPHI, and any relevant agencies, with a detailed report on the incident.

A review of MCO's compliance with all conditions of Project Approval (05_0117), MLs and all other approvals and licenses will be undertaken prior to (and included within) each Annual Review. The Annual Review will be made publicly available on the Yancoal's website.

As described in **Section 13.1**, the most recent independent environmental audit was conducted in July 2024, and will be conducted every three years thereafter. A copy of the independent environmental audit will be provided to the Secretary of the DPHI and made available on the Yancoal's website.

16.0 REFERENCES

Department of Planning and Environment (2022) *Extraction Plan Guideline*.

Mine Subsidence Engineering Consultants (2024a) *Moolarben Coal Operations: Longwalls 409 to 414 – Subsidence Predictions and Impact Assessments for the Telstra Infrastructure.*

Mine Subsidence Engineering Consultants (2024b) *Moolarben Project Stage 1- Longwalls 409 to 414 Subsidence Predictions and Impacts Assessments for the Natural and Built Features.*

Telstra InfraCo and Azalea Consultancy Pty Ltd (2025) *Telstra Impact Report SI 586918-01 Review of Draft Telstra Build Features Management Plan for Managing Telstra Assets for Longwall Mining, Area UG4 Longwalls 409-414, Ulan NSW. Impact report on Telstra Assets.*

ATTACHMENT 1

MOOLARBEN COAL OPERATIONS – LONGWALLS 409 TO 414 SUBSIDENCE PREDICTIONS AND IMPACT ASSESSMENT FOR THE TELSTRA INFRASTRUCTURE

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2nd August 2024

Liam Mildon
Underground Technical Services Manager
Moolarben Coal Operations Pty Ltd
Locked Bag 2003
Mudgee NSW 2850

Ref: MSEC1426-03

Dear Liam,

RE: Moolarben Coal Operations – Longwalls 409 to 414 - Subsidence predictions and impact assessments for the Telstra Infrastructure

1. Background

Moolarben Coal Operations Pty Limited (MCO) operates the Moolarben Coal Complex (MCC), which is located approximately 40 kilometres north east of Mudgee in New South Wales (NSW). MCO has been granted approval to develop Stages 1 and 2 of the Moolarben Coal Project (MCP) under the *Environmental Planning and Assessment Act 1979*. Approval for Stage 1 of the MCP (05_0117) was granted by the Minister for Planning on 6 September 2007. Approval for Stage 2 of the MCP (08_0135) was granted on 30 January 2015.

The MCC includes four approved open cut mines, (known as Open Cut 1 mine (OC1), Open Cut 2 mine (OC2), Open Cut 3 mine (OC3) and Open Cut 4 mine (OC4)), and three approved underground mines, (known as Underground Area 1 (UG1), Underground Area 2 (UG2) and Underground Area 4 (UG4)) and the associated infrastructure.

Underground longwall mining operations in UG4 commenced in July 2022 and MCO is currently extracting Longwall 405. The layout of Longwalls 409 to 414, is referred to as the *Extraction Plan Layout* in this report.

The telecommunications infrastructure in the vicinity of Longwalls 409 to 414 comprises Telstra owned copper cables that follow the general alignments of the roads including Ulan Road and Saddlers Creek Road.

This letter report summarises the predicted subsidence movements and the assessed subsidence impacts for the Telstra Infrastructure based on the Extraction Plan Layout. In doing so this letter considers potential subsidence induced mechanisms of impact and concludes with a summary of the impact assessment.

The location of the Telstra Infrastructure, MCO mine layout and other surface features are shown in the attached Drawing No. MSEC1426-03.

2. Study Area

A Study Area is defined around the longwall layout as the surface area that is likely to be affected by the proposed mining of Longwalls 409 to 414. The extent of the Study Area is calculated by the further extent a 26.5° angle of draw line and the predicted vertical limit of subsidence, taken as the 20 mm subsidence contour. The Study Area boundary is shown in MSEC1426-03.

The length of the Telstra copper cable within the Study Area is approximately 1,090 m. The depth of cover beneath the cable to the extracted seam varies from approximately 122 m above Longwall 412, to 136 m above Longwall 413.

3. Predicted Subsidence Parameters

The copper cables along Ulan Road will not be subjected to measurable conventional mine subsidence ground movements (i.e. less than limits of survey accuracy); however, the cables may experience far-field horizontal movements. At a minimum distance of 80 m between the longwalls and the Telstra cables, the far-field horizontal movements are expected to be less than 150 mm.

The copper cables along Saddlers Creek Road will be mined beneath by Longwalls 412 to 414. The predicted profiles of vertical subsidence, tilt and curvature along the copper cable, resulting from the extraction of Longwalls 409 to 414, are shown in Figure 1. The predicted incremental profiles due to the extraction of each of the longwalls, are shown as dashed black lines. The predicted total profiles after the extraction of each of the longwalls based on the Extraction Plan Layout, are shown as solid blue lines.

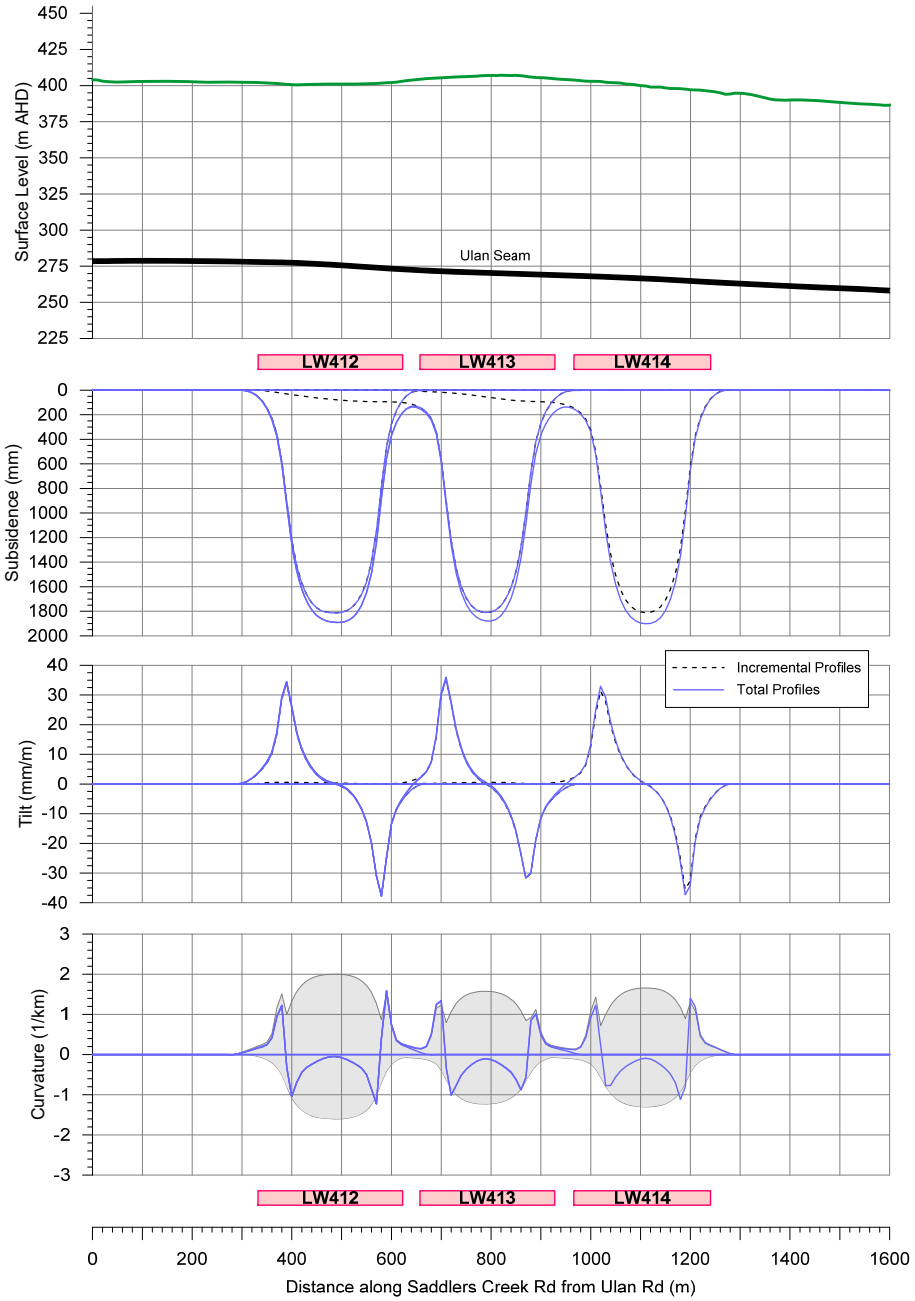

Figure 1 Predicted Profiles of Conventional Subsidence, Tilt and Curvature for the Telstra copper cables along Saddlers Creek Rd

A summary of the maximum predicted values of total conventional subsidence, tilt and curvature for copper cables along Saddlers Creek Road, resulting from the extraction of Longwalls 409 to 414 for the Extraction Plan Layout, is provided in Table 1. The predicted tilts provided in this table are the maxima after the completion of all the longwalls. The predicted curvatures are the maxima at any time during or after the extraction of the longwalls.

Table 1 Maximum Predicted Total Conventional Subsidence, Tilt and Curvature for the copper cables along Saddlers Creek Road Resulting from the Extraction of Longwalls 409 to 414

Maximum Predicted Total Conventional Subsidence (mm)	Maximum Predicted Total Conventional Tilt (mm/m)	Maximum Predicted Total Conventional Hogging Curvature (km^{-1})	Maximum Predicted Total Conventional Sagging Curvature (km^{-1})
1900	40	2.0	1.6

Predicted Strains

The prediction of strain is more difficult than the predictions of subsidence, tilt and curvature. The reason for this is that strain is affected by many factors, including ground curvature and horizontal movement, as well as local variations in the near surface geology, the locations of pre-existing natural joints at bedrock, and the depth of bedrock. Survey tolerance can also represent a substantial portion of the measured strain, in cases where the strains are of a low order of magnitude. The profiles of observed strain, therefore, can be irregular even when the profiles of observed subsidence, tilt and curvature are relatively smooth.

For this reason, the predicted strains have been based on statistical analyses of strains measured in the NSW Coalfields to account for this variability.

It has been found, for single-seam mining conditions, that applying a constant factor to the predicted maximum curvatures provides a reasonable prediction for the maximum normal or conventional strains. The locations that are predicted to experience hogging or convex curvature are expected to be net tensile strain zones and locations that are predicted to experience sagging or concave curvature are expected to be net compressive strain zones. In the Newcastle, Hunter and Western Coalfields, it has been found that a factor of 10 provides a reasonable relationship between the predicted maximum curvatures and the predicted maximum conventional strains, for single-seam mining conditions.

At a point, however, there can be considerable variation from the linear relationship, resulting from non-conventional movements or from the normal scatters which are observed in strain profiles. When expressed as a percentage, observed strains can be many times greater than the predicted conventional strain for low magnitudes of curvature.

The range of potential strains above the longwalls has been assessed using monitoring data from previously extracted panels in the Hunter, Newcastle and Western Coalfields, for single-seam conditions, where the longwall width-to-depth ratios and extraction heights were similar to those of the Extraction Plan layout.

The data used in the analysis of observed strains included those resulting from both conventional and non-conventional anomalous movements, but did not include those resulting from valley related movements. The strains resulting from damaged or disturbed survey marks have also been excluded.

For linear features such as roads, cables and pipelines, it is appropriate to assess the frequency of the maximum observed strains along whole monitoring lines, rather than for individual survey bays. That is, an analysis of the maximum strains measured anywhere along the monitoring lines, regardless of where the strain actually occurs.

The histogram of maximum observed total tensile and compressive strains measured anywhere along the monitoring lines, at any time during or after mining, is provided in Figure 2.

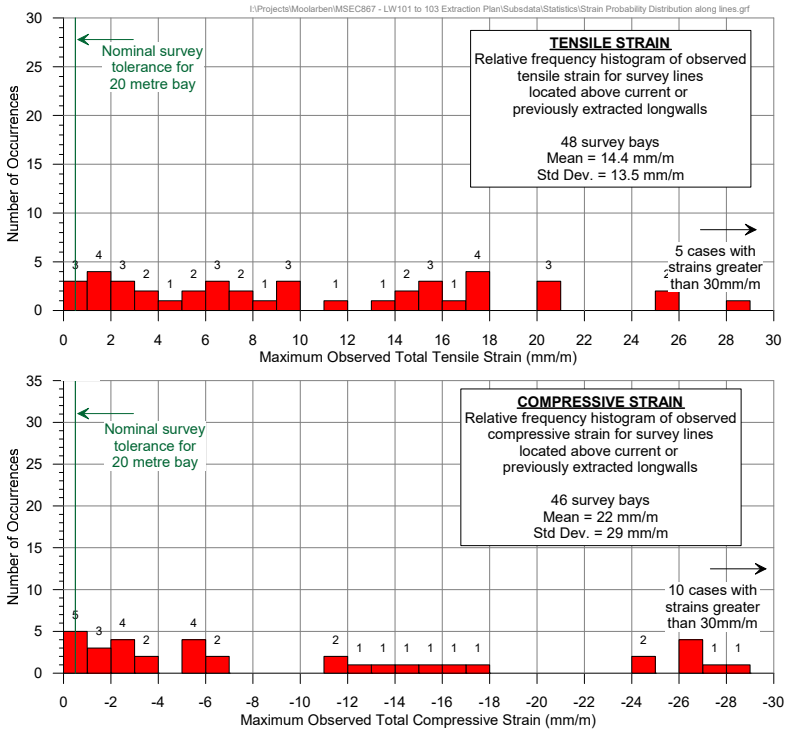

Figure 2 Distributions of Measured Maximum Tensile and Compressive Strains Anywhere along the Monitoring Lines in the Hunter, Newcastle and Western Coalfields

It can be seen from the above figure, that 24 of the 48 monitoring lines (i.e. 50 %) have recorded maximum total tensile strains of 10 mm/m, or less, and that 36 monitoring lines (i.e. 75 %) have recorded maximum total tensile strains of 20 mm/m, or less. Also, 20 of the 46 monitoring lines (i.e. 43 %) have recorded maximum compressive strains of 10 mm/m, or less, and that 28 of the monitoring lines (i.e. 60 %) have recorded maximum compressive strains of 20 mm/m, or less.

The predicted strains for the copper cables along Saddlers Creek Road are provided in Table 2. The values have been provided for conventional movements (based on 10 times the curvature) and for non-conventional anomalous movements (based on the statistical analysis provided above).

Table 2 Predicted Strains for the copper cables along Saddlers Creek Road based on Conventional and Non-Conventional Anomalous Movements

Type	Conventional based on 10 times Curvature (mm/m)	Non-conventional (mm/m)
Tension	20	20
Compression	16	20

Predictions of Strain Above Solid Coal

For the cables located outside the extracted longwalls, above solid coal, the survey database has also been analysed to extract the maximum tensile and compressive strains that have been measured at any time during mining for survey bays that were located beyond the goaf edges of the mined panels and positioned on unmined areas of coal, i.e. outside the longwall panels, but within 200 m of the nearest longwall goaf edge.

The histogram of the maximum observed tensile and compressive strains measured in survey bays above solid coal is provided in Figure 3. The probability distribution functions, based on the fitted Generalised Pareto Distribution (GPD), have also been shown in this figure.

The 95 % confidence levels for the maximum total strains that the individual survey bays *above solid coal* experienced at any time during mining are 3.3 mm/m tensile and 3.0 mm/m compressive. The 99 % confidence levels for the maximum total strains that the individual survey bays above solid coal experienced at any time during mining are 9.2 mm/m tensile and 14.4 mm/m compressive.

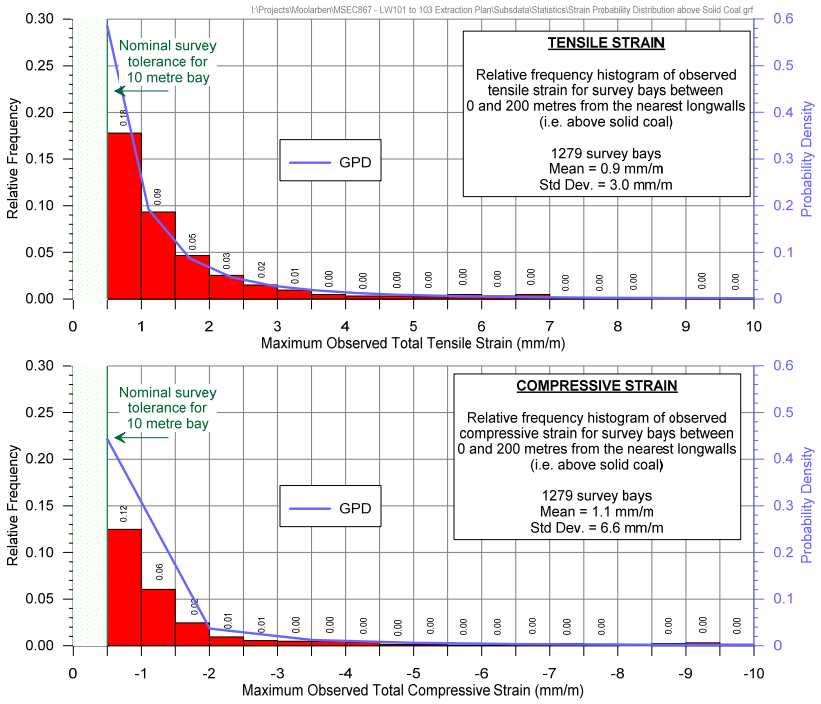

Figure 3 Distributions of the Measured Maximum Tensile and Compressive Strains in the Hunter, Newcastle and Western Coalfields for Survey Bays located above Solid Coal within 200 m of the nearest longwall

Potential for Non-Conventional Movements

It is believed that most non-conventional ground movements are the result of the reaction of near surface strata to increased horizontal compressive stresses due to mining operations. Some of the geological conditions that are believed to influence these irregular subsidence movements are the blocky nature of near surface sedimentary strata layers and the possible presence of unknown faults, dykes or other geological structures, cross bedded strata, thin and brittle near surface strata layers and pre-existing natural joints. The presence of these geological features near the surface can result in a bump in an otherwise smooth subsidence profile and these bumps are usually accompanied by locally increased tilts and strains.

Even though it may be possible to attribute a reason behind most observed non-conventional ground movements, there remains some observed irregular ground movements that still cannot be explained with the available geological information. The term “anomaly” is therefore reserved for those non-conventional ground movement cases that were not expected to occur and cannot be explained by any of the above possible causes.

It is not possible to predict the locations and magnitudes of non-conventional anomalous movements. In some cases, approximate predictions for the non-conventional ground movements can be made where the underlying geological or topographic conditions are known in advance.

The likelihood of non-conventional anomalous movements reduces with increasing distance away from the longwall panels.

4. Impact Assessment

Copper telecommunications cables can typically tolerate significant tensile ground strains of up to 20 mm/m without adverse impacts. The maximum predicted strains along the Saddlers Creek Road alignment are 20 mm/m but irregular strains are expected to occur and is it possible that the copper cables along Saddlers Creek Road could be impacted as a result of the proposed mining.

Extensive experience of mining beneath copper telecommunications cables in the NSW Coalfields, where the mine subsidence movements were similar to those predicted for the proposed mining, indicates that incidences of impacts is generally low and of a minor nature.

Based on this experience, it is unlikely that the proposed mining would result in any significant impacts on the copper telecommunications cables within the Study Area. Any impacts on these cables would be expected to be relatively infrequent and readily repairable.

The copper cables located outside the Study Area boundary are not expected to be subjected to measurable conventional vertical subsidence, tilt, curvature or strain. Based on the low magnitude of mine subsidence movements outside the Study Area boundary the development of adverse impacts to the copper cables due to extraction of Longwalls 409 to 414 is considered to be unlikely to occur.

It is recommended that monitoring and management strategies are developed, in consultation with Telstra, to manage the copper cables for potential irregular ground movements. It is expected that the cables can be maintained in serviceable condition with the implementation of the appropriate monitoring and management strategies.

5. Summary

Telstra owned copper cables are located along the alignments of Ulan Road and Saddlers Creek Road. The cables along Saddlers Creek Road are located within the Study Area for Longwalls 409 to 414 and will be mined beneath by Longwalls 412, 413 and 414.

The cables along Saddlers Creek Road will experience subsidence movement from the extracted longwalls as they are mine beneath and could experience impact to the cables. It is expected that impacts would be relatively infrequent and readily repairable. The cables along Ulan Road are not expected to be impacted by the extraction of Longwalls 409 to 414.

It is expected that potential impacts on the Telstra copper cables can be managed with the implementation of suitable monitoring and management strategies.

Yours sincerely

Peter DeBono

Attachments:
Drawing No. MSEC1426-03 – Longwalls 409 to 414 – Telstra Infrastructure

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MOOLARBENCOAL PART OF THE YANCOAL AUSTRALIA GROUP

MOOLARBEN COAL PROJECT

UG4 LW409 TO LW 414

TELSTRA

DATE:	SCALE:	DRAWING No:	Rev No
2 Aug 2024	as shown	MSEC1426-03	B

SCALE 0m 500m 1000m

GDA2020

762 000

764 000

6 432 000

6 430 000

6 428 000

LEGEND

- Inferred Extents of Unconsolidated Sediments
- Optical Fibre Cables
- Local copper cables

ULAN RD

SADDLERS CREEK RD

TILT RENEWABLES INFRASTRUCTURE

Goulburn River

Ulan Creek

COPPER TELECOMMUNICATIONS CABLES

LW409

LW410

LW411

LW412

LW413

LW414

Study Area

UG4

LW408

LW407

LW406

LW405

LW404

LW403

LW402

LW401

TRACK

MUDSTONE QUARRY

TELECOMMUNICATIONS TOWER

Bora Creek

UG1

ATTACHMENT 2

UG4 LONGWALLS 409 TO 414 BUILT FEATURES MANAGEMENT PLAN – TELSTRA
TRIGGER ACTION RESPONSE PLAN

Condition	Normal		Level 1	Level 2
	Baseline Conditions	**Predicted Impacts**	**Implement Management Measures**	**Restoration/Contingency Phase**
Trigger	Telecommunication cables are serviceable and repairable or as otherwise identified by pre-mining inspection.	Small far-field subsidence effects on telecommunication cables along Ulan Road. The telecommunication cables along Saddlers Creek Road are predicted to experience strains of up to 20 millimetres per metre.	Monitoring identifies impacts that are greater than predicted, but the performance indicator has not been exceeded and is not likely to be exceeded.	The performance indicator relevant to the telecommunication cables are exceeded, or are likely to be exceeded (i.e. loss of serviceability).
Action	Establish baseline data, including: • Pre-extraction subsidence survey as per the UG4 Longwalls 409 to 414 Subsidence Management Plan.	• Conduct monitoring as described in **Section 6**, including: – MCO to conduct ground survey of the subsidence effects monitoring 'SCR Line' and 'U Line'. Monitoring parameters include: – Easting; – Northing; – vertical subsidence; – tilt; and – tensile strain, and compressive strain.	Telstra will be notified in the event management measures are considered to be required. Management measures (e.g. stabilisation methods) implemented (with regard to the specific circumstances of the subsidence impact [e.g. the nature and extent of the impact]). Follow-up inspections will be conducted to assess the effectiveness of the management measures implemented and the requirement for any additional management measures.	Contingency Plan implemented (with regard to the specific circumstances of the subsidence impact). In summary: • The observation will be reported to the Underground Technical Services Manager and the Environment and Community Manager within 24 hours. • The likely exceedance will be reported in an Incident Report (refer to the Extraction Plan). • MCO will provide the Incident Report to relevant stakeholders (i.e. DPHI, the Resources Regulator and Telstra). • MCO will conduct an investigation to identify and evaluate contributing factors to the exceedance, including re-survey of the relevant subsidence monitoring lines, analysis of predicted versus observed subsidence parameters and a review of the subsidence monitoring program with updates to the program where appropriate. • An appropriate course of action will be developed in consultation with relevant stakeholders and government agencies including proposed contingency measures (**Section 9.1**), and a program to review the effectiveness of the contingency measures. • The course of action will be approved by, and implemented to the satisfaction of DPHI, Telstra and the Resources Regulator. • The LW409-414 BFMP-TELSTRA and the performance indicators will be reviewed to adequately manage future potential impacts within the limits of Project Approval (05_0117).
Frequency	• Prior to the secondary extraction of LW409.	• Ground survey of the subsidence effects monitoring 'U Line': – Within 1 month of first 300 m of secondary extraction of each LW409-412. • Ground survey of the subsidence effects monitoring 'SCR Line': – Prior to the secondary extraction of LW412. – Within 1 month of secondary extraction of 300 m past Saddlers Creek Road for each of LW412-414. • Subsidence impact inspection: – If/when ground movement exceeds the predicted subsidence monitoring parameters for LW409-414 during monitoring of the 'SCR Line' and 'U Line'. – At any time in case of fault or emergency and where requested by Telstra.	To be implemented as required (i.e. if monitoring identifies impacts that are greater than predicted, but the performance indicator has not been exceeded and is not likely to be exceeded).	To be implemented following identification of an exceedance of the performance indicator, or if the performance measure is likely to be exceeded (i.e. loss of serviceability).
Position of Decision Making	• Underground Technical Services Manager.	• Underground Technical Services Manager.	• Underground Technical Services Manager.	• Underground Technical Services Manager. • Telstra – Network Integrity/Central Field Consultant.