GRAYMONT

Annual Rehabilitation Report

Galong, NSW

2022

Name of Mine	Galong Limestone Mine
Titles/Mining Leases	ML 1496 and ML 1745
ARR Commencement 17 May 2021	**ARR Completion** 16 May 2022
Name of Leaseholder	**Graymont (NSW) Pty Ltd** Lot 342 Eubindal Road Galong NSW 2585 Ph 02 6380 5100 Fax 02 6380 5199
Reporting Officer **Title** **Signature and Date**	Mr Wayne Trenning Plant Manager, Galong Wayne Trenning Digitally signed by Wayne Trenning Date: 2022.07.14 14:41:40 +10'00'
Environmental Co-ordinator **Title** **Signature and Date**	Ms Nicole Sullivan HSE Specialist 14/07/2022

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1 Introduction

1.1 Scope

This document, referred to as the Annual Rehabilitation Report (ARR), has been prepared to report on the Galong Limestone Mine & Kiln mine operator's activities within the twelve-month period of the anniversary of the Environmental Protection Licence. The ARR addresses the site's present compliance obligations and status, activities of the past twelve-month period and proposed activities for the next twelve-month period.

This report is circulated to:

- NSW Department of Resources
- NSW Resources Regulator
- NSW Environment Protection Authority
- Hilltops Council
- NSW Department of Primary Industries – Water

1.2 Background Information and Mining History

The Galong limestone mine operates within Mining Lease (ML) 1496 and ML 1745, which covers an area of 160Ha and 43.43Ha respectively. ML 1496 extends over Lots 102 in DP1083781, Lot 139 in DP753593 and Lot 2 in DP1175189, Parish of Bobbara whilst ML 1745 extends over Lot 102 in DP1083781 and Lot 2 in DP1175189. ML 1496 and ML 1745 are located approximately 20km southwest of Boorowa and 40km northwest of Yass. ML 1496 also incorporates approximately one kilometre of Crown Road reserve.

ML 1496 was granted 16 November 2001 for a period of 21 years and was renewed in February 2022 for a further 21 years; current expiry date is 15 November 2043. ML 1745 was granted on 21 October 2016 for a term of 21yrs, current expiry date 21 October 2037. Activities covered by tenure are stockpiling of various products, mineral processing and waste emplacement / stockpiling. No mining is to occur or be undertaken on ML 1745.

In the early 1900s mining commenced at the Galong Limestone deposit, where the extracted lime was fired in kilns to produce burnt lime for the building and agricultural industries. This discontinued in 1962.

In the late 1960's campaign mining commenced at the site to produce limestone for road construction.

In June 1993, Barnu Pty Ltd commenced mining of the site on a permanent basis and established a crushing and grinding facility on the site of, and extending from, the former open cut.

In 1995, Barnu Pty Ltd acquired Placer's interest in the mine and over the next five years, constructed two additional mills. Production from the mine during this time increased from approximately 30,000 tonnes in 1994-95 to approximately 140,000 tonnes in 2000-2001.

In 2003 approval was granted for DA-317-7-2003-i, for the construction and operation of a limestone kiln to produce 200,000tpa of quicklime. In October 2011, due to the closure of No. 6 blast furnace at Port Kembla, the processing plant, kiln and quarry was placed into "Care & Maintenance", and only Ag & Fine ground limestone and road base products were produced from the Galong site by drawing down from existing stockpiles of minus 50mm product mined in previous years.

In May 2012, Sibelco Australia Limited purchased the Galong site from Barnu Pty Ltd. This purchase included the processing plant, kiln & limestone quarry. Active mining operations began in 2013. In April 2019, the leases were transferred from Sibelco Australia Limited to Sibelco Lime (NSW) Pty Ltd.

Following the acquisition of Sibelco's lime companies and assets on 01 August 2019, Sibelco Lime (NSW) Pty Ltd changed its name to Graymont (NSW) Pty Ltd.

1.3 Mine Contacts

Contact details for the current Mine Manager and other responsible personnel are set out in Table 1 below.

Table 1 – Key Graymont Contacts

Plant Manager Galong	**Mr Wayne Trenning**
Contact Number	(02) 6380 5100 business hours
After Hours	0448 912 330
Graymont Environmental Manager:	**Mr Don Cheong**
Contact Number:	0427 525 790
HSE Specialist Galong:	**Ms Nicole Sullivan**
Contact number:	(02) 6380 5107 business hours 0438 016 563

1.4 Consents, Lease, Approvals and Licences

Galong Limestone Mine has a number of statutory approvals, leases and licences that regulate its mining and related activities. The current status of Graymont Galong's statutory approvals is listed in Table 2.

Table 2 – Consents, Lease, Approvals and Licences

Consents	**Consent Authority**	**Approval Date – Expiry Date**
Development consent **DA T.03-025 Mod 2 issued 17th April 2014** To alter the existing area of mining operations. The expansion of the mine and increased production for a period of forty (40) years. The consent allows for the production of 500,000tpa limestone for forty (40) years and the transport of 200,000tpa of crushed and processed limestone product including lime along designed transport routes. **DAT.03-025 Mod 3 issued 15th July 2015** Increased dispatch limits to allow a maximum of 310,000 tonnes to be transported on haulage routes. **DA T.03-025 Mod 4 issued 27th March 2019** Increased dispatch limits to allow a maximum of 430,000 tonnes to be dispatched upon the upgrade of Galong	Hilltops Council	Approval: 17th December 2003 Expiry: 16th December 2043

Road and completion of Burley Griffin Way intersection upgrade.		
Development consent **DA T.07-033** For construction of an alternative transport route around Galong and to increase the annual rate of limestone extraction and transportation of product to 665,000tpa	Hilltops Council	Approval: 19th May 2010
Development Consent **DA 2020/0208** For construction and operation of a solar energy system (1MW)	Hilltops Council	Approval: 27th April 2021
Development Consent **DA-317-7-2003-i** For the construction and operation of a limestone kiln to produce 200,000tpa of quicklime.	Dept. Planning & Environment	Approval: 11th December 2003
Complying Development Certificate **CD 04 – 2017** The upgrade of processing equipment to produce Hydrated lime. Processing equipment to be upgraded includes the following: • Hydrator plant & building • Material transfer equipment • Storage silos x 6 • Bagging plant & packaging equipment • Weighbridge	Hilltops Council	Approval: 11th September 2017 Expiry: 11th September 2022
Approvals	**Approval Authority**	**Approval Date – Expiry Date**
Approval to operate **OSM 479** An onsite wastewater management system (WWMS)	Hilltops Council	Approval: 13th October 2016 Expiry: 13th October 2021 – Graymont is engaging with Council to renew this approval.
Lease	**Granting Authority**	**Approval Date – Expiry Date**
Mining Lease (ML) **No. 1496**	Dept. Of Mineral Resources	Approval: 16th November 2001 Expiry: 15th November 2043

Mining Lease (ML) **No. 1745**	Dept. Of Industry - Resources and Energy	Approval: 21st October 2016 Expiry: 21st October 2037

Licenses	Licensing Authority	Approval Date – Expiry Date Further Comments
EPL number 4660 Lime works for between 100,000 and 250,000tpa of production, crushing, grinding or separating actives and between 100,000 and 500,000tpa of minerals obtained by mining.	EPA	17th May (Anniversary)
U6-95313/07/0 LGP Tanks Cert. Of Plant Item Registration	SafeWork NSW	Registration is renewed annually. This process is the responsibility of the tank's controller, Elgas Ltd.
WAL 30047 Water Access Licence	WaterNSW	Issued: 19th December 2012
40CA411901 Water Supply Works & Water Use Approval. Annual extraction of 157 mega litres.	WaterNSW	This approval relates to WAL 30047 and is attached to Lot 102, DP1083781 Issued: 16th January 2012 Expires: 15th January 2025
WAL 28703 Water Access Licence	WaterNSW	Issued 19th October 2021
40CA411879 Water Supply Works & Water Use Approval	WaterNSW	This approval relates to WAL 28703 and is attached to Lot 102, DP1083781 Issued: 16th January 2012 Expires: 15th January 2025
40BL192612	WaterNSW	Issued: 1st March 2013

The freehold land underlying the mine (Lot 102 DP1083781) was purchased by Graymont in 2021.

1.5 Compliance Changes/Updates during the current Reporting Period

Mining Operation Plan

During this ARR period the site operated under the Mining Operations Plan (MOP) for the Galong Limestone Mine. The current MOP was approved on 16 April 2021 and expired on 02 July 2022. Rehabilitation Management Plan is under development, scheduled for completion August 2022. . A minor amendment to the MOP for stripping of overburden was approved 22 April 2022.

2 Operations During the Reporting Period

This section details all operations carried out on site during the reporting period; undertaken in accordance with the license conditions detailed in Table 2 above.

2.1 Exploration

No exploration activities took place during the reporting period.

2.2 Land Preparation

During this reporting period no land preparation that required permits was undertaken.

2.3 Construction

During the ARR reporting period Graymont completed Construction activities on a 1 megawatt solar farm on the site, supplementing the site's electricity supply with renewable energy, equivalent to 1,642 tonnes of CO_2 emissions per year. Development consent for the proposal was granted by Hilltops Council in April 2021. A heritage assessment was completed, and due to the identification of heritage items within the proposed location of the solar farm, the proposal was modified to avoid impacts. The solar farm was commissioned in May 2022.

2.4 Mining

Mining activities were undertaken during the reporting period in accordance with the current Mining Operations Plan. Each aspect of mining, as detailed in the current approved MOP, are outlined below. Table 4 provides the production and mining waste figures for the reporting period in addition to production and mining waste figures estimated for the following ARR reporting period.

2.4.1 Drill and Blast

The mining method employed during the reporting period was conventional drill and blast. This was complemented with load, haul and dump operations utilising excavator, front-end loaders and haul trucks.

During the reporting period a total of 5 drill and blast sessions were undertaken in the pit. Drill and blasting operations are undertaken by engaging a licenced blasting contractor (with appropriately licenced shot firer) to deliver and charge the holes on blast day. The blasts undertaken during the reporting period were for various purposes, including:

- ROM Production for Aglime & Kiln stone Feedstock
- Clearing away toe rock

2.4.2 Reclaim Activities

No reclaim activities were undertaken in the last reporting period.

Table 3 – Production and Waste Summary

	Cumulative Production (cubic metres)		
	To Reporting Period	Current Reporting Period	End of next Reporting (estimated)
Topsoil stripped	26,500	26,500	31,500
Topsoil used/spread	0	0	0
Waste Rock	1,426,275	1,583,250	1,700,000
Ore	2,522,409	2,838,454	3,200,000
Processing Waste	0	0	0
Product	2,508,788	2,833,543	3,600,000

2.5 Mineral Processing

All mineral processing activities occurred in accordance with the current Mining Operations Plan during this ARR reporting period.

2.5.1 Lime Kiln

During this ARR period the kiln was not operational due to maintenance and reline during the period November 2021 to June 2022.

2.5.2 Hydrator

During this ARR period the Hydrator was fully operational.

2.6 Waste Management

During this ARR reporting period disposal of mining waste continued in accordance with the current approved Mining Operations Plan.

Domestic and light industrial waste continued to be collected in rubbish bins and removed periodically by an approved waste contractor.

Site waste oils and greases that are stored within waste oil containment are collected periodically by the specialised waste services contractor. This contractor also provided services to collect conventional recycling, as well as specialised collection for e-waste and laboratory chemicals.

Scrapped equipment and parts are stored in the nominated lay-down area for subsequent parts removal and or dispatched to scrap metal recyclers.

The Resources Regulator raised concern in relation to the deposition of lime kiln dust on the overburden stockpile. Mitigation actions were taken to clearly designate the lime kiln dust storage area and an amendment to the MOP was made to reflect the activities on site. This change was submitted and approved. A waste exemption application is underway for submission to the EPA, to permit sale of the material. Lime kiln dust is used extensively throughout North America in agricultural and construction applications.

2.7 Ore and Product Stockpiles

In accordance with the Mining Operations Plan ore and product stockpiling continued. See Appendix A – Galong Site Map for specific locations during the reporting period.

2.7.1 Aglime

During the reporting period, there were two Aglime product stockpiles: -250um Aglime and 1mm Aglime. Both Aglime stockpiles were developed at the western end of site and were located deep in the Rear Stockpile.

2.7.2 Plant Feed

Stockpiles to supply the Ag mills are maintained of size - 45mm and size - 20mm crushed rock. The main -45mm size crushed rock stockpile has been developed east of the pit, near the pit entrance. Size - 20mm crushed rock stockpiles are located south of the Ag mill shed and are used to feed the mills.

2.7.3 Road Base

There are two stockpiles of size - 20mm crushed rock for use as road base or aggregate product. These stockpiles are located near the entrance to the Rear Stockpile.

2.7.4 Kiln Stone

During this ARR reporting period higher quality stone for the kiln continued to be produced and stockpiled at the entrance to the Rear Stockpile.

2.8 Water Management

Water is managed in accordance with the Water Management Plan. This plan is routinely updated as required.

Surface water regionally flows north. Plant stormwater, wastewater and surface water which flow from the waste dump and stockpile areas are collected in a series of sediment retention dams. Surface water flows into the pit is minimised by bund structures. The site does not have an EPL license to discharge water.

Pit water is predominantly groundwater but includes a rainfall/surface water component. Pit water is pumped to tanks for redistribution to site, Bobbara Station and Limestone Creek. The tanks overflow into a sediment retention dam

Regional groundwater flows north in the limestone aquifer but locally drains under gravity into the pit. Groundwater flow is in fractures with measurable flows associated with faulting.

2.8.1 Water Supply and Use

Pit water is supplied to site, Bobbara Station (neighbouring property) and Limestone Creek. Water supplied to site is used for dust suppression, truck wash, general site cleaning, Plant operations and ablutions. Water use is metered with records kept as per licence conditions.

The site operates under a water sharing agreement with Bobbara Station to transfer additional water not required for operations for Bobbara Station to utilise for irrigation purposes. The water sharing agreement was updated as part of the land purchase in 2021. In June 2020, 150 mega litres of allocation were transferred to the Galong Water Access Licence 30047. Total available licence allocation for dewatering is 494 mega litres. The following table shows volumes and usage during the reporting period:

Table 4 – Water Use on Site and off Site 2021/2022

USE IN MEGALITRES		
LOCATION	**THIS PERIOD**	**PREVIOUS PERIOD**
BOBBARA	62.3	105.4
LIMESTONE CREEK	87.6	0
SITE USE	125.1	123.9
TOTAL EXTRACTION	275.0	229.3

2.9 Hazardous Material Management

There were no changes to hazardous materials management during the reporting period.

2.10 Other Infrastructure Management

Not applicable.

3 Environmental Management and Performance

3.1 Air Pollution

Kiln Stack Air Emissions

During this ARR reporting period the Kiln was not operational for the period 8th November 2021 to 3rd June 2022 due to unplanned repairs of the refractory, therefore no air emission monitoring was able to be undertaken for this reporting period. Testing will recommence in August 2022 and then annually moving forward.

Hydrator Stack Emissions

Stack emission testing was conducted as per the agreement with the EPA, as described in letter dated 12th July 2018. Testing of the hydrator was last undertaken on 2nd February 2021 during the previous reporting period and returned total solid particles result of <10mg/m3 , which is below the hydrator performance standard (10mg/m^3) and falls below the total solid particles standard of concentration (50mg/m^3; schedule 4 of the *Protection of the Environment Operations (Clean Air) Regulation 2010*). Testing of the hydrator stack is undertaken by site as required.

Dust Deposition

EPA licence conditions require that the site must be maintained in a condition which minimises or prevents the emission of dust from the premises. Graymont minimises site dust by kiln emission controls and truck watering.

Dust deposition gauge monitoring is utilised to assess the potential for Graymont mining activities to cause nuisance dust in the community. Monthly sampling and analysis are undertaken of rainwater and dust collected in dust deposition gauges. Total Solids, Insoluble Solids, Soluble Solids, Combustible Material and Ash Content are determined from laboratory analysis. Activities that influence environmental dust are reflected in ash content, which is an indicator of the mineral constituent of the dust. Insoluble solids are indicative of soil or rock particles. The monitoring results are reviewed against the EPA nominal total solid monthly trigger value of 4g/m^2.

Dust monitoring was carried out and the results were made available on the Graymont website. Dust monitoring was not undertaken from August to October due to the absence of an environmental Specialist, normally responsible for collecting required samples. The Graymont ECATS online reporting system was also not operational to provide warnings of overdue actions to site management.

The HSE Specialist role has now been filled and monitoring requirements are included in the ECATS system which is now operational. A map detailing the 4 dust deposition gauges located outside the mining lease on Bobbara Station land is provided as Appendix B. The deposition gauges are listed below: A map detailing the 4 dust deposition gauges located outside the mining lease on Bobbara Station land is provided as Appendix B. The deposition gauges are listed below:

- DG1: *Top of Bund*
- DG2: *Next to House*
- DG3: *Along Road*
- DG4: *Galong*

Two of the four gauges, DG2 and DG3, are positioned to measure dust exposure to the closest community receptors. DG1 is the closest to the mine and is used to determine the level of dust generated from the mine. DG1 is also a reference station for DG2, and the comparison of the two stations assists in determining the source of dust being generated along the North-West and South-East prevailing wind quadrants. DG4 is a background station, and is the closest location to Galong village, and is used to determine if dust is a regional event and therefore not related to the site.

Dust monitoring results are presented in Table 6 and accompanying figure below, with the results above the trigger value highlighted.

Table 5 – Dust Monitoring Results 2021/2022

DUST DEPOSITION GAUGE MONITORING RESULTS 2021/2022									
Lab Ref #	Sample Point & Sample ID	Month	Volume Sampled	Ash Content	Combustible Matter	Total Soluble Matter	Total Insoluble Matter	Total Solids	Adjusted
			mL	g/m².month	g/m².month	g/m².month	g/m².month	g/m².month	Total Solids
									g/m².month
CA2107281001	DG 1- Top of Bund	Nov-21	1980	0.99	1.3	<0.2	2.3	2.3	2
CA2107281002	DG 2 - Next to House	Nov-21	2000	1.14	2.3	<0.2	3.4	3.4	3.1
CA2107281003	DG 3 - Along Road	Nov-21	2000	2.09	2.3	<0.2	4.4	4.4	4.1
CA2107281004	DG 4 - Galong	Nov-21	1960	1.07	0.9	<0.2	2	2	1.7
CA2200494001	DG 1- Top of Bund	Jan-22	1800	0.59	0.5	<0.2	1.1	1.1	0.8
CA2200494002	DG 2 - Next to House	Jan-22	1800	0.76	1.4	<0.2	2.2	2.2	1.9
CA2200494003	DG 3 - Along Road	Jan-22	1740	1.11	4.2	11.2	5.3	16.5	16.2
CA2200494004	DG 4 - Galong	Jan-22	1900	0.17	0.5	<0.2	0.7	0.7	0.4
CA2201563001	DG 1- Top of Bund	Feb-22	1000	0.52	0.3	0.6	0.8	1.4	1.1
CA2201563002	DG 2 - Next to House	Feb-22	840	0.68	0.4	0.5	1.1	1.6	1.3
CA2201563003	DG 3 - Along Road	Feb-22	1460	0.51	0.5	<0.2	1	1	0.7
CA2201563004	DG 4 - Galong	Feb-22	1300	1.65	0.8	<0.2	2.5	2.5	2.2
CA2202383001	DG 1- Top of Bund	Mar-22	570	0.39	0.2	<0.2	0.6		
CA2202383002	DG 2 - Next to House	Mar-22	460	2.33	1.7	<0.2	4		
CA2202383003	DG 3 - Along Road	Mar-22	900	0.99	1.1	<0.2	2.1		
CA2202383004	DG 4 - Galong	Mar-22	350	0.77	0.6	<0.2	1.4		
CA2203873001	DG 1- Top of Bund	May-22	1700	0.27	0.3	<0.2	0.6	0.6	0.3
CA2203873002	DG 2 - Next to House	May-22	1780	0.6	0.8	<0.2	1.4	1.4	1.1
CA2203873003	DG 3 - Along Road	May-22	2000	0.62	0.4	0.6	1	1.6	1.3
CA2203873004	DG 4 - Galong	May-22	1900	0.89	0.3	<0.2	1.2	1.2	0.9

3.1.1 Air Pollution – Interpretation of Results

Dust Total Solids results have been adjusted by 0.3 g/m².to consider combustible matter (organic matter), likely to have come from neighbouring agriculture.

On two occasions dust solids above the EPA nominal total solids trigger level of 4g/m² were recorded. There are no licence limits for total solids.

There were no dust-related complaints raised in the reporting period.

3.1.2 Reportable Incidents

During this ARR reporting period no incidents were required to be reported to the Environmental Protection Authority (EPA).

3.2 Erosion and Sediment

There were no changes made to the site's erosion and sediment control plan during the reporting period. Impermeable retention and sediment basins, diversion channels and bunds are maintained to prevent the development of erosion and prevent sediment impact to undisturbed land. There were no signs of erosion detected during routine inspections of the site.

Surface water within the site is intercepted by sediment basins. The sediment basins are designed to enable the discharge of water to Limestone Creek during high rainfall in the event that site water infrastructure is full, and Bobbara Station decline the transfer of additional water under the water sharing agreement. Sediment basins did not reach a height where discharge to the creek was required.

3.3 Surface Water Pollution

Surface water onsite continued to be managed by directing water either to the sediment basins or into the mine void. Clean offsite runoff was directed northwards around the site towards Limestone Creek using farm contour banks and dams. These controls continue to be monitored to ensure that are maintained in good order.

Surface water quality continued to be monitored by the analysis of samples taken from off site and onsite sampling stations. As indicated in Appendix C, the sampling locations are as follows:

Off-site locations are

- A Upstream,
- C Downstream.

Onsite sampling stations are:

- B Pit,
- D Settling Dam.

Sampling in August, September, and October, was not undertaken due to the HSE Specialist role being vacant. Off-site water sampling is restricted by the ephemeral nature of Limestone Creek.

A summary of key pit surface water parameters is provided below and surface water quality results are shown in Table 7.

- pH ranged from 7.53 to 8.15
- electrical conductivity ranged from 598 to 792 µS/cm
- total suspended solids ranged from 4 to 13 mg/L
- nitrate ranged from 7.7 to 15.2 mg/L
- Oil/Grease was not detected in any water samples.

Table 6 – Surface Water Results 2021/2022

SURFACE WATER MONITORING RESULTS 2021/22															
Location	Sample Date	pH	EC uS/cm	TDS mg/L	SS mg/L	Turbidity NTU	Iron mg/L	Zinc mg/L	Cd mg/L	Cu mg/L	Lead mg/L	Nitrate as N mg/L	TKN mg/L	TN mg/L	P mg/L
A Upstream	May-21														
B Pit	May-21	7.50	976	643	<2	1	<0.01	<0.005	<0.0002	<0.0001	<0.0002	9.0	0.5	9.4	<0.02
C Downstream	May-21	7.86	811	517	19	6	<0.01	<0.005	<0.0002	<0.0001	<0.0002	9.0	0.8	9.9	<0.02
D Settling Dam	May-21	7.81	740	449	6	6	0.01	<0.005	<0.0002	<0.0001	<0.0002	7.6	0.1	8.3	<0.02
A Upstream	May-21														
B Pit	May-21	7.50	976	643	<2	1	<0.01	<0.005	<0.0002	<0.0001	<0.0002	9.0	0.5	9.4	<0.02
C Downstream	May-21	7.86	811	517	19	6	<0.01	<0.005	<0.0002	<0.0001	<0.0002	9.0	0.8	9.9	<0.02
D Settling Dam	May-21	7.81	740	449	6	6	0.01	<0.005	<0.0002	<0.0001	<0.0002	7.6	0.1	8.3	<0.02
A Upstream	Jun-21	7.35	718	481	5	19.1	0.07	<0.005	<0.05	<0.0001	<0.0002	4.84	0.63	5.55	0.02
B Pit	Jun-21	7.53	598	396	4	1.2	<0.01	<0.005	<0.05	<0.0001	<0.0002	7.70	3.78	11.6	0.02
C Downstream	Jun-21	7.57	712	461	6	17.1	0.06	<0.005	<0.05	<0.0001	<0.0002	3.05	2.02	5.22	0.02
D Settling Dam	Jun-21														
A Upstream	Jul-21														
B PIT	Jul-21	7.64	792	579	13	4	<0.01	<0.0005	<0.001	<0.002	<0.005	9.28	0.40	9.68	0.03
C Downstream	Jul-21	8.08	923	634	7	6	0.02	<0.0005	<0.001	<0.002	<0.005	5.29	0.74	6.06	0.02
D Settling Dam	Jul-21	7.14	650	506	20	11	<0.01	<0.0005	<0.001	<0.002	<0.005	14.2	0.10	14.5	0.02
A Upstream	Nov-21	8.15	724	500	8	0	<0.01	<0.0005	<0.001	<0.002	<0.005	15.2	1.00	16.2	0.02
B PIT	Nov-21	7.95	729	492	12	5	0.02	<0.0005	<0.001	<0.002	<0.005	9.9	0.70	10.7	<0.02
C Downstream	Nov-21	8.10	2160	1440	35	15	0.01	<0.0005	0.001	<0.002	0.016	<0.05	2.49	2.49	0.37
D Settling Dam	Nov-21	8.10	712	454	14	6	<0.01	<0.0005	<0.001	<0.002	<0.005	12.9	0.70	13.7	<0.02
A Upstream	Jan-22	8.13	1200	914	12	2	0.07	<0.0005	0.001	<0.002	<0.005	0.06	1.52	1.58	0.15
B PIT	Jan-22														
C Downstream	Jan-22	8.13	910	724	4	2	0.03	<0.0005	<0.001	<0.002	<0.005	3.23	0.15	3.41	<0.02
D Settling Dam	Jan-22	8.18	239	189	18	25	0.01	<0.0005	0.001	<0.002	<0.005	0.46	1.67	2.36	<0.02
A Upstream	Feb-22	8.40	1320	836	5	1	0.04	<0.0005	0.001	<0.002	<0.005	<0.05	1.22	1.22	0.05
B PIT	Feb-22														
C Downstream	Feb-22	8.08	543	306	14	16	0.1	<0.0005	<0.001	<0.002	<0.005	3.69	0.44	4.17	0.02
D Settling Dam	Feb-22	8.02	604	425	4	3	<0.01	<0.0005	<0.001	<0.002	<0.005	10.8	3.00	13.9	<0.02
A Upstream	Mar-22	8.03	699	517	4	1	<0.01	<0.0005	<0.001	<0.002	<0.005	11.1	<0.05	11.2	<0.02
B PIT	Mar-22	8.06	731	552	<2	0	<0.01	<0.0005	<0.001	<0.002	<0.005	7.75	2.83	10.6	<0.02
C Downstream	Mar-22	7.94	699	512	3	1	<0.01	<0.0005	<0.001	<0.002	<0.005	8.53	2.35	11	<0.02
D Settling Dam	Mar-22	7.99	566	403	10	3	<0.01	<0.0005	0.002	<0.002	<0.005	5.26	1.63	7.43	<0.02
A Upstream	May-22	7.95	1250	823	27	24	0.04	<0.0005	0.0011	<0.2	<0.005	0.06	1.42	1.48	0.05
B PIT	May-22														
C Downstream	May-22	8.01	1160	767	25	18	0.03	<0.0005	0.002	<0.2	<0.005	0.95	1.27	2.22	0.04
D Settling Dam	May-22	7.70	526	332	24	19	<0.01	<0.0005	<0.001	<0.2	<0.005	5.92	0.55	6.60	<0.02
									Cd = Cadmium, Cu = Copper						

Table 7 – Total Monthly Rainfall during the Reporting Period 2021/2022

BOM Station 073109	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
mm	48	118	103	67	81	38	171	71	147	33	15	76	127

3.3.1 Surface Water Pollution – Interpretation of Results

Pit water is typically composed of 60-70% groundwater and 30-40% surface water by direct rainfall capture, within the bunded wall of the pit. The high % of groundwater in pit water results in pit water quality being dictated by groundwater quality. Groundwater quality is determined by natural process and land use practices. Rainfall dilutes and improves pit water quality. Elevated water quality parameters in pit water are due to groundwater inflow. Pit water is pumped to tanks for use. Water not consumed in the Plant is captured in the Settling Dam. Elevated pH and nitrate has historically been recorded in the pit.

3.4 Groundwater Pollution

No groundwater data was collected in the reporting period. Groundwater monitoring was hampered by COVID related staffing issues.

3.5 Contaminated Polluted Land

The disposal of asbestos waste on site was discovered and reported to the EPA in May 2021. The waste has been removed by licensed contractors and is being temporarily stored in bags, and isolated within a shipping container. Once asbestos disposal bags are received at site, the waste will be disposed at a licensed waste facility.

3.6 Threatened Flora

There were no issues relating to threatened flora during this ARR reporting period.

3.7 Threatened Fauna

There were no issues relating to threatened fauna during this ARR reporting period.

3.8 Weeds & Pests

During this ARR reporting period the site continued to visually monitor weeds. The site will continue to undertake biannual spraying of weeds on the mining lease.

There was ongoing snail activity during this ARR reporting period, baiting activities were undertaken.

3.9 Blasting

Blasting occurred on 5 occasions during the reporting period. The site's Blast Management Plan provided effective guidance to control the environmental risks associated with blasting activities. Essential elements of the site's blast management are as follows:

Explosives: The site engages a licenced contractor to deliver explosives to site on the day of the blast. Any leftover explosives are taken away by the contractor.

Drill Plans: Drilling layout plans are based on ground and licence conditions, as outlined in the site's Mining Operations Plan.

Blast Monitoring: Monitoring was conducted to determine overpressure (noise) and ground vibration levels. Blasting complied with environmental protection licence conditions.

Monitoring took place at the nearest sensitive position (i.e. neighbours house – DG2) as per monitoring requirements in the Environmental Licence.

Table 8 – Blast Monitoring Results 2021 / 2022

** - Blast monitor did not record blast activity (below trigger point)

Blast #	Date	Lin Peak overpressure dBL	Vibration Peak Sum Velocity mm/s	Max over-pressure level	Result over 115dB	% over 115dB	Limit for over 115dB	Max vibration	Results over 5mm/s	5 over 5mm/s	Limit for over 5mm/s
May-21	4-May-21	<105	<0.5	120	0			10	0		
Jun-21	21-Jun-21	108.1	1.27	120	0			10	0		
Jun-21	28-Jun-21	100.2	1.14	120	0			10	0		
Aug-21	27-Aug-21	108.9	0.95	120	0			10	0		
Nov-21	8-Nov-21	110	0.54	120	0			10	0		
	Total blasts	5			0				0		
	Recorded Blasts	5									
	Recording failure	0									

Weather Conditions: Blasting occurred only during daylight hours and when weather conditions were favourable. The site ensured local emergency services authorities were notified of each scheduled blast.

3.10 Operational Noise

There were no issues identified with operational noise affecting the site during this ARR reporting period. There were no noise-related complaints received.

3.11 Visual & Stray Light

During this ARR period ongoing visual inspections were conducted of earth bunds constructed that provide a visual barrier to minimise potential visual impacts. There were no visual or stray related complaints received.

3.12 Aboriginal Heritage

There were no activities carried out that would affect Aboriginal Heritage during this ARR reporting period.

3.13 Natural Heritage

There were no activities affecting natural heritage areas during this ARR reporting period.

3.14 Spontaneous Combustion

There were no reports of spontaneous combustion during this ARR reporting period.

3.15 Bushfire

There were no issues or incidents of bushfire on the lease during this ARR reporting period, however, some smoke and dust was present during November.

3.16 Mine Subsidence

This is generally not applicable to the Galong operation as it is a pit and not an open cut mine. No issues were experienced with ground subsidence in the quarry area.

3.17 Hydrocarbon Contamination

There were no reportable incidents involving hydrocarbon contamination during this ARR reporting period.

3.18 Methane Drainage/Ventilation

Not applicable.

3.19 Public Safety

There were no incidents that resulted in a risk to public safety reported during the reporting period.

3.20 Other Issues and Risks

The disposal of lime kiln dust in the overburden emplacement was raised as a concern by the Resources Regulator. Lime kiln dust has properties similar to lime and has potential for sale as a product, and so an application for a waste exemption and order was submitted to the EPA for beneficial reuse and sale of lime kiln dust. The lime kiln dust is being placed in a designated area for the short-term, and the long-term disposal of excess lime kiln dust in the overburden emplacement has been raised with Council and permitting pathways are under consideration.

The disposal of asbestos waste on site was discovered and reported to the EPA in May 2021. The waste has been removed by licensed contractors and is being temporarily stored in bags, and isolated within a shipping container. Once asbestos disposal bags are received at site, the waste will be disposed at a licensed waste facility.

4 Community Relations

4.1 Community Liaison

As per DA requirements, the site facilitates the Galong Community Liaison meeting which is a community consultation forum that is held quarterly. The meeting's members represent Galong village and surrounding properties, Hilltops Council and commercial interests located near the mine. The meeting acts as a forum for the mine to discuss matters of concern raised by the community, such as the following:

- Update on membership to the liaison meeting;
- Major site activities;
- Environmental monitoring updates;
- Regulatory compliance requirements, such as upcoming reporting and plans submission;
- Community contributions and donations by Graymont; and
- Any environmental or community issues that are raised by members.

During this ARR period Local Government elections were held and new Councillors and Mayor were elected. Graymont has continued its active involvement in the Voluntary Planning Agreement committee, and community projects funded by the VPA, including improvements to the town hall.

The upgrade of the Burley Griffin Way was completed in 2021. The road upgrade design was developed by GHD and approved by NSW Roads and Maritime Service, ensuring a safer intersection for the community, including mine-related truck movements.

4.2 Environmental Complaints

During the ARR reporting period there were no community complaints received regarding activities on the mine lease.

5 Rehabilitation

No rehabilitation activities were undertaken during the ARR reporting period.

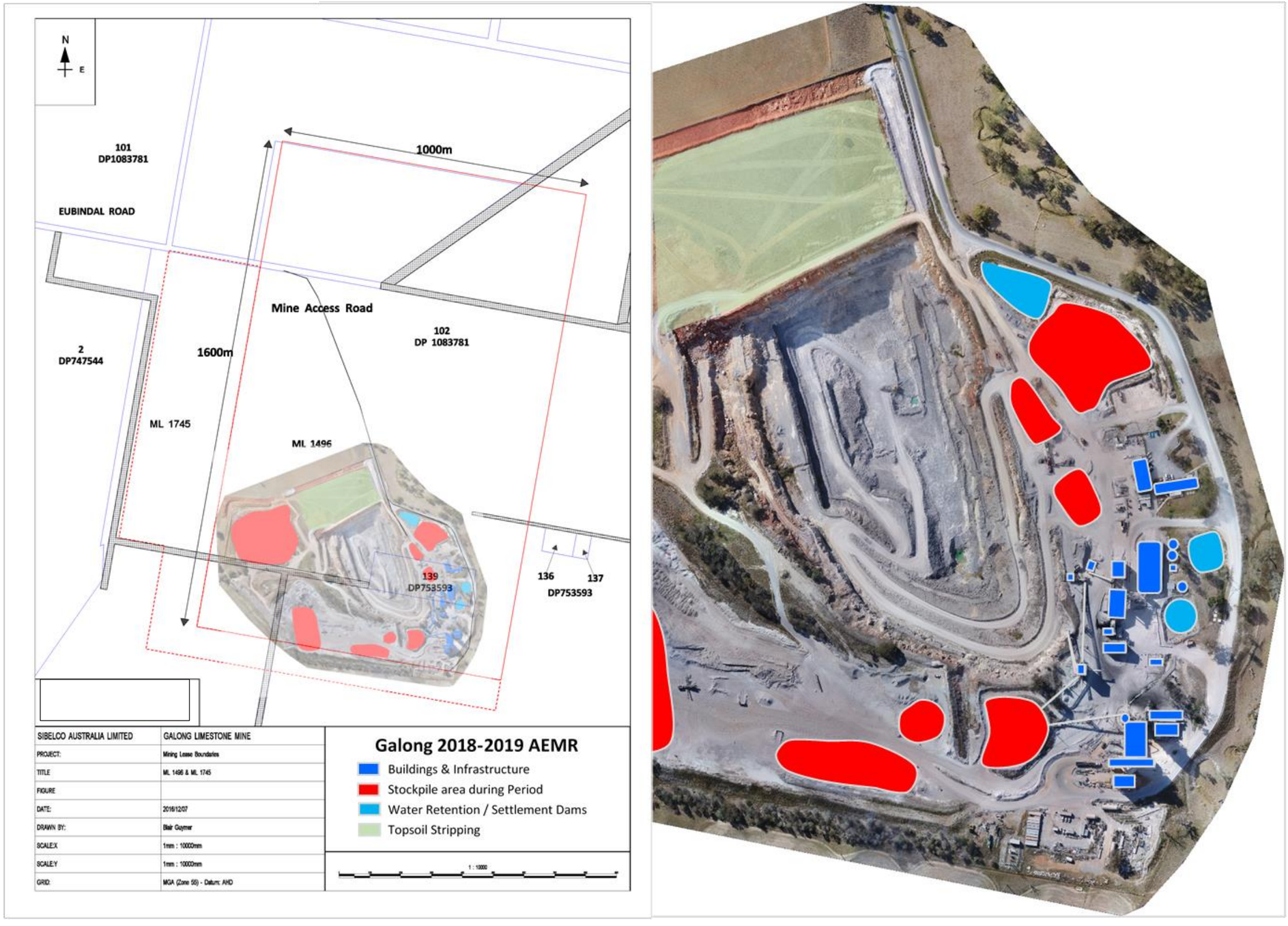
6 Activities Proposed in the next ARR Period

In the next ARR period, the following activities are proposed:

Culture Survey to be undertaken with three Local Aboriginal Claimant Groups, this survey is to take place in preparation of the next overburden campaign that the site will be undertaking.

Planning is underway for the development of a new Mobile Workshop, waste oil facility and wash bay pad with oil and water separator. It is planned that this development will be completed by December 2022.

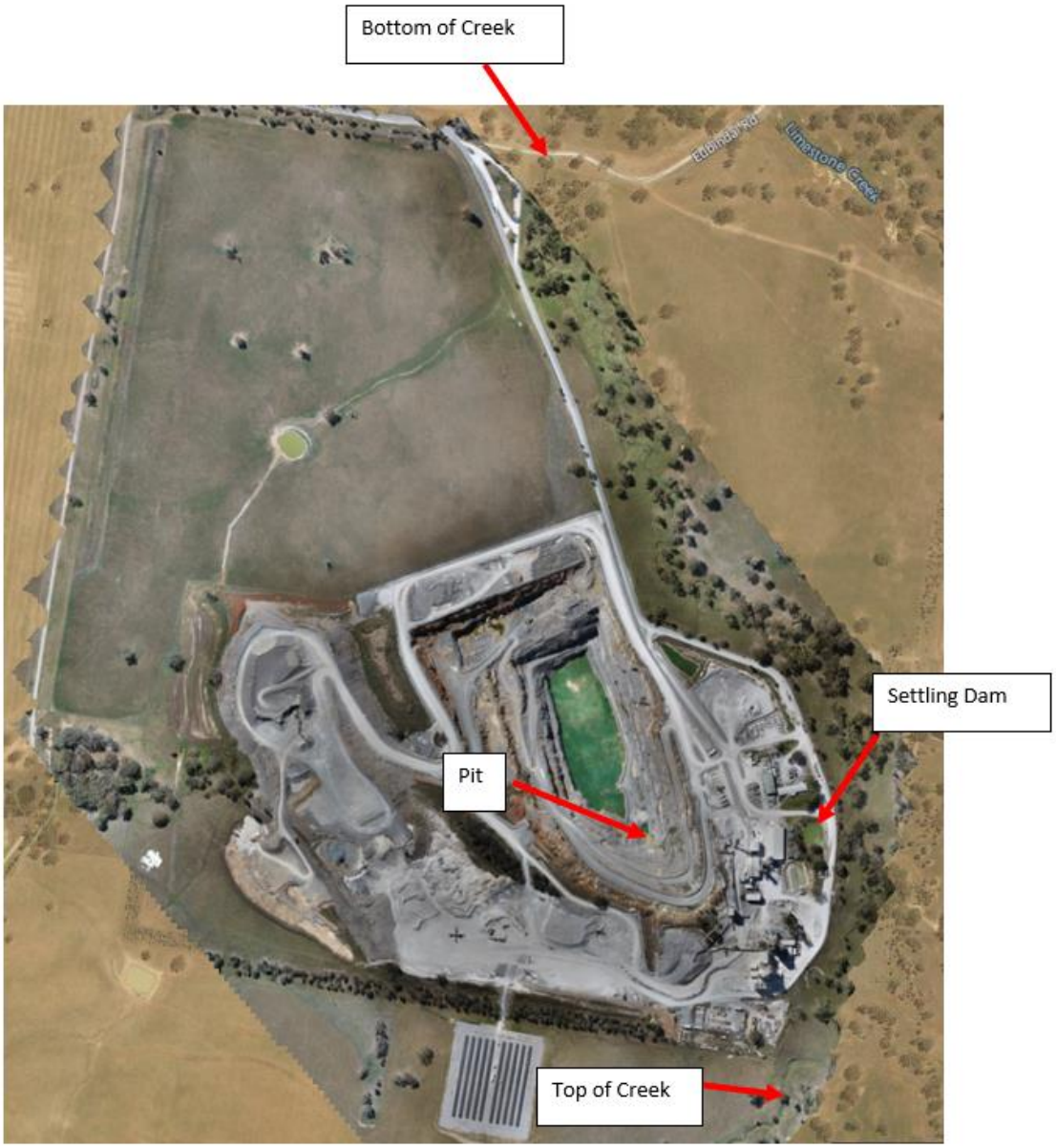
Appendix A – Galong Site Map 2021 /2022



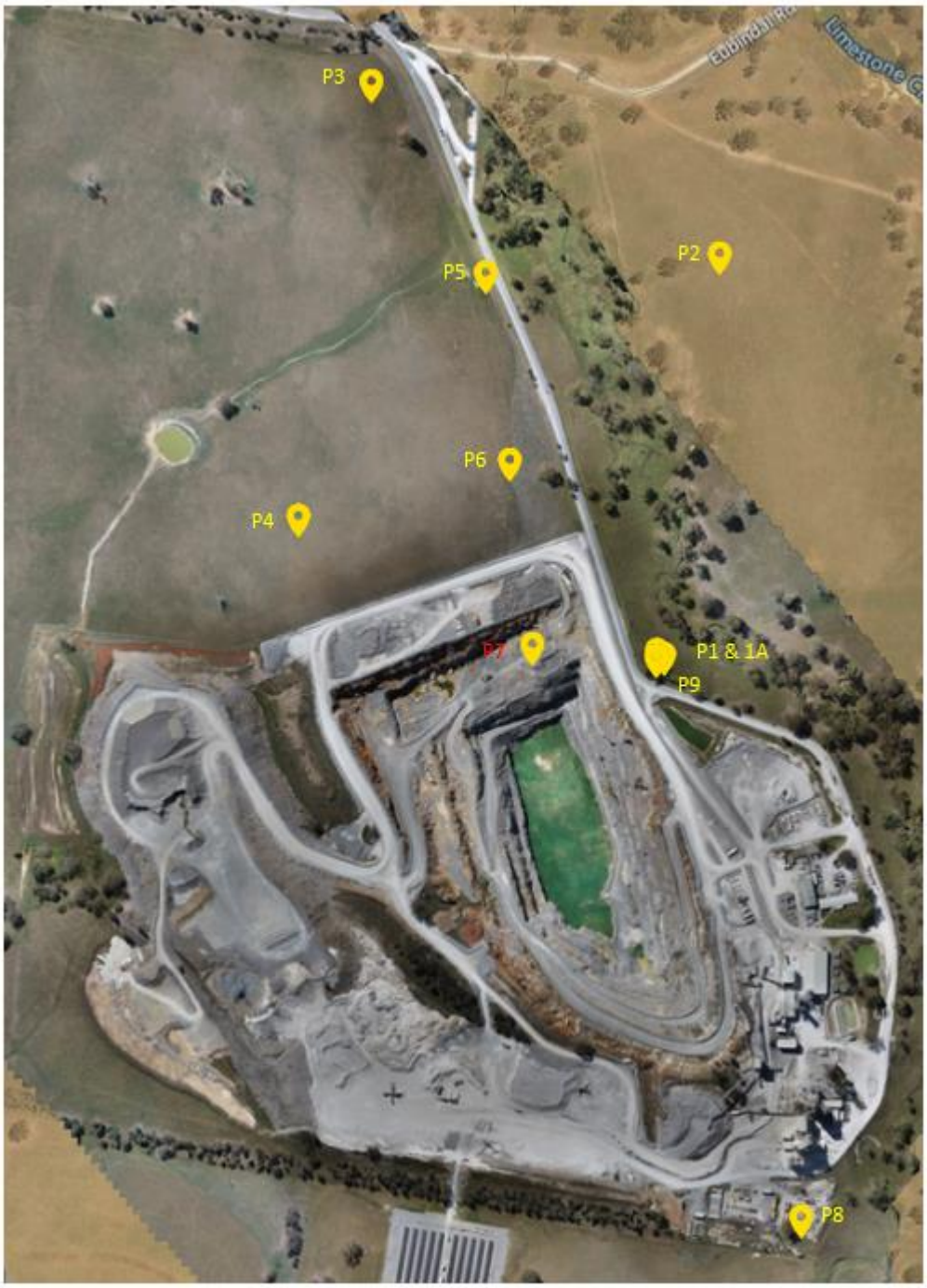
Appendix B – Dust Stations

Legend:	EPA ID	3	DG1	Top of Bund
	EPA ID	4	DG2	Next to House
	EPA ID	5	DG3	Along Road
	EPA ID	6	DG4	Galong

Appendix C – Galong Water Sampling Locations



Appendix D – Piezometer Locations



Site	Alternative name	East	North	RL
P1		647186	6171618	502.12
P1A	GP191	647187	6171623	503.23
P2	GP162	647266	6172083	500.57
P3	GP130	646870	6172277	505.25
P4	GP135	646786	6171782	512.48
P5	GP144	647006	6172063	498.97
P6	GP157	647027	6171846	504.50
P7	A12	647046	6171635	502.75
P8	GP190	647339	6170983	512.32
P9	GP192	647195	6171620	502.63

Piezo Point 7 is no longer operational