



ABN: 52 000 005 550

## **Part 2**

# **First Forward Program**

for

## **M(MO)L8 “Bunnygalore Quarry via Belanglo”**

for the period

1 August 2022 to 31 July 2025

*Compiled by:*



**R.W. CORKERY & CO. PTY. LIMITED**

August 2022





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## Part 2

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# M(MO)L8 “Bunnygalore Quarry via Belanglo”

1 August 2022 to 31 July 2025

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## PART 2 FORWARD PROGRAM

### 2.1 THREE YEAR FORECAST – SURFACE DISTURBANCE ACTIVITIES

#### 2.1.1 Project Description

The Bunnygalore Shale Quarry (the Quarry) is located on Lot 2 DP 630269 near Belanglo State Forest approximately 20km west of Bowral. The Quarry is owned and operated by The Austral Brick Company Pty Limited (Austral Bricks), under Mining (Mineral Owner) Lease 8 (M(MO)L8) and Development Application (DA) 325/90. It is noted that DA325/90 does not specify a project life or end date for extraction operations within the Quarry Site. Based on current production rates at the Quarry and the extent of known mineralisation, extraction operations at the Quarry are anticipated to be completed by 2028 following which final rehabilitation activities will be undertaken. However, the identification of further resources or modifications to the current production schedule may result in the actual completion date and therefore anticipated final rehabilitation and relinquishment being extended.

#### 2.1.2 Description of Surface Disturbance Activities

##### 2.1.2.1 Exploration Activities

Austral Bricks plans to undertake a targeted program of exploration during 2022/2023 to determine the extent of resources within and adjacent to M(MO)L8 for a potential extension to the approved extraction area, which would be the subject of a future application to modify DA325/90.

Prospective targets identified will be tested by drilling. Given the targeted depths, which could range from 30m to 50m below surface, a combination of diamond and percussion drilling will be the primary method of drilling.

Prior to commencement of any ground-disturbing exploration activities, all necessary approvals would be sought. Any exploration-related disturbance outside of the current limit of disturbance will be rehabilitated in accordance with the *Exploration Code of Practice – Rehabilitation* published by the NSW Resources Regulator.

##### 2.1.2.2 Construction Activities

No construction activities are anticipated to be undertaken during the Forward Program period.

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### 2.1.2.3 Mining Schedule

#### Extraction Sequencing

Extraction operations will continue to be undertaken on a campaign basis using earthmoving contractors. Each campaign will consist of the following.

- Clearing of vegetation using a bulldozer or similar, with the blade positioned just above the surface. The vegetation will be temporarily stockpiled adjacent to the extraction area for use in progressive rehabilitation activities.
- Soil material will also be stripped using a bulldozer and temporarily stockpiled adjacent to the active extraction area for progressive rehabilitation activities.
- Drilling and blasting of overlying sandstone (overburden).
- Relocation of sandstone into completed sections of the extraction area and shaping to form the final landform (see Section 2.2.4). Sandstone will preferentially be pushed using a bulldozer, however, load and haul will also be utilised, as required.
- Drilling and blasting of white-firing shale.
- Stockpiling of raw materials within the extraction area and / or the stockpiling area.
- Progressive loading and transportation of raw materials to the Austral Bricks' brick and paver plants using a front-end loader and road-registered trucks.

Blasting campaign will typically be undertaken on an annual to 3 yearly basis and involve blasting in the order of 20 000t to 50 000t of material per blast dependent on demand and campaign cost efficiencies. Notably, in accordance with the requirements of DA325/90, production is limited to an average of 2 000t per month calculated over a 12-month period.

As a blasting campaign was undertaken immediately prior to the Forward Program period, it is currently anticipated that there will be no further extraction campaigns during this Forward Program period. Raw materials will continue to be transported from the stockpile on the floor of the extraction area.

**Table 1** presents the indicative material production schedule forecast for the next three years.

**Table 1**  
**Material Production Schedule During the Next Three Years**

Material	Unit	Year 1	Year 2	Year 3
Stripped topsoil (if applicable)	bcm	0	0	0
Rock/overburden	bcm	0	0	0
Ore	bcm	N/A	N/A	N/A
Reject Material	bcm	N/A	N/A	N/A
Product	t	0	0	0



## **Waste Disposal**

As no extraction is expected during the Forward Program period no further overburden material will be generated. Any equipment maintenance required will preferentially be undertaken off site. However, should any equipment repair or maintenance be required on site, all wastes generated will be removed by a suitably licenced contractor for off-site disposal and/or recycling.

Non-production wastes generated on site during the Forward Program period will principally be limited to general wastes generated by employees (e.g. food scraps, paper, cardboard, aluminium and steel cans). Lunch waste and other general waste will continue to be removed each day by employees for off-site disposal.

## **2.2 THREE YEAR REHABILITATION FORECAST**

### **2.2.1 Rehabilitation Planning Schedule**

Given the scale of the Quarry and consultation undertaken as part of the preparation of Version 1 of the RMP no further stakeholder consultation is currently planned or considered necessary during the next 3 year period.

No additional studies, risk assessments or design work are currently planned with regard to the final landform, water management or rehabilitation methodologies over the next 3 year period.

### **2.2.2 Rehabilitation Research and Trials**

Given that the methodologies to achieve rehabilitation of completed areas of the active extraction area can be considered successful and will be utilised for rehabilitation of the remainder of the Quarry Site, no rehabilitation research or trials are planned.

### **2.2.3 Rehabilitation Maintenance and Corrective Actions**

As this is the first Forward Program for the Quarry and an Annual Rehabilitation Report has not been prepared, no rehabilitation performance issues or knowledge gaps identified in an Annual Rehabilitation Report are noted. Notwithstanding, previous rehabilitation activities at the Quarry have proved successful with no specific maintenance or corrective actions identified.

### **2.2.4 Rehabilitation Schedule**

Quarrying activities will be focused on the retained disturbance area using existing established access roads. No new disturbance is planned over the next three-year period. However, progressive rehabilitation including landform shaping, spreading of growth medium and hydromulching will be undertaken during the next year. The rehabilitation schedule is shown in **Plans 2A, 2B and 2C**.

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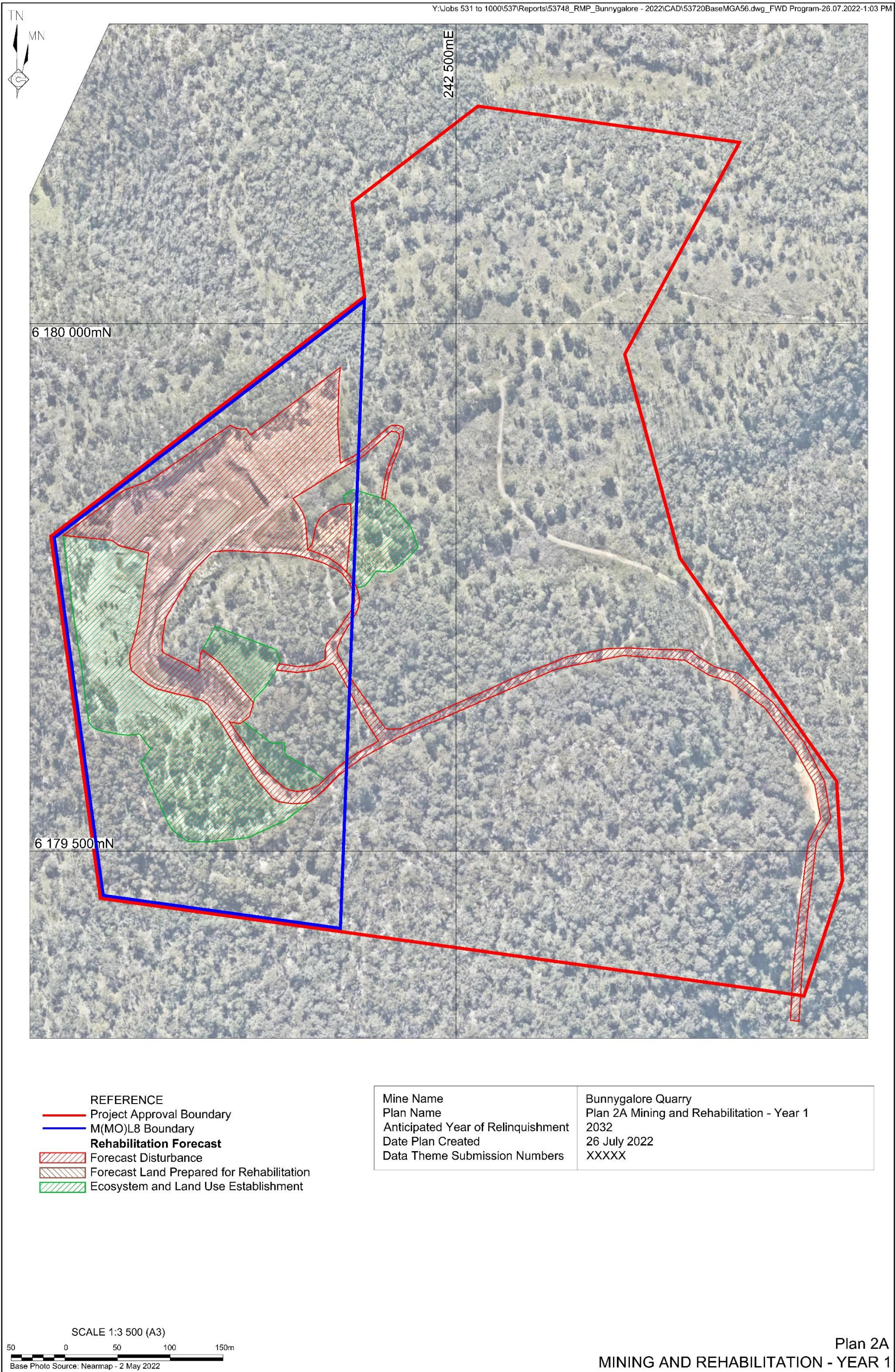
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### **2.2.5        Subsidence Remediation for Underground Operations**

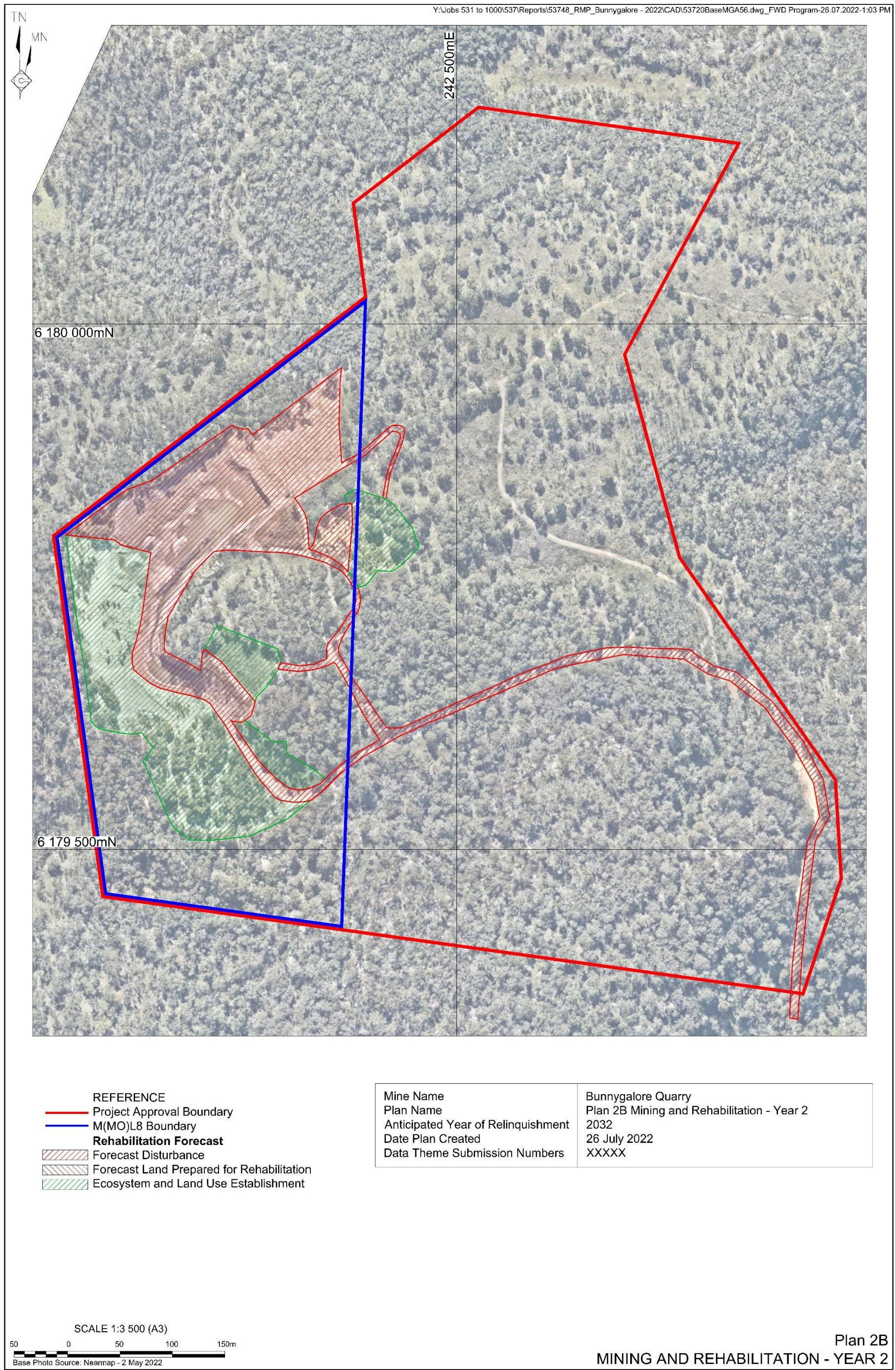
As no underground operations are conducted as part of the Quarry's operations, no subsidence remediation is required.

## **2.3            PLAN 2 – MINING AND REHABILITATION THREE YEAR FORECAST**

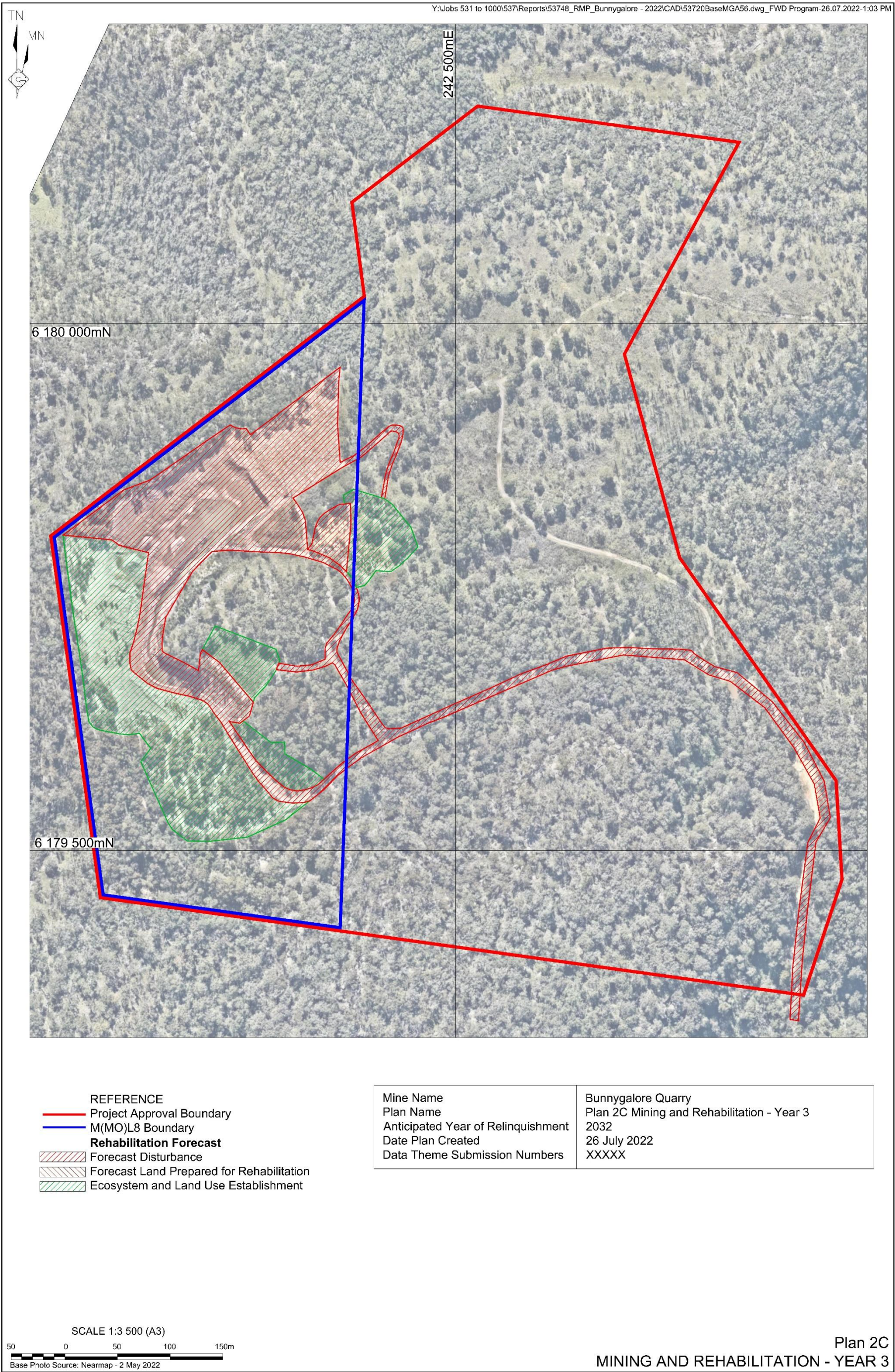














## 2.4 PROGRESSIVE MINING AND REHABILITATION STATISTICS

### 2.4.1 Three Yearly Forecast Cumulative Disturbance and Rehabilitation Progression

No further disturbance is planned over the next three-year period. A total of 7.4ha of surface disturbance, and a total of 2.0ha of rehabilitation has been completed to date with a further 1.3ha to be rehabilitated during Year 1 of this Forward Program. **Table 2** presents a summary of the predicted cumulative disturbance and rehabilitation progression during the next three-year period.

**Table 2**  
**Predicted Cumulative Disturbance and Rehabilitation Progression during the next Three-Year Term**

	Year 1	Year 2	Year 3
Total disturbance footprint – surface disturbance (ha)	7.4	7.4	7.4
Underground mining area (ha)	N/A	N/A	N/A
Total active disturbance (ha)	4.1	4.1	4.1
Rehabilitation – land preparation (ha)	0	0	0
Ecosystem and land use establishment (ha)	3.3	3.3	3.3

### 2.4.2 Rehabilitation Key Performance Indicators

No further active disturbance or rehabilitation activities will be undertaken over the next three-year period, as presented in **Table 3**.

**Table 3**  
**Progressive Rehabilitation Key Performance Indicators during the Next Three-Year Term**

	Year 1	Year 2	Year 3
Total new active disturbance area during reporting period (ha)	0	0	0
Area of land proposed for active rehabilitation during reporting period (ha)	1.3	0	0
Annual Rehabilitation to Disturbance Ratio	0:1.3	NA	NA

## 2.5 REHABILITATION COST ESTIMATE

In accordance with the *Form and Way – Annual Rehabilitation Report and Forward Program for Large Mines*, an updated Rehabilitation Cost Estimate for the Quarry prepared based on the “maximum disturbance within a term” method is included below.

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