

# MINING PLAN

(Including Progressive Mine Closure Plan)  
(Under Rule 55 of the Kerala Minor Mineral Concession Rule 2015)

for

## GRANITE BUILDING STONE QUARRY (Minor Mineral)

Extent: 4.8171 Ha. (11.9030 Acres)

at

Re-Sy. Nos. KPD833, KPD836, KPD838 & KPD1148,

Village : Kelakam,  
Taluk : Iritty,  
District : Kannur,  
State : Kerala.

## M/s. Kottiyoor Metals Private Limited

Pottankal, Thondiyil Post, Peravoor, Thalassery,  
Kannur District, Kerala – 670 673,

Production Capacity: 2,85,017.81 TPA (Max)

Open Cast, Semi Mechanized Mining Method

Patta Land

Prepared By

Cyriac Joseph  
DMG/KERALA/RQP/15/2018

**GLOBAL Environment & Mining Services**  
(Consulting Engineers, Mine Designers, Geologists & Surveyors)  
#212, Celestic Tower, Palm Avenue, Green Glen Layout, Bellary,  
BANGALORE - 560103, Karnataka

Land : +91-80257 46999,  
e-mail : [gems.blr@globalmining.in](mailto:gems.blr@globalmining.in)  
webste : [www.globalmining.in](http://www.globalmining.in)

H.O.  
3<sup>rd</sup> Main Road, Basaveshwara Badawane  
HOSPET – 583201, Bellary Dist. (Karnataka)

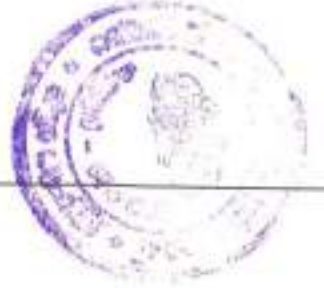


*This Mining Plan  
is approved*

24/11/19  
**V. DIVAKARAN**  
SENIOR GEOLOGIST  
DISTRICT OFFICE, CIVIL STATION  
KANNUR - 670002

# M/s. Kottiyoor Metals Private Limited

Pottankal, Thondiyil - Post, Peravoor, Thalassery,  
Kannur District, Kerala – 670 673,  
Ph No. : +91 9961991491



## UNDERTAKING

The Mining Plan including Progressive Mine Closure Plan for 'Granite Building Stone Quarry of M/s. Kottiyoor Metals Private Limited' over an extent of 4.8171 Ha. (11.9030 Acres) at Re-Survey Nos.KPD 833, KPD 836, KPD 1148 & KPD 838 Kelakam Village, Iritty Taluk, Kannur District, Kerala State, has been prepared by Cyriac Joseph, M/s. GLOBAL Environment & Mining Services, Bangalore.

We request the District Geologist, Department of Mining & Geology, Kannur District, Kerala State to make further correspondence regarding the Mining Plan including Progressive Mine Closure Plan with the Recognized Qualified Person at the following address:

**M/s GLOBAL Environment & Mining Services,**  
#212, Celestic Towers, Palm Avenue, Green Glen Layout, Bellandur,  
Bangalore – 560 103,  
Karnataka State, India.  
Land: +91 08257462999

### H. O.

3rd Main Road, Basaveshwara Badawane  
HOSPET – 583201, Bellary Dist. (Karnataka)

We hereby undertake that all the proposals made in the Mining plan including Progressive Mine Closure Plan by the Recognized Qualified Person are deemed to have been made with the knowledge and consent of me in all respects.

**Place:** Thondiyil

**Date:** 22.11.2019

Shri. M . M . Thomas  
Managing Director

# M/s. Kottiyoor Metals Private Limited

Pottankal, Thondiyil - Post, Peravoor, Thalassery,  
Kannur District, Kerala - 670 673,  
Ph No. : +91 9961991491



## CERTIFICATE

This is to certify that the Mining Plan including Progressive Mine Closure Plan for 'Granite Building Stone Quarry of M/s. Kottiyoor Metals Private Limited' over an extent of 4.8171 Ha. (11.9030 Acres) at Re-Survey Nos.KPD 833, KPD 836, KPD 1148 & KPD 838 Kelakam Village, Iritty Taluk, Kannur District, Kerala State, has been prepared in full consultation with me and I have understood its contents and agree to implement the same in accordance with the law.

**Place:** Thondiyil  
**Date:** 22.11.2019

Shri. M . M . Thomas  
Managing Director

# M/s. Kottiyoor Metals Private Limited

Pottankal, Thondiyil - Post, Peravoor, Thalassery,  
Kannur District, Kerala - 670 673,  
Ph No. : +91 9961991491



## CERTIFICATE

"The provisions of Mines Act 1952 and the Kerala Minor Mineral Concession Rule (Kmmcr-2015) have been observed in Mining Plan including Progressive Mine Closure Plan for 'Granite Building Stone Quarry of M/s. Kottiyoor Metals Private Limited' over an extent of 4.8171 Ha. (11.9030 Acres) at Re-Survey Nos.KPD 833, KPD 836, KPD 1148 & KPD 838 Kelakam Village, Iritty Taluk, Kannur District, Kerala State, and where specific permissions are required, the Director General of Mines Safety will be approached. Further, standards prescribed by DGMS in respect of all provisions of the mines act 1952 will be strictly implemented".

**Place:** Thondiyil

**Date:** 22.11.2019

Shri. M . M . Thomas  
Managing Director



# M/s. Kottiyoor Metals Private Limited

Pottankal, Thondiyil - Post, Peravoor, Thalassery,  
Kannur District, Kerala - 670 673,  
Ph No. : +91 9961991491



## CERTIFICATE

This is to certify that the "Progressive Mine Closure Plan" in respect of Mining Plan for 'Granite Building Stone Quarry of M/s. Kottiyoor Metals Private Limited' over an extent of 4.8171 Ha. (11.9030 Acres) at Re-Survey Nos.KPD 833, KPD 836, KPD 1148 & KPD 838 Kelakam Village, Iritty Taluk, Kannur District, Kerala State, prepared and has taken in to consideration all statutory rules, regulations, orders made by the Central or State Government, Statutory Organizations, Court etc, and wherever any specific permission is required I will approach the concerned authorities.

I also give an undertaking to the effect that all the measures proposed in the closure plan will be implemented in a time bound manner as proposed.

**Place:** Thondiyil  
**Date:** 22.11.2019

Shri. M . M . Thomas  
Managing Director



**GLOBAL Environment & Mining Services**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)

#212, Celestic Tower, Palm Avenue, Green Glen Layout,  
Bellandur, **BANGALORE – 560103**, Karnataka, India

Land : +91 08257462999

e-mail : gems.blr@globalmining.in

Website : globalmining.in

**H. O.**

3<sup>rd</sup> Main Road, Basaveswara Badavane,  
**HOSPET – 583201**, Bellary Dist., (Karnataka)



**CERTIFICATE**

1. Certified that provisions of Mines Act 1952, the Kerala Minor Mineral Concession Rules (KMMCR-2015) have been observed in the Mining Plan including Progressive Mine Closure Plan for 'Granite Building Stone Quarry of M/s. Kottiyoor Metals Private Limited' over an extent of 4.8171 Ha. (11.9030 Acres) at Re-Survey Nos.KPD 833, KPD 836, KPD 1148 & KPD 838 Kelakam Village, Iritty Taluk, Kannur District, Kerala State, and wherever specific permissions are required the applicant will approach Director General of Mines safety.
2. It is also certified that information furnished in the above mining plan including Progressive Mine Closure Plan are true and correct to the best of our knowledge.

Place: Bangalore

Date: 22.11.2019

**GLOBAL Environment & Mining Services**

**Cyriac Joseph**

DMG/KERALA/RQP/15/2018



**GLOBAL Environment & Mining Services**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)

#212, Celestic Tower, Palm Avenue, Green Glen Layout,  
Bellandur, **BANGALORE – 560103**, Karnataka, India

Ph : +91 08257462999

e-mail : gems.blr@globalmining.in

Website : globalmining.in

**H. O.**

3<sup>rd</sup> Main Road, Basaveswara Badavane,  
**HOSPET – 583201**, Bellary Dist., (Karnataka)



**CERTIFICATE**

This is to certify that the provisions of the Kerala Minor Mineral Conservation Rule (KMMCR-2015) have been observed in the Mining Plan including Progressive Mine Closure Plan for 'Granite Building Stone Quarry of M/s. Kottiyoor Metals Private Limited' over an extent of 4.8171 Ha. (11.9030 Acres) at Re-Survey Nos.KPD 833, KPD 836, KPD 1148 & KPD 838 Kelakam Village, Iritty Taluk, Kannur District, Kerala State, and wherever specific permissions are required, the applicant will approach the concerned authorities of the Department of Mining & Geology, Kerala.

Place: Bangalore

Date: 22.11.2019

**GLOBAL Environment & Mining Services**

**Cyriac Joseph**

DMG/KERALA/RQP/15/2018



## CONTENTS

Chapter	DESCRIPTION	Page No.
	INTRODUCTION	1-2
1.0	GENERAL	3-4
2.0	LOCATION	5-6
3.0	GEOLOGY & RESERVES	7-13
4.0	MINING	14-26
5.0	BLASTING	27-28
6.0	MINE DRAINAGE	29
7.0	STACKING OF MINERAL REJECTS & DISPOSAL OF WASTE	30-31
8.0	USE OF MINERALS	32
9.0	OTHERS	33
10.0	MINERAL PROCESSING	34-35
11.0	ENVIRONMENTAL MANAGEMENT PLAN	36-47
12.0	PROGRESSIVE QUARRY CLOSURE PLAN	48-56





## **LIST OF ANNEXURES**

Sl. No	DESCRIPTION	Annexure No.
1	Letter of indent	1
2	RQP Certificate	2
3	Certificate of Incorporation	3
4	Copy of the MOA	4
5	Copy of the AOA	5
6	Authorization letter	6
7	ID proof of Managing Director	7
8	Possession Certificate	8
9	Tax Receipts	9
10	Consent Letter	10
11	Demarcation Certificate	11
12	Non-assignment Certificate	12
13	Explosive Magazine License	13
14	Affidavit	14
15	Environment Monitoring Report	15
16	NABL Certificate	16



## **LIST OF PLATES**

<b>Sl. No</b>	<b>DESCRIPTION</b>	<b>Plate No.</b>	<b>Scale</b>
1	Administrative Plan	1	NTS
2	Key Plan	1A	1:50,000
3	Survey Map	2	1:2000
4	Surface Plan	3	1:1000
5	Geological Plan & Sections	4	1:1000
6	Production & Development Plan (I-Year)	5A	1:1000
7	Production & Development Plan (II-Year)	5B	1:1000
8	Production & Development Plan (III-Year)	5C	1:1000
9	Production & Development Plan (IV-Year)	5D	1:1000
10	Production & Development Plan (V-Year)	5E	1:1000
11	Production & Development Sections	6	1:1000
12	Conceptual Plan & Sections	7	1:1000
13	Environment Plan / Drainage Plan (Map showing all features (Site & Surroundings within 500m Radius)	8	1:5000
14	Environment Management Plan / Drainage Plan	9	1:1000
15	Progressive Mine Closure Plan	10	1:1000
16	Infrastructure Plan	11	1:5000
17	Buffer Map (5Km) Showing Site Location & Transportation Route Map	12	1:50,000
18	Topsoil / Waste Management Plan	13	1:1000

M/S. Kottiyoor Metals Private Limited

Now as a statutory requirement a Mining Plan (including Progressive Mine Closure Plan) showing systematic development of the mine and mining related proposals for next five years required to be prepared and submitted to the Geologist, Dept. of Mining and Geology Kannur, Govt of Kerala for approval. Hence a Mining plan is prepared for the period of 5 years for the maximum production of 2,85,017.81 Tonnes Tonnes Per Annam and submitted to Department of Mining & Geology, Kerala for approval.



The Mining is proposed to be operated by developing benches of 5m height and 5m ultimate width by Opencast Semi-Mechanised Mining Method. The mechanised operation of mining includes excavators, tippers, rock breakers, Jack hammer drilling and blasting.

The boulders and broken material from the mine would be transported to the local consumers, construction sites and / or to the crusher situated outside the mining Lease area for further sizing.

The Mining plan is prepared as per the requirements of the Kerala Minor Mineral Concession Rule (KMMCR) 2015, and is submitted to the District Geologist, Kannur Kerala for approval.





## 1.0 GENERAL

- a) Name & address of lessee : Shri. M. M. Thomas,  
Managing Partner,  
M/s. Kottiyoor Metals Private Limited,  
Pottankal, Thondiyil – Post,  
Peravoor, Thalassery,  
Kannur District, Kerala – 670 673,  
Ph No. : +91 9961991491.
- b) Registered Office : M/s. Kottiyoor Metals Private Limited,  
Managing Partner,  
Shri. M. M. Thomas,  
Pottankal, Thondiyil – Post,  
Peravoor, Thalassery,  
Kannur District, Kerala – 670 673,  
Ph No. : +91 9961991491.
- c) Status of lessee
- |                           |   |     |
|---------------------------|---|-----|
| Private Individual        | : | No  |
| Cooperative Association   | : | No  |
| Private Company           | : | Yes |
| Public Company            | : | No  |
| Public Sector Undertaking | : | No  |
| Joint Sector Undertaking  | : | No  |
| Other (Pl. specify)       | : | No  |
- The Certificate of Incorporation is enclosed as **Annexure – 3**.
- The Id proof of Shri. M. M. Thomas is enclosed as **Annexure – 7**.
- d) Mineral/s which are occurring: Granite building stone.  
in the area and which the  
Lessee intends to mine
- e) Period for which the mining lease is granted/renewed/proposed to be  
applied:  
Fresh Lease, Proposed For 12 Years.

**f) Name & address of RQP Preparing Mining Plan**

<p align="center"><b>Cyriac Joseph</b> DMG/KERALA/RQP/15/2018</p> <p align="center"><b>GLOBAL Environment &amp; Mining Services</b> #212, Celestic Towers, Palm Avenue, Green Glen Layout, Bellandur, Bengaluru-560 103, Karnataka e-mail : <a href="mailto:gems.blr@globalmining.in">gems.blr@globalmining.in</a> Land : +91-8025746999</p> <p><b>H.O.</b> 3<sup>rd</sup> Main Road, Basaveshwara Badawane <b>HOSPET – 583201, Bellary Dist. (Karnataka)</b></p>
---



The RQP certificate of Cyriac Joseph from Department of Mining & Geology, Kerala is enclosed as **Annexure - 2**.

**g) Name of Prospecting Agency: GSI/DMG Kerala****h) Reference no. and date of consent letter from the State Government G.O. No.**

For mining of the said area, Directorate of Mining and Geology, Thiruvananthapuram, has issued a Letter of Intent (LOI) vide No. 10276/M3/2019 dated 19.11.2019. The copy of the LOI is enclosed as **Annexure -1**.



## **2.0 LOCATION & ACCESSIBILITY:**

### **LOCATION:**

The Granite Building Stone Quarry of M/s. Kottiyoor Metals Private Limited, over an area of 4.8171 Ha. (11.9030 Acres) is located in Re-Sy No. KPD833, KPD836, KPD838 & KPD1148, Kelakam Village, Iritty, Kannur District, Kerala State.

### **ACCESSIBILITY:**

This granite building stone quarry is located at 4.0 Kms from Kelakam in Iritty Taluk. The quarry is at a distance of 62.0 Kms from Kannur town. It can be reached via Irattathodu – Adakkathidu Road.

The location of this mining area is shown on the Administrative and Key Plan enclosed Vide **Plate No-1 and 1A.**

a)	Details of area (with location map)	: The lease is marked on Key plan / enclosed vide Plate No.1A.
i)	District and state	: Kannur, Kerala
ii)	Taluk / Mandal	: Iritty
iii)	Village	: Kelakam
iv)	Khasara No. / Plot No. / Block / Gat No etc	: Re-Survey Nos. KPD833, KPD836, KPD838 & KPD1148,
v)	Lease Area (Hectares)	: 4.8171 Ha
vi)	Whether the area is recorded to be in forest (please specify whether protected, reserved etc.,)	: No
vii)	Ownership / Occupancy	: Private
viii)	Existence of public road/railway line, if any, nearby and approximate distance Nearest Port / Airport	: The nearest railhead is at Thalassery is at 56 km from the mine. Nearest airport – Kannur International Airport (40.7 km)
ix)	Topo sheet No.	: C43D13 (work sheet No 49M/13)
x)	Latitude & Longitude (between)	: N11°54'22.559" to N11°54'30.429" E75°49'58.328" to E75°50'07.581"

The detail of lands is enclosed as **Annexure – 8 & 9**. The copy of consent of the landowner is enclosed as **Annexure – 10**.

The details of land in each Survey Number along with its extent and land proposed for mining are given in the Table 2.1



**Table No. 2.1: Details of Survey Number and the area acquired for lease**

Sl No	Re.Sy.No	Doc No.	Village Name	Name of the Owner	Area of Possession in Ha.	Total applied Area in Ha.
1	KPD 833	575/2018	Kelakam	Mundakkal Plappil Victor	2.3942	0.4059
2	KPD 833	823/2018		Pottankal Sunny Siriac & Madathinamattathil M M Thomas Directors Kelakam Metals Pvt Ltd	0.2023	0.2023
3	KPD 833	485/2017		Babu P Chacko (Kottiyoor Metals)	1.0117	0.8137
4	KPD 836	3605/2018		Madathinamattathil M M Thomas (Kottiyoor Metals)	1.1765	0.7571
5	KPD 836	3787/2018		Pottankal Sunny Siriac & Madathinamattathil M M Thomas Directors Kottiyoor Metals	0.8094	0.6188
6	KPD 836	3606/2018		Pottankal Sunny Siriac (Kottiyoor Metals)	0.4977	0.3982
7	KPD 836	3606/2018			0.8094	0.3238
8	KPD 1148	3606/2018			0.4047	0.3857
9	KPD 1148	929/2017(3)		Pottankal Sunny Siriac & Madathinamattathil M M Thomas Directors Kelakam Metals Pvt Ltd	1.3517	0.5442
10	KPD 838	929/2017(4)			1.0281	0.2950
11	KPD 838	1901/2017(1)		Pottankal Sunny Siriac & Madathinamattathil M M Thomas Directors Kottiyoor Metals	1.3458	0.0724
Total Lease area					11.0315	4.8171

**x) Land Use Pattern (Forest, Agricultural, Grazing, Barren etc.):**

The entire proposed Mining area is a private land. The details of the land is given in the Table No 2.2.

**Table No. 2.2: The details of the land applied for mining**

Particulars	Extent in Ha.	Ownership
Lands	4.8171	Private

Attach general location and vicinity map showing area boundaries and existing and proposed access roads. It is preferred that the area be marked on a Survey of India Topographical map or as the case may be. However if none of these are available the area should be shown on accurate sketch map on a scale of 1: 50,000.

A general location plan is prepared in scale 1: 50,000 and enclosed vide **Plate No. 1A**.

**Details of the Ground Control Points:**

Ground Control Point	Location	Distance from Corner Pillar -Km	GPS Reading	
			Latitude	Longitude
Common Point-1	St.Alphonsas Church, Kannur	1.675	N-11°50'34.630"	E-75°50'34.630"
Common Point-2	Adakkathode Bus Stop	1.744	N-11°55'26.357"	E-75°50'13.481"





### **3.0 GEOLOGY & RESERVES:**

- a) Briefly describe the topography and general geology and local/mine geology of the mineral deposit include drainage pattern.

#### **1. Topography of the area:**

The lease is located on the slope of the area gently dipping towards EW. The highest elevation in this area is 365.0m above MSL and the lowest elevation is 235.0m above MSL. The general slope of the lease hold area is between 38° to 22° degree. The area has moderate climate with maximum temperature of 28.4° to 36.9°C in the month of April and minimum temperature of 19.7° to 23.9°C in the month of December. The area receives a total annual rain fall of around 3438mm. The area receives highest rainfall in the month of July.

#### **Geology**

##### **Regional Geology:**

The district can be broadly divided into seven geological belts trending NW-SE viz., (i) northern belt of Charnockite group extending further north and east to the adjacent districts, (ii) north central belt of Wayanad schist complex, (iii) Central belt of eninsular Gneissic Complex extending to the southeast, (iv) south central belt of Vengad Group, equivalent to Dharwar, (v) southernmost belt of Migmatite Complex which extends further south to the adjacent district, (vi) Sedimentary (Warkalli Beds) in the western part near the coast and (vii) Quaternary sediments along the coast. The lithology of Kannur district is grouped under Precambrian, late Tertiary and Quaternary periods and the Precambrian rocks dominate over the other two. Charnockite Group, includes pyroxene granulite, charnockite (hypersthene granulite) and hornblende-diopside granulite. While hornblende granite and charnockite occupy large areas, pyroxene granulite occurs as linear bodies in the southeast. Hornblende-biotite gneiss constitutes the litho unit of Migmatite Complex. It has a large areal extent along the coast, south of Kannur. Towards east and southeast, discrete metasedimentary and ultramafic sequences which have been designated as Wayanad Schist Complex and are considered equivalent of Sargur Group of Karnataka. They occur as isolated bands within charnockite and gneiss. Their contacts are generally discordant due to later folding, metamorphism and migmatization. The group comprises quartzite, magnetite quartzite, garnet-kyanite-sillimanite gneiss, quart-mica-kyanite schist, quartz-sericite schist,



amphibolite, kyanite-sillimanite-sericite quartzite, metaultramafites. Garnet Kyanite-sillimanite gneiss/schist is widespread in the east, whereas the other members of Wyanad Complex occur as linear bands, lensoidal bodies and vestiges to the West Peninsular Gneissic Complex, represented by hornblende-biotite gneiss comprise of a complex suite of gneisses and granites, representing the anatectic phase of migmatization of schist complex. East of Kannur extending upto Tellichery in the south, a large body of quartz-mica schist is separated from the other schistose rocks by a conglomerate horizon extending over 8km. This lithounit known as Vengad Formation, characterised by lack of migmatization, presence of primary structures and absence of highgrade minerals, is correlatable with rocks of Dharwar Super Group. Large bodies of anorthosite, gabbro, granite and granophyre from the post Vengad basic and acid intrusives. Dolerite dykes trending NW-SE represent the younger basic intrusives. Late Tertiary sedimentary rocks (Warkalli beds) occur as isolated patches along the coast near Kannur, Pazhayangadi and east of Payyannur. They comprise variegated clays and friable sandstone. At Kannur and Pazhayangadi, carbonaceous clay with thin seams of lignite is reported towards bottom of the sedimentary sequence. The Tertiaries as well as the basement rocks are extensively lateritised. The pebble bed, reported near Valapatnam along the bank of Valapatnam river, is considered to be of Quaternary age. Quaternary alluvial deposit occur along the coast and in the valleys

#### **Local Geology:**

The granite building stones are very well exposed as outcrop, whereas part of area with lower elevation is covered by top soil of about 0 to 1.5m thickness,

A geological plan showing the granites and soil cover and the geological sections showing subsurface geology is prepared on 1:1000 scale and enclosed vide **Plate No 4.**

**Table 3.1: Local Geology**

Soil Cover	0 to 1.5m
Granite	150m (min. estimate)

The geology of the lease area is shown the Geological Plan and Sections enclosed vide **Plate No-4.**





- b) The topographic plan of the lease area prepared on a scale of 1:1000 or 1:2000 with contour interval of 3 to 10 m. depending upon the topography of the area should be taken as the base plan for preparation of geological plan. The details of exploration already carried out including evidences of mineral existence should be shown on the geological plan.**

The topographic plan on 1:1000 scale is prepared with contour interval of 5m by incorporating all the existing details like topography, surface exposures, structures etc. and enclosed vide **Plate No 3.**

- c) Exploration Already carried out:**

The granite building stone in the lease area are of intrusive nature with good outcrops and very good exposures in the open pits. Hence no exploration proposal is made.

- d) Geological sections should be prepared at suitable intervals on a scale of 1:1000 / 1:2000.**

The geological cross sections are prepared for every 50m interval based on the updated geological plan on 1:1000 scales and The geological plan and sections are enclosed vides **Plate No – 4.**

- e) Broadly indicate the year wise future program of exploration, taking into consideration the future production program planned in next five years as in table below:**

The granite building stone are intrusive in nature and well exposed in the mine. As the granite building stone in this mining area is of proved nature, no exploration is proposed.

- f) Indicate geological and recoverable reserves and grade, duly supported by standard method of estimation and calculations along with required sections (giving split up of various categories i.e., proved, probable, possible) indicate cut-off grade. Availability of resources should also be indicated for the entire leasehold.**

The geological resources of granite building stones are estimated by cross sectional method and given in the **Table No 3.2.**

**Table No:3.2: The Geological Resources.**

Section No	Area (m <sup>2</sup> )	Influence (m)	Volume (m <sup>3</sup> )	Tonnage (T) BD 2.5T/m <sup>3</sup>	UNFC
A-A'	6449	63	406,287.00	1,015,717.50	332
B-B'	11668	54	630,072.00	1,575,180.00	332
C-C'	20737	50	1,036,850.00	2,592,125.00	332
D-D'	17911	48	859,728.00	2,149,320.00	332
E-E'	5892	54	318,168.00	795,420.00	332
<b>Total</b>			<b>3,251,105.00</b>	<b>8,127,762.50</b>	<b>332</b>

These resources of granite building stones are estimated in the 332 category of UNFC classification. For the estimation of geological resources the area is marked with sections A-A' to E-E' with the interval of 50 m. The section wise sectional area is measured and multiplied by the influence to obtain the volume in m<sup>3</sup>. The volume is multiplied by 2.5T/m<sup>3</sup> (BD) to calculate the resources of granite building stone in tonnes.

**g) Indicate mineral reserves by slice plan/level plan method, as applicable as per the proposed mining parameters.**

The reserves of granite building stone in tonnes are estimated out of indicated resources after deleting the granite building stone blocked in the 7.5m buffer area and ultimate benches. The granite building stone reserves are given in the Table No – 3.3

**Table No 3.3: Granite Building Stone Reserves**

Section No	Bench Level	Area (m <sup>2</sup> )	Influence (m)	Volume (m <sup>3</sup> )	Tonnage (T) BD 2.5T/m <sup>3</sup>	Recovery (@ 95% Salable Ore)	Waste (@ 5%)	UNFC
A-A'	295	11	55	605.00	1,512.50	1,436.88	75.63	122
	290	32	55	1,760.00	4,400.00	4,180.00	220.00	122
	285	53	55	2,915.00	7,287.50	6,923.13	364.38	122
	280	64	55	3,520.00	8,800.00	8,360.00	440.00	122
	275	75	55	4,125.00	10,312.50	9,796.88	515.63	122
	270	92	55	5,060.00	12,650.00	12,017.50	632.50	122
	265	116	55	6,380.00	15,950.00	15,152.50	797.50	122
	260	143	55	7,865.00	19,662.50	18,679.38	983.13	122
	255	174	55	9,570.00	23,925.00	22,728.75	1,196.25	122
	250	211	55	11,605.00	29,012.50	27,561.88	1,450.63	122
	245	254	55	13,970.00	34,925.00	33,178.75	1,746.25	122
	240	293	55	16,115.00	40,287.50	38,273.13	2,014.38	122
	235	325	55	17,875.00	44,687.50	42,453.13	2,234.38	122
	230	303	55	16,665.00	41,662.50	39,579.38	2,083.13	122
	225	219	55	12,045.00	30,112.50	28,606.88	1,505.63	122
	220	123	55	6,765.00	16,912.50	16,066.88	845.63	122





<b>SUB TOTAL</b>				<b>1,36,840.00</b>	<b>3,42,100.00</b>	<b>3,24,995.00</b>	<b>17,105.00</b>	<b>122</b>
<b>B-B'</b>	310	16	50.5	808.00	2,020.00	1,919.00	101.00	122
	305	34	50.5	1,717.00	4,292.50	4,077.88	214.63	122
	300	71	50.5	3,585.50	8,963.75	8,515.56	448.19	122
	295	110	50.5	5,555.00	13,887.50	13,193.13	694.38	122
	290	126	50.5	6,363.00	15,907.50	15,112.13	795.38	122
	285	145	50.5	7,322.50	18,306.25	17,390.94	915.31	122
	280	167	50.5	8,433.50	21,083.75	20,029.56	1,054.19	122
	275	189	50.5	9,544.50	23,861.25	22,668.19	1,193.06	122
	270	213	50.5	10,756.50	26,891.25	25,546.69	1,344.56	122
	265	242	50.5	12,221.00	30,552.50	29,024.88	1,527.63	122
	260	276	50.5	13,938.00	34,845.00	33,102.75	1,742.25	122
	255	309	50.5	15,604.50	39,011.25	37,060.69	1,950.56	122
	250	332	50.5	16,766.00	41,915.00	39,819.25	2,095.75	122
	245	354	50.5	17,877.00	44,692.50	42,457.88	2,234.63	122
	240	365	50.5	18,432.50	46,081.25	43,777.19	2,304.06	122
	235	313	50.5	15,806.50	39,516.25	37,540.44	1,975.81	122
	230	258	50.5	13,029.00	32,572.50	30,943.88	1,628.63	122
	225	204	50.5	10,302.00	25,755.00	24,467.25	1,287.75	122
	220	149	50.5	7,524.50	18,811.25	17,870.69	940.56	122
	215	94	50.5	4,747.00	11,867.50	11,274.13	593.38	122
	210	40	50.5	2,020.00	5,050.00	4,797.50	252.50	122
<b>SUB TOTAL</b>				<b>2,02,353.50</b>	<b>5,05,883.75</b>	<b>4,80,589.56</b>	<b>25,294.19</b>	<b>122</b>
<b>C-C'</b>	345	33	50	1,650.00	4,125.00	3,918.75	206.25	122
	340	37	50	1,850.00	4,625.00	4,393.75	231.25	122
	335	31	50	1,550.00	3,875.00	3,681.25	193.75	122
	330	37	50	1,850.00	4,625.00	4,393.75	231.25	122
	325	47	50	2,350.00	5,875.00	5,581.25	293.75	122
	320	65	50	3,250.00	8,125.00	7,718.75	406.25	122
	315	85	50	4,250.00	10,625.00	10,093.75	531.25	122
	310	107	50	5,350.00	13,375.00	12,706.25	668.75	122
	305	127	50	6,350.00	15,875.00	15,081.25	793.75	122
	300	146	50	7,300.00	18,250.00	17,337.50	912.50	122
	295	171	50	8,550.00	21,375.00	20,306.25	1,068.75	122
	290	197	50	9,850.00	24,625.00	23,393.75	1,231.25	122
	285	218	50	10,900.00	27,250.00	25,887.50	1,362.50	122
	280	238	50	11,900.00	29,750.00	28,262.50	1,487.50	122
	275	262	50	13,100.00	32,750.00	31,112.50	1,637.50	122
	270	303	50	15,150.00	37,875.00	35,981.25	1,893.75	122
	265	348	50	17,400.00	43,500.00	41,325.00	2,175.00	122
	260	379	50	18,950.00	47,375.00	45,006.25	2,368.75	122
	255	413	50	20,650.00	51,625.00	49,043.75	2,581.25	122
	250	431	50	21,550.00	53,875.00	51,181.25	2,693.75	122
	245	444	50	22,200.00	55,500.00	52,725.00	2,775.00	122
	240	453	50	22,650.00	56,625.00	53,793.75	2,831.25	122



	235	418	50	20,900.00	52,250.00	49,637.50	2,612.50	122
	230	366	50	18,300.00	45,750.00	43,462.50	2,287.50	122
	225	315	50	15,750.00	39,375.00	37,406.25	1,968.75	122
	220	264	50	13,200.00	33,000.00	31,350.00	1,650.00	122
	215	212	50	10,600.00	26,500.00	25,175.00	1,325.00	122
	210	161	50	8,050.00	20,125.00	19,118.75	1,006.25	122
	205	102	50	5,100.00	12,750.00	12,112.50	637.50	122
	200	41	50	2,050.00	5,125.00	4,868.75	256.25	122
<b>SUB TOTAL</b>				<b>3,22,550.00</b>	<b>8,06,375.00</b>	<b>7,66,056.25</b>	<b>40,318.75</b>	<b>122</b>
D-D'	350	9	48	432.00	1,080.00	1,026.00	54.00	122
	345	8	48	384.00	960.00	912.00	48.00	122
	340	15	48	720.00	1,800.00	1,710.00	90.00	122
	335	25	48	1,200.00	3,000.00	2,850.00	150.00	122
	330	34	48	1,632.00	4,080.00	3,876.00	204.00	122
	325	42	48	2,016.00	5,040.00	4,788.00	252.00	122
	320	51	48	2,448.00	6,120.00	5,814.00	306.00	122
	315	61	48	2,928.00	7,320.00	6,954.00	366.00	122
	310	71	48	3,408.00	8,520.00	8,094.00	426.00	122
	305	89	48	4,272.00	10,680.00	10,146.00	534.00	122
	300	111	48	5,328.00	13,320.00	12,654.00	666.00	122
	295	136	48	6,528.00	16,320.00	15,504.00	816.00	122
	290	162	48	7,776.00	19,440.00	18,468.00	972.00	122
	285	190	48	9,120.00	22,800.00	21,660.00	1,140.00	122
	280	213	48	10,224.00	25,560.00	24,282.00	1,278.00	122
	275	234	48	11,232.00	28,080.00	26,676.00	1,404.00	122
	270	262	48	12,576.00	31,440.00	29,868.00	1,572.00	122
	265	304	48	14,592.00	36,480.00	34,656.00	1,824.00	122
	260	336	48	16,128.00	40,320.00	38,304.00	2,016.00	122
	255	359	48	17,232.00	43,080.00	40,926.00	2,154.00	122
	250	384	48	18,432.00	46,080.00	43,776.00	2,304.00	122
	245	408	48	19,584.00	48,960.00	46,512.00	2,448.00	122
	240	369	48	17,712.00	44,280.00	42,066.00	2,214.00	122
	235	318	48	15,264.00	38,160.00	36,252.00	1,908.00	122
	230	267	48	12,816.00	32,040.00	30,438.00	1,602.00	122
	225	218	48	10,464.00	26,160.00	24,852.00	1,308.00	122
	220	166	48	7,968.00	19,920.00	18,924.00	996.00	122
	215	113	48	5,424.00	13,560.00	12,882.00	678.00	122
	210	46	48	2,208.00	5,520.00	5,244.00	276.00	122
<b>SUB TOTAL</b>				<b>2,40,048.00</b>	<b>6,00,120.00</b>	<b>5,70,114.00</b>	<b>30,006.00</b>	<b>122</b>
E-E'	320	8	46	368.00	920.00	874.00	46.00	122
	315	17	46	782.00	1,955.00	1,857.25	97.75	122
	310	33	46	1,518.00	3,795.00	3,605.25	189.75	122
	305	44	46	2,024.00	5,060.00	4,807.00	253.00	122
	300	60	46	2,760.00	6,900.00	6,555.00	345.00	122
	295	79	46	3,634.00	9,085.00	8,630.75	454.25	122





290	99	46	4,554.00	11,385.00	10,815.75	568.25	122
285	120	46	5,520.00	13,800.00	13,110.00	690.00	122
280	149	46	6,854.00	17,135.00	16,278.25	856.75	122
275	173	46	7,958.00	19,895.00	18,900.25	994.75	122
270	162	46	7,452.00	18,630.00	17,698.50	931.50	122
265	154	46	7,084.00	17,710.00	16,824.50	885.50	122
260	156	46	7,176.00	17,940.00	17,043.00	897.00	122
255	145	46	6,670.00	16,675.00	15,841.25	833.75	122
250	39	46	1,794.00	4,485.00	4,260.75	224.25	122
<b>SUB TOTAL</b>			<b>66,148.00</b>	<b>1,65,370.00</b>	<b>157,101.50</b>	<b>8,268.50</b>	<b>122</b>
<b>GRAND TOTAL</b>			<b>9,67,939.50</b>	<b>2,419,848.75</b>	<b>2,298,856.31</b>	<b>1,20,992.44</b>	<b>122</b>

Table No. 3.4 Generation of topsoil

Section No	Area (m <sup>2</sup> )	Influence (m)	Volume (m <sup>3</sup> )	Tonnage (T) BD 1.6T/m <sup>3</sup>	UNFC
A-A'	146	55	8,030.00	12,848.00	122
B-B'	170	50.5	8,585.00	13,736.00	122
C-C'	237	50	11,850.00	18,960.00	122
D-D'	222	48	10,656.00	17,049.60	122
E-E'	149	46	6,854.00	10,966.40	122
<b>Total</b>			<b>45,975.00</b>	<b>73,560.00</b>	<b>122</b>

## h) Grades of granite building stone.

The general analysis of granite building stone is given in the Table 3.4

Table No 3.4: Analysis of granite building stone

Minerals*	Percentage %
SiO <sub>2</sub>	72.0
Al <sub>2</sub> O <sub>3</sub>	13.1
Fe <sub>2</sub> O <sub>3</sub>	01.5
FeO	01.8
MgO	00.6
CaO	01.5
Na <sub>2</sub> O	03.5
K <sub>2</sub> O	04.8
H <sub>2</sub> O	00.7
TiO <sub>2</sub>	00.4
P <sub>2</sub> O <sub>5</sub>	00.1

\*Source: The Principles of Petrology by G W Tyrrell



## 4.0 MINING

- a) Briefly describe the existing/proposed method for developing/working the deposit with all design parameters.

It is a Virgin area. It is located in the Re-Sy No. KPD 833, KPD 836, KPD 838 & KPD 1148, Kelakam Village. In these five years of the mining plan period it is proposed to work on all the sections from A-A' to E-E'. A crushing and screening plant is located outside the lease area.

It is proposed to produce maximum 2,85,017.81 tonnes granite building stone from this mine in IV-Year by opencast semi-mechanised mining method. Jack hammer drilling blasting shall be adopted for mining along with rock breaker. Excavators shall be used for excavating and loading the material to the tippers. A team of 25 labours shall be deployed for the miscellaneous and environmental work.

The excavated material shall be transported to the crushing and screening plant located outside the lease area for crushing and sizing. The sized product shall be supplied to the consumer mainly for building construction and infrastructure development.

- b) Indicate quantum of development and tonnage and grade of production expected pit wise as in table below.

The year wise calculation of production for these five years of mining plan period is given in the Table No – 4.1. During mining the topsoil shall be handled as waste. The same shall be used for the afforestation in the buffer zone. The quantity of generated topsoil is given in Table No 4.2

**Table No. 4.1 Year-wise calculations of granite building stone production**

Year Wise	Section No	Bench Level	Area (m <sup>2</sup> )	Influence (m)	Volume (m <sup>3</sup> )	Tonnage (T) BD 2.5T/m <sup>3</sup>	Recovery (@ 95% Salable Ore)	Waste (@ 5%)
I-Year	A-A'	295	11	55	605.00	1,512.50	1,436.88	75.63
		290	32	55	1,760.00	4,400.00	4,180.00	220.00
	B-B'	310	16	50.5	808.00	2,020.00	1,919.00	101.00
		305	34	50.5	1,717.00	4,292.50	4,077.88	214.63
		300	71	50.5	3,585.50	8,963.75	8,515.56	448.19
		295	110	50.5	5,555.00	13,887.50	13,193.13	694.38
	C-C'	345	33	50	1,650.00	4,125.00	3,918.75	206.25
		340	37	50	1,850.00	4,625.00	4,393.75	231.25
		335	31	50	1,550.00	3,875.00	3,681.25	193.75





		330	37	50	1,850.00	4,625.00	4,393.75	231.25
		325	47	50	2,350.00	5,875.00	5,581.25	293.75
		320	65	50	3,250.00	8,125.00	7,718.75	406.25
		315	85	50	4,250.00	10,625.00	10,093.75	531.25
		310	107	50	5,350.00	13,375.00	12,706.25	668.75
		305	127	50	6,350.00	15,875.00	15,081.25	793.75
		300	146	50	7,300.00	18,250.00	17,337.50	912.50
		295	171	50	8,550.00	21,375.00	20,306.25	1,068.75
	D-D'	350	9	48	432.00	1,080.00	1,026.00	54.00
		345	8	48	384.00	960.00	912.00	48.00
		340	15	48	720.00	1,800.00	1,710.00	90.00
		335	25	48	1,200.00	3,000.00	2,850.00	150.00
		330	34	48	1,632.00	4,080.00	3,876.00	204.00
		325	42	48	2,016.00	5,040.00	4,788.00	252.00
		320	51	48	2,448.00	6,120.00	5,814.00	306.00
		315	61	48	2,928.00	7,320.00	6,954.00	366.00
		310	71	48	3,408.00	8,520.00	8,094.00	426.00
		305	89	48	4,272.00	10,680.00	10,146.00	534.00
		300	111	48	5,328.00	13,320.00	12,654.00	666.00
		295	136	48	6,528.00	16,320.00	15,504.00	816.00
	E-E'	320	8	46	368.00	920.00	874.00	46.00
		315	17	46	782.00	1,955.00	1,857.25	97.75
		310	33	46	1,518.00	3,795.00	3,605.25	189.75
		305	44	46	2,024.00	5,060.00	4,807.00	253.00
		300	60	46	2,760.00	6,900.00	6,555.00	345.00
		295	79	46	3,634.00	9,085.00	8,630.75	454.25
	<b>TOTAL</b>				<b>1,00,712.50</b>	<b>2,51,781.25</b>	<b>2,39,192.19</b>	<b>12,589.06</b>
II-Year	A-A'	285	53	55	2,915.00	7,287.50	6,923.13	364.38
		280	64	55	3,520.00	8,800.00	8,360.00	440.00
		275	75	55	4,125.00	10,312.50	9,796.88	515.63
	B-B'	290	126	50.5	6,363.00	15,907.50	15,112.13	795.38
		285	145	50.5	7,322.50	18,306.25	17,390.94	915.31
		280	167	50.5	8,433.50	21,083.75	20,029.56	1,054.19
		275	189	50.5	9,544.50	23,861.25	22,668.19	1,193.06
	C-C'	290	197	50	9,850.00	24,625.00	23,393.75	1,231.25
		285	218	50	10,900.00	27,250.00	25,887.50	1,362.50
		280	238	50	11,900.00	29,750.00	28,262.50	1,487.50
	D-D'	290	162	48	7,776.00	19,440.00	18,468.00	972.00
		285	190	48	9,120.00	22,800.00	21,660.00	1,140.00
		280	213	48	10,224.00	25,560.00	24,282.00	1,278.00
	E-E'	290	99	46	4,554.00	11,385.00	10,815.75	569.25
		285	120	46	5,520.00	13,800.00	13,110.00	690.00
		280	149	46	6,854.00	17,135.00	16,278.25	856.75
	<b>TOTAL</b>				<b>1,18,921.50</b>	<b>2,97,303.75</b>	<b>2,82,438.56</b>	<b>14,865.19</b>
III-Year	A-A'	270	92	55	5,060.00	12,650.00	12,017.50	632.50
		265	116	55	6,380.00	15,950.00	15,152.50	797.50
	B-B'	270	213	50.5	10,756.50	26,891.25	25,546.69	1,344.56



	C-C'	265	242	50.5	12,221.00	30,552.50	29,024.88	1,827.63
		275	262	50	13,100.00	32,750.00	31,112.50	1,637.50
		270	303	50	15,150.00	37,875.00	35,981.25	1,893.75
		265	348	50	17,400.00	43,500.00	41,325.00	2,175.00
	D-D'	275	234	48	11,232.00	28,080.00	26,676.00	1,404.00
		270	262	48	12,576.00	31,440.00	29,868.00	1,572.00
	E-E'	275	173	46	7,958.00	19,895.00	18,900.25	994.75
		270	162	46	7,452.00	18,630.00	17,698.50	931.50
TOTAL					1,19,285.50	2,98,213.75	2,83,303.06	14,910.69
IV-Year	A-A'	260	143	55	7,865.00	19,662.50	18,679.38	983.13
		255	174	55	9,570.00	23,925.00	22,728.75	1,196.25
	B-B'	260	276	50.5	13,938.00	34,845.00	33,102.75	1,742.25
		255	309	50.5	15,604.50	39,011.25	37,060.69	1,950.56
	C-C'	260	379	50	18,950.00	47,375.00	45,006.25	2,368.75
		255	182	50	9,100.00	22,750.00	21,612.50	1,137.50
	D-D'	265	304	48	14,592.00	36,480.00	34,656.00	1,824.00
		260	336	48	16,128.00	40,320.00	38,304.00	2,016.00
	E-E'	265	154	46	7,084.00	17,710.00	16,824.50	885.50
		260	156	46	7,176.00	17,940.00	17,043.00	897.00
TOTAL					1,20,007.50	3,00,018.75	2,85,017.81	15,000.94
V-Year	A-A'	250	211	55	11,605.00	29,012.50	27,561.88	1,450.63
		245	254	55	13,970.00	34,925.00	33,178.75	1,746.25
	B-B'	250	332	50.5	16,766.00	41,915.00	39,819.25	2,095.75
		255	231	50	11,550.00	28,875.00	27,431.25	1,443.75
	C-C'	250	431	50	21,550.00	53,875.00	51,181.25	2,693.75
		255	359	48	17,232.00	43,080.00	40,926.00	2,154.00
	D-D'	250	384	48	18,432.00	46,080.00	43,776.00	2,304.00
		255	145	46	6,670.00	16,675.00	15,841.25	833.75
	E-E'	250	39	46	1,794.00	4,485.00	4,260.75	224.25
		TOTAL					1,19,569.00	2,98,922.50
Production for 5 year					5,78,496.00	14,46,240.00	13,73,928.00	72,312.00

Table No. 4.2 Year-wise generation of topsoil

Year	Section No	Area (m <sup>2</sup> )	Influence (m)	Volume (m <sup>3</sup> )	Tonnage (T) BD 1.6T/m <sup>3</sup>
I-Year	A-A'	19	55	1,045.00	1,672.00
	B-B'	48	50.5	2,424.00	3,878.40
	C-C''	113	50	5,650.00	9,040.00
	D-D''	108	48	5,184.00	8,294.40
	E-E''	58	46	2,668.00	4,268.80
<b>Total</b>				<b>16,971.00</b>	<b>27,153.60</b>
II-Year	A-A'	27	55	1,485.00	2,376.00
	B-B'	45	50.5	2,272.50	3,636.00
	C-C''	32	50	1,600.00	2,560.00





	D-D"	34	48	1,632.00	2,611.20
	E-E"	36	46	1,656.00	2,649.60
	<b>Total</b>			<b>8,645.50</b>	<b>13,832.80</b>
III-Year	A-A'	22	55	1,210.00	1,936.00
	B-B'	25	50.5	1,262.50	2,020.00
	C-C"	41	50	2,050.00	3,280.00
	D-D"	25	48	1,200.00	1,920.00
	E-E"	22	46	1,012.00	1,619.20
	<b>Total</b>			<b>6,734.50</b>	<b>10,775.20</b>
IV-Year	A-A'	24	55	1,320.00	2,112.00
	B-B'	26	50.5	1,313.00	2,100.80
	C-C"	25	50	1,250.00	2,000.00
	D-D"	24	48	1,152.00	1,843.20
	E-E"	26	46	1,196.00	1,913.60
	<b>Total</b>			<b>6,231.00</b>	<b>9,969.60</b>
V-Year	A-A'	29	55	1,595.00	2,552.00
	B-B'	11	50.5	555.50	888.80
	C-C"	10	50	500.00	800.00
	D-D"	22	48	1,056.00	1,689.60
	E-E"	6	46	276.00	441.60
	<b>Total</b>			<b>3,982.50</b>	<b>6,372.00</b>
	<b>GRAND TOTAL</b>			<b>42,564.50</b>	<b>68,103.20</b>

The summary of the production and development of waste is given in the Table No 4.3

**Table No 4.3: Summary of the production and development**

Year	Production (T)	Topsoil (T)	Waste (T)	Total Handling (T)	Ratio
I-Year	2,39,192.19	27,153.60	12,589.06	2,78,934.85	1:0.1
II-Year	2,82,438.56	13,832.80	14,865.19	3,11,136.55	1:0.1
III-Year	2,83,303.06	10,775.20	14,910.69	3,08,988.95	1:0.09
IV-Year	2,85,017.81	9,969.60	15,000.94	3,09,988.35	1:0.09
V-Year	2,83,976.38	6,372.00	14,946.13	3,05,294.50	1:0.08
<b>Total</b>	<b>13,73,928.00</b>	<b>68,103.20</b>	<b>72,312.00</b>	<b>15,86,655.20</b>	<b>1:0.05</b>

The Year wise movement of the benches in pit during the five years mining is shown on the production and development plan enclosed vide **Plate No – 5A to 5E** respectively.



**c) Attach- Individual year wise plans & sections (in case of 'A' class mines):**

The year wise Production & Development at the end of every year (of all the five year) is given on the production & development Plan enclosed vide Plate No 5A to 5E and the production and development sections are enclosed vide Plate No 6.

**d) Attach supporting composite plan and section showing pit layouts, dumps, stacks of sub-grade mineral, if any, the year from which effected.**

The year wise Production & Development at the end of every year (of all the five year) is given on the production & development Plan enclosed vide Plate No 5A to 5E and the production and development sections are enclosed vide Plate No 6.

**e) Indicate proposed rate of production when the mine is fully developed, and the expected life of the mine and the year from which effected.**

The Geological resources of granite building stone in this area are 81,27,762.50 Tonnes and mineral reserves are 22,26,544.31 Tonnes. In the first five years of plan period totally 13,73,928.00 Tonnes granite building stone / aggregate shall be quarried. The balance mineral reserves of 8,52,616.31 Tonnes will be mined subsequently. Thus, the life of the mine is about 12 years.

The production plan for 1st five years is given bellow,

Year	Production
I-Year	2,39,192.19
II-Year	2,82,438.56
III-Year	2,83,303.06
IV-Year	2,85,017.81
V-Year	2,83,976.38
Total	13,73,928.00

The production plan for the remaining plan period is given bellow,

Year	Production
VI-Year	2,00,000.00
VII-Year	1,50,000.00
VIII-Year	1,50,000.00
IX-Year	1,50,000.00
X-Year	1,00,000.00
XI-Year	75,000.00
XII-Year	27,616.31
Total	8,52,616.31





- f) Attach a note furnishing a conceptual mining plan for the entire lease period (for 'B' category mines) and up to the life of mine (for 'A' category mines) based on the geological, mining and environmental considerations.

**Conceptual mining plan:**

For any mine, preparation of conceptual mining plan amounts to, fore-seeing in totality and planning for mining and related activities through-out its life span, till such time all the usable ore / minerals are exhausted to the economical limits and lease area is reclaimed to the extent possible. Apart from physico-chemical and mineralogical parameters which form primary basis for compilation of conceptual mine plan, several other factors such as economic viability, safety, environment, sustainable development, marketability and the norms laid down by the Government agencies from time to time do play important roles, with ever increasing and changing needs of humanity, coupled with technological advancements.

A Conceptual Plan of the Lease area and conceptual sections are enclosed vide **Plate No. 7.**

- (i) **Mineral reserves and anticipated life of the mine:**

The Geological resources of granite building stone in this area are 81,27,762.50 Tonnes and mineral reserves are 22,26,544.31 Tonnes. In the first five years of plan period totally 13,73,928.00 Tonnes granite building stone / aggregate shall be quarried. The balance mineral reserves of 8,52,616.31 Tonnes will be mined subsequently. Thus, the life of the mine is about 12 years.

The production plan for 1st five years is given bellow,

Year	Production
I-Year	2,39,192.19
II-Year	2,82,438.56
III-Year	2,83,303.06
IV-Year	2,85,017.81
V-Year	2,83,976.38
Total	13,73,928.00

The production plan for the remaining plan period is given bellow,

Year	Production
VI-Year	2,00,000.00
VII-Year	1,50,000.00
VIII-Year	1,50,000.00
IX-Year	1,50,000.00
X-Year	1,00,000.00
XI-Year	75,000.00
XII-Year	27,616.31
Total	8,52,616.31

**(ii) Exploration:**

The granite building stone in the lease area are of intrusive nature with good exposures in outcrops. Hence no exploration proposal is made.

**(iii) Mine Development:**

At conceptual stage there shall be single pit in this area with 31 benches of 5m height and 5m width. The pit at conceptual stage shall have 254m length and 211m width and it shall be developed upto 200m above MSL level. The overall pit slope shall be maintained at less than 45°.

The top benches shall be rehabilitated with simple vegetation by spreading the excess topsoil. The bottom benches at the conceptual stage shall be converted into rainwater storage pond. The pit shall be properly fenced with single opening for drawing the water.

Totally 68,103.20 Tonnes topsoil and 72,302.00 Tonnes waste shall be recovered and 14,46,240.00 Tonnes granite building stone shall be generated in the first three years of the plan period. The topsoil and waste material shall be stacked at the designated area as shown in the mining plan. The Topsoil shall be used for Afforestation/Green belt development as and when required. The waste material shall be used for road leveling work and also shall be utilized for back filling the pit at conceptual stage.

**(iv) Environmental Aspects:**

A safety barrier area of 7.5m from the boundary shall be developed as green belt area by planting the local species. At conceptual/Mine Closure stage the working pit shall be developed for pisciculture with good local bio-diversified vegetation. Totally 0.6468 Ha safety barrier area shall be used for green belt. Apart from this the plantation shall be carried out outside the lease area along haulage road.

A garland drain is proposed all along periphery of mining area to prevent the entry of rainwater in the pit. The water from garland drain shall be diverted to silt settling tank & rainwater harvesting pond before releasing to natural water course.

During mining the main source of air pollution is expected to be drilling, blasting and transportation. The regular sprinkling of water on haulage road and stopping drilling and blasting during high wind shall drastically reduce impact on air.





The present land use, proposed land use for the plan period and at conceptual stage is given in the Table No 4.2.

**Table No. 4.4: Ultimate land use at the end of mine**

Particulars	Land use pattern at present stage (Ha)	Land use pattern (end of progressive stage) (Ha)	Land use pattern at Conceptual stage (Ha)
Area for mining / mining activities	-	3.8437	4.1703
Area for Roads	-	-	-
Area for Safety Barrier / Green belt	-	0.6468	0.6468
Overburden / dump/ tailing dump	-	0.2113	-
<b>Total</b>	-	<b>4.7018</b>	<b>4.8171</b>
Unused area	4.8171	0.1153	-
<b>Total Lease area</b>	<b>4.8171</b>	<b>4.8171</b>	<b>4.8171</b>

\* Road area inside the mine Lease is not shown separately. Since the material is transported on the benches the road area is therefore included in the mining area.

**g) Opencast Mines:**

**i. Describe briefly giving salient features of the mode of working (mechanized, semi-mechanized, and manual):**

In this five years plan period the mining is proposed by opencast semi-mechanized mining method and the sequence of mining shall be as given under,

- The topsoil shall be recovered and transported to the safety barrier area for utilizing the same for afforestation / green belt development.
- After exposing the granite building stone, drilling shall be done by jack hammer.
- The blasting shall be carried out by Cartridge Slurry explosives.
- The rock breakers shall be used to break the oversize boulders left after blasting.
- The blasted material and the broken material by rock breakers of size 150mm to 250mm shall be loaded to the tippers by excavator and transported to the crushing and screening plant located outside the lease area.
- Safety Berm shall be maintained in all the bottom benches (wherever there is possibility of boulders to roll out) to prevent any rolling boulders from the benches to roll out in the steep slopes.

The year wise planning, production & development of the mine is as given under,



The mining in the I-year shall be done on the section A-A' to E-E'. It is proposed to develop thirteen benches of 5m height & 5m width to produce 2,39,192.19T granite building stones. The simultaneous recovery of topsoil and waste is expected to be 27,153.60 T and 12,589.06 T. At the end of I-Year the size of the pit shall be 251m in length & 100m in width. The mining operation shall be reach to the level of 290m above MSL.

The mining in the II-year shall be done on the section A-A' to E-E'. It is proposed to develop sixteen benches of 5m height & 5m width to produce 2,82,438.56T granite building stones. The simultaneous recovery of topsoil and waste is expected to be 13,832.80 T and 14,865.19 T. At the end of II-Year the size of the pit shall be 252m in length & 131m in width. The mining operation shall be reach to the level of 275m above MSL.

The mining in the III-year shall be done on the section A-A' to E-E'. It is proposed to develop eighteen benches of 5m height & 5m width to produce 2,83,303.06T granite building stones. The simultaneous recovery of topsoil and waste is expected to be 10,775.20 T and 14,910.69 T. At the end of III-Year the size of the pit shall be 253m in length & 170m in width. The mining operation shall be reach to the level of 265m above MSL.

The mining in the IV-year shall be done on the section A-A' to E-E'. It is proposed to develop twenty benches of 5m height & 5m width to produce 2,85,017.81T granite building stones. The simultaneous recovery of topsoil and waste is expected to be 9,969.60 T and 15,000.94 T. At the end of IV-Year the size of the pit shall be 254m in length & 191m in width. The mining operation shall be reach to the level of 255m above MSL.

The mining in the V-year shall be done on the section A-A' to E-E'. It is proposed to develop twenty two benches of 5m height & 5m width to produce 2,83,976.38T granite building stones. The simultaneous recovery of topsoil and waste is expected to be 6,372.00 T and 14,946.13 T. At the end of V-Year the size of the pit shall be 254m in length & 197m in width. The mining operation shall be reach to the level of 245m above MSL.





The mining shall be done by developing the benches of 5m height with 5m ultimate width. At the end of fifth year of mining totally there shall be 22 benches developed in this mine. The level of the bottom most bench shall be 245m above MSL. The pit slope shall be 45°. In these five years of the plan period a pit of 254m in length & 197m in width shall be formed.

The year wise (of all the five years) pit design is shown on the Production & Development Plan enclosed vide **Plate 5A to 5E** and the year wise movement of the benches is shown on the Production & Development Sections enclosed vide **Plate No 6**.

**ii. Describe briefly the layout of mine workings, the layout of faces and sites for disposal of over burden/waste.**

The year wise layout of the mine is shown on the year wise production and development plan enclosed **Plate No 5A to 5E** and production and development sections enclosed vide **Plate No 6**. As there is no over burden or side burden, there is no requirement for any area for disposal of waste.

**h) Underground Mines:**

Not Applicable

**i) Extent of Mechanization**

The mining shall be carried out by deploying three Excavator, two Rock Breaker and eleven Tippers for the maximum total handling of 3,11,136.55 Tonnes material in II-year. and ten units of Jackhammer drilling are required. One water Tanker shall be deployed for the sprinkling of water, and jeep for travelling of the staff to mine site.

**1. Drilling Machines**

During this mining plan period, the maximum production estimated is about 2,85,017.81 Tonnes in IV-year. The drilling and blasting in granite building stone is 100%. It is proposed to drill with jackhammer with 33/48mm dia bit. The calculations for required no of drilling units are given below.

Total material handled (max.) per annum shall be 2,85,017.81 T

Hole depth	—	1.5 m
Burden	—	1.m
Spacing	—	1.5m

Therefore, the drilling machine required per year is calculated as under:



Rock broken / hole of 1.5 m depth

Spacing x Burden X Depth x efficiency x B.D. (2.5T/m<sup>3</sup>)

1m x 1.5m x 1.5m x 80% X 2.5 BD=4.5 Tonnes

Therefore, rock broken/m = 4.5 Tonnes/1.5 m = 3 Tonnes /m

Drilling meterage required/yr =  $\frac{2,85,017.81}{3}$  = 95,005.93m

Therefore, drilling required per day = 95,005.93/300 days = 316.68 m/day

The jack hammer can drill about 50m per shift.

Hence the number of jack hammer drill units required = (316.68/day) / 50m each  
= 6.37 units

Considering 80% availability number of units required = (6.37\*20%) + 6.37 = 7.63

Additionally, 2 jack hammers shall be used as spare.

Hence 10 units of jack hammer are required for drilling and blasting in this area for single shift. Considering the working single shift from 6am to 1pm totally 10 jack hammer drill units are required.

**Table No. 4.3: Requirement of Jack Hammer Drilling Machines**

Type	No's	Dia. of hole (mm)	Make	Motive Power	CFM
Pneumatic Jack Hammer Drill	10	33/48	Atlas Capco (or Equivalent)	Air	60

**Table No. 4.5A: Requirement of Air Compressor**

Type	No's	Capacity	Make	Motive Power	H.P
Air Compressor	5	250 CFM	Atlas Capco (or Equivalent)	Diesel	40

## 2. Loading Equipment

During this mining plan period, the maximum handling estimated is about 3,11,136.55 Tonnes in II-year. Out of which 2,82,438.56 Tonnes granite building stone and 13,832.80 Tonnes of topsoil and 14,865.19 Tonnes of waste.

So, total handling per day = 3,11,136.55 /300days = 1,037.12 tonnes



Total handling of 1,037.12 tonnes per day (for 300 working days) shall be loaded in the tippers by excavator. The loading capacity of excavator PC 220 in such terrain is 125Tonnes /hour.

The calculations of the excavators require are given below.

Tonnage proposed to be handled per hour

$$= 1,037.12 \text{ Tonnes} / 7\text{hours} = 148.16 \text{ tonnes}$$

#### **No. of Excavator**

One excavator can handle 125 tonnes/hour in such terrain. And hence considering 80% availability, 1 excavator can handle 100 tonnes/hour.

Thus one 1 excavator can make (100 X 7 hours) seven hundred tonnes per day

So to handle 148.16 tonnes, we require 1.48 No. of excavators.

Additionally, 1 excavator shall be used as spare

Hence Number of excavators required is 3.

**Table No 4.5: Requirement of Loading Equipment.**

Type	No's	Capacity	Make	Motive Power	H.P
Excavator	3	1.2m <sup>3</sup> bucket capacity	Tata Hitachi 220 (or Equivalent)	Diesel	140

### **3. Haulage and Transport Equipment**

#### **a. Material Handling**

During this mining plan period, the maximum handling estimated is about 3,11,136.55 Tonnes in II-year. Out of which 2,82,438.26 Tonnes granite building stone and 13,832.80 Tonnes of topsoil and 14,865.19 Tonnes of waste to be transported to buffer zone where plantation to be carried out.

The requirements of the tippers to handle this material is calculated below,

$$\text{Total Handling / day} = 3,11,136.55 / 300 \text{ days} = 1,037.12 \text{ tonnes/day}$$

$$\text{No of tippers} = (1,037.12 / 10\text{tonnes per trip} / 2\text{trips per hour} / 7\text{-hour effective shift}) = 7.40\text{units.}$$

Considering 80% efficiency No. tippers required will be = 8.88

Additionally, 2 tippers shall be used as spare

Hence 11 tippers are required for mining

The requirement of the transport equipment is given in the Table No 4.6



**Table No 4.6: Requirement of transporting equipments**

Type	No's	Size/ Capacity	Make	Motive Power	H.P
Tipper	11	10 tonnes	Tata (or Equivalent)	Diesel	97

**b. Transport from mine head to the destination**

The broken material would be directly transported to the crusher outside the quarry by the same tipper. No additional tippers are required for the transportation.

**4. Miscellaneous:**

**Describe briefly any allied operations and machineries related to the mining of the deposit not covered earlier operations**

For afforestation one water tankers with spraying arrangement shall be deployed.

The details of the equipment required for miscellaneous is given in the Table No 4.8

**Table No. 4.8: Requirement of the equipment's for miscellaneous**

Type	Nos.	Size/Capacity	Make	Motive Power	H.P
Water Pump	1	6.5 HP	Kirloskar (or Equivalent)	Diesel	6.5
water tanker	1	8000	Tata (or Equivalent)	Diesel	97
Jeep	3	1+4	Mahindra (or Equivalent)	Diesel	40
Maintenance Van	1	10 tonnes	Tata (or Equivalent)	Diesel	97

## 5.0 BLASTING

- a) Broad blasting parameters like charge per hole, blasting pattern, charge per delay, maximum number of holes blasted in a round, manner and sequence of firing etc.

BLASTING			
1.	Burden x Spacing x Depth	:	1m X 1.5m X 1.5m depth
2.	Number of holes	:	10
3.	Dia of holes	:	33 mm/48mm
4.	Depth of each hole	:	1.5m
5.	Explosives to be used	:	Cartridged Slurry explosives
6.	Powder factor	:	3 Tonnes/kg
7.	Consumption of explosives per year	:	3,00,018.75 Tonnes / 3 tonnes/kg powder factor =1,00,006.25kg

### i. Blasting Pattern :

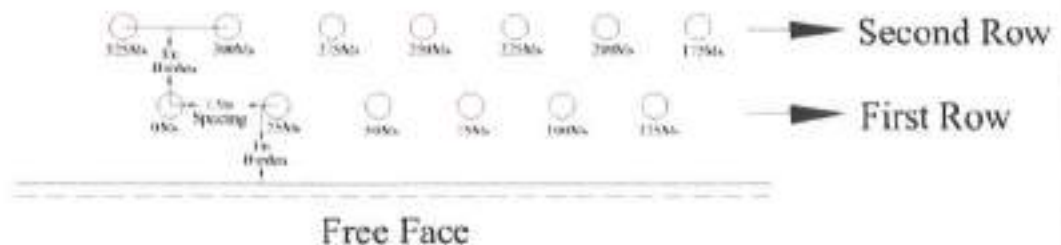
In case of jack hammer the blasting pattern shall be staggered, however, it would vary depending on the rock condition.

### ii. Manner and sequence of firing:

In case of jack hammer the blasting pattern shall be staggered, however, it would vary depending on the rock condition. The rock shall be blasted and sequenced using delay detonators for least vibrations & fly rock.

Controlled Blasting techniques with Electric and Non-electric (Nonel) delay detonators will be carried out to reduce ground vibration.

### Drilling & Blasting Pattern with MilliSecond Delay Detonators to Reduce Ground Vibration





**b) Type of explosives used/to be used**

Cartridged Slurry explosives shall be used for the blasting.

**c) Powder factor in ore and overburden/ waste / development heading / stope.**

3 Tonnes / kg

**d) Whether secondary blasting is needed, if so, describe in brief :**

No secondary blasting shall be undertaken. Rock broken shall be used to  
Break down the bigger boulders.

**e) Storage of explosives (like capacity & type of explosive magazine):**

There is no explosive magazine within the mining area. The explosive magazine is located in Sy No. 842, in Kelakam Village, Thalassery Taluk, Kannur District, Kerala would be used for the storage of the explosives. The explosive license is enclosed as **Annexure – 13.**





## **6.0 MINE DRAINAGE**

- a) **Likely depth of water table based on observations from nearby wells and water bodies :**

The mine is located at higher elevation on hill and the water table in the mine is much more below the general surface, however a few perched aquifers has been observed at a distance of about 230m from the boundary of the mine. Here we have observed water level to be about 4.2m from the surface.

- b) **The deepest workings expected to reach.**

The expected deepest mining operation shall be about 200m above MSL, which will be much above the ground water table.

- c) **Quantity and quality of water likely to be encountered, the pumping arrangements and places where the mine water is finally proposed to be discharged.**

No ground water would be encountered during mining.



## 7.0 STACKING OF MINERAL REJECTS & DISPOSAL OF WASTE

- a) Indicate briefly the nature and quantity of topsoil, overburden/waste and mineral rejects likely to be generated during the next five years :

Totally 68,103.20 Tonnes topsoil and 72,312.00 Tonnes waste shall be recovered and 13,73,928.00 Tonnes granite building stone shall be generated in the first five years of the plan period. The topsoil and waste material shall be stacked at the designated area as shown in the mining plan. The Topsoil shall be used for Afforestation/Green belt development as and when required. The waste material shall be used for road leveling work and also shall be utilized for back filling the pit at conceptual stage. The year wise and section wise generation of topsoil and waste is given in the Table No 7.1.

**Table 7.1 details of the topsoil and waste generation**

Year	Production (T)	Topsoil (T)	Waste (T)	Total Handling (T)
I-Year	239,192.19	27,153.60	12,589.06	278,934.85
II-Year	282,438.56	13,832.80	14,865.19	311,136.55
III-Year	283,303.06	10,775.20	14,910.69	308,988.95
IV-Year	285,017.81	9,969.60	15,000.94	309,988.35
V-Year	283,976.38	6,372.00	14,946.13	305,294.50
<b>Total</b>	<b>1,373,928.00</b>	<b>68,103.20</b>	<b>72,312.00</b>	<b>1,514,343.20</b>

Threshold values in respect of apatite and rock phosphate, bauxite, barytes, chromite, chinaclay/kaolin, fluorite, graphite, gypsum, iron ore, kyanite and sillimanite, copper ore, manganese, magnesite, talc/steatite/soapstone, and wollastonite minerals as evolved by IBM may be adopted as applicable.

Not applicable

- b) Land chosen for disposal of waste with proposed justification.

The topsoil and waste material shall be stacked at the designated area as shown in the mining plan. The Topsoil shall be used for Afforestation/Green belt development as and when required. The waste material shall be used for road leveling work and also shall be utilized for back filling the pit at conceptual stage.



- c) **Attach a note indicating the manner of disposal, and configuration, sequence of buildup of dumps along with the proposals for the stacking of sub-grade ore to be indicated item wise.**

The topsoil and waste material shall be stacked at the designated area as shown in the mining plan. The Topsoil shall be used for Afforestation/Green belt development as and when required. The waste material shall be used for road leveling work and also shall be utilized for back filling the pit at conceptual stage.



## 8.0 USE OF MINERAL

- a) Describe briefly the end-use of the mineral (sale to intermediary a parties, captive consumption, export and internal use).

The granite building stones are used mainly as a basic filling material in construction, infrastructure development and road making.

- b) Indicate the physical and chemical specifications stipulated by some of the buyers.

The tumbler index of granite building stone should be +85; the size should be 150mm to 250mm, suitable for feed do the crushers.

- c) Give details in case of blending of different grades of ores is being practiced or is being practiced at the mine to meet specifications stipulated by buyers.

Not applicable





## 9.0 OTHERS

### a) Site Services:

The site services at mine shall take care of the workers requirements of food, shelter, water, emergency first aid services as well as equipment maintenance services in addition to recreational facilities for the employees, workmen and their families.

The following statutory and administrative facilities shall be made available near the mine site.

- Rest Shelter
- First Aid Station
- Latrines/Urinals
- Canteen
- Water supply for drinking purposes

The above site services shall be provided outside the lease area.

### b) Employment potential :

The list of the staff and workmen employed in the mine is given Table No 9.1

**Table No 9.1: Requirement of workmen & staff**

Sl. No	Particulars	No's
1	Highly Skilled	3
2	Skilled	10
3	Semi-skilled	15
4	Un-skilled	25
	<b>Total</b>	<b>53</b>

One Mines Manager cum Engineer shall be in-charge of the site operations. Apart from the above said direct employment twice the number of employments would happen as indirect employment during the mine operations.



## 10.0 MINERAL PROCESSING

- a) If processing/beneficiation of the ore or minerals mined is planned to be conducted on site or adjacent to the extraction area, briefly describe the nature of the processing/beneficiation. This should indicate size and grade of feed material and concentrate (finished marketable product), recovery rate.

No processing / beneficiation would be undertaken in the lease area. The entire product of rock of size 150mm to 250mm shall be transported to the crusher outside the lease area.

- b) Explain the disposal method for tailings or waste from the processing plant (quantity and quality of tailing proposed to be discharged, size and capacity of tailing pond, toxic effect of such tailings, if any, with process adopted to neutralize any such effect before their disposal and dealing of excess water from the tailing dam).

There is no crushing and screening within the lease. The entire rock produced would be transported for the crusher outside the lease area. As all the products are saleable, there would be no generation of waste.

- c) A flow sheet or schematic diagram of the processing procedure should be attached.

There is no crushing & screening plant within the lease area.

- d) Specify quantity and type of chemicals to be used in the processing plant.

Not Applicable

- e) Specify quantity and type of chemical to be stored on site/plant.

Not Applicable

- f) Indicate quantity (cu.m per day) of water required for mining and processing and sources of supply of water. Disposal of wastewater and extent of recycling.

The requirement of water for the purpose of drinking, dust suppression by water tanker and afforestation as given in Table No 10.1



**Table.No.10.1 Requirement of water**

Purpose	Qty Required m <sup>3</sup> /day
Drinking water & Domestic	6
Afforestation	8
Dust suppression by water tanker	10
<b>Total</b>	<b>24*</b>



\*Water for dust suppression and afforestation may not be required for four to five months during the monsoon

- The required water for domestic, dust suppression and afforestation shall be brought from the Rainwater Harvesting Pond, nearby old abandoned quarries.
- Packaged drinking water shall be provided for drinking purposes.



## **PART - II**

### **11.0 ENVIRONMENTAL MANAGEMENT PLAN**

**a) Attach a note on the status of baseline information with regard to the following :**

This Granite Building Stone Quarry, over an extent of 4.8171 Ha. (11.9030 Acres) is located on the SW slopes of area. It is a working area. The highest elevation in this area is 365.0m above MSL and the lowest elevation is 235.0m above MSL.

The area has moderate climate with maximum temperature of 28.4<sup>0</sup> to 36.9<sup>0</sup>C in the month of April and minimum temperature of 19.7<sup>0</sup> to 23.9<sup>0</sup>C in the month of December. The area receives a total annual rain fall of around 3438mm. The highest rainfall is received in the month of July.

The area is surrounded by the lands with commercial crop like rubber plantation, teak, rose wood, pepper, cashew, coconut, aeracanut, coffee, coco, mango, jackfruit etc. Snakes, Squirrel, Rats, Crow, Sparrow, Pigeon Butterfly & Insects are seen periodically. The nearest habitant Poyyamala is located at 0.5 Kms away from this mine. No public buildings, monuments exist inside the mining area.

**Existing land use pattern indicating the area already degraded due to mining/pitting, dumping, roads, processing plant, workshop, township etc., in a tabular form.**

The existing land use pattern is given in the Table No 11.1

**Table No. 11.1 Existing land use Pattern.**

<b>Particulars</b>	<b>Land use pattern at present stage (Ha)</b>
Area for mining / mining activities	0.00
Area for Safety Barrier/Greenbelt	-
Roads	-
<b>Total</b>	<b>0.00</b>
Unused area	4.8171
<b>Total Lease area</b>	<b>4.8171</b>

➤ **Water regime**

The area receives a total annual rain fall of around 3438mm. The rains start in the month of April and continue up to November. It is maximum in the month of July. A water course at the northeast side and outside the lease drains the rainwater.

**Flora and Fauna**

The common flora in this area are given in the Table No 11.2

**Table No 11.2: Common Flora in study area**

Sl No	Botanical Name	Common Name
1	Coffea Arabica	Coffee
2	Tectonagrandis	Teak wood
3	Areca catechu	Aeracanut
4	Artocarpusheterophyllus	Jack fruit
5	BorassusFlabellifer	Pasa
6	Emmetesuperbum	Rock Barana
7	Schleicheraoakosa	Poovan
8	Cocosnucifera	Cocorut
9	Anacardiumoccidentale	Cashew
10	Grevilleaohusta	Silver oak
11	Boutelovadactylodes	Buffalo grass
12	Oroxylumindicum	Palakapayyan
13	LepidiumMeyenii	Maka
14	MacarangaPeltata	Vatta
15	Abrusprecatorius	Kunni
16	Piper nigrum	Pepper
17	Heveabrsiliensis	Rubber tree
18	Artocarpusaltilis	Kadaplavu
19	Mangiferaindica	Mango
20	Grewiatilfoliavahl	Chadachi
21	Dalbergialatifolia	Rosewood
22	Chromolaenaodorata	Communist Pacha
23	Bambuseae	Bamboo
24	Theobroma Cacao	Cocoa



The common fauna in this area is given in the Table No 11.3

**Table No 11.3: Common Fauna in study area**

Sl No	Scientific Name	Common Name
1	Ranahexadactyla	Frog
2	Serpentes	Snakes
3	Tyto Alba stertens	Owl
4	Herpestesedwardsi	Keeri, Common Grey Mongoose
5	Bandicootabengalensis	Bandicoot, Peruchazhi
6	Funambuluspalmarum	Annan, squirrel
7	Rattus	Rat
8	Acridomorpha	Grasshopper
9	Lacertilia	Lizard
10	Formicidae	Ant
11	Corvus	Crow
12	Rhopalocera	Butterfly
13	Felis catus	Cat
14	Canis lupus familiaris	Dog
15	Bos taurus	Cow
16	Araneae	Spider
17	Chamaeleonidae	Chameleon





## **Quality of Air, Ambient Noise Level and Water**

### **1. Ambient air quality**

The air quality in the area mainly depends on the nature & concentration of emissions and meteorological conditions. The major air pollutants include:

- Particulate Matter (Dust) of various sizes
- Gases, such as, Sulphur Dioxide, Oxides of Nitrogen, Carbon Monoxide etc. from vehicular exhaust.

Dusts are the single largest air pollutant observed in this area. Diesel operating vehicles produces NO<sub>x</sub>, SO<sub>2</sub> and CO emissions, usually at low levels. Dust can be a significant nuisance to surrounding land users and potential health risk in some circumstances. Dust is produced from a number of sources and through number of mechanisms such as

- Land clearing,
- Overburden removal,
- Crushing & screening,
- Loading & unloading of material on site &
- Subsequent transport off the site etc.

The detected ambient air quality is given in the Table 11.4

**Table No 11.4: Detected AAQ in core & buffer zone.**

Area	Sample Code	PM 10 µg/m <sup>3</sup>	PM 2.5 µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>x</sub> µg/m <sup>3</sup>
Core Zone	A1	40.4	18.8	14.6	12.4
Poyyamala	A2	42.6	20.4	14.8	14.2

The Environment monitoring data is enclosed as **Annexure – 15.**

### **Noise levels:**

The noise level within the core zone is found to be 46.71 dB(A) Leq\* during day time and 37.50 dB(A) Leq\* during night, whereas in the buffer zone it is 51.06 dB(A) Leq\* during day time and 39.90 dB(A) Leq\* during night time. The impact of mining on the ambient noise level would be hardly noticeable in nearby villages, as the nearest habitant Poyyamala is 0.5 Kms away from the mine.

The detected noise level is given in the Table 11.5

**Table No 11.5: Detected noise level in core & buffer zone.**

Area	Sample Code	Max dB(A)	Min dB(A)
Core Zone	N1	46.71	38.50
Poyyamala	N2	51.06	39.90

The Environment monitoring data is enclosed as **Annexure – 15**.

#### **Water Quality:**

There is no water regime of any importance in the mining area. Drinking water is made available through bore wells. This water is being used for drinking purpose from many years. In buffer zone the minimum pH value of water is detected as 7.40 in Poyyamala, total dissolved solids detected minimum 114mg/l in Poyyamala. The total hardness of water is detected minimum 88mg/l in Poyyamala. The Environment monitoring data is enclosed as **Annexure – 15**.

#### ➤ **Climatic conditions:**

The area has moderate climate with maximum temperature of 28.4<sup>0</sup> to 36.9<sup>0</sup>C in the month of April and minimum temperature of 19.7<sup>0</sup> to 23.9<sup>0</sup>C in the month of December. The area receives average rain fall of more than 3438mm. The highest rainfall receives in the month of July. The rains start in the month of June and continue upto November. It is maximum in the month of July.

#### ➤ **Human settlement:**

There is no human settlement in core zone. The nearest habitants are more than 60m away from the boundary of the mining lease area. The nearest human settlements are in Poyyamala, which is about 0.5 Kms from the mining lease area.

#### ➤ **Public buildings, places of worship and monuments historical or archaeological importance:**

There are no monuments of either historical or archaeological importance in the core or buffer zone.

#### ➤ **Attach plans showing the locations of sampling stations:**

The environment monitoring is carried out for 15days and the location of sampling station is given in the key plan.



- b) Attach an Environmental Impact Assessment Statement describing the impact of mining and beneficiation of environment on the following over the next five years and up to conceptual plan period 'A' category mines.
- i. Land area indicating the area likely to be degraded due to mining, pitting, dumping, road, workshop, processing plant, township etc.

Due to this mining operation there shall be an impact on the environment. The area broken for mining at the end of five years of the mining plan period and at the conceptual stage is given in the Table No 11.6.

**Table no.11.6 Land use at the end mining plan period and life of the mine**

Particulars	Land use pattern at present stage (Ha)	Land use pattern (end of progressive stage) (Ha)	Land use pattern at Conceptual stage (Ha)
Area for mining / mining activities	-	3.8437	4.1703
Area for Roads	-	-	-
Area for Safety Barrier / Green belt	-	0.6468	0.6468
Overburden / dump/ tailing dump	-	0.2113	-
<b>Total</b>	-	<b>4.7018</b>	<b>4.8171</b>
Unused area	4.8171	0.1153	-
<b>Total Lease area</b>	<b>4.8171</b>	<b>4.8171</b>	<b>4.7181</b>

\* Road area inside the mine Lease is not shown separately. Since the material is transported on the benches the road area is therefore included in the mining area.

The land use pattern at the end of first five years of plan period is given in PMCP enclosed vide **Plate No-10** and the ultimate land use pattern at conceptual stage is enclosed vide **Plate No-7**.

## ii. Air Quality

The quality of air in lease area would be deteriorated to certain extent due to drilling, blasting and transportation of the rock produced. However, the following environment control measures and the mitigating measures to control air pollution due to mining operations shall be undertaken, so that the pollution levels are maintained well within the permissible limits.



**CONTROL MEASURES:****A. QUARRYING**

- Dust suppression systems (water spraying) would be adopted at mine working & loading points.
- Wet Drilling shall be Practiced to reduce dust generation.
- Speed control on vehicle movement, to limit speed.
- The blasting shall be carried out during day hours, it shall be avoided during strong wind and temperature inversion condition.
- Excavation operations shall be suspended during very strong wind condition.
- Wind reduction control by plantation. Trees and shrubs will be grown along the Green belt area/safety barrier area along the periphery of the quarry and along the haul roads.
- Plantation of wide leaf trees, creepers and tall grass along approach roads, and around hillock will help in to suppress the dust.
- Proper tuning of excavators and compressors will be ensured to keep the gas emissions from the vehicles within the prescribed norms of the CPCB and MoEF guidelines.
- All workers shall be provided with personal protective devices eg. Dust Mask, Goggles, Helmet, etc.

**iii. Water Quality**

There is no water source of perennial type passing through the area. The lease area is located at higher elevation on the area and here the ground water level is much more below the general surface on the lowest portion. Hence no ground water would be encounter during mining as the mining is proposed to extend up to 35m depth from the lowest level of the lease area. Hence there shall not be any impact on water quality. Also granite building stone being a very stable material and is not hazardous material does affect the water quality. The following mitigating measures for the surface run offs has been incorporated.



### **MITIGATING MEASURES:**

The following mitigation measures are suggested for water management and water pollution control.

- Garland drains shall be constructed all along the periphery of the quarry. The garland drain shall be routed through Silt Settling Tank (SST) to remove suspended soils and the overflow water shall be discharged to natural water course. A Rainwater Harvesting Pond (RWHP) is also envisaged for the use of the surface water. Two SST & RWH Pond is proposed in the SW of the Mining Lease area.
- Settling tanks and drains shall be periodically de-silted.
- Providing sufficient gully checks to check any silt flowing along with the surface run-off during monsoon. The environment management measures for the surface water run offs are shown in the Environment Management Plan enclosed vide **-Plate No 8 & 9.**
- No toilet is planned within the mine area. However, the toilets built at the site office, shall be provided with septic tanks to handle the sewage from the same.
- The quality of the water in the surrounding area and the Pre & Post monsoon water quality shall be monitored to track any changes or contamination in the water quality.
- The working of quarry at present shall be restricted at 200m above MSL at conceptual stage of quarrying, which is much above the ground water level.

#### **iv. Noise Levels**

The noise level within the core zone is found to be 46.71 dB(A) Leq\* during day time and 37.50 dB(A) Leq\* during night, whereas in the buffer zone it is 51.06 dB(A) Leq\* during day time and 39.90 dB(A) Leq\* during night time. The impact of mining on the ambient noise level would be quite insignificant, in the nearby villages as the nearest habitants are beyond 60m from the boundary of the mining lease area and human settlements are in Poyyamala which is about 0.5 Kms away from the mine.

#### **➤ Control Measures:**

- Identification of mitigation measures for noise abatement for both point sources and line sources are undertaken and measures to minimize the impact is proposed.
- The equipments and machines shall be maintained properly. Particular attention shall be given to the silencers and mufflers.



- Use of sharp drilling bits, delivery of compressed air at optimal pressure and proper maintenance of compressor, drilling machine, jackhammers and tipper trucks.
- Limiting the speed of empty haulage vehicles/tippers to a moderate level to prevent undue noise.
- In addition to it, Green belt development shall be undertaken around the quarry lease area to minimize propagation of noise.
- Provision of rotation of workers to minimize exposure time as well as provision of earmuffs to workers exposed to high noise areas is also envisaged.
- Regular monitoring of noise level shall be done within the core zone and the buffer zone of the mining lease area.

#### **Vibration levels (due to blasting)**

The drilling is proposed by jack hammer with 33mm/48mm dia. The blasting shall be done sequentially. Due to very small diameter hole blasting, the vibration in this area shall well within the permissible limits. Delay shall be used for blasting keeping the vibration to minimum with least fly rock.

Thus the vibration would not be of significance as the nearest habitants are beyond 60m from the boundary of the mining lease area and human settlements are in Poyyamala, which is about 0.5 Kms away from the mine.

#### **Control Measures:**

#### **VIBRATION & NOISE MITIGATION MEASURES (BLASTING PRECAUTIONS):**

- Only small diameter drill holes of 33/48mm diameter with 25mm diameter cartridge slurry/ emulsion explosives shall be used for blasting, no large diameter holes are proposed for the blasting. With optimum blast design, effective blasting techniques with delay detonators and low charge per delay, care shall be taken to limit the blast vibrations and the PPV below 10mm per second, i.e. within the permissible limits, vide DGMS circular 7 of 1997.
- Each blast would be is carefully planned, supervised, executed and observed by qualified Blasters.
- Design of optimum blast hole geometry i.e. burden, spacing, Blast hole layout pattern, inclination and depth considering, burden, nature of the rock, safe working space, fragmentation size, etc., to keep the flyrock, noise and ground vibrations at the minimum.





- Blasting shall be done using appropriate delay detonators to keep the noise and vibration at the minimum levels.
- Proper sequencing of the blast so as to keep the vibration, noise and flyrock to the minimum levels.
- The appropriate Charge per delay shall be regulated to keep the PPV below 10mm/ sec as per DGMS Circular 7 of 1997.
- The holes shall be proper stemmed and the stemming of each hole shall be checked by the qualified blaster to avoid 'blown thorough' holes, that is one of the major source of noise and Airblast during primary blasting.
- No secondary blasting like Pop Shooting or Plaster Shooting shall be undertaken for breaking down large boulders so as to avoid Airblasts and Fly rocks. Only rock breakers will be used for breaking down the bigger boulders
- Wherever house or public buildings at a distance of 50 to 100m the controlled blasting techniques like cushion blasting Muffle Blasting will be adopted

#### v. Socio-economics

**Social and demographic profile:** The mine is situated in the remote area, where the socio- economic status of the people is not satisfactory. The main occupation of the people is working in plantation and there are no major industries in this area. The mining operation in such remote places would provide 53 direct and twice the number of indirect employments to local people. Hence mining operation will help in improving socio-economic status of the area.

#### vi. Occupational health and safety hazards:

The statutory norms shall be followed during the course of mining to ensure the proper health and safety of workers. All the health and safety aspects as per the requirement and standards of the DGMS shall be followed to ensure the health and safety of all persons employed at the mine. Apart from this there is no other factor envisaged during the mining operations.

#### vii. Human settlement:

The local population is well settled in the nearby villages. There is possibility of the migrating the laborers from surround area to the nearby villages due to increase in



revenue earning in this area. There shall be better development of infrastructure due to mining activities.

**viii. Recreation facilities:**

As of now there are not much recreational facilities available. Recreation facilities would be improved once the mining start and financial position of workers develop. The company also plans to provide good facilities as part of the CER works.

**viii. Historical monuments etc.**

There are no historical monuments in the core or buffer zone.

- c) **Attach an Environmental Management Plan (supported by appropriate plans and sections and time-bound action proposed to be taken with sequence & timing in the following diagrams should be used).**

**Temporary storage and utilization of topsoil.**

Totally 68,103.20 Tonnes of topsoil and 72,312.00 tonnes of waste is expected to be generated. This topsoil/waste shall be transported to the safety barrier area and used for afforestation / green belt development all along periphery of the mine. Waste will be transported to the pre-determined dump situated in the SW side of the Mine Lease area as shown in the Production & Development plan, and also used for road repair works.

- **Year wise proposal for reclamation of land affected by abandoned mines and their mining activity during first five years (and up to conceptual plan period for 'A' category mines, clarifying to extent back filling and re-contouring and/or alternative use of unfilled/partially filled excavations to sides/slopes and mine.**

The mining operations during these five years of the plan period are planned upto 245m above MSL. At conceptual stage the pit shall be developed for pisciculture with good local bio-diversified vegetation. The reclamation measures are shown on the environment management plan enclosed vide **Plate No - 9.**

- **Programme for afforestation, year wise for the initial five years (and up to conceptual plan of 'A' category mines) indicating number of plants with name of species to be demarcated in areas in hectares.**

0.6468 Ha area earmarked for safety barrier shall be developed as green belt by planting minimum but not limiting to 800 local species. where ever if it is not possible to do plantation in the safety zone area, the same plantation will be done in the nearest possible





area to safe guard the environmental protection. Till conceptual stage totally 0.6468 Ha area shall be covered under green belt. Apart from this Afforestation shall be done on the haulage road and public places by planting 1400 saplings.

The afforestation program is given in the Table No 11.7

Table No 11.7: Afforestation program

Year	No of Plants	Green Belt area covered	Location
I-Year	440 saplings	0.12936Ha	Green belt area & Haulage Road
II-Year	440 saplings	0.12936Ha	
III-Year	440 saplings	0.12936Ha	
IV-Year	440 saplings	0.12936Ha	
V-Year	440 saplings	0.12936Ha	
	2200 saplings	0.6468 Ha	

- **Stabilization and vegetation dumps along with waste dump management for next five years (and up to conceptual plan period for 'A' category mines).**

Only 68,103.20 tonnes topsoil is expected to generate in this area. The topsoil shall be stocked in the safety barrier and used for developing the green belt in safety barrier area. Totally minimum but not limiting to 800 saplings shall be planted in this area. Till conceptual stage totally 0.6468 Ha area shall be covered under green belt. Apart from this Afforestation shall be done on the haulage road and public places by planting another 1400 saplings.

- **Treatment and disposal of water from mine:**

Excepting during monsoon months, no water shall be discharged from mine. A garland drain shall be made all around the mine to divert the water away from the pit through silt settling tank. The clarified water from Silt Settling Tank (SST) shall be directed to Rainwater Harvesting Pond (RWHP). The overflow water from Rainwater Harvesting Pond shall be released to natural water course.

- **Measures for minimizing adverse effects on water regime:**

Excepting during monsoon months, no water shall be discharged from mine. A garland drain shall be made all around the mine to divert the water away from the pit to Silt Settling Tank (SST). The water from Silt Settling Tank (SST) shall be directed to a rain harvesting pond before being released to natural water course. However granite building stone is a Nontoxic and hence there shall not be any chemical hazardous effect on the water regime.





**- Protective measures for ground vibrations/air blast caused by blasting:**

The drilling is proposed by jack hammer with 33mm/48mm dia. The blasting shall be done with 25mm slurry cartridges. Due to very small diameter hole blasting the vibration in this zone shall very low and the vibrations shall be maintained below 10mm/s as per the DGMS circular No. 7 of 1997. The nearest habitant in Poyyamala, which is about 0.5 Kms away from the mine. Secondary blasting shall not be undertaken to avoid air blast. Only rock breaker shall be used to break the bigger boulders.

**- Measures for protecting historical monuments and for rehabilitation of habitat, settlements, disturbed due to mining activity:**

There are no historical monuments in the core or buffer zone.

**- Socio-economic benefits arising out of mining:**

**Social and demographic profile:** The mine is situated in the remote area, where the socio- economic status of the people is not satisfactory.

The main occupation of the people is working in plantation. There are no major industries in the area. The mining operations in such remote places would provide 53 direct and twice the number of indirect employments to local people. Hence mining operation will help in improving socio-economic status of the area.

**d) Monitoring schedules for different environmental components after the commencement of mining operations and related activities (for 'A' category mines only):**

For this mining project a quarterly monitoring mechanism for various environmental parameters shall be evolved as per the guidelines issued by State Environment Committee / MOEF.

**PART III****12.0 PROGRESSIVE MINE CLOSURE PLAN****12.01 Introduction**

- a) Name & address of lessee : **Shri. M. M. Thomas,**  
Managing Partner,  
M/s. Kottiyoor Metals Private Limited,  
Pottankal, Thondiyil – Post,  
Peravoor, Thalassery,  
Kannur District, Kerala – 670 673,  
Ph No. : +91 9961991491.
- b) Registered Office : **M/s. Kottiyoor Metals Private Limited,**  
Managing Partner  
Shri. M. M. Thomas,  
Pottankal, Thondiyil – Post,  
Peravoor, Thalassery,  
Kannur District, Kerala – 670 673,  
Ph No. : +91 9961991491.
- c) Location of the area : A location plan is enclosed vide Plate No. 1.
- d) Extent of the area : 4.8171 Ha
- e) Type of the lease area : Private.

**f) Present Land Use Pattern :**

The present land use in mine area is given in the Table No 12.1:

**Table No. 12.1: Present Land Use Pattern.**

Particulars	Land use pattern at present stage (Ha)
Area for Mining/Mining activities	-
Area for Safety Barrier / Green belt	-
Unused area	4.8171
<b>Total lease area</b>	<b>4.8171</b>



### Method of Mining

Please refer Chapter – 4 mining

### 12.02 Reasons for closure

There is no proposal given for mine closure in these five years of the mining plan as the life of the mine is around 12 Years, however progressive mine closure plan is submitted along with this mine plan and the details are given in the **Plate No:10** (Progressive Mine Closure Plan).

### Statutory Obligations

The mining plan is to be approved by District Geologist, Department of Mining & Geology, Kannur District, Kerala State where as the Environment Clearance is under process.

### 12.03 Closure Plan Preparation:

Lessee : **'Granite Building Stone Quarry' of  
M/s. Kottiyoor Metals Private Limited,  
Managing Partner  
Shri. M. M. Thomas,  
Pottankal, Thondiyil – Post,  
Peravoor, Thalassery,  
Kannur District, Kerala – 670 673,  
Ph No. : +91 9961991491.**

### Name and Address of the RQP:

<b>Cyriac Joseph</b> DMG/KERALA/RQP/15/2018
<b>Global Environment &amp; Mining Services</b> #212, Celestic Towers, Palm Avenue, Green Glen Layout, Bellandur, BANGALORE – 560103, Karnataka Email : gems.blr@globalminig.in Land: +91-8025746999 <b>H.O.</b> 3 <sup>rd</sup> Main Road, Basaveshwara Badawane <b>HOSPET – 583201, Bellary Dist. (Karnataka)</b>

Executing Agency : M/s. Kottiyoor Metals Private Limited,

### MINE DESCRIPTION:

#### 12.20 Geology:

#### Regional geology

Please Refer Chapter 3 Geology & Reserves



**Local Geology:**

Please refer Chapter No 3 Geology & Reserves.

**12.21 Reserves**

Please refer Chapter 3 Geology & Reserves

**12.22 Mining Method:**

Please Refer Chapter 4 Mining.

**12.23 Mineral Beneficiation:**

There is no mineral beneficiation involved in the quarry operations.

**12.30 REVIEW OF IMPLEMENTATION OF MINING PLAN****12.31 Name of Mine: 'Granite Building Stone Quarry' of**

**M/s. Kottiyoor Metals Private Limited,**

**12.32 Particulars of the Approved Mining Plan/ Scheme**

It is under process. Mining plan is prepared for five years and submitted for approval.

**12.33 Date of commencement of Mining Operations.**

This mine is working on lease granted by Government of Kerala.

**12.34 Review of Compliance Position of Mining Plan**

Review of Compliance position of Salient features of Mining Plan on chapter wise basis bringing out marked deviation, if any, and justification / reasons thereof.

**1. Exploration:**

This is the first Mining plan. Hence it is not applicable

**2. Mine Development:**

This is the first Mining plan. Hence it is not applicable

**3. Mine Production:**

This is the first Mining plan. Hence it is not applicable



#### **4. Reclamation & Rehabilitation;**

This is the first Mining plan. Hence it is not applicable

#### **Waste Management**

This is the first Mining plan. Hence it is not applicable

#### **Quality of Air**

This is the first Mining plan. Hence it is not applicable

#### **Noise Level**

This is the first Mining plan. Hence it is not applicable

#### **Ground Vibrations**

This is the first Mining plan. Hence it is not applicable

#### **Quality of water:**

This is the first Mining plan. Hence it is not applicable

**3.4C Review of compliance of conditions and stipulations imposed, if any, while approving Mining Plan / Scheme. In case non-compliance, partial compliance justification reasons thereof may be furnished along with proposal for compliance in ensuring period.**

This is the first Mining plan. Hence it is not applicable

**3.4D Review of compliance of violations pointed out after inspections made under MCDR, 1988 during the last five years.**

This is the first Mining plan. Hence it is not applicable

**3.4E Any other points requiring attention in the interest of proper mine design Development, conservation and Ecology of the area.**

Nil

### **12.4.0 Progressive mine closure Plan**

#### **12.4.1 Mined out land.**

It was part of working mine under approved lease by Government of Kerala. The present landuse, the landuse at the end of 5 years of the mining plan and at the conceptual stage is given in the Table Number 12.2.

**Table No.12.2: Present land use, land use at the end of progressive stage and the ultimate land use pattern.**

Particulars	Land use pattern at present stage (Ha)	Land use pattern (end of progressive stage) (Ha)	Land use pattern at Conceptual stage (Ha)
Area for mining / mining activities	-	3.8437	4.1703
Area for Roads	-	-	-
Area for Safety Barrier / Green belt	-	0.6468	0.6468
Overburden / dump/ tailing dump	-	0.2113	-
<b>Total</b>	-	<b>4.7018</b>	<b>4.8171</b>
Unused area	4.8171	0.1153	-
<b>Total Lease area</b>	<b>4.8171</b>	<b>4.8171</b>	<b>4.8171</b>

\* Road area inside the mine Lease is not shown separately. Since the material is transported on the benches the road area is therefore included in the mining area.

#### 12.4.2 Water quality management:

There is no water course in the lease. To divert the rain water away from the mine to the natural course, a garland drain shall be made all around the lease as shown in the Environment Management Plan enclosed vide **Plate No: 9**. The water from garland drain shall be collected in the silt settling pond before releasing that to natural water course.

#### 12.4.3 Air quality management:

The air around the mine is clean and moderately dry. To maintain the same during mining the sprinkling of water shall be done on haulage road. The drilling and blasting, excavation and loading shall not be done during high wind.

#### 12.4.4 Waste Management:

Totally 68,103.20 tonnes topsoil and 72,312.00 tonnes of waste is expected to generate from this mine. The topsoil shall be used for afforestation to develop the green belt in safety barrier area within the periphery of mining area. Waste will be transported to the pre-determined dump situated in the SW side of the Mine Lease area as shown in the Production & Development plan, and also used for road repair works.





#### 12.4.5 Topsoil Management

The entire topsoil shall be utilized for Afforestation/Green belt development and for plantation proposal on the ultimate benches as shown in the Production and Development Plan.

#### 12.4.6 Tailing Dam Management

Not Applicable

#### 12.4.7 Infrastructure.

No infrastructure is proposed to develop inside the lease area. The office and structures required for other service including statutory requirement shall be constructed outside the lease area, which shall be dismantled at conceptual stage of mining.

#### 12.4.8 Disposal of Machinery

The question of disposal of mining machinery does not arise as the closure plan is a progressive in nature, and the life of the mine extends beyond the plan period.

#### 12.5 Safety & Security:

For safety the lease hold areas shall be guarded by security personals.

#### 12.6 Disaster Management & Risk Assessment:

No disaster is expected in this small scale of mining; however, as an emergency the location of the hospital, police station and fire brigade is given in the Table No 12.3

**Table No. 12.3: Location of Stations during Emergency**

Stations	Location of the station	Distance of station from Quarry
Govt. Hospital	Grace Hospital, Kelakam	4 km
Police station	Kelakam	4.2 km
Fire Brigade	Peravoor	15 km

In case of any eventuality the following person will be available for contact.

**Shri. M. M. Thomas,**  
Managing Partner,  
M/s. Kottiyoor Metals Private Limited,  
Pottankal, Thondiyil – Post,  
Peravoor, Thalassery,  
Kannur District, Kerala – 670 673,

Ph No. : +91 9961991491.

**12.7 Care and maintenance during temporary discontinuance:**

The following specific measures shall be taken during temporary discontinuance.

- The pit shall be fenced
- Proper and adequate security at the entrance to the mine to prevent entry of unauthorized person with proper gates under lock.
- All the above will be examined by manager once in a week to ensure that they are in order.

**12.7.1 Economic repercussions of closure of mine & manpower retrenchments:**

In case of the closure of the mine the company shall plan for the voluntary retirement scheme.

**12.7.2 Time Scheduling of Abandonment:**

The life of the mine is around 12 years and as on now there is no schedule for abandonment of mine. However the time scheduling for environment management measures are given in Table 12.4

**Table No. 12.4 Environment Management Schedule**

YEAR	I-Year	II-Year	III-Year	IV-Year	V-Year
Greenbelt					
Garland drain					
Afforestation					
Environmental Monitoring					
Water spraying on haul roads					

**Abandonment Cost**

As on now the environment management cost includes the initial and capital cost and annual recurring cost.

The capital cost is given in the table No 12.5 and annual recurring cost is given in Table No 12.6

**Table No. 12.5 Initial/ Capital Investment for Environmental Protection**

Sl. No.	Particulars	No.	Cost (LakhRs.)
<b>I</b>	<b>Pollution Control</b>		
1.1	Water sprayer (Mobile)	1	10.00
	<b>Total</b>		<b>10.00</b>

**Table No. 12.6: Recurring Annual Cost for Environmental Protection**

Sl. No.	Particulars	No.	Cost (Lakh Rs.)
<b>1</b>	<b>Pollution Control</b>		
1.1	Mitigation expenses for Air, Water, Noise, Vibration, etc.		25.00
1.2	Green belt development	Avg.440 plants	1.98
1.3	Personal protective equipment	60	1.20
1.4	Environmental monitoring		8.00
1.5	Desilting and Maintenance of Garland Drain, SST and RWHP		10.00
	<b>Total</b>		<b>46.18</b>
<b>2</b>	<b>Corporate Environment Responsibility</b>		<b>6.00</b>
	<b>Total</b>		<b>52.18</b>

The annual cost for environment protection / environmental improvement and CER activities are envisaged as Rs. 52.18 lakhs and the specific environmental protection cost per tonne is nearly Rs 18.99 /- per tonne of granite building stone.

#### 12.8 Financial Assurance:

At the end of these five years of the mining plan period totally 4.8171 Ha. (11.9030 Acres) area shall be used for mining and green belt development activities. The financial assurance of Rs 1,50,000/- shall be given as a bank guarantee to Directorate of Mining & Geology after confirmation. The detail breakup of the land is given in Table No 12.8.1 and the brokenup area is shown in **Plate No. 10**, Progressive Mine Closure Plan.





Table No. 12.8.1: Details of Broken up area at the end of progressive stage

Sl. No.	Head	Area Put On Use at start of plan (in Ha)	Additional requirement during plan period (in Ha)	Total (in Ha)	The area considered as fully reclaimed & rehabilitated (in Ha)	Net area considered for calculation (in Ha)
1	Area under mining / mining activities	-	3.8437	3.8437	-	3.8437
2	Safety Barrier/Green belt	-	0.6468	0.6468	-	0.6468
3	Overburden / dump/ tailing dump	-	0.2113	0.2113	-	0.2113
4	Infrastructure (workshop, office, etc)	-	-	-	-	-
5	Roads	-	-	-	-	-
6	Storage of topsoil	-	-	-	-	-
7	Mineral separation plant	-	-	-	-	-
8	Afforestation on dump	-	-	-	-	-
9	Others to specify	-	-	-	-	-
	<b>Total</b>	<b>0.000</b>	<b>4.7018</b>	<b>4.7018</b>	<b>-</b>	<b>4.7018</b>
	<b>Virgin area</b>	<b>4.8171</b>	<b>0.1153</b>	<b>0.1153</b>	<b>-</b>	<b>0.1153</b>
	<b>Total Lease area</b>	<b>4.8171</b>	<b>4.8171</b>	<b>4.8171</b>	<b>-</b>	<b>4.8171</b>

**12.9 Certificate:**

Enclosed

**12.10 Plans and Sections:**

Plans and sections are enclosed.

**GLOBAL Environment & Mining Services**
**Cyriac Joseph**

DMG/KERALA/RQP/15/2018

This Mining plan  
is approved

**V. DIVAKARAN**  
SENIOR GEOLOGIST  
DEPT. OF MINING & GEOLOGY  
DISTRICT OFFICE, CIVIL STATION  
KANNUR-670002



# ANNEXURES



No. 10276/M3/2019

Directorate of Mining & Geology  
Kesavadasapuram, Pattam Palace .P.O,  
Thiruvananthapuram - 4  
Tel Fax : 0471 2447429  
e-mail: [director.dir.dmg@kerala.gov.in](mailto:director.dir.dmg@kerala.gov.in)  
[www.dmg.kerala.gov.in](http://www.dmg.kerala.gov.in)  
Dated : 19-11-2019

From

The Director of Mining & Geology

To

M/s. Kottiyoor Metals Private Limited,  
Pottankal, Thondiyil P. O,  
Peravoor, Thalassery,  
Kannur District - 670 673  
(Represented by its Director, Shri. M. M. Thomas)

Sir,

Sub:- Mines and Minerals – Minor Mineral – Granite (Building Stone) – Application for quarrying lease under KMMC Rules 2015 – Letter of Intent - forwarding of- reg.

Ref:- 1. Your application for quarrying lease dated. 04.10.2019.  
2. Letter No. DOC/M – 2312/2019 dtd. 30/10/2019 & 16/11/2019 of the Senior Geologist, District Office, Kannur.  
3. Rule 33 of Kerala Minor Mineral Concession Rules 2015.

Please refer to the references cited above . As per the reference 1<sup>st</sup> cited, you have applied for a quarrying lease for a period of 10 years from this office for the extraction of granite building stone from an area of **4.8171 Hectares** in **Re - Sy Nos. KPD 833, KPD 836, KPD 1148, KPD 838 of Kelakam Village of Iritty Taluk of Kannur District** [as shown in the Survey Map No. 03/2019 issued by Tahsildar, Iritty enclosed]. Vide reference cited 2 above, District Geologist, Kannur has forwarded your application to this office with recommendations to issue Letter of Intent. On scrutiny of application and other documents received from the Senior Geologist, Kannur, it is seen that a quarrying lease can be granted to the precise area shown in the Survey Map under the provisions contained in the KMMC Rules 2015. However, for granting quarrying lease you have to produce the following documents through District Geologist to the satisfaction of this office in accordance with the relevant statutes.

#### DOCUMENTS TO BE PRODUCED

1. Mining plan approved by the District Geologist as stipulated in the KMMC Rules 2015, for the precise area as per the survey map.
2. Environmental Clearance as stipulated in EIA Notification 2006 for the precise area.
3. Consent to operate quarry from the Kerala State Pollution Control Board for the precise area.
4. Explosive licence from the authorities concerned for appropriate quantity of explosives required for extraction of mineral from the precise area as mentioned in the approved mining plan.

✓





5. Licence from the Local Self Government authorities concerned for operating quarry in the precise area.
6. NOC from the National Wild life Board to the effect that the Board has no objection in granting Quarrying Lease from the Department of Mining & Geology since the applied area falls within 10 KM of the Aaralam and Kottiyoor Wildlife Sanctuary or Certificate from the Wildlife Warden concerned to the effect that there is no Wildlife Sanctuary or National Park within 10 KMS of the outer boundaries of the applied area.

**In addition, you shall make arrangements for the survey and demarcation by erection of boundary pillars of the said area by the revenue authority not below the rank of a Tahsildar or Asst. Director of the Department of Survey and Land Records and shall produce a certificate in this regard issued by authorities concerned.**

It is further informed that the duration of lease as well as annual production of mineral will be decided based on the approved mining plan and documents submitted.

**It is also informed that as per the provisions contained in the KMMC Rules 2015 this letter of intent shall be sufficient for the purpose of issuing necessary licenses/consents/Clearances/NOCs etc. by the other statutory authorities concerned. In the event of granting of quarrying lease you may also need to produce new Possession & Enjoyment Certificate at the time of grant of quarrying lease.**

**It is further informed that this letter of intent is valid for a period of one year from the date of issue.** In case you have any valid reason for seeking extension of period of this LOI, the same may be obtained before the expiry of this LOI. Your application for Quarrying Lease shall deemed to have been rejected, if you fail to produce above mentioned documents before the expiry of LOI.--

Yours faithfully

**ADDITIONAL DIRECTOR OF MINING & GEOLOGY  
For DIRECTOR OF MINING & GEOLOGY**

Encl: Photocopy of Survey Map showing precise area

Copy to:-

1. The Member Secretary, SEIAA, Thampanoor Bus Terminal, Thiruvananthapuram.
2. The Chairman, SEIAA, Thampanoor Bus Terminal, Thiruvananthapuram.
3. The Deputy Chief Controller of Explosives, CSEZ, CGO Complex, Kakkanad, Ernakulam
4. Kerala State Pollution Control Board, District Office, Kannur District.
5. The Secretary, Kelakam Grama Panchayath, Kannur District
6. The Tahsildar, Iritty Taluk Office, Kannur District.

For kind attention of statutory authorities

[The statutory authorities while issuing licence/consents/NOCs based on this letter of intent may refer this letter of intent in the respective licence/consent/ clearance /NOC while issuing the same. The statutory authorities may refer the survey map and consider the extent of applied area, quantity of mineral proposed to extract and the period of lease applied for while issuing such documents. The authorities may note that the operation as per their licence shall start only after execution and registration of quarrying lease granted by this office. All the Survey Nos./Re-Survey numbers with Block No. included in the survey map submitted in this connection may be included in all the aforesaid documents.]

7. The District Geologist, Kannur (The Senior Geologist shall forward all the above said documents to this office for grant of quarrying lease with recommendations)





GOVERNMENT OF KERALA

DEPARTMENT OF MINING AND GEOLOGY

Directorate of Mining and Geology, Pattom Palace PO,  
Kesavadasapuram, Thiruvananthapuram-695004, Kerala  
[www.dmg.kerala.gov.in](http://www.dmg.kerala.gov.in)

ANNEXURE - 2



**FORM Q**

**CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON TO PREPARE  
MINING PLANS FOR QUARRYING MINOR MINERALS IN KERALA**

(Issued under Rule 54 of the Kerala Minor Mineral Concession Rules, 2015)

**Shri. Cyriac Joseph, S/o Joseph. O.T, #2074 Sobha Dhia, Outer ring road, Bellandur, Bangalore—560 103, Karnataka State,** having given satisfactory evidence of his qualification and experience is hereby granted **RECOGNITION** under Rule 54 of the Kerala Minor Mineral Concession Rules, 2015 as qualified person to prepare Mining Plans for quarrying minor minerals in Kerala.

**The registration number is DMG/KERALA/RQP/15/2018**

**This recognition is valid for a period of 10 years ending 22/02/2028**



Photograph of RQP

Signature of RQP



C. K. BAIJU

DIRECTOR OF MINING AND GEOLOGY [I/C]

**C.K. BAIJU**

M.Sc, MPhil, Dip.Cri, MMGI  
Director of Mining & Geology (i/c)  
Kesavadasapuram, Pattom Palace PO  
Thiruvananthapuram-695 004

Place: Thiruvananthapuram

Date: 23-02-2018





GOVERNMENT OF INDIA  
MINISTRY OF CORPORATE AFFAIRS

Central Registration Centre

## Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that KOTTIYOOR METALS PRIVATE LIMITED is incorporated on this Twenty third day of February Two thousand seventeen under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is U14294KL2017PTC048364.

The Permanent Account Number (PAN) of the company is AAGCK4657G \*

Given under my hand at Manesar this Twenty fourth day of February Two thousand seventeen.

MINISTRY OF  
CORPORATE AFFAIRS

Digital Signature Certificate

Ms Varaha Santoshi Jagirdar

Deputy Registrar of Companies

For and on behalf of the Jurisdictional Registrar of Companies

Registrar of Companies

Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on [www.mca.gov.in](http://www.mca.gov.in)

Mailing Address as per record available in Registrar of Companies office:

KOTTIYOOR METALS PRIVATE LIMITED

POTTANKAL, THONDIYIL PO PERAVOOR, THALASSERY, Kannur,

Kerala, India, 670673



\* as issued by the Income Tax Department





THE COMPANIES ACT, 2013  
PRIVATE COMPANY LIMITED BY SHARES  
MEMORANDUM OF ASSOCIATION

**KOTTIYOOR METALS PRIVATE LIMITED**

- I. The Name of the Company **KOTTIYOOR METALS PRIVATE LIMITED**
- II. The Registered Office of the Company will be situated in the State of Kerala.

To carry on business as the proprietors of stone crushing units and other allied services and to act as processors, converters, importers, exporters, traders, buyers, sellers, retailers, wholesalers, suppliers, indenters, packers, movers, preservers, stockists, agents, subagents, merchants, distributors, consignors, jobbers, brokers, concessionaries or otherwise deal in all type of cement bricks, granites, granites slabs, manufactured sand and powder, marbles, baby metals, hollow bricks, boilers, slabs, monuments, tiles.

To carry on the business as cultivators, growers, farmers, processors, preservers and dealers of all kinds of food grains, seeds, meat, cattle and other live and dead stock, eggs, sausages, preserved meat, trees, plants, plants fruits, flowers, vegetables, milk and milk products, fruits, organic products, herbal products, plantation products, forest products, nutritious food, medicinal plants, and to extract by products and derivatives of edibles, pharmaceuticals and medical of any kind or nature and also to carry on all kinds of farming, horticulture, sericulture, pisciculture, dairy, gardening and of raising, breeding, improving, developing, buying, selling, producing, preserving such products and also to carry out research on all or any branches of bio-technology, horticulture, floriculture, sericulture and to commercialize or exploit any product or technology derived out of such research.

B. The objects incidental or ancillary to the attainment of the main objects are:

1. To buy all kinds of plant, equipment, machinery, apparatus, tools, utensils, commodities, substances, articles and things necessary or useful for carrying on the objects of the Company.
2. To enter into agreement with any company or persons for obtaining by grant of license or on such other terms of all types, formulae and such other rights and benefits, technical information, know-how and expert guidance and equipment and machinery and things mentioned herein above and to arrange facilities for training of technical personnel by them.
3. To establish, provide, maintain and conduct or otherwise, subsidise research laboratories and experimental workshops for scientific and technical research and experiments and to undertake and carry on with all scientific and technical research, experiments and tests of all kinds and to promote studies and research both scientific and technical investigation and invention by providing, subsidising, endowing or assisting laboratories, workshops, libraries, lectures, meetings and conferences and by providing the remuneration to scientific and technical professors and teachers and to award, scholarships, prizes, grants and bursaries to students and to encourage, promote and reward studies, researches, investigations, experiments, tests and inventions of any kind that may be considered likely to assist the objects of the Company..
4. To acquire by concession, grant, purchase, licence or otherwise either absolutely or conditionally and either alone or jointly with others land, buildings, machinery, plants, utensils, works, conveniences and such other movable and immovable properties of any description and any patents, trademarks, concessions, privileges, brevets, licences, protections and concessions conferring any exclusive or limited rights to any inventions, information which may seem necessary for any of the objects of the Company and to construct, maintain and alter any building or work, necessary or convenient for the business of the Company and to pay for such land, buildings, works, property or rights or any such other property and rights purchased or acquired by or for the Company by shares, debentures, debenture stock, bonds or such other securities of the Company or





- otherwise and manage, develop or otherwise dispose of in such manner and for such consideration as may be deemed proper or expedient to attain the main objects of the Company.
5. Subject to the provisions of the Companies Act, 2013 to amalgamate with any other Company having objects altogether or in part similar to those of this Company.
  6. To enter into any arrangement with any Government or Authorities Municipal, local or otherwise or any person or company in India or abroad, that may seem conducive to the objects of the company or any of them and to obtain from any such Government, Authority persons or company any rights, privileges, charters, contracts, licences and concessions including in particular rights in respect of waterways, roads and highways, which the Company may carry out, exercise and comply therewith.
  7. To apply for and obtain any order of Central/State or such other Authority for enabling the Company to carry on any of its objects into effect or for effecting any modifications of the Company's constitution or any other such purpose, which may seem expedient and to make representations against any proceedings or applications which may seem calculated directly or indirectly to prejudice the company's interests.
  8. To enter into partnership or into any arrangement for sharing profits, union of interests, co-operation, joint-venture, reciprocal concessions or otherwise with any person, or company carrying on or engaged in any business or transaction which this Company is authorised to carry on.
  9. To purchase or otherwise acquire and undertake the whole or any part of the business, property, rights and liabilities of any company, firms or person carrying on business which this Company is authorised to carry on or is possessed of rights suitable for the objects of this Company.
  10. To do all or any of the above things as principals, agents, contractors, trustees or otherwise and by or through trustees, agents or otherwise and either alone or in conjunction with others and to do all such other things as are incidental or as may be conducive to the attainment of the objects or any of them.
  11. To promote, form and register, aid in the promotion, formation and registration of any company or companies, subsidiary or otherwise for the purpose of acquiring all or any of the properties, rights and liabilities of this Company and to transfer to any such company any property of this company and to be interested in or take or otherwise acquire, hold, sell or otherwise dispose of shares, stock, debentures and such other securities of all types in or of any such company, subsidiary or otherwise for all or any of the objects mentioned in this Memorandum of Association and to assist any such company and to undertake the management and secretarial or such other work, duties and business on such terms as may be arranged.
  12. To open accounts with any bank or financial institution and to draw make, accept, endorse, discount, execute and issue promissory notes, bills of exchange, hundies, bills of lading, warrants, debentures and such other negotiable or transferable instruments of all types and to buy the same.
  13. Subject to the provisions of the Companies Act, 2013 including the rules and regulations made therein and the directions issued by Reserve Bank of India to borrow, raise or secure the payment of money or to receive money as loan, at interest for any of the objects of the company and at such time or times as may be expedient, by promissory notes, bills of exchange, hundies, bills of lading, warrants or such other negotiable instruments of all



types or by taking credit in or opening current accounts or over-draft accounts with any person, firm, bank or company and whether with or without any security or by such other means, as may deem expedient and in particular by the issue of debentures or debenture stock, perpetual or otherwise and in security for any such money so borrowed, raised or received and of any such debentures or debenture stock so issued, to mortgage, pledge or charge the whole or any part of the property and assets of the Company both present and future, including its uncalled capital, by special assignment or otherwise or to transfer or convey the same absolutely or in trust and to give the lenders power of sale and other powers as may seem expedient and to purchase, redeem or pay off such securities provided that the Company shall not carry on the business of banking within the meaning of the Banking Regulation Act, 1949.

14. To advance money not immediately required by the Company or give credit to such persons, firms or companies and on such terms with or without security as may seem expedient and in particular to customers of and such others having dealings with the Company and to give guarantees or securities of any such persons, firms, companies as may appear proper or reasonable provided that the Company shall not carry on the business of banking, within the meaning of Banking Regulation Act, 1949.
15. To improve alter, manage, develop, exchange, mortgage, enfranchise and dispose of, any part of the land, properties, assets and rights and the resources and undertakings of the Company, in such manner and on such terms as the Company may determine.
16. To remunerate any person or company, for services rendered or to be rendered in or about the formation or promotion of the Company or the conduct of its business, subject to the provisions of the Companies Act, 2013.
17. To create any depreciation fund, reserve fund, sinking fund, provident fund, superannuation fund or any other such special fund, whether for depreciations, repairing, improving, extending or maintaining any of the properties and assets of the Company or for redemption of debentures or redeemable preference shares, worker's welfare or for any other such purpose conducive to the interest of the Company.
18. To provide for the welfare of employees or ex-employees (including Directors and other officers) of the Company and the wives and families or the dependents or connections of such persons, by building or contributing to the building of houses, or dwellings or chawls or by grants of money, pensions, allowances, bonus or other such payments or by creating and from time to time, subscribing or contributing to provident fund and other associations, institutions, funds or trusts, and/or by providing or subscribing or contributing towards places of instruction and recreation, hospitals and dispensaries, medical and such other attendances and assistance as the Company shall determine.
19. To undertake and execute any trusts, the undertaking of which may seem desirable, either gratuitously or otherwise, for the attainment of the main objects of the Company.
20. To procure the incorporation, registration or such other recognition of the Company in the Country, State or place outside India and to establish and maintain local registers and branch places of the main business in any part of the world.
21. To adopt such means of making known the business of the Company as may seem expedient and in particular by advertising over the internet or any other electronic media and also in print media in the press by circulars, by purchase and exhibition of works of art or interest, by publication of books and periodicals and by granting prizes, rewards or organising exhibitions.





The company would obtain approval of the concerned authorities to carry on the objects of the company and the matters which are necessary for furtherance of the objects of the Company as given in this memorandum of association wherever required.

23. To create equitable mortgage with respect to the immovable property/ies as collateral security before any nationalized bank, scheduled bank, co-operative bank or before any other financial institutions

IV. The liability of the member(s) is limited and this liability is limited to the amount unpaid, if any, on the shares held by them.

- V. The authorised share capital of the company is Rs. 1, 00,000/- (Rupees One Lakh only) divided into 1,000 (Thousand only) Equity shares of Rs. 100/- (Rupees One Hundred Only) each.

We, the several persons, whose names and addresses are subscribed, are desirous of being formed into a Company in pursuance of this Memorandum of Association and we respectively agree to take the number of shares in the capital of the Company set opposite our respective names.

Sl NO	Names, address, description and occupation of subscribers	No of equity share taken by each subscriber	Signature
1	SUNNY CYRIAC AGE : 53 S/o CYRIAC MATHEW POTTANKAL, THONDIYIL PO, PERAVOOR, THALASSERY Kerala-670673 INDIA BUSINESS	500 SHARES (FIVE HUNDRED SHARES ONLY)	Sd/-
2	MADATHINA MATTATHIL THOMAS AGE : 52 S/o JOSEPH MADATHINA MATTATHIL MADATHINAMATTATHIL HOUSE P.O.KANNAVAM,VIA CHITTARIPARAMBA KANNUR, Kerala-670650 INDIA BUSINESS	500 SHARES (FIVE HUNDRED SHARES ONLY)	Sd/-

Total Shares: 1000 SHARES (ONE THOUSAND SHARES ONLY)

Dated this 18<sup>th</sup> Day of February, 2017

Witness to the above signatories

**SANDEEP S**  
S/o K P SATHEESAN  
**GOPIMOHAN SATHEESAN AND ASSOOCIATES,**  
**CASA MARINA COMPLEX, 1st BLOCK,**  
**1st FLOOR, TALAP, KANNUR-670004**



## ARTICLES OF ASSOCIATION OF KOTTIYOOR METALS PRIVATE LIMITED

- I (1) In these Regulations:-
- (a) "Company" means **KOTTIYOOR METALS PRIVATE LIMITED**
  - (b) "Office" means the Registered Office of the Company.
  - (c) "Act" means the Companies Act, 2013, and any statutory modification thereof.
  - (d) "Seal" means the Common Seal of the Company.
  - (e) "Directors" means the Directors of the Company and includes persons occupying the position of the Directors by whether names called.
- (2) Unless the context otherwise requires words or expressions contained in these Articles shall be the same meaning as in the Act, or any statutory modification thereof in force at the date at which these Articles become binding on the Company.

### PRIVATE LIMITED

- (3) The Company is a Private Company within the meaning of Section 2(68) of the Companies Act, 2013 and accordingly:-
- (a) The right to transfer shares in the Company is restricted in the manner and to the extent hereinafter appearing
  - (b) The number of members of the Company (exclusive of persons who are in the employment of the Company, and persons who having been formerly in the employment of the Company, were members of the Company while in the employment and have continued to be members after the employment ceased) shall be limited to two hundred; provided that for the purpose of this definition where two or more persons jointly hold one or more shares in the Company, the shall, be treated as a single member, and.
  - (c) No invitation shall be issued to the public or subscribe for any securities of the Company.

## II SHARE CAPITAL AND VARIATION OF RIGHTS

- 1 Subject to the provisions of the Act and these Articles, the shares in the capital of the company shall be under the control of the Directors who may issue, allot or otherwise dispose of the same or any of them to such persons, in such proportion and on such terms and conditions and either at a premium or at par and at such time as they may from time to time think fit
- 2 (i) Every person whose name is entered as a member in the register of members shall be entitled to receive within two months after incorporation, in case of subscribers to the memorandum or after allotment or within one month after the application for the registration of transfer or transmission or within such other period as the conditions of issue shall be provided, --
- (a) one certificate for all his shares without payment of any charges; or





- (b) several certificates, each for one or more of his shares, upon payment of twenty rupees for each certificate after the first.
- (ii) Every certificate shall be under the seal and shall specify the shares to which it relates and the amount paid-up thereon.
- (iii) In respect of any share or shares held jointly by several persons, the company shall not be bound to issue more than one certificate, and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all such holders.
- 3 (i) If any share certificate be worn out, defaced, mutilated or torn or if there be no further space on the back for endorsement of transfer, then upon production and surrender thereof to the company, a new certificate may be issued in lieu thereof, and if any certificate is lost or destroyed then upon proof thereof to the satisfaction of the company and on execution of such indemnity as the company deem adequate, a new certificate in lieu thereof shall be given. Every certificate under this Article shall be issued on payment of twenty rupees for each certificate.
- (ii) The provisions of Articles (2) and (3) shall mutatis mutandis apply to debentures of the company.
- 4 Except as required by law, no person shall be recognised by the company as holding any share upon any trust, and the company shall not be bound by, or be compelled in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share, or (except only as by these regulations or by law otherwise provided) any other rights in respect of any share except an absolute right to the entirety thereof in the registered holder.
- 5 (i) The company may exercise the powers of paying commissions conferred by sub-section (6) of section 40, provided that the rate per cent or the amount of the commission paid or agreed to be paid shall be disclosed in the manner required by that section and rules made thereunder.
- (ii) The rate or amount of the commission shall not exceed the rate or amount prescribed in rules made under sub-section (6) of section 40.
- (iii) The commission may be satisfied by the payment of cash or the allotment of fully or partly paid shares or partly in the one way and partly in the other.
- 6 (i) If at any time the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may, subject to the provisions of section 48, and whether or not the company is being wound up, be varied with the consent in writing of the holders of three-fourths of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class.
- (ii) To every such separate meeting, the provisions of these regulations relating to general meetings shall mutatis mutandis apply, but so that the necessary quorum shall be at least two persons holding at least one-third of the issued shares of the class in question.
- 7 The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* therewith.





- 8 Subject to the provisions of section 55, any preference shares may, with the sanction of an ordinary resolution, be issued on the terms that they are to be redeemed on such terms and in such manner as the company before the issue of the shares may, by special resolution, determine.

#### LIEN

- 9 (i) The company shall have a first and paramount lien --  
 (a) on every share (not being a fully paid share), for all monies (whether presently payable or not) called, or payable at a fixed time, in respect of that share; and  
 (b) on all shares (not being fully paid shares) standing registered in the name of a single person, for all monies presently payable by him or his estate to the company;  
 Provided that the Board of directors may at any time declare any share to be wholly or in part exempt from the provisions of this clause.

(ii) The company's lien, if any, on a share shall extend to all dividends payable and bonuses declared from time to time in respect of such shares.

- 10 The company may sell, in such manner as the Board thinks fit, any shares on which the company has a lien:

Provided that no sale shall be made --

- (a) unless a sum in respect of which the lien exists is presently payable; or  
 (b) until the expiration of fourteen days after a notice in writing stating and demanding payment of such part of the amount in respect of which the lien exists as is presently payable, has been given to the registered holder for the time being of the share or the person entitled thereto by reason of his death or insolvency.

- 11 (i) To give effect to any such sale, the Board may authorise some person to transfer the shares sold to the purchaser thereof  
 (ii) The purchaser shall be registered as the holder of the shares comprised in any such transfer.  
 (iii) The purchaser shall not be bound to see to the application of the purchase money, nor shall his title to the shares be affected by any irregularity or invalidity in the proceedings in reference to the sale.
- 12 (i) The proceeds of the sale shall be received by the company and applied in payment of such part of the amount in respect of which the lien exists as is presently payable.  
 ii) The residue, if any, shall, subject to a like lien for sums not presently payable as existed upon the shares before the sale, be paid to the person entitled to the shares at the date of the sale.

#### CALLS ON SHARES

- 13 (i) The Board may, from time to time, make calls upon the members in respect of any monies unpaid on their shares (whether on account of the nominal value of the shares or by way of premium) and not by the conditions of allotment thereof made payable at fixed times;  
 Provided that no call shall exceed one-fourth of the nominal value of the share or be payable at less than one month from the date fixed for the payment of the last preceding call.  
 (ii) Each member shall, subject to receiving at least fourteen days' notice specifying the time or times and place of payment, pay to the company, at the time or times and place so specified, the amount called on his shares.  
 (iii) A call may be revoked or postponed at the discretion of the Board.



- 14 A call shall be deemed to have been made at the time when the resolution of the Board authorizing the call was passed and may be required to be paid by instalments.
- 15 The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof.
- 16 (i) If a sum called in respect of a share is not paid before or on the day appointed for payment thereof, the person from whom the sum is due shall pay interest thereon from the day appointed for payment thereof to the time of actual payment at ten per cent per annum or at such lower rate, if any, as the Board may determine.  
(ii) The Board shall be at liberty to waive payment of any such interest wholly or in part.
- 17 i) Any sum which by the terms of issue of a share becomes payable on allotment or at any fixed date, whether on account of the nominal value of the share or by way of premium, shall, for the purposes of these regulations, be deemed to be a call duly made and payable on the date on which by the terms of issue such sum becomes payable.  
(ii) In case of non-payment of such sum, all the relevant provisions of these regulations as to payment of interest and expenses, forfeiture or otherwise shall apply as if such sum had become payable by virtue of a call duly made and notified.
- 18 The Board –  
(a) may, if it thinks fit, receive from any member willing to advance the same, all or any part of the monies uncalled and unpaid upon any shares held by him; and  
(b) upon all or any of the monies so advanced, may (until the same would, but for such advance, become presently payable) pay interest at such rate not exceeding, unless the company in general meeting shall otherwise direct, twelve per cent per annum, as may be agreed upon between the Board and the member paying the sum in advance.

#### TRANSFER OF SHARES

- 19 (i) The instrument of transfer of any share in the company shall be executed by or on behalf of both the transferor and transferee.  
(ii) The transferor shall be deemed to remain a holder of the share until the name of the transferee is entered in the register of members in respect thereof.
- 20 The Board may, subject to the right of appeal conferred by section 58 decline to register –  
(a) the transfer of a share, not being a fully paid share, to a person of whom they do not approve; or  
(b) any transfer of shares on which the company has a lien.
- 21 The Board may decline to recognise any instrument of transfer unless –  
(a) the instrument of transfer is in the form as prescribed in rules made under sub-section (1) of section 56;  
(b) the instrument of transfer is accompanied by the certificate of the shares to which it relates, and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer; and  
(c) the instrument of transfer is in respect of only one class of shares.





- 22 On giving not less than seven days' previous notice in accordance with section 91 and rules made thereunder, the registration of transfers may be suspended at such times and for such periods as the Board may from time to time determine:  
Provided that such registration shall not be suspended for more than thirty days at any one time or for more than forty-five days in the aggregate in any year.

### TRANSMISSION OF SHARES

- 23 (i) On the death of a member, the survivor or survivors where the member was a joint holder, and his nominee or nominees or legal representatives where he was a sole holder, shall be the only persons recognised by the company as having any title to his interest in the shares.  
(ii) Nothing in clause (i) shall release the estate of a deceased joint holder from any liability in respect of any share which had been jointly held by him with other persons.
- 24 (i) Any person becoming entitled to a share in consequence of the death or insolvency of a member may, upon such evidence being produced as may from time to time properly be required by the Board and subject as hereinafter provided, elect, either—  
(a) to be registered himself as holder of the share; or  
(b) to make such transfer of the share as the deceased or insolvent member could have made.  
(ii) The Board shall, in either case, have the same right to decline or suspend registration as it would have had, if the deceased or insolvent member had transferred the share before his death or insolvency.
- 25 (i) If the person so becoming entitled shall elect to be registered as holder of the share himself, he shall deliver or send to the company a notice in writing signed by him stating that he so elects.  
(ii) If the person aforesaid shall elect to transfer the share, he shall testify his election by executing a transfer of the share.  
(iii) All the limitations, restrictions and provisions of these regulations relating to the right to transfer and the registration of transfers of shares shall be applicable to any such notice or transfer as aforesaid as if the death or insolvency of the member had not occurred and the notice or transfer were a transfer signed by that member.
- 26 A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the company.  
Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself or to transfer the share, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other monies payable in respect of the share, until the requirements of the notice have been complied with.

### FORFEITURE OF SHARES

- 27 If a member fails to pay any call, or instalment of a call, on the day appointed for payment thereof, the Board may, at any time thereafter during such time as any part of the call or instalment remains unpaid, serve a notice on him requiring payment of so much of the call or instalment as is unpaid, together with any interest which may have accrued.



28 The notice aforesaid shall—

(a) Name a further day (not being earlier than the expiry of fourteen days from the date of service of the notice) on or before which the payment required by the notice is to be made; and

(b) state that, in the event of non-payment on or before the day so named, the shares in respect of which the call was made shall be liable to be forfeited.

29. If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the Board to that effect.

30 (i) A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board thinks fit.

(ii) At any time before a sale or disposal as aforesaid, the Board may cancel the forfeiture on such terms as it thinks fit.

31 (i) A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares, but shall, notwithstanding the forfeiture, remain liable to pay to the company all monies which, at the date of forfeiture, were presently payable by him to the company in respect of the shares.

(ii) The liability of such person shall cease if and when the company shall have received payment in full of all such monies in respect of the shares.

32 (i) A duly verified declaration in writing that the declared is a director, the manager or the secretary, of the company, and that a share in the company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share.

(ii) The company may receive the consideration, if any, given for the share on any sale or disposal thereof and may execute a transfer of the share in favour of the person to whom the share is sold or disposed of.

(iii) The transferee shall thereupon be registered as the holder of the share.

(iv) The transferee shall not be bound to see to the application of the purchase money, if any, nor shall his title to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share.

33 The provisions of these regulations as to forfeiture shall apply in the case of non-payment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the nominal value of the share or by way of premium, as if the same had been payable by virtue of a call duly made and notified.

#### ALTERATION OF CAPITAL

34 The company may, from time to time, by ordinary resolution increase the share capital by such sum, to be divided into shares of such amount, as may be specified in there resolution,

35 Subject to the provisions of section 61, the company may, by ordinary resolution,—

(a) Consolidate and divide all or any of its share capital into shares of larger amount than its existing shares;



- (b) Convert all or any of its fully paid-up shares into stock, and reconvert that stock into fully paid-up shares of any denomination;
  - (c) sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the memorandum;
  - (d) Cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.
- 36 Where shares are converted into stock,—
- (a) the holders of stock may transfer the same or any part thereof in the same manner as, and subject to the same regulations under which, the shares from which the stock arose might before the conversion have been transferred, or as near thereto as circumstances admit;
- Provided that the Board may, from time to time, fix the minimum amount of transferable, so, however, that such minimum shall not exceed the nominal amount of the shares from which the stock arose.
- (a) the holders of stock shall, according to the amount of stock held by them, have the same rights, privileges and advantages as regards dividends, voting at meetings of the company, and other matters, as if they held the shares from which the stock arose; but no such privilege or advantage (except participation in the dividends and profits of the company and in the assets on winding up) shall be conferred by an amount of stock which would not, if existing in shares, have conferred that privilege or advantage.
  - (c) Such of the regulations of the company as are applicable to paid-up shares shall apply to stock and the words "share" and "shareholder" in those regulations shall include "stock" and "stock-holder" respectively.
- 37 The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law,—
- (a) Its share capital;
  - (b) Any capital redemption reserve account; or
  - (c) Any share premium account.

#### CAPITALISATION OF PROFITS

- 38 (i) The company in general meeting may, upon the recommendation of the Board, Resolve—
- (a) that it is desirable to capitalise any part of the amount for the time being standing to the credit of any of the company's reserve accounts, or to the credit of the profit and loss account, or otherwise available for distribution; and
  - (b) that such sum be accordingly set free for distribution in the manner specified in clause (ii) amongst the members who would have been entitled thereto, if distributed by way of dividend and in the same proportions.
- (ii) The sum aforesaid shall not be paid in cash but shall be applied, subject to the provision contained in clause ( iii), either in or towards—
- (A) paying up any amounts for the time being unpaid on any shares held by such members respectively;
  - (B) Paying up in full, unissued shares of the company to be allotted and distributed, credited as fully paid-up, to and amongst such members in the proportions afore said;
  - (C) Partly in the way specified in sub-clause (A) and partly in that specified in sub-clause (B);
  - (D) A securities premium account and a capital redemption reserve account may, for the purposes of this regulation, be applied in the paying up of unissued shares to be issued to members of the company as fully paid bonus shares;





(E) The Board shall give effect to the resolution passed by the company in pursuance of this regulation.

(F)

- 39 (i) Whenever such a resolution as aforesaid shall have been passed, the Board shall—
- (a) make all appropriations and applications of the undivided profits resolved to be capitalised thereby, and all allotments and issues of fully paid shares if any; and
  - (b) Generally do all acts and things required to give effect thereto.
- (ii) The Board shall have power—
- (a) to make such provisions, by the issue of fractional certificates or by payment in cash or otherwise as it thinks fit, for the case of shares becoming distributable infractions; and
  - (b) to authorise any person to enter, on behalf of all the members entitled there to, into an agreement with the company providing for the allotment to them respectively, credited as fully paid-up, of any further shares to which they may be entitled upon such capitalisation, or as the case may require, for the payment by the company on their behalf, by the application thereto of their respective proportions of profits resolved to be capitalised, of the amount or any part of the amounts remaining unpaid on their existing shares;
- (iii) Any agreement made under such authority shall be effective and binding on such members.

#### BUY-BACK OF SHARES

- 40 Notwithstanding anything contained in these articles but subject to the provisions of sections 68 to 70 and any other applicable provision of the Act or any other law for the time being in force, the company may purchase its own shares or other specified securities.

#### GENERAL MEETINGS

- 41 All general meetings other than annual general meeting shall be called extraordinary general meeting.
- 42 (i) The Board may, whenever it thinks fit, call an extraordinary general meeting.
- (ii) If at any time directors capable of acting who are sufficient in number to form a quorum are not within India, any director or any two members of the company may call an extraordinary general meeting in the same manner, as nearly as possible, as that in which such a meeting may be called by the Board.

#### PROCEEDINGS AT GENERAL MEETINGS

- 43 (i) No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business.
- (ii) Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103.
- 44 The chairperson, if any, of the Board shall preside as Chairperson at every general meeting of the company.
- 45 If there is no such Chairperson, or if he is not present within fifteen minutes after the time appointed for holding the meeting, or is unwilling to act as chairperson of the meeting, the directors present shall elect one of their members to be Chairperson of the meeting.





- 46 If at any meeting no director is willing to act as Chairperson or if no director is present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their members to be Chairperson of the meeting.

#### ADJOURNMENT OF MEETING

- 47 (i) The Chairperson may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place.
- (ii) No business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.
- (iii) When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting.
- (iv) Save as aforesaid, and as provided in section 103 of the Act, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.

#### VOTING RIGHTS

- 48 Subject to any rights or restrictions for the time being attached to any class or classes of shares,—
- (a) on a show of hands, every member present in person shall have one vote; and
- (b) on a poll, the voting rights of members shall be in proportion to his share in the paid-up equity share capital of the company.
- 49 A member may exercise his vote at a meeting by electronic means in accordance with section 108 and shall vote only once.
- 50 (i) In the case of joint holders, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders.
- (ii) For this purpose, seniority shall be determined by the order in which the names stand in the register of members.
- 51 A member of unsound mind, or in respect of whom an order has been made by any court having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee or other legal guardian, and any such committee or guardian may, on a poll, vote by proxy.
- 52 Any business other than that upon which a poll has been demanded may be preceded with, pending the taking of the poll.
- 53 No member shall be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the company have been paid.
- 54 (i) No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes.
- (ii) Any such objection made in due time shall be referred to the Chairperson of the meeting, whose decision shall be final and conclusive.

**PROXY**

- 55 The instrument appointing a proxy and the power-of-attorney or other authority, if any, under which it is signed or a notarised copy of that power or authority, shall be deposited at the registered office of the company not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the instrument proposes to vote, or, in the case of a poll, not less than 24 hours before the time appointed for the taking of the poll; and in default the instrument of proxy shall not be treated as valid.
- 56 An instrument appointing a proxy shall be in the form as prescribed in the rules made under section 105.
- 57 A vote given in accordance with the terms of an instrument of proxy shall be valid, notwithstanding the previous death or insanity of the principal or the revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the shares in respect of which the proxy is given:  
Provided that no intimation in writing of such death, insanity, revocation or transfer shall have been received by the company at its office before the commencement of the meeting or adjourned meeting at which the proxy is used.

**BOARD OF DIRECTORS**

- 58 The number of the directors and the names of the first directors shall be determined in writing by the subscribers of the memorandum or a majority of them.  
The following shall be the First Directors of the Company.
- 1 SUNNY CYRIAC  
2 MADATHINA MATTATHIL THOMAS
- The Board may elect one among them as the Managing Director of the Company.
- 59 (i) The remuneration of the directors shall, in so far as it consists of a monthly payment, be deemed to accrue from day-to-day.  
(ii) In addition to the remuneration payable to them in pursuance of the Act, the directors may be paid all travelling, hotel and other expenses properly incurred by them –  
(a) in attending and returning from meetings of the Board of Directors or any committee thereof or general meetings of the company; or  
(b) in connection with the business of the company.
- 60 The Board may pay all expenses incurred in getting up and registering the company.
- 61 The company may exercise the powers conferred on it by section 88 with regard to the keeping of a foreign register; and the Board may (subject to the provisions of that section) make and vary such regulations as it may think fit respecting the keeping of any such register.
- 62 All cheques, promissory notes, drafts, hundis, bills of exchange and other negotiable instruments, and all receipts for monies paid to the company, shall be signed, drawn, accepted, endorsed, or otherwise executed, as the case may be, by such person and in such manner as the Board shall from time to time by resolution determine.
- 63 Every director present at any meeting of the Board or of a committee thereof shall sign his name in a book to be kept for that purpose.
- 64 (i) Subject to the provisions of section 149, the Board shall have power at any time, and from time to time, to appoint a person as an additional director, provided the number of





the directors and additional directors together shall not at any time exceed the maximum strength fixed for the Board by the articles.

- (ii) Such person shall hold office only up to the date of the next annual general meeting of the company but shall be eligible for appointment by the company as a director at that meeting subject to the provisions of the Act.

### PROCEEDINGS OF THE BOARD

- 65 (i) The Board of Directors may meet for the conduct of business, adjourn and otherwise regulate its meetings, as it thinks fit.  
(ii) A director may, and the manager or secretary on the requisition of a director shall, at any time, summon a meeting of the Board.
- 66 (i) Save as otherwise expressly provided in the Act, questions arising at any meeting of the Board shall be decided by a majority of votes.  
(ii) In case of an equality of votes, the Chairperson of the Board, if any, shall have a second or casting vote.
- 67 The continuing directors may act notwithstanding any vacancy in the Board; but, if and so long as their number is reduced below the quorum fixed by the Act for a meeting of the Board, the continuing directors or director may act for the purpose of increasing the number of directors to that fixed for the quorum, or of summoning a general meeting of the company, but for no other purpose.
- 68 (i) The Board may elect a Chairperson of its meetings and determine the period for which he is to hold office.  
(ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the directors present may choose one of their number to be Chairperson of the meeting.
- 69 (i) The Board may, subject to the provisions of the Act, delegate any of its powers to committees consisting of such member or members of its body as it thinks fit.  
(ii) Any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Board.
- 70 (i) A committee may elect a Chairperson of its meetings.  
(ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the members present may choose one of their members to be Chairperson of the meeting.
- 71 (i) A committee may meet and adjourn as it thinks fit.  
(ii) Questions arising at any meeting of a committee shall be determined by a majority of votes of the members present, and in case of an equality of votes, the Chairperson shall have a second or casting vote.
- 72 All acts done in any meeting of the Board or of a committee thereof or by any person acting as a director, shall, notwithstanding that it may be afterwards discovered that there was some defect in the appointment of any one or more of such directors or of any person acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such director or such person had been duly appointed and was qualified to be a director.
- 73 Save as otherwise expressly provided in the Act, a resolution in writing, signed by all the members of the Board or of a committee thereof, for the time being entitled to receive





notice of a meeting of the Board or committee, shall be valid and effective as if it had been passed at a meeting of the Board or committee, duly convened and held.

**CHIEF EXECUTIVE OFFICER, MANAGER, COMPANY SECRETARY OR  
CHIEF FINANCIAL OFFICER**

- 74 Subject to the provisions of the Act,—
- (i) A chief executive officer, manager, company secretary or chief financial officer may be appointed by the Board for such term, at such remuneration and upon such conditions as it may think fit; and any chief executive officer, manager, company secretary or chief financial officer so appointed may be removed by means of a resolution of the Board;
  - (ii) A director may be appointed as chief executive officer, manager, company secretary or chief financial officer.
- 75 A provision of the Act or these regulations requiring or authorising a thing to be done by or to a director and chief executive officer, manager, company secretary or chief financial officer shall not be satisfied by its being done by or to the same person acting both as director and as, or in place of, chief executive officer, manager, company secretary or chief financial officer.

**COMMON SEAL**

- 76 (i) The Board shall provide for the safe custody of the seal.  
(ii) The seal of the company shall not be affixed to any instrument except by the authority of a resolution of the Board or of a committee of the Board authorised by it in that behalf, and except in the presence of at least two directors and of the secretary or such other person as the Board may appoint for the purpose; and those two directors and the secretary or other person aforesaid shall sign every instrument to which the seal of the company is so affixed in their presence.

**DIVIDENDS AND RESERVE**

- 77 The company in general meeting may declare dividends, but no dividend shall exceed the amount recommended by the Board.
- 78 Subject to the provisions of section 123, the Board may from time to time pay to the members such interim dividends as appear to it to be justified by the profits of the company.
- 79 (i) The Board may, before recommending any dividend, set aside out of the profits of the company such sums as it thinks fit as a reserve or reserves which shall, at the discretion of the Board, be applicable for any purpose to which the profits of the company may be properly applied, including provision for meeting contingencies or for equalising dividends; and pending such application, may, at the like discretion, either be employed in the business of the company or be invested in such investments (other than shares of the company) as the Board may, from time to time, think fit.  
(ii) The Board may also carry forward any profits which it may consider necessary not to divide, without setting them aside as a reserve.
- 80 (i) Subject to the rights of persons, if any, entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid or credited as paid on the shares in respect whereof the dividend is paid, but if and so long as nothing is paid upon any of the shares in the company, dividends may be declared and paid according to the amounts of the shares.



- (ii) No amount paid or credited as paid on a share in advance of calls shall be treated for the purposes of this regulation as paid on the share.
- (iii) All dividends shall be apportioned and paid proportionately to the amounts paid or credited as paid on the shares during any portion or portions of the period in respect of which the dividend is paid; but if any share is issued on terms providing that it shall rank for dividend as from a particular date such share shall rank for dividend accordingly.
- 81 The Board may deduct from any dividend payable to any member all sums of money, if any, presently payable by him to the company on account of calls or otherwise in relation to the shares of the company.
- 82 (i) Any dividend, interest or other monies payable in cash in respect of shares may be paid by cheque or warrant sent through the post directed to the registered address of the holder or, in the case of joint holders, to the registered address of that one of the joint holders who is first named on the register of members, or to such person and to such address as the holder or joint holders may in writing direct.
- (ii) Every such cheque or warrant shall be made payable to the order of the person to whom it is sent.
- 83 Any one of two or more joint holders of a share may give effective receipts for any dividends, bonuses or other monies payable in respect of such share.
- 84 Notice of any dividend that may have been declared shall be given to the persons entitled to share therein in the manner mentioned in the Act.
- 85 No dividend shall bear interest against the company.

#### ACCOUNTS

- 86 (a) The Board shall, from time to time, determine whether and to what extent and at what times and places and under what conditions or regulation the accounts and books of the Company or any of them shall be open to the inspection of members not being directors.
- (b) No members (not being Director) shall have any right of inspecting any accounts or books of account of the Company except as conferred by law or authorised by the Board or by the Company in General Meeting.

#### WINDING UP

- 87 Subject to the provisions of Chapter XX of the Act and rules made thereunder --
- (i) If the company shall be wound up, the liquidator may, with the sanction of a special resolution of the company and any other sanction required by the Act, divide amongst the members, in specie or kind, the whole or any part of the assets of the company, whether they shall consist of property of the same kind or not.
- (ii) For the purpose aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different classes of members.
- (iii) The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the contributories if he considers necessary, but so that no member shall be compelled to accept any shares or other securities whereon there is any liability.

**INDEMNITY**

Every officer of the company shall be indemnified out of the assets of the company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.

**Subscriber Details**

Sl. No.	Names,Address,description and occupation of subscribers	Signature	Photograph
1	SUNNY CYRIAC AGE : 53 S/o CYRIAC MATHEW POTTANKAL, THONDIYIL PO, PERAVOOR, THALASSERY Kerala-670673 INDIA BUSINESS	Sd/-	
2	MADATHINA MATTATHIL THOMAS AGE : 52 S/o JOSEPH MADATHINA MATTATHIL MADATHINAMATTATHIL HOUSE P.O.KANNAVAM,VIA CHITTARIPARAMBA KANNUR, Kerala-670650 INDIA BUSINESS	Sd/-	

Dated this 18<sup>th</sup> Day of February, 2017

Witness to the above signatories

**SANDEEP S**  
**S/o K P SATHEESAN**  
**GOPIMOHAN SATHEESAN AND ASSOOCIATES,**  
**CASA MARINA COMPLEX, 1st BLOCK,**  
**1st FLOOR, TALAP, KANNUR-670004**



**CERTIFIED TRUE COPY OF THE RESOLUTION PASSED AT THE BOARD MEETING  
HELD ON 15<sup>th</sup> FEBRUARY 2019 OF M/S KOTTIYOOR METALS PRIVATE LIMITED AT  
THE REGISTERED OFFICE OF THE COMPANY**

The Board of the Company decided to give on lease, the property in the ownership of Mr. Mundakkal Plapil Victor, Kelakam Metals Private Limited and Kottiyoor Metals, partnership firm for a term of 11 Years for mining and quarrying purpose and also for obtaining lease from the Department of Mining and Geology. The Directors informed that it was also decided to give on lease, 1.3458 hectors of land in the name of the Company, situated at Sy.No.KPD838

After brief discussions, the following resolutions were passed at the meeting.

**"RESOLVED THAT** the consent of the Board be and is hereby accorded to provide necessary applications to the Department of Mining and Geology in connection with the lease of land situated at Sy.No.KPD 833, Sy.No.KPD 836, Sy.No.KPD 838 and Sy.No.KPD1148 in the name of Mr. Mundakkal Plapil Victor, Kelakam Metals Private Limited and Kottiyoor Metals, partnership firm and M/s Kottiyoor Metals Private Limited and also to give the land for mining and quarrying purpose for a term of 11 years.

**FURTHER RESOLVED THAT** Mr. MADATHINA MATTATHIL THOMAS (DIN: 01340056), Director of the Company be and is hereby authorized to make necessary applications and to obtain license from various departments and to do all things, acts and deeds necessary to give effect to the resolution."

The details of land acquired from Mundakkal Plapil Victor, Kelakam Metals Private Limited and Kottiyoor Metals Partnership Firm are as under:

Mundakkal Plapil Victor	2.3942 area in Ha in Sy .No.KPD 833
Kelakam Metals Pvt Ltd	0.2023 area in Ha in Sy .No.KPD 833
	1.3517 area in HA in Sy .No.KPD1148
	1.0281 area in HA in Sy .No.KPD 838
Kottiyoor Metals Pvt Ltd.	1.3458 area in HA in Sy .No.KPD 838
Kottiyoor Metals( Partnership Firm)	1.0117 area in Ha in Sy.No.KPD 833
	1.1765 area in Ha in Sy .No.KPD 836
	0.8094 area in Ha in Sy .No.KPD 836
	0.4977 area in Ha in Sy .No.KPD 836
	0.8094 area in Ha in Sy .No.KPD 836
	0.4047 area in Ha in Sy .No.KPD 1148



MM Thomas

Sunny cyriac

Babu P Chacko

Noble p Cyriac

**INDIAN INCOME TAX RETURN ACKNOWLEDGEMENT**

(Where the data of the Return of Income in Form ITR-1 (SAHAJ), ITR-2, ITR-3, ITR-4, ITR-5, ITR-6, ITR-7 transmitted electronically with digital signature)

Assessment Year  
**2018-19**

PERSONAL INFORMATION AND THE DATE OF ELECTRONIC TRANSMISSION	Name <b>KOTTIVOR METALS PRIVATE LIMITED</b>		PAN <b>AAGCK4657G</b>	
	Flat/Door/Block No <b>POTTANKAL</b>	Name Of Premises/Building/Village <b>THONDIVIL</b>		Form No. which has been electronically transmitted <b>ITR-6</b>
	Road/Street/Post Office <b>PERAVOOR</b>	Area/Locality <b>PERAVOOR</b>		
	Town/City/District <b>THALASSERY</b>	State <b>KERALA</b>	Pin/Zip Code <b>670673</b>	Status <b>Pvt Company</b>
	Designation of AO(Ward/Circle) <b>CIRCLE I KANNUR</b>			Original or Revised <b>ORIGINAL</b>
	E-filing Acknowledgement Number <b>456242091310319</b>		Date(DD/MM/YYYY) <b>31-03-2019</b>	
	1 Gross total income <b>16880247</b>			
	2 Deductions under Chapter-VI-A <b>0</b>			
	3 Total Income <b>16880250</b>			
	3a Current Year loss, if any <b>0</b>			
COMPLIATION OF INCOME AND TAX THEREON	4 Net tax payable <b>5581117</b>			
	5 Interest and Fee Payable <b>1210996</b>			
	6 Total tax, interest and Fee payable <b>6792113</b>			
	7 Taxes Paid	a Advance Tax	7a	<b>0</b>
		b TDS	7b	<b>0</b>
		c TCS	7c	<b>370668</b>
		d Self Assessment Tax	7d	<b>0</b>
		e Total Taxes Paid (7a+7b+7c +7d)		7e
	8 Tax Payable (6-7e) <b>6421450</b>			
	9 Refund (7e-6) <b>0</b>			
10 Exempt Income	Agriculture	<b>900000</b>	10	<b>900000</b>
	Others	<b>0</b>		

This return has been digitally signed by **SUNNY CYRIAC**in the capacity of **DIRECTOR**having PAN **ACFPC2760G** from IP Address **117.254.177.69** on **31-03-2019** at **THALASSERY**Disc No & issuer **1494646Ch-e-Mudhra Sub CA for Class 2 Individual 2014.OU=Certifying Authority e-Mudhra Consumer Services Limited,IN****DO NOT SEND THIS ACKNOWLEDGEMENT TO CPC, BENGALURU**

Copy Attested  
**P. V. JOSE**  
ADDITIONAL DEPUTY COMMISSIONER  
KUTHUPALAM KANNUR DIST.  
KERALA STATE INDIA - 670 843  
Ph. 9447865339



ANNEXURE - 7


**ELECTION COMMISSION OF INDIA**  
 ഇന്ത്യൻ തിരഞ്ഞെടുപ്പ് കമ്മീഷൻ  
**IDENTITY CARD**  
 തിരഞ്ഞെടുപ്പ് കമ്മീഷൻ

KL/42/414/378565



Elector's Name : **Thomas**  
 തിരഞ്ഞെടുക്കപ്പെട്ടവൻ പേര് : തോമസ്  
 Father's / Mother's /  
 Husband's Name : **Joseph**  
 അച്ഛൻ/അമ്മയുടെ/  
 ഭർത്താവിന്റെ പേര് : ജോസഫ്  
 Sex: പുരുഷ/സ്ത്രീ : **M / പുരുഷൻ**  
 Age as on 1-1-98 : **32**  
 തീയതി: 1-1-98

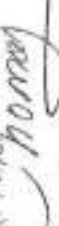
Address : 400, Madathinamattathil  
 Chittariparamba Grama Panchayat  
 വിലാസം : 400, മടത്തിനാട്ടാട്ടിൽ  
 ചിറ്റാരിപാറമ്പം ഗ്രാമ പഞ്ചായത്ത്

  
 Electoral Registration Officer  
 തിരഞ്ഞെടുപ്പ് കമ്മീഷൻ ഔദ്യോഗിക സ്ഥലത്ത്  
 For Kuthuparamba Constituency  
 കൂട്ടുപാറമ്പം നിയോജകമണ്ഡലം

Place : Thalassery  
 സ്ഥലം : താലാശ്ശേരി  
 Date / തീയതി : 22-07-1998

This card may be used as an Identity Card  
 under different Government Schemes  
 ഈ കാർഡ് ഗവൺമെന്റിന്റെ വിവിധ പദ്ധതികൾക്കുള്ള  
 തിരഞ്ഞെടുപ്പ് കമ്മീഷൻ ഉപയോഗിക്കാവുന്നതാണ്.

**For Malabar Construction  
 Materials P. V. Ltd**

  
**M. Thomas**  
 Managing Director





ANNEXURE - 8

FORM 12 C  
(See Rule 3)GOVERNMENT OF KERALA  
KELAKAM VILLAGE OFFICE  
POSSESSION CERTIFICATE

No. 43398823

Date: 30/09/2019

Name of Person to whom certificate is issued	DIRECTORS SUNNY SIRIAC AND M M THOMAS FOR KELAKAM METALS PVT LTD
Name of Guardian	SELF
Address	KELAKAM METALS, 00, KLAKAM
Post Office with PIN Code	KELAKAM, 670674
District	Kannur

Certified that land shown in the schedule below are in possession and enjoyment of the person

Taluk / Village	Old Survey No	Re-Survey Block	ReSurvey No	Extend in Ha	Thandapper	Class of Land
Iritty/ Kelakam			kpd836	0.8094		dry

Certificate Issued Date	30/09/2019
Designation of the Issuing officer	VILLAGE OFFICER
Purpose for which the certificate is issued for	MINING AND GEOLOGY

This certificate is issued based on the details given in the application, local enquiry, facts and records produced.

Security Code : RHA2H

Validity unknown

Digitally signed by RADHA E  
Date: 2019.09.30 17:33:23 IST

## NOTE

1. This digitally signed document is legally valid as per the Information Technology (IT) Act, 2008.
2. Authenticity of this document can be verified from <http://edistrict.kerala.gov.in/> and submitting the Certificate Number and Security code. Alternatively, please call the numbers 155300 (from BSNL landline), 0471155300 (from BSNL mobile), 04712335523/04712115094/04712115095 (from other networks) and quote the Certificate Number to the operator.

FORM 12 C  
(See Rule 3)



GOVERNMENT OF KERALA  
KELAKAM VILLAGE OFFICE  
POSSESSION CERTIFICATE

No. 43398477

Date: 30/09/2019

Name of Person to whom certificate is issued	DIRECTORS SUNNY SIRIAC AND M M THOMAS FOR KELAKAM METALS PVT LTD
Name of Guardian	SELF
Address	KELAKAM METALS, 00, KLAKAM
Post Office with PIN Code	KELAKAM, 670674
District	Kannur

Certified that land shown in the schedule below are in possession and enjoyment of the person

Taluk / Village	Old Survey No	Re-Survey Block	ReSurvey No	Extend in Ha	Thandapper	Class of Land
Iritty/ Kelakam			kpd842	0.3673		dry
Iritty/ Kelakam			kpd838	1.0281		dry
Iritty/ Kelakam			kpd1148	1.3517		dry
Iritty/ Kelakam			kpd1148	0.2812		dry
Iritty/ Kelakam			kpd839	0.0405		dry

Certificate Issued Date	30/09/2019
Designation of the Issuing officer	VILLAGE OFFICER
Purpose for which the certificate is issued for	MINING AND GEOLOGY

This certificate is issued based on the details given in the application, local enquiry, facts and records produced.

Security Code : 0LO89

Validity unknown

Digitally signed by RADHA E  
Date: 2019.09.30 13:16 IST

NOTE

1. This digitally signed document is legally valid as per the Information Technology (IT) Act, 2000.
2. Authenticity of this document can be verified from <http://redistrict.kerala.gov.in/> and submitting the Certificate Number and Security code. Alternatively, please call the numbers 155300(from BSNL landline), 0471155300(from BSNL mobile), 04712335523/04712115094/04712115098(from other networks) and quote the Certificate Number to the operator



FORM 12 C  
(See Rule 3)



GOVERNMENT OF KERALA  
KELAKAM VILLAGE OFFICE  
POSSESSION CERTIFICATE

No. 43399616

Date: 30/09/2019

Name of Person to whom certificate is issued	PARTNER MADATHINAMATTATHIL THOMAS FOR KOTTIYOOR METALS
Name of Guardian	SELF
Address	KOTTIYOOR METALS, 00, KELAKAM
Post Office with PIN Code	KELAKAM, 670674
District	Kannur

Certified that land shown in the schedule below are in possession and enjoyment of the person

Taluk / Village	Old Survey No	Re-Survey Block	ReSurvey No	Extend in Ha	Thandapper	Class of Land
Iritty/ Kelakam			kpd836	1.1765		dry

Certificate Issued Date	30/09/2019
Designation of the Issuing officer	VILLAGE OFFICER
Purpose for which the certificate is issued for	MINING AND GEOLOGY

This certificate is issued based on the details given in the application, local enquiry, facts and records produced.

Security Code : 332PP

Validity unknown

Digitally signed by RADHA E  
Date: 2019.09.30 18:37 IST

NOTE

1. This digitally signed document is legally valid as per the Information Technology (IT) Act, 2008.
2. Authenticity of this document can be verified from <http://edistrict.kerala.gov.in/> and submitting the Certificate Number and Security code. Alternatively, please call the numbers 155300(from BSNL landline), 0471155300(from BSNL mobile), 04712335523/04712115094/04712115098(from other networks) and quote the Certificate Number to the operator.



FORM 12 C  
(See Rule 3)



GOVERNMENT OF KERALA  
KELAKAM VILLAGE OFFICE  
POSSESSION CERTIFICATE

No. 43399616

Date: 30/09/2019

Name of Person to whom certificate is issued	PARTNER MADATHINAMATTATHIL THOMAS FOR KOTTIYOOR METALS
Name of Guardian	SELF
Address	KOTTIYOOR METALS, 00, KELAKAM
Post Office with PIN Code	KELAKAM, 670674
District	Kannur

Certified that land shown in the schedule below are in possession and enjoyment of the person

Taluk / Village	Old Survey No	Re-Survey Block	ReSurvey No	Extend in Ha	Thandapper	Class of Land
Iritty/ Kelakam			kpd836	1.1765		dry

Certificate Issued Date	30/09/2019
Designation of the Issuing officer	VILLAGE OFFICER
Purpose for which the certificate is issued for	MINING AND GEOLOGY

This certificate is issued based on the details given in the application, local enquiry, facts and records produced.

Security Code : 332PP

Validity unknown

Digitally signed by RADHA E  
Date: 2019.09.30 18:37 IST

NOTE

1. This digitally signed document is legally valid as per the Information Technology (IT) Act, 2000.
2. Authenticity of this document can be verified from <http://adstnci.kerala.gov.in/> and submitting the Certificate Number and Security code. Alternatively, please call the numbers 155300(from BSNL landline), 0471155300(from BSNL mobile), 04712335523/04712115094/04712115098(from other networks) and quote the Certificate Number to the operator.



FORM 12 C  
(See Rule 3)



GOVERNMENT OF KERALA  
KELAKAM VILLAGE OFFICE  
POSSESSION CERTIFICATE

No. 43399103

Date: 30/09/2019

Name of Person to whom certificate is issued	PARTNER POTTANKAL SUNNY SIRIAC AND MADATHINAMATTATHIL THOMAS FOR KOTTIYOOR METALS
Name of Guardian	SELF
Address	KOTTIYOOR METALAS, 00, KELAKAM
Post Office with PIN Code	KELAKAM, 670674
District	Kannur

Certified that land shown in the schedule below are in possession and enjoyment of the person

Taluk / Village	Old Survey No	Re-Survey Block	ReSurvey No	Extend in Ha	Thandapper	Class of Land
Intty/ Kelakam			kpd836	0.8094		dry

Certificate Issued Date	30/09/2019
Designation of the Issuing officer	VILLAGE OFFICER
Purpose for which the certificate is issued for	MINING AND GEOLOGY

This certificate is issued based on the details given in the application, local enquiry, facts and records produced.

Security Code : 5E4KJ

Validity unknown

Digitally signed by RADHA E  
Date: 2019.09.30 12:38:55 IST

NOTE

1. This digitally signed document is legally valid as per the Information Technology (IT) Act, 2000
2. Authenticity of this document can be verified from <http://edistrict.kerala.gov.in/> and submitting the Certificate Number and Security code. Alternatively, please call the numbers 155300(from BSNL landline), 0471155300(from BSNL mobile), 04712335523/04712115094/04712115098(from other networks) and quote the Certificate Number to the operator.

FORM 12 C  
(See Rule 3)



GOVERNMENT OF KERALA  
KELAKAM VILLAGE OFFICE  
POSSESSION CERTIFICATE

No. 43399759

Date: 30/09/2019

Name of Person to whom certificate is issued	PARTNER POTTANKAL SUNNY SIRIAC FOR KOTTIYOOR METALS
Name of Guardian	SELF
Address	KOTTIYOOR METALS, 00, KELAKAM
Post Office with PIN Code	KELAKAM, 670674
District	Kannur

Certified that land shown in the schedule below are in possession and enjoyment of the person

Taluk / Village	Old Survey No	Re-Survey Block	ReSurvey No	Extend in Ha	Thandapper	Class of Land
Iritty/ Kelakam			kpd1148	0.4047		dry
Iritty/ Kelakam			kpd836	0.8094		dry
Iritty/ Kelakam			kpd836	0.4977		dry

Certificate Issued Date	30/09/2019
Designation of the Issuing officer	VILLAGE OFFICER
Purpose for which the certificate is issued for	MINING AND GEOLOGY

This certificate is issued based on the details given in the application, local enquiry, facts and records produced.

Security Code : KYU12

Validity unknown

Digitally signed by RADHA E  
Date: 2019.09.30 16:21:15 IST

NOTE

1. This digitally signed document is legally valid as per the Information Technology (IT) Act, 2000.
2. Authenticity of this document can be verified from <http://edistrict.kerala.gov.in/> and submitting the Certificate Number and Security code. Alternatively, please call the numbers: 155300(from BSNL landline), 0471155300(from BSNL mobile), 04712335523/04712115094/04712115098(from other networks) and quote the Certificate Number to the operator





FORM 12 C  
(See Rule 3)



GOVERNMENT OF KERALA  
KELAKAM VILLAGE OFFICE  
POSSESSION CERTIFICATE

No. 43399316

Date: 30/09/2019

Name of Person to whom certificate is issued	PARTNER PULIVELIL BABU P CHACKO FOR KOTTIYOOR METALS
Name of Guardian	SELF
Address	KOTTIYOOR METALS, 00, KELAKAM
Post Office with PIN Code	KELAKAM, 670674
District	Kannur

Certified that land shown in the schedule below are in possession and enjoyment of the person

Taluk / Village	Old Survey No	Re-Survey Block	ReSurvey No	Extend in Ha	Thandapper	Class of Land
Iratty/ Kelakam			lpd833	1.0117		dry

Certificate Issued Date	30/09/2019
Designation of the Issuing officer	VILLAGE OFFICER
Purpose for which the certificate is issued for	MINING AND GEOLOGY

This certificate is issued based on the details given in the application, local enquiry, facts and records produced.

Security Code : 028C0

Validity unknown

Digitally signed by RADHA E  
Date: 2019.09.30 16:07:52 IST

NOTE

1. This digitally signed document is legally valid as per the Information Technology (IT) Act, 2008.
2. Authenticity of this document can be verified from <http://redistrict.kerala.gov.in/> and submitting the Certificate Number and Security code. Alternatively, please call the numbers 155300(from BSNL landline), 0471155300(from BSNL mobile), 04712335523/04712115094/04712115098(from other networks) and quote the Certificate Number to the operator.

FORM 12 C  
(See Rule 3)



GOVERNMENT OF KERALA  
KELAKAM VILLAGE OFFICE  
POSSESSION CERTIFICATE

No. 43397970

Date: 30/09/2019

Name of Person to whom certificate is issued	VICTOR
Name of Guardian	SELF
Address	MUNDACKAL PLAPLIL, 00, KELAKAM
Post Office with PIN Code	KELAKAM, 670674
District	Kannur

Certified that land shown in the schedule below are in possession and enjoyment of the person

Taluk / Village	Old Survey No	Re-Survey Block	ReSurvey No	Extend in Ha	Thandapper	Class of Land
Iritty/ Kelakam			kpd833	2.3942		dry

Certificate Issued Date	30/09/2019
Designation of the Issuing officer	VILLAGE OFFICER
Purpose for which the certificate is issued for	MINING AND GEOLOGY

This certificate is issued based on the details given in the application, local enquiry, facts and records produced.

Security Code : C08D8

Validity unknown

Digitally signed by RADHA E  
Date: 2019.09.30 16:59:02 IST

NOTE

1. This digitally signed document is legally valid as per the Information Technology (IT) Act, 2000.
2. Authenticity of this document can be verified from <http://edistrict.kerala.gov.in/> and submitting the Certificate Number and Security code. Alternatively, please call the numbers 155300(from BSNL landline), 0471155300(from BSNL mobile), 04712335523/04712115094/04712115099(from other networks) and quote the Certificate Number to the operator

1614287

എസ് No.

20. നമ്പർ  $\frac{1000000}{1000000}$  അനുസരിച്ച്  $\frac{1000000}{1000000}$  ആക്കിയതിന് അറിയാ

৮৭৭  
৪৩৩

101  
 2019  
 27  
 2019

27/4/2019





16143

അറിയിപ്പ് നമ്പർ  
രസീത്

ബുക്ക് നമ്പർ എസ്

എസ് No. 1614290

1. നമ്പർ തയ്യാറാക്കിയ അനുസരിച്ച് കയ്യെടുക്കുന്നതിന് അറിയിപ്പ് നമ്പർ

ഇതിൽ

തയ്യാറാക്കിയ കയ്യെടുക്കും

വിവരങ്ങൾ

സർവ്വേക്ടർ സബ് ഡിവിഷൻ സബ് ഡിവിഷൻ സബ് ഡിവിഷൻ	വിവരങ്ങൾ		പട്ടാലയോഗം പട്ടാലയോഗം പട്ടാലയോഗം	പട്ടാലയോഗം പട്ടാലയോഗം പട്ടാലയോഗം	പട്ടാലയോഗം പട്ടാലയോഗം പട്ടാലയോഗം	പട്ടാലയോഗം പട്ടാലയോഗം പട്ടാലയോഗം	പട്ടാലയോഗം പട്ടാലയോഗം പട്ടാലയോഗം	പട്ടാലയോഗം പട്ടാലയോഗം പട്ടാലയോഗം	പട്ടാലയോഗം പട്ടാലയോഗം പട്ടാലയോഗം
	കോഡ്	അളവ്							
839	0.0405								
148	0.2812								
148	1.3517								
838	1.0281								
842	0.3673								

കേരളം തദ്ദേശസ്വയംഭരണ വകുപ്പ്

മിമിറ്റഡ് കോർപ്പറേഷൻ

ലോക്കൽ ഡെവലപ്മെന്റ്

1. താലൂക്കിൽ സർവ്വേയിൽ

2. താലൂക്കിൽ സർവ്വേയിൽ

85 2017/20

1535-

താലൂക്കിൽ സർവ്വേയിൽ

1535-

താലൂക്കിൽ

താലൂക്കിൽ

താലൂക്കിൽ സർവ്വേയിൽ

2019 - 2020

ഏപ്രിൽ

27

താലൂക്കിൽ

താലൂക്കിൽ സർവ്വേയിൽ

താലൂക്കിൽ

07/4/19

താലൂക്കിൽ

താലൂക്കിൽ

താലൂക്കിൽ

‘എന്റെ കൈകൾക്ക് എന്റെ ഉത്തരവാദിത്വം’

16143

റെഗിളിനൽ  
സെപ്തീ

ကလေး၏ ကာကွယ် ရှောင်

എസ്. No. 1614293

-3- നമ്പർ  $\frac{\text{അക്ഷരം}}{\text{ഉത്തരം}}$  അക്ഷരം/രിച്ച്  $\frac{\text{കുറുപ്പ്}}{\text{ആക}}$  ഒടുക്കിയതിന് അറിവ്

1263

received

কোড

ကလေးများ

സംസ്കൃതം സംസ്ഥാനം പേര്	വിനിയോഗം		പ്രവേശനം പ്രവേശനം പ്രവേശനം	പ്രവേശനം പ്രവേശനം പ്രവേശനം	പ്രവേശനം പ്രവേശനം പ്രവേശനം	പ്രവേശനം പ്രവേശനം പ്രവേശനം	പ്രവേശനം പ്രവേശനം പ്രവേശനം	പ്രവേശനം പ്രവേശനം പ്രവേശനം
	പ്രവേശനം	പ്രവേശനം						
09 33	1.01.17	87	20/9/20	506 -				

lapq  
833

மேலும் அறிந்து: [www.iamc.org](http://www.iamc.org)

506/-

924

ଜଳ-ସାମଗ୍ରୀ

কোনো একটি সারণীতে

08/07/2014

5219

— 220948

എന്നി

... 2000

27

...  
...  
...

ഇതാണ് വിവാഹം നടന്നിരുന്ന സ്ഥലം. അവിടെ കടന്നുവന്ന ജനങ്ങൾ അവിടെ നിൽക്കുന്നത്

ନାମ: କିଶୋର  
 ତାରିଖ: 27/4/19

ရခိုင်ပြည်နယ် အစိုးရအဖွဲ့အစည်း  
ရခိုင်ပြည်နယ် အစိုးရအဖွဲ့အစည်း



L.R. 319, 1/2 202 2018, 4000/00042 (18) Govt. of Kerala  
 എംപ്ലോയ്മെന്റ് ഓഫീസ്, തിരുവനന്തപുരം

16143

ഒറിജിനൽ  
 സെീത്

1614289

ബുക്ക് നമ്പർ എസ്

എസ് No.

22 നമ്പർ തയ്യാറാക്കി അനുസരിച്ച് കടം കൊടുക്കുമതിന് സെീത്  
 ഉത്തരവി

ഇവിട്ടി

താമരൂർ കോതമം. വില്ലേജ്

പട്ടാലക്കുടിശ്ശിക നമ്പരും ഇല്ലവും	കുടിശ്ശിക		പട്ടാലക്കുടിശ്ശിക പട്ടാലക്കുടിശ്ശിക മേലോ പേര്	കുടിശ്ശിക നമ്പരും	പണം കുടിശ്ശിക ആയിട്ടുള്ള പേര്	എന്തും കടം അക്കക്കണക്കും എന്തും തവണ പക്കക്കണക്കും	തുക		റിമാർക്കും					
	പേര്	ആൾ					രൂപ	ന.						
609 836	കെട്ടിയൂർ വെട്ടൻപിള്ളയ്ക്കൽ													
	പാട്ടംഗാരി അമ്മിനാഥൻ ന്നിൽ													
	എന്നാണ്.													
	1.1765				31	മാി9/20	588 -							

പാൽ വിതരണം 588- രൂപ പണം  
 തയ്യാറാക്കി അക്കക്കണക്കിൽ (അക്കക്കണക്കിൽ)  
 2019-2020 വർഷം മാർച്ച് മാസം 27 തീയതിനാൽ  
 ഇതനുസരിച്ചും പലിശയും വില്ലേജ് കമ്മിഷൻ മുറവിട്ടിരിക്കുന്നു.

സംരംഭം കോലാ  
 തീയതി 27/4/19 വില്ലേജ് അധികൃതയുടെയും  
 വില്ലേജ് അധികൃതയുടെയും വില്ലേജ് അധികൃതയുടെയും

*(Signature)*





ရွေးချယ်မှုအားလုံးသည် အောက်ဖော်ပြပါအတိုင်းဖြစ်သည်။

16143

ഒറീസ്സയിൽ  
തെങ്ങിൻ

1614291

ទាន់ ពេលវេលា ឡើយ

എസ് No.

\*32 നമ്പർ  $\frac{\text{അനുപാതം}}{\text{ഉത്തരം}}$  അനുസരിച്ച്  $\frac{\text{കിംവദന്ത്യം}}{\text{നക്ഷത്രം}}$  കേവലമായിട്ട് അറിയില്ല.

২৬৬

സാക്ഷി: ശ്രീമതി

alleged

[illegible]

৮৮৮  
৮৮৮

தேவ் துருவப் பக்கா

405 -

744

ஒவ்வொரு

mi mē

2019-2020

QED

NOTE 87

0000-0001-9786-400X

ഇന്നുവരെ നവീകരിച്ച ചിത്രങ്ങൾ കണ്ടതിൽ മറ്റൊരു ചിത്രം:

PLATE 1

Phong

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

2010

... ..

**THE UNIVERSITY OF CHICAGO**

20

*I. N. J.*

အုပ်စု အသစ်များ အုပ်စု အကျယ်အဝန်းများ

16143

ଉପାଧିକାରୀ

ကျွန်ုပ်တို့

1614292

ബഹുജ്ഞി നമ്പ്യാർ എസ്

എസ് No.

൧൦ നമ്പർ  $\frac{\text{അളവ്}}{\text{ഉത്തരം}}$  അനുസരിച്ച്  $\frac{\text{കിൻ}}{\text{തുക}}$  ഒറ്റക്കിയതിന് രണ്ടിന്

ନିର୍ଦ୍ଦେଶ

உருவம்

சென்னை

வினாக்கள்

സമുദായം സംസ്ഥാനം ജില്ലാ തലസ്ഥാനം മണ്ഡലം	വിനിയോഗിക്കപ്പെട്ടവർ		പ്രായപരിധി പ്രായപരിധി പ്രായപരിധി	ജില്ലാതല തലസ്ഥാനം	പ്രായ പരിധി തലസ്ഥാനം	പ്രായ പരിധി തലസ്ഥാനം	മുദ്ര		വിനിയോഗിക്കപ്പെട്ടവർ
	മുദ്ര	മുദ്ര					മുദ്ര	മുദ്ര	
333	2.3942	B1	08/09/20	1197-					

833

അർദ്ധ നൂറ്റാണ്ടിലെ പര്യടനം

1197 -

അടയാളം: 2019 - Open 27  
 ഉത്തരവ്: 2019 - Open 27  
 തീയതി: 2019 - Open 27

ਮਿਸਟਰ: 27/4/19

ရက်စွဲ: ၂၀၁၆ ခုနှစ်၊ ဇူလိုင်လ ၁၄ ရက်

*[Signature]*





ANNEXURE - 10

भारतीय गैर न्यायिक

एक सौ रुपये

Rs. 100

रु. 100



ONE HUNDRED RUPEES

भारत INDIA  
INDIA NON JUDICIAL



കേരളം KERALA

CE 729401

Annexure 6

സമ്മതപത്രം

2019 ഏപ്രിൽ മാസം 03 നു തീയതി കണ്ണൂർ ജില്ലയിൽ ഇനിട്ട് താലൂക്കിൽ പെരാവൂർ വില്ലേജിൽ 54 വടസ്സ് മടത്തിനാമുത്തിൽ ഹൗസിൽ താമസിക്കും അന്നമ്മ എന്നവർ മകൻ മടത്തിനാമുത്തിൽ തോമസ് കണ്ണൂർ ജില്ലയിൽ ഇനിട്ട് താലൂക്കിൽ പെരാവൂർ വില്ലേജിൽ 55 വടസ്സ് പൊട്ടുകൽ റീട്ടിൽ താമസിക്കും സിറിയക് മാത്യു എന്നവർ മകൻ സണ്ണി സിറിയക് കണ്ണൂർ ജില്ലയിൽ തലശ്ശേരി താലൂക്കിൽ കണ്ണവം വില്ലേജിൽ 36 വടസ്സ് പുളിമേലിൽ ഹൗസിൽ താമസിക്കും ചാക്കോ പി വി എന്നവർ മകൻ ബർബർ പി

Contd ....2

മടത്തിനാമുത്തിൽ തോമസ് *Thomas*  
സണ്ണി സിറിയക് *Sunny*  
ബർബർ പി ചാക്കോ *Babar*

56  
5/4 4/4/19

സാക്ഷി  
3/4/2019 മെട്രിക് റെക്കർഡ് ഫോട്ടോ  
30 മെട്രിക് റെക്കർഡ് ഫോട്ടോ  
പി.ജി.എസ്  
മു.കുമാർ  
2019

പി.സുനിൽ കുമാർ  
സ്റ്റാമ്പ് വേണ്ട  
കുഞ്ഞുപറമ്പ്





भारतीय गैर न्यायिक

एक सौ रुपये

Rs. 100

₹. 100



ONE  
HUNDRED RUPEES

भारत INDIA  
INDIA NON JUDICIAL

കേരളം KERALA

CE 729400

മാക്കോ എന്നവരും കൊട്ടിയൂർ മെറൽസ് എന്ന സ്വാഹരത്തിന്റെ  
നിലകെടുകാക എന്ന നിലയിൽ കണ്ണൂർ ജില്ലയിൽ ഇരിട്ടി താലൂക്കിൽ  
പോലാലൂർ വില്ലേജിൽ 54 വെസ്റ്റ് ടെന്റിനാമറ്റത്തിൽ ഹൗസിൽ താമസിക്കും  
ഒന്നേയ എന്നവർ മകൻ ടെന്റിനാമറ്റത്തിൽ തോമസ് എന്നവർ വകകെടുകാ  
ഒരുപിട്ടുള്ള കൊട്ടിയൂർ മെറൽസ് പ്രൈവറ്റ് ലിമിറ്റഡ് എന്ന കമ്പനി Firm  
ഏറ്റുപി കൊടുക്കുന്ന സമ്മതപത്രം .

Contd ....3

ടെന്റിനാമറ്റത്തിൽ തോമസ്

സണ്ണി സിറിക്ക

ബാബു പി മാക്കോ



സമ്മതപത്രം .

കൊട്ടിയൂർ മെറൽസ്  
ഡമാർ 20 ടെന്റിനാമറ്റത്തിൽ

no. 111 021320  
3/4/2019 മുത്തുന

വില - 1000

പി.സുനിൽ കുമാർ  
സ്റ്റാമ്പ് വേണ്ട  
മുത്തുപറമ്പ്







ഞങ്ങളുടെ ഉടമസ്ഥതയിലും കൈവശത്തിലിരിക്കുന്നതും പേരാമ്പൂർ സബ് രജിസ്ട്രാർ ഓഫീസ് ഡോക്യുമെന്റ് നമ്പർ 3605/2018, 3787/2018, 3606/2018, 485/2017 ൽ ഉൾപ്പെട്ട കണ്ണൂർ ജില്ലയിൽ ഇരിട്ടി താലൂക്കിൽ കേളം വീല്ലേലിൽ ബാഗ്ഗരം KPD 836, KPD 836, KPD 836, KPD 836 , KPD 1148 ,KPD 833 എന്നീ റീ സർവ്വേ നമ്പറിൽപ്പെട്ട 1.1765,0.8094,0.4977,0.8094,0.4047,1.0117, ഹെക്ടർ സ്ഥലത്തിൽ ഉൾപ്പെട്ട 0.7571,0.6188,0.3982,0.3238,0.3857,0.8137 ഹെക്ടർ സ്ഥലത്തിൽ നിന്നും കരിങ്കല്ല് മനനം ചെയ്ത് വീൽപ്പന നടത്തുന്നതിന് മുമ്പെന്ന് രജസ്റ്റർ ജില്ലാളെജി റെക്കർഡിൽ നിന്നും ക്വാറിയിംഗ് ലീസ് അനുവദിച്ച് എക്സ്ട്രക്ട് ചെയ്യുന്ന തീയതി മുതൽ 11 വർഷത്തേക്ക് താഴെ പേരെഴുതി ഒപ്പിട്ടിരിക്കുന്ന സാക്ഷികൾ മുമ്പാകെ സ്വമനസ്സാലെ പൂർണ്ണമായും സമ്മതിച്ചിരിക്കുന്നു.

മടത്തിനാമറ്റത്തിൽ തോമസ്

സണ്ണി സിറിയക്

ബാബു പി ചാക്കോ

സ്ഥലം ഉടമകളുടെ ചെ്

പേര്

സ്ഥലംകുത്തുപറമ്പ്

സാക്ഷികളുടെ

പേരും മേൽവിലാസവും

Literate executants solemnly affirmed and signed before me on this the 4th day of April 2019 at Kuthuparamba

V.O. Amkacha







भारतीय गैर न्यायिक

एक सौ रुपये

Rs. 100

रु. 100



ONE HUNDRED RUPEES

भारत INDIA  
INDIA NON JUDICIAL

കേരളം KERALA

CE 729404



Annexure 6

സമ്മതപത്രം

2019 ഏപ്രിൽ മാസം 03 ൽ തീജ്ഞി കണ്ണൂർ ജില്ലയിൽ തലശ്ശേരി താലൂക്കിൽ കണ്ണൂർ വില്ലേജിൽ 58 വയസ്സ് മുണ്ടക്കൽ പ്ലാപ്പിൽ ഹൗസിൽ താമസിക്കും വർഗ്ഗീസ് എന്നവർ മകൻ മുണ്ടക്കൽ പ്ലാപ്പിൽ വിക്ടർ കണ്ണൂർ ജില്ലയിൽ തലശ്ശേരി താലൂക്കിൽ കണ്ണൂർ വില്ലേജിൽ 54 വയസ്സ് മുണ്ടക്കൽ ഹൗസിൽ താമസിക്കും എന്നവർ മകൻ മുണ്ടക്കൽ ഹൗസിൽ താമസിക്കും എന്നവർ ഡയറക്ടർ ഓഫീസിലെ കൊട്ടിക്കൂർ ഓഫീസ് പ്രൈവറ്റ് ലിമിറ്റഡ് എന്ന കമ്പനി/ Firm എഴുതി കൊടുക്കുന്ന സമ്മതപത്രം.

Contd.....2

മുണ്ടക്കൽ പ്ലാപ്പിൽ വിക്ടർ

86  
414/19

no. 7/15  
3/4/2019

മുണ്ടക്കൽ പ്ലാപ്പിൽ വിക്ടർ  
കണ്ണൂർ

പി. സുനിൽ കുമാർ  
സ്റ്റാമ്പ് വേണ്ട  
കുത്തുപറമ്പ്





കേരളം KERALA

CE 729405

എന്റെ ഉടമസ്ഥതയിലും കൈവശത്തിലിരിക്കുന്നതും പേരാവുക സബ്  
ജില്ലാ ഓഫീസ് ഡോക്യുമെന്റ് നമ്പർ 575/ 2018, ഉൾപ്പെട്ട കണ്ണൂർ ജില്ലയിൽ  
ഇതിട്ട് താലൂക്കിൽ കേരളം വില്ലേജിൽ ഓഫീസുകൾ KPD 833, എൻ ടി സർവ്വേ  
നമ്പറിൽപ്പെട്ട 2.3942 ഹെക്ടർ സ്ഥലത്തിൽ ഉൾപ്പെട്ട 0.4059, ഹെക്ടർ സ്ഥലത്തിൽ  
നിന്നും കരികല്ല് ഖനനം ചെയ്ത് വിൽപന നടത്തുന്നതിന് ഫൈനൽ ആറ്റ്  
ജില്ലാ ഓഫീസ് വകുപ്പിൽ നിന്നും ക്വാറിയിൽ ലീസ് അനുവദിച്ച് എക്സിക്യൂട്ട്  
ജില്ലാ ഓഫീസ് തീരുമാനം മുതൽ 11 വർഷത്തേക്ക് താഴെ പേരെഴുതി ഒപ്പിട്ടിരിക്കുന്ന  
സാക്ഷികൾ മുമ്പാകെ സ്വമനസ്സാലെ പൂർണ്ണമായും സമ്മതിച്ചിരിക്കുന്നു.

മുണ്ടാകാൻ പറ്റാത്ത വിധം

സ്ഥലംകയ്യെടുത്തവരാണ്

സ്ഥലം ഉടമകളുടെ ഒപ്പ്

സാക്ഷികളുടെ

പേര്

പ്രോട്ടോ മേൽവിലാസവും

Literate executant solemnly affirmed and  
signed before me on this the 3<sup>rd</sup> of day April  
2019 at Kuthuparamba

V.O. J. Lennakal

NO. 146  
3/4/2019  
പി.സി.സി. കമ്മിഷൻ  
സാക്ഷി വേണ്ട  
കുത്തുപറമ്പ്







भारतीय गैर न्यायिक

एक सौ रुपये

Rs. 100

रु. 100



ONE HUNDRED RUPEES

भारत INDIA  
INDIA NON JUDICIAL

കേരളം केरल KERALA

Annexure E 729402

സമ്മതപത്രം

2019 ഏപ്രിൽ മാസം 03 രം തീയതി കണ്ണൂർ ജില്ലയിൽ തലശ്ശേരി താലൂക്കിൽ കണ്ണവം വില്ലേജിൽ 54 വയസ്സ് മടത്തിനാറ്റത്തിൽ ഹൗസിൽ താമസിക്കും എന്നൊരു എന്നവർ മകൻ മടത്തിനാറ്റത്തിൽ തോമസ് കണ്ണൂർ ജില്ലയിൽ ഇരിട്ടി താലൂക്കിൽ പേരാമ്പുർ വില്ലേജിൽ 55 വയസ്സ് ചൊട്ടങ്കൽ വീട്ടിൽ താമസിക്കും സിറീഷക് മാത്യു എന്നവർ മകൻ സണ്ണി സിറീഷക് , കേളകം റെറന്ത്സ് പ്രൈവറ്റ് ലിമിറ്റഡ് എന്ന സ്ഥാപനത്തിന്റെ ഡയറക്ടർമാർ എന്ന നിലയിൽ കണ്ണൂർ ജില്ലയിൽ തലശ്ശേരി താലൂക്കിൽ കണ്ണവം വില്ലേജിൽ 54 വയസ്സ് മടത്തിനാറ്റത്തിൽ ഹൗസിൽ താമസിക്കും എന്നൊരു എന്നവർ മകൻ മടത്തിനാറ്റത്തിൽ തോമസ് എന്നവർ ഡയറക്ടർ ആയിട്ടുള്ള കൊട്ടിങ്ങൂർ റെറന്ത്സ് പ്രൈവറ്റ് ലിമിറ്റഡ് എന്ന കമ്പനി/ Firm എഴുതി കൊടുക്കുന്ന സമ്മതപത്രം .

Contd ....2

മടത്തിനാറ്റത്തിൽ തോമസ്

സണ്ണി സിറീഷക്

*Thomasy*

*[Signature]*

2019 4/4/19

മുഖ്യമന്ത്രിയുടെ കാര്യാലയം

താമരവേലം

മടത്തിനാറ്റത്തിൽ തോമസ്

റവ. മു. 2

പി. സുനിൽ കുമാർ  
സ്റ്റാമ്പ് വേണ്ട  
കൃത്യപരമായി



4/4/19





CE 729403

V. P. Stornikalskiy

പി.സുനിൽ കുമാർ  
സ്റ്റാമ്പ് വേണ്ട  
കുത്തുപറമ്പ്



C/48/19

ANNEXURE - 1)



### ഹിമാർക്കോൺ നൽകിയിട്ടുള്ള

കൊട്ടിയൂർ മെറ്റൻസ് കമ്പ്രൈമിമിഡ്  
 ഹൈ ഹൈഡ്രോ ക്ലോറിഡ് മിന്നിനാലി അപ-  
 ഹിഷ്ടിക്തകളും താഴെപ്പട്ടികയിൽ വിവരിച്ചിട്ടുള്ള  
 തുറന്ന വസ്തുക്കളിൽ ഫാക്ട് 4.8863 ഹെക്ടർ  
 ഭൂമി അതാണ് ബാക്കിയിട്ട് അയക്കിന്റെ ഭാഗി-  
 ത്തിട്ടുള്ള ഭാഗങ്ങൾ കീഴ് പിളർക്കൽ സ്ഥാപിച്ച് പ്ര-  
 സ്താപനം ചെയ്തിരിക്കുന്നു. ഇതുകൊണ്ട് ഓരോർക്ക് ഭൂമിയുടെ പങ്കിനെ  
 പങ്കിടുന്നതാണ്. മറ്റും അനുബന്ധിക്കുന്നു.

Sl. No	Doc.No	Sy No.	Village	Name of Owner	Area of possession in Hectar	Total Area applied in Hectar
1.	575/2018	KPD 833	കൊട്ടിയൂർ	കൊട്ടിയൂർ മെറ്റൻസ് കമ്പ്രൈമിമിഡ്	2.3442	0.4059
2.	823/2018	KPD 833	കൊട്ടിയൂർ	കൊട്ടിയൂർ മെറ്റൻസ് കമ്പ്രൈമിമിഡ് പാർട്ടണർഷിപ്പ് സി.പി.എസ്. മെറ്റൻസ് കമ്പ്രൈമിമിഡ്	0.2023	0.2023
3.	485/2017	KPD 833	കൊട്ടിയൂർ	കൊട്ടിയൂർ മെറ്റൻസ് കമ്പ്രൈമിമിഡ് പാർട്ടണർഷിപ്പ് സി.പി.എസ്. മെറ്റൻസ് കമ്പ്രൈമിമിഡ്	1.0117	0.8137
4.	3605/18	KPD 836	കൊട്ടിയൂർ	കൊട്ടിയൂർ മെറ്റൻസ് കമ്പ്രൈമിമിഡ് പാർട്ടണർഷിപ്പ് സി.പി.എസ്. മെറ്റൻസ് കമ്പ്രൈമിമിഡ്	1.1765	0.7571
5.	3787/2018	KPD 836	കൊട്ടിയൂർ	കൊട്ടിയൂർ മെറ്റൻസ് കമ്പ്രൈമിമിഡ് പാർട്ടണർഷിപ്പ് സി.പി.എസ്. മെറ്റൻസ് കമ്പ്രൈമിമിഡ്	0.8094	0.6188





SL No	RaNo	SYNO	VILLAGE	NAME OF OWNER	Area to be Surveyed in Hectar	Area Applied for in Hectar
6	3606/18	KPD 836	കേരളം	കൊല്ലൂർ നെടുമംഗലം ചാട്ടക്കാട് ഹിന്ദ് നായർ	0.4977	0.3982
7	3606/18	KPD 836	കേരളം	നാലുപുറം ചാട്ടക്കാട് അമ്മ സമ്മി ഹിന്ദ് നായർ	0.8094	0.3238
8	3606/18	KPD 1148	കേരളം		0.4097	0.3857
9	929/17	KPD 1148	കേരളം	കേരളം നെടുമംഗലം P.M. K.M. നായർ	1.3517	0.6433
10	929/17	838	കേരളം	ചാട്ടക്കാട് സമ്മി ഹിന്ദ് നായർ, അമ്മ ഹിന്ദ് നായർ - 0.300 എന്നവർ	1.0281	0.2395
TOTAL					4.6857	4.6863



11/4/19  
VILLAGE OFFICER  
KELAKAM









C/200/46/19



ഗോസ് അതെസർവ്വൈസ് സർട്ടിഫിക്കറ്റ്

പേരമ്പുർ സാ അഗ്രിസിൾ 3606/208-20

നമ്പർ ആഡാപ്രകാരം ടൈറ്റിയർ മെറ്റർസ് എന്ന പാർട്ടിനാർലിഡ് സാപ്താഹ്നിയുദ്ധത്തിൽ അതിന്റെ പാർട്ടിനാർ ആയ പൊട്ടക്കൽ സബ്ബി സിദ്ധൻ്റെ 20 ടൈറ്റിയർ എന്നവരുടെ പേരിൽ അതിന്റെ പെർമിറ്റുകളും കൂടാതെ അതേ പേരിൽ ട്രോപ്പ് & PD 836, KPD 1148 എന്നീ സർവ്വകമ്പ്യൂട്ടർ ഉള്ള പെട്ടളം മേൽനമ്പർ അഡ്മിനിസ്ട്രേഷൻ 1, 2, 3 നമ്പർ പട്ടികകളിലായി തന്നെ ചിട്ടപ്പെടുത്തണമെന്നും ചുമം 0.4977 H, 0.8094 H, 0.4047 H വസ്തുത നമ്പർ വർദ്ധിച്ച് മറ്റ് പ്രത്യേക അഡ്മിനിസ്ട്രേഷൻ പരിഷ്കരണങ്ങൾക്കും, സിസ്റ്റം മാറ്റത്തിൽ ഉൾപ്പെട്ടിട്ടുള്ള ടൈറ്റിയർ ട്രിപിൾക്കളിൽ മേൽ കോർഡ്/ബാങ്ക് അടങ്ങിയ ടൈറ്റിയർക്കും വന്നും റിലബിലിറ്റിയും ട്രിപിൾക്കളും അതിനായി വിവരങ്ങൾ അനുസരിച്ചു നൽകണമെന്നും ട്രിപിൾക്കളുടെ നാലിലൊന്നും അതിനായി ടൈറ്റിയർ മെറ്റർ റിലബിലിറ്റിയും വിജ്ഞാപനങ്ങൾ അനുസരിച്ചു നൽകണമെന്നും നൽകിയിട്ടുള്ള നിന്നും അനുസരിച്ചു വിവര സാർവ്വജനികമായിട്ടു.

(ഈ സാർവ്വജനികമായിട്ടു അതിൽ കൂടിയുള്ള അഗ്രിസിൾ പാർട്ടിനാർലിഡ് മേൽ അനുസരിച്ചു അതിനു.)



[illegible]

(ഈ സാക്ഷിപത്രം തൊന്നിൻ കീഴിലുള്ള  
ബിരുദത്തിൻ പരീക്ഷനാക്കുവാൻ ഉള്ള സാധ്യതയുള്ള  
താണെന്നു.)

VILLAGE OFFICER  
KELAKAM







കോൺ. വിജ്ഞാപനം  
സർട്ടിഫിക്കറ്റ്

[illegible]

(ഇന്ദ്ര സാമൂഹ്യവൽക്കരണത്തിന്റെ ഫലമായി  
ഇതിലൂടെ പാവപ്പെട്ടവർക്ക് പാവപ്പെട്ടവർക്ക്  
അനുഭവപ്പെടുന്നതാണ്.)



VILLAGE OFFICER  
KELAKAM







ANNEXURE - 13



भारत सरकार | Government of India

वाणिज्य और उद्योग मंत्रालय | Ministry of Commerce &amp; Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो) | Petroleum &amp; Explosives Safety Organisation (PESO)

पूर्व नाम- विस्फोटक विभाग | Formerly- Department of Explosives

केन्द्रीय भवन, प्लॉक सी-2, तीसरी मंजिल | Kendriya Bhavan, Block C-2, 3rd Floor

CSEZ पी.ओ. कक्कनाड कोच्चि | CSEZ PO Kakkanad Dist. Ernakulam Emakulam 682037

फोन (Phone):- 2427286 फैक्स (Fax):- 2427276

ई-मेल Email: dyceernakulam@explosives.gov.in

8 FEB 2019

संख्या (No.): E/SC/KL/22/890(E40830)

दिनांक (Date): 23.01.2019

सेवा में | To,

M.M.Thomas Director,

M/s. Kottiyoor Metals Private Limited, Thondiyil P.O., Peravoor, Town Village - Peravoor

District-KANNUR, State-Kerala. Pincode - 670673

विषय : Survey No(s) 842, ग्राम Kelakam Village, Thalassery Taluk, District., जिला KANNUR, राज्य Kerala में

विस्फोटक के मैगजीन में उपयोग के लिए कब्जा हेतु विस्फोटक नियम, 2008 के अंतर्गत LE-3 में जारी अनुमति सं E/SC/KL/22/890(E40830) के नवीनीकरण संदर्भ में।

Possession for Use of of Explosives from magazine situated at Survey No(s):842, Kelakam

Subject: Village, Thalassery Taluk, District., Dist. KANNUR, Kerala -Licence No.: E/SC/KL/22/890(E40830) granted in Form LE-3 of Explosives Rules, 2008 - Renewal regarding

महोदय Sir,

आपका उपर्युक्त विषय पर पत्र संख्या NH दिनांक 09/01/2019 का संदर्भ ग्रहण करें। विस्फोटक नियम, 2008 के अंतर्गत प्ररूप LE-3 में जारी अनुमति दिनांक 31/3/2024 तक नवीनीकृत कर इस पत्र के साथ भेजी जा रही है।

Reference to your letter No.: Nil dated: 09/01/2019, the subject licence duly renewed upto 31/3/2024 and issued in Form LE-3 of Explosives Rules, 2008 is forwarded herewith.

अनुमति के आगामी नवीकरण हेतु कृपया निम्नलिखित दस्तावेज दिनांक 31/03/2024 से पहले इस कार्यालय को भेजे जाएं।  
For further renewal of licence, please submit the following documents so as to reach this office on or before 31/3/2024.

- प्ररूप आरई-1 में विधिवत पूर्ण एवं हस्ताक्षरित आवेदन।  
Application in Form RE-1 duly filled in and signed.
- एक से पाँच वर्ष के अनुमति शुल्क का बैंक ड्राफ्ट। बैंक ड्राफ्ट किसी भी राष्ट्रीयकृत बैंक के नाम आहरित, संयुक्त मुख्य विस्फोटक नियंत्रक, चेन्नई के पक्ष में चेन्नई में देय हो।  
Licence fees for one to five years in the form of demand draft drawn on any Nationalized Bank in favour of Jt. Chief Controller of Explosives, Chennai payable at Chennai.
- अनुमोदित प्लान के साथ मूल अनुमति।  
Original licence with approved plan.
- कृपया इस संबंध में विस्फोटक नियम, 2008 के नियम 112 का भी संदर्भ ग्रहण करें।  
In this connection, please also refer to Rule 112 of Explosives Rules, 2008.
- विस्फोटकों के क्रय हेतु आरई-11 में मांगपत्र (इंडेंट) आपूर्तिकर्ता को दिया जाए और उसी की एक प्रति इस कार्यालय को भेजी जाए (आतिशबाजी गोदाम के लिए लागू नहीं)।  
Indent for purchase of explosives shall be placed in RE-11 with the supplier and copy of the same shall be sent to this office (Not applicable for fireworks store house)
- कृपया विस्फोटकों की त्रैमासिक विवरणी हर तिमाही के अंत में आरई-7 में प्रस्तुत की जाए। विवरणी इस कार्यालय के कार्यालय में आगामी तिमाही के 10 तारीख से पहले पहुंच जानी चाहिए (आतिशबाजी गोदाम के लिए लागू नहीं)।  
Please submit quarterly returns of explosives in RE-7 at the end of every quarter so as to reach this office by 10th of the succeeding quarter (Not applicable for fireworks store house)
- सभी दस्तावेजिंग अपरेशन एक सक्षम द्वाी की जाएगी जो उपरोक्त नियमों के तहत एक वैध शॉट कायर प्रमाणपत्र धारक हो। हासकि, खान अधिनियम 1952 के अधीन आने वाले खानों में दस्तावेजिंग अपरेशन करने वाले प्लास्टर की योग्यता उसी अधिनियम से निर्धारित हो।



All blasting operations shall be carried out by a competent person holding a valid shot firer's permit granted under above rules. However, blasting operations in mines coming under the purview of the Mines Act 1952, the blaster shall have qualifications prescribed in the regulations framed under the said Act.

आपके खाते में रुपए 90/- की राशि शेष है जो इस संदर्भ को उद्धृत करते हुए भविष्य के संव्यवहार में समायोजित की जा सकती है।

An amount of Rs. 90/- balance is in your credit, which may be utilized for future transaction by quoting this reference.

भवदीय | Your's faithfully

(अर.वेणुगोपाल | Dr. R. Venugopal)

उप मुख्य विस्फोटक नियंत्रक | Deputy Chief Controller of Explosives

कोच्ची | Ernakulam

उप मुख्य विस्फोटक नियंत्रक  
Deputy Chief Controller of Explosives

प्रतिलिपि प्रेषित | Copy Forwarded to:

1. जिला मजिस्ट्रेट (District Magistrate), KANNUR (Kerala)- सूचना के लिए (for information.)

उप मुख्य विस्फोटक नियंत्रक | Deputy Chief Controller of Explosives  
कोच्ची | Ernakulam

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क आदि के लिए हमारी वेबसाइट <http://peso.gov.in> देखें।)  
(For more information regarding status, fees and other details please visit our website <http://peso.gov.in>)





### अनुज्ञप्ति प्ररूप एल. ई.-3 | LICENCE FORM LE-3

(विस्फोटक नियम, 2008 की अनुसूची 4 के भाग 1 के अनुच्छेद 3(क) से (घ) देखिए।)

(See article 3(a) to (d) of Part I of Schedule IV of Explosives Rules, 2008)

(ग) उपयोग के लिए एक समय पर वर्ग 1, 2, 3, 4, 5 या वर्ग 7 के विस्फोटक या किसी मैगजीन में वर्ग 6 के विस्फोटक रखने के लिए अनुज्ञप्ति

Licence to possess : (e) for use, explosives of class 1, 2, 3, 4, 5, 6 or 7 in a magazine

अनुज्ञप्ति सं. (Licence No.) : E/SC/KL/22/890(E40830)

वार्षिक फीस रुपए (Annual Fee Rs): 2400/-



1. Licence is hereby granted to

M.M.Thomas Director (अभिभोगी / Occupier : K.K.Mohandas Director), M/s. Kottiyoor Metals Private Limited, Thondiyil P.O., Peravoor, Town/Village - Peravoor, District-KANNUR, State-Kerala, Pincode - 670673

को अनुज्ञप्ति अनुदत्त की जाती है।

2. अनुज्ञप्तिधारी की प्रास्थिति | Status of licensee : Company

3. अनुज्ञप्ति निम्नलिखित प्रयोजनों के लिए विधिमान्य है।

possess for use of Nitrate Mixture, Detonators, Safety Fuse, के उपयोग के लिए

Licence is valid only for the following purpose.

4. अनुज्ञप्ति विस्फोटकों के निम्नलिखित किस्मों, प्रकार और मात्रा के लिए विधिमान्य है।

Licence is valid for the following kinds and quantity of explosives :-- (क) (a)

क्र. सं. Sr. No.	नाम और विवरण Name and Description	वर्ग और प्रभाग Class & Division	उप-प्रभाग Sub-division	मात्रा किसी एक समय में Quantity at any one time
1.	Nitrate Mixture	2, 0	0	150 Kg.
2.	Detonators	6, 3	0	5000 Nos.
3.	Safety Fuse	6, 1	0	1100 Mtrs.

(ख) किसी एक कैलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा [अनुच्छेद 3(ख) और (ग) के अधीन अनुज्ञप्ति के लिए]

25 times  
as above.

(b) Quantity of explosives to be purchased in a calendar month [applicable for licence under article 3(b) and (c)] :

5. निम्नलिखित रेखाचित्र (रेखाचित्रों) से अनुज्ञप्ति परिसर की पुष्टि होती है। रेखाचित्र क्र. (Drawing No.) E/SC/KL/22/890 (E40830)

The licensed premises shall conform to the following drawing(s) : दिनक (Dated) 01/10/2007

6. अनुज्ञप्ति परिसर निम्नलिखित पते पर स्थित है। The licensed premises are situated at following address:

Survey No(s). 842, ग्राम (Town/Village) : Kelakam Village, Thalassery Taluk, District : Kelakam  
जिला (District) : KANNUR राज्य (State) : Kerala पुलिस थाना (Police Station) : Kelakam  
दूरभाष (Phone) : ई.मेल (E-Mail) : पिनकोड (Pincode) : फैक्स (Fax) :

7. अनुज्ञप्ति परिसर में निम्नलिखित सुविधाएं अंतर्भूत हैं। A set of D(Sr.No.12) & D(Sr.No.13) type Portable Magazines (Mfd by m/s Thekkans Engg & Fab. Works, Ernakulam) & D TYPE 824

The licensed premises consist of following facilities.

8. अनुज्ञप्ति समय - समय पर यथासंशोधित विस्फोटक अधिनियम, 1884 और उनके अधीन विरचित विस्फोटक नियम, 2004 के उपबंधों, शर्तों और अतिरिक्त शर्तों और निम्नलिखित उपायध्दों के अधीन रहते हुए अनुदत्त की जाती है।

The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the Explosives Rules, 2008 framed there under and the conditions, additional conditions and the following Annexures.

- उपर्युक्त क्रम सं. 5 में यथा कथित रेखाचित्र (स्थान, सन्निर्माण संबंधी और अन्य विवरण दर्शित करते हुए)।  
Drawings (showing site, constructional and other details) as stated in serial No. 5 above
- अनुज्ञप्ति प्राधिकारी द्वारा हस्ताक्षरित इस अनुज्ञप्ति की शर्तें और अतिरिक्त शर्तें।  
Conditions and Additional Conditions of this licence signed by the licensing authority.
- दूरी प्ररूप DE-2 | Distance Form DE-2.



यह अनुमति तारीख 31 मार्च 2009 तक विधिमान्य रहेगी। This licence shall remain valid till 31st day of March 2009.

यह अनुमति, अधिनियम या उसके अधीन विरचित नियमों या अनुसूची V के भाग 4 के प्रति निर्दिष्ट सेट-VII के अधीन तथा उपबर्णित इस अनुमति की शर्तों का अधिकमन करने या यदि अनुमत परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिसंगत की जा सकती है, जहां वह लागू हो।

This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto.

Sd/-

तारीख | The Date - 01/10/2007

संयुक्त मुख्य विस्फोटक नियंत्रक | Joint Chief Controller of Explosives  
South Circle, Chennai

**Amendments :**

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 10/03/2014
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 19/09/2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 19/09/2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 22/01/2019

**Transfers :**

- Change in Licensee Name/Address/Status dated : 24/08/2017

नवीनीकरण के पृष्ठफल के लिए स्थान  
Space for Endorsement of Renewal

नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry	अनुमोदन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature of licensing authority and stamp
23/01/2019	31/03/2024	Dy. Chief Controller of Explosives, Ernakulam

उप मुख्य विस्फोटक नियंत्रक

Deputy Chief Controller of Explosives  
Ernakulam

**कानूनी चेतावनी :** विस्फोटकों को गलत ढंग से चलाने या उनका दुरुपयोग विधि के अधीन गंभीर दंडित अपराध होगा।  
**Statutory Warning :** Mishandling and misuse of explosives shall constitute serious criminal offence under the law.





(सेट VIII | Set VIII)

मैगजीन में वर्ग 1, 2, 3, 4, 5, 6, और 7 के विस्फोटकों को बिक्री या प्रयोग हेतु रखने के लिए प्रत्येक पल.ई. 3 (अनुच्छेद 3 (क) से (ग)) में मुख्य विस्फोटक नियंत्रक या विस्फोटक नियंत्रक द्वारा प्रदान किए जाने वाले अनुमति सं. E/SC/KL/22/890(E40830) की शर्तें निम्नलिखित हैं।  
The following are the conditions of licence number E/SC/KL/22/890(E40830) to possess for sale or use, explosives of Class 1, 2, 3, 4, 5, 6 and 7 in a magazine in Form LE-3 (articles 3(b) to (c)) granted by Chief controller of Explosives or Controller of Explosives.

- वैरिसर में किसी भी समय विस्फोटकों की मात्रा अनुमानित योग्य क्षमता से अधिक नहीं होगी।  
The quantity of explosives on the premises at any one time shall not exceed the licensable capacity.
- विस्फोटकों के भंडारण के लिए प्रयुक्त होने वाली मैगजीन अनुसूची III और अनुमति के उपबंध में विनिर्दिष्ट सुरक्षा दूरी बनाए रखना होगा।  
The magazine used for storage of explosives shall maintain safety distance specified in Schedule III and annexure to the licence.
- मैगजीन का प्रयोग उन सभी विस्फोटकों के, जो इस अनुमति में विनिर्दिष्ट हैं, रखे जाने के लिए और ऐसे रखे जाने में संबंधित आधान या औजार या उपकरणों के रखे जाने के लिए ही किया जाएगा; अन्यथा नहीं।  
The magazine shall be used only for keeping all explosives specified in this licence and of receptacles for, or tools or implements for work connected with the keeping of such explosives.
- पैकेजों को खोलने का कार्य और विस्फोटकों को तौलने तथा पैक करने का कार्य मैगजीन में नहीं किया जाएगा।  
The opening of packages and the weighing and packing of explosives shall not be carried on in the magazine.
- दो या दो से अधिक वर्णन के विस्फोटकों को, जिन्हें मैगजीन में रखे जाने की अनुमति दी जा सकती है, मैगजीन में तभी रखे जाएंगे जब उनमें से प्रत्येक को, ऐसे पदार्थ या स्वरूप का कोई मध्यवर्ती विभाजन लगाकर या उनके बीच ऐसा मध्यवर्ती स्थान छोड़कर, परस्पर पृथक कर दिया जाए कि किसी वजह से विस्फोटक में लगने वाली आग का होने वाला विस्फोट किसी अन्य वर्णन के विस्फोटक तक न पहुंच सके।  
पंक्तु -  
(घ) 2 (नाइट्रेट मिश्रण), वर्ग 2 (नाइट्रो यौगिक) के विभिन्न विस्फोटक वर्ग 6 प्रथम प्रभाग के अंतर्गत आने वाले सुरक्षा पत्रों और वर्ग 6 प्रभाग 2 के अंतर्गत आने वाले विस्फोटक प्रेरक पत्रों, जिसमें कोई खुला तोड़ा या इस्पात नहीं है, एक दूसरे के साथ बिना किसी मध्यवर्ती विभाजन या स्वरूप के रखे जा सकते हैं।  
(ङ) वर्ग 6 प्रभाग 3 के अंतर्गत आने वाले विस्फोटक प्रेरक अलग रखे जाएंगे।  
(च) वर्ग 1 के अंतर्गत आने वाले बारूद को अलग रखा जाएगा।  
Two or more descriptions of explosives which may be permitted to be kept in the magazine shall be kept only if they are separated from each other by an intervening partition of such substance or character, or by such intervening space, as will effectually prevent explosion or fire in the one communicating with the other. Provided that—  
(d) the various explosives of Class 2 (nitrate-mixture), Class 3 (nitro-compound), safety fuses belonging to Class 6 Division 1 and detonating fuses belonging to Class 6 Division 2 as do not contain any exposed iron or steel, may be kept with each other without any intervening partition or space;  
(e) Detonators belonging to Class 6 Division 3 shall be kept separately;  
(f) Gun powder belonging to Class 1 shall be kept separately.
- वर्ग 3 (नाइट्रो यौगिक) के विस्फोटकों को, उनके विनिर्माण की तारीख से एक वर्ष बीत जाने के पश्चात सिवाय अनुमानित प्राधिकारी की विशेष मंजूरी के मैगजीन में नहीं रखा जाएगा।  
Explosives of Class 3 (nitro compound) shall not be kept in the magazine after the expiration of one year from the date of their manufacture except with the special sanction of licensing authority.
- वर्ग 3 (नाइट्रो यौगिक) के विस्फोटकों को, उनके विनिर्माण की तारीख से एक वर्ष बीत जाने के पश्चात मैगजीन में तभी रखा जाएगा जब कि किसी विस्फोटक नियंत्रक से इसके लिए विशेष मंजूरी दे दी हो।  
(i) जब ऐसी मंजूरी दे दी गई हो तो प्रत्येक निरीक्षण पर किसी विस्फोटक नियंत्रक से ऐसा लिखित प्रमाणपत्र अभिप्राय क्व लिया जाए जिसमें दी गई मंजूरी के अंतर्गत आने वाली अवधि दर्शित की गई हो और ऐसे प्रमाणपत्र के अनुमतिधारी अपने पास रखेगा और मंजूर की जाने पर प्रस्तुत करेगा।  
(ii) जब कोई विस्फोटक मंगल शुद्धता का न रह जाने के कारण या दूषणकरण या नाइट्रो ग्लिसिरीन या द्रव नाइट्रो यौगिक के निष्कल आने के चिह्न प्रकट होने के कारण मैगजीन में भण्डारित किए जाने के उपयुक्त नहीं रह जाता है तो अनुमतिधारी अपने ही ध्यान पर ऐसे विस्फोटक के निपटारे के लिए ऐसे निर्देशों का अनुपालन करेगा जो मुख्य निबंधक या विस्फोटक नियंत्रक जारी करें।  
Explosives of Class 3 (nitro compound) shall not be kept in the magazine after the expiration of one year from the date of their manufacture except with the special sanction of the Controller of Explosives.  
(i) When such sanction has been given, a written certificate showing the period covered by the sanction shall be obtained from the Controller of Explosives at each inspection, and shall be kept by the licensee and produced on demand.  
(ii) When an explosive owing to its being no longer of standard purity or owing to signs of liquefaction or of exuded nitro-glycerin or liquid nitro-glycerin or liquid nitro compound is no longer fit for storage in the magazine or store house the licensee shall comply, at his own expense, with such directions as to its disposal as the Chief Controller or Controller of Explosives may issue.
- मैगजीन के भीतरी भाग या उसमें लगी बेंच, शेल्फ और फिटिंग का इस प्रकार सज्जित किया जाएगा या उन्हें इस प्रकार अंतर्गत या अपतर्गत किया जाएगा कि विस्फोटक का किसी लोहे या इस्पात के साथ संपर्क होकर जल सके। भीतरी भाग में लगी बेंच, शेल्फ और फिटिंग यथासाध्य घिट से मुक्त एवं साफ रखे जाएंगे तथा ऐसे विस्फोटक, जो उस से चतुर्नाक रूप में प्रभावित हो सकते हैं, इस बखत सम्बंधित कार्यवाही करती जाएगी कि वहां कोई जल बीजूह न रहे; पंक्तु किसी लोहे या इस्पात के खुले होने के विरुद्ध सावधानी से संबंधित इस शर्त का यह भाग ऐसे किसी बखत में बाधेकर नहीं होगा जिसमें वर्ग 6 (गोला बारूद) के प्रथम के विस्फोटक से मिलन कोई विस्फोटक रखा गया है।  
The interior of the magazine and the benches, shelves and fittings therein shall be so constructed or so lined or covered as to prevent the exposure of any iron or steel contact with the explosives. Such interior, benches, shelves and fittings shall so far as is reasonably

उप मुख्य विस्फोटक नियंत्रक  
Deputy Chief Controller of Explosives





practicable, be kept free from grit and shall otherwise be clean; and in the case of any explosives liable to be dangerously affected by water, due precautions shall be taken to exclude water there from; Provided that so much of this condition as relates to precautions against the exposure of any iron or steel shall not be obligatory in a building in which no explosive other than explosive of the 1st Division 6th (Ammunition) Class is kept.

4. यदि तद्विषय जानकारी का परीक्षण विस्फोटक नियंत्रक करता है तो अनुमतिप्राप्त एते परीक्षण के लिए विहित फीस का संकलन करना यदि परीक्षण असमाधानकारी साबित होता है तो उतनी ही फीस अनुमतिप्राप्त द्वारा पचासवर्षी प्रायिक परीक्षण के लिए तब तक दी जाती रहेगी जब तक कि परीक्षण अधिकारी तद्विषय जानकारी को समझने पर विहित नहीं कर देता ; परंतु किसी एक परीक्षण के लिए देय फीस किसी एक दिन के दौरान किसी चालक के लिए गणना सभी परीक्षणों के लिए प्रत्येक होगा ; परंतु यह और कि यदि दो या अधिक तद्विषय चालक एक ही मैगजीन से संबंधित हैं तो ऐसे सभी चालकों के परीक्षण के लिए फीस ऐसी किसी फीस से अधिक नहीं होगी जो किसी एक तद्विषय चालक के परीक्षण के लिए हर स्थिति में विहित की गई है ।
- If the lighting conductor is tested by the Controller of Explosives, the licensee shall pay the fees prescribed for test. In the event of the test proving unsatisfactory, the same fees shall be payable by the licensee for each subsequent test until the lighting conductor is passed by the testing officer as satisfactory.
- Provided that the fees payable for a single test shall be charged for all tests made on a conductor during any one day.

Provided further that where two or more lighting conductors are attached to one and the same magazine, the fee for the testing of all such conductors shall not exceed the fee prescribed in this condition for testing a single lighting conductor.

10. उपयुक्त तथा जेब रहित कार्यकरण वाली , उपयुक्त जूती के प्रयोग द्वारा तथा तत्समी नेकर या अन्यथा अथवा ऐसे विपरीत लक्षणों द्वारा इन बाध्यता प्रत्येक उपबन्ध किया जाएगा कि फैक्ट्री परिसर में अग्नि, विस्फोटक अथवा ऐसी कोई वस्तुओं या पदार्थों, जिससे विस्फोट हो सकता है या आग लग सकती हो, किन्तु इस धारा के अन्तर्गत ऐसी संरचना, स्थिति या व्यवस्था में किसी व्यक्ति की प्रवेश वर्जित नहीं है जिससे आग लगने या विस्फोट होने का खतरा न हो ; परंतु इस धारा का वह भाग, जो जोड़े या इस्तेमाल के अपवर्जन को लागू होता है, ऐसे किसी अग्नि के संबंध में बाध्य कर नहीं होगा जिससे विस्फोट कोई विस्फोटक नहीं रख रखा गया है ।
- Due provisions shall be made, by the use of suitable working clothes without pockets, suitable shoes and by searching or otherwise or by such means, for preventing the introduction into danger area of the factory premises of fire, Lucifer matches or any substance or article likely to cause explosion or fire, but this condition shall not prevent the introduction of an artificial light of such construction, position or character as not to cause any danger of fire or explosion.
- Provided that so much of this condition as applies to the exclusion of iron or steel, shall not be obligatory in a building in which no explosive other than an explosive of the 1st Division of the 6th (Ammunition) Class is kept.
11. अनुमतिप्राप्त प्रारंभ आर.ई.-3 और आर.ई.-4 या आर.ई.-5, जैसी स्थिति हो, में सभी विस्फोटकों का अभिलेख और लेखा रखना और विस्फोटक नियम, 2008 के अधीन प्रारंभित किसी भी अधिकारी के समक्ष उसके द्वारा रखा गया की जानकारी देने का प्रारंभ पुस्तक और अभिलेख प्रस्तुत करना । स्टॉक पुस्तक विहित प्रारंभों में पुनः संश्लेषित होगी ।
- The licensee shall keep records and accounts of all explosives in Forms RE-3 and RE-4 or RE-5, as the case may be, and exhibit the stock books and records to any of the officers authorised under the Explosives Rules, 2008 whenever such officer may call upon him to do so. The stock books in the prescribed proforma shall be page numbered.
12. परिसर में कोई परिवर्तन या समीक्षा अनुमतिप्राप्त अधिकारी के पूर्वानुमोदन बिना नहीं की जाएगी और अनुमतिप्राप्त ऐसी किसी शर्त का अनुपालन करेगा जो इस निमित्त अनुमतिप्राप्त अधिकारी विनियमित करे ।
- No changes or alterations shall be carried out to the premises without prior approval of the licensing authority and the licensee shall comply with any condition that may be specified by the licensing authority in this behalf.
13. मैगजीन सभी समयों पर अच्छी संरचना की स्थिति में बनाई रखी जाएगी (या अच्छी हालत में बनाई रखी जाएगी) । यदि किसी कारणवश किसी विस्फोटक के अन्वयण के लिए मैगजीन अनुपयुक्त हो जाती है तो अनुमतिप्राप्त इस बात की सूचना अनुमतिप्राप्त अधिकारी को तुरंत देगा ।
- Magazine shall at all times be kept in state of good repair (or maintained in good condition). The licensee shall report to licensing authority forthwith, if the magazine becomes unfit for storage of any explosives for any reason whatsoever.
- मैगजीन का अनुमतिप्राप्त इन नियमों के नियम 24 के उप-नियम 3 के अनुसार वार्षिक विवरण प्रस्तुत करेगा ।
- The licensee of the magazine shall submit quarterly returns as per sub-rule (3) and (4) of rule 24 of these rules.
14. यदि सुका दूरी का कोई अधिवर्धन होता है तो उसकी सूचना अनुमतिप्राप्त अधिकारी को आवश्यक सलाह और कार्यवाही के लिए तुरंत दी जाएगी ।
- Any encroachment of the safety distance shall be immediately communicated to the licensing authority for necessary advice and action.
15. यदि कोई विस्फोटक विनष्ट हुआ अथवा अनुपयोगी जामा जाता है तो उसकी सूचना अनुमतिप्राप्त अधिकारी को, सलाह प्राप्त करने के लिए, तुरंत दी जाएगी ।
- The licensing authority shall be immediately informed for advice if any explosive is found deteriorated or unserviceable.
16. विस्फोटकों के पैकेटों के चटुटे इस प्रकार लगाए जाएंगे कि वजन से कम एक व्यक्ति अपवाद किए गए सभी पैकेटों की हालत की जांच करने और प्रत्येक पैकेट की निगरानी विधिबिधि को पढ़ने के लिए उनके बीच से होकर आ जा सके ।
- The explosive packages shall be stacked in such a way as to allow movement of at least one person to check the condition of all packages stored and to read the manufacture particulars of each package.
- तद्विषय चालकों की भूमि के लिए प्रतिरोध व्यवस्थित न्यूनतम होगा और किसी भी दशा में 10 ओहम से अधिक नहीं होगा ।
- The resistance of the lightning conductor to earth shall be as low as possible and in no case be more than 10 ohms.
17. मैगजीन के चारों ओर 15 मीटर की दूरी के अंतर्गत कोई सुखा घास या झाड़ी या जलजन्तुओं समझी नहीं रहने दी जाएगी ।
- A distance of 15 meters surrounding the magazine or store house shall be kept clear of dried grass or bush or flammable materials.
18. विस्फोटकों के प्रत्येक पैकेट की जांच उसे मैगजीन के भीतर लिया जा रहा हो, ठीक दशा जानने के लिए परीक्षा की जाएगी ।
- Every package of explosive at the time of bringing inside the magazine shall be examined for its sound condition.
19. किसी मैगजीन में अंतरंगत में किसी एक समय में चार व्यक्तियों से अधिक की नहीं रहने दिया जाएगा ।
- No more than 4 persons shall be allowed inside the magazine or store house at any one time.

**Form DE-2**

(See rule 113 of the Explosives Rules, 2008)  
(Distance Form to be attached to the licence)

Safety distances required to be kept clear around magazine for high explosives or fire works or factory licence number E/SC/KL/22/990(E40830) is form LE-3 granted to M.M.Thomas Director, M/s. Kottiyoor Metals Private Limited, Thandiyil P.O., Peravoor, Kerala.

Type of Structure(s)	Safety distances meters	
<b>Inside Safety Distances(ISD)</b>		
	M	UM
1 Room or Workshop used in Connection with the Magazine	13	19
2 Any other Explosives Magazine or store House or Factory of the Applicant		
3 Magazine Office		
<b>Middle Safety Distances(MSD)</b>		
4 Magazine Keeper's or Chowkidar's Dwelling house		
5 Railway including Minerals and Private Railways		
6 Canal (in active use) or other navigable water		
7 Dock or Pier or Jetty		
8 Public Highway or Public Road		40
9 Private Road which is PRINCIPAL means of access to a Temple, Mosque, Church, Gurudwara or other places of worships, Hospital, College, School or Factory		
10 River Embankment or Sea Embankment or Public Well		
11 Reservoir or Bounded tank/rope way		
12 Windmill or Solar panel for Power Generation		
<b>Outside Safety Distances(OSD)</b>		
13 Dwelling House		
14 Govt. and Public Building		
15 Temple, Mosque, Church or Gurudwara or other Places of Worships		
16 Shops, Market place, Public recreation and Sports Ground, College, School, Hospital, Theater, Cinema or other Building where the public are accustomed to assemble		
17 Factory		
18 Buildings or Works used for the Storage in Bulk of Petroleum, Spirit, gas, or other inflammable or hazardous substances		45
19 Building or Works used for Storage and Manufacture of Explosives or of articles which contain Explosives		
20 Aerodrome		
21 Furnace, Kiln or Chimney		
22 Quarry or mine pit head		
23 Power House or Electric Substation		
24 Wireless Station		
25 Warehouse or other Storage Building		
26 Any other Protected works		
<b>Overhead Electric lines</b>		
27 Electric Power over head Transmission Lines above 440V		45
28 Electric Power over head Transmission Lines upto 440V		15

The Date : 01/10/2007

For Joint Chief Controller of Explosives  
South Circle, Chennai

**Amendments :**

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 10/03/2014
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 19/09/2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 19/09/2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 22/01/2019

**Transfers :**

- Change in Licensee Name/Address/Status dated : 24/08/2017

—SA—  
Joint Chief Controller of Explosives  
South Circle, Chennai





20. विस्फोटकों के खाली पैकेजों को शीघ्रतम रूप से हटा दिया जाएगा और नष्ट कर दिया जाएगा।  
Empty packages of the explosives shall be removed at the earliest and destroyed.
21. अनुमतिधारी और कर्मचारी को परिसर के भीतर आपातकाल के दौरान की जाने वाली प्रक्रियाओं से अवगत होना चाहिए।  
The licensee and the employee shall be conversant with procedure to be taken during the emergency within the premises.
22. प्रीवेक्षण या तज्ज्ञ अधिकारी को सभी मुक्तिदुक्त समयों पर अनुमत परिसर में अबाध रूप से पहुँचने दिया जाएगा और वह सुनिश्चित करने के लिए कि अधिनियम और इन नियमों के उपबंधों और सुरक्षा स्थितियों को सम्बन्धित अनुपालन किया जा रहा है, अधिकारी को प्रत्येक सुविधा प्रदान की जाएगी।  
Free access to the licensed premises shall be given at all reasonable times to any inspecting or sampling officer and every facility shall be afforded to the officer for ascertaining that the provisions of the Act and these rules and the safety conditions are duly observed.
23. यदि अनुमतिधारी या विस्फोटक निर्यातक अनुमतिधारी को अनुमत परिसरों या मशीनरी, टूल या उपकरण में ऐसी कोई मरम्मत या परिवर्धन या परिवर्तन करने या निरधारित को लागू करने को विहित रूप में सूचित करता है जो परिसर के अंदर या बाहर या व्यक्ति की सुरक्षा के लिए अपर्याप्त है, अनुमतिधारी को निम्नलिखित कमेरा और विनिर्दिष्ट अवधि के भीतर अनुपालन रिपोर्ट ऐसे अधिकारी को देना।  
If the licensing authority or a Controller of Explosives informs in writing, the holder of the license to execute any repairs or to make any additions or alterations to the licensed premises or machinery, tools or apparatus or carry out recommendations, which are in the opinion of such authority may pose unacceptable risk and so necessary for the safety of either on-site or off-site of the premises or persons, the holder of the license shall execute the recommendations and report compliance within the period specified by such authority.
24. अनुमतिधारी मैगजीन में रखने और बिक्री के लिए प्रयुक्त विस्फोटक सूची में उल्लिखित अनुमत कैप्टरी या कंपन से प्राधिकृत विस्फोटक / आतिशबाजी या सुरक्षा पर्वते खरीदेगा।  
The licensee shall purchase authorised explosives/ fireworks or safety fuse as mentioned in the list authorised explosives from a licensed factory or company for possession and sale from the magazine.
25. डिग्री से अधिक ध्वनि स्तर उत्पन्न करने वाले आतिशबाजी पटाखों की बिक्री और रखने के लिए -  
(क) जो फटने की ऊँचाई से चार मीटर की दूरी पर है, 125 डीबी(ए) या 145 डीबी(सी) की प्रतिबंधित होगी;  
(ख) शृंखला (जुड़े हुए पटाखे) को गठन करने वाले व्यक्तिगत पटाखों के लिए उपर्युक्त उल्लिखित सीमा 5 लॉग (N) डीबी (सी) की प्रतिबंधित होगी।  
The possession and sale of fire-crackers generating noise level exceeding:  
a) 125 dB(A) or 145 dB(C)pk at 4 meters distance from the point of bursting shall be prohibited;  
b) For individual fire-cracker constituting the series (joined fire-crackers), the above mentioned limit be reduced by 5 log10 (N) dB, where N = number of crackers joined together.
26. अग्निक विस्फोट द्वारा दुर्घटना या नुकसान पटाखों की कमी या चोरी, नुक़त पाल के पुलिस थाने और अनुमतिधारी और अनुमतिधारी के स्थानीय कार्यालय को रिपोर्ट की जाएगी।  
Accidents by fire or explosion and losses, shortage or theft of explosives shall be immediately reported to the nearest police station and the licensing authority and local office of the licensing authority.

**अतिरिक्त शर्तें / Additional Conditions :**

1. अनुमतिधारी विदेशी मूल के आतिशबाजी को ना प्रदर्शित करेगा, ना रखेगा और ना ही उसकी बिक्री करेगा। The licensee shall not exhibit, possess and sell fireworks of foreign origin.

कुल संयुक्त मुख्य विस्फोटक नियंत्रक  
For Joint Chief Controller of Explosives  
दक्षिण वृत्त, चेन्नई। South Circle, Chennai

उप मुख्य विस्फोटक नियंत्रक  
Deputy Chief Controller of Explosives  
दक्षिण वृत्त, चेन्नई। South Circle, Chennai





BT 143858

സത്യവാങ്മൂലം

2019 ഏപ്രിൽ മാസം 03ാം തീയതി മൈനിംഗ് ആന്റ് ജിജോളജി ഡയറക്ടർ മുന്മാകെ കണ്ണൂർ ജില്ലയിൽ തലശ്ശേരി താലൂക്കിൽ കണ്ണൂർ വില്ലേജിൽ 54 വെസ്റ്റ് ടെന്റിനാറ്റത്തിൽ ഹൗസിൽ താമസിക്കും അന്നമ്മ എന്നവർ മകൻ ടെന്റിനാറ്റത്തിൽ തോമസ് മകൻ/മകൾ ബോധിപ്പിക്കുന്ന സത്യവാങ്മൂലം

കണ്ണൂർ ജില്ലയിൽ ഇരിട്ടി താലൂക്കിൽ കേരളം വില്ലേജിൽ KPD 836, KPD 836, KPD 836, KPD 836, KPD 1148, KPD 833 സർവ്വേനമ്പറുകളിൽപ്പെട്ട ഹെക്ടർ സ്ഥലത്തു നിന്നും കൽക്കല്ല് ( ഡാതുവീണ്ണ് പേര് ) ഖനനം ചെയ്യുന്നതിന് അനുവദി നൽകുന്ന പക്ഷം താഴെ പറയുന്ന കാര്യങ്ങൾ നിർവ്വഹിക്കുമെന്ന് ഞാൻ സമ്മതിക്കുകയും ഉറപ്പ് നൽകുകയും ചെയ്യുന്നു.

Contd.....2

ടെന്റിനാറ്റത്തിൽ തോമസ്

*Thomas*

no 126  
3/4/2019  
Director made thinal mattals  
Thomas Kottiyer mattals  
Put Ltd  
Poyyammal  
Lhugakunni  
and son  
P. SUNIL KUMAR  
STAMP VENDOR  
KUTHUPARAMBA





1. അംഗീകരിച്ച മൈനിംഗ് പ്ലാൻ പ്രകാരം ഖനനം നടത്തുന്നതാണ്.
2. ഖനന പ്രവർത്തനം മൂലം പരിസര മലിനീകരണവും പാരിസ്ഥിതിക പ്രശ്നങ്ങളും ഉണ്ടാകാതിരിക്കാൻ വേണ്ട പ്രതീകരണങ്ങൾ നടത്തുന്നതാണ്. ഇക്കാര്യത്തിൽ ബന്ധപ്പെട്ട അധികാരികളുടെ നിർദ്ദേശങ്ങൾ പാലിക്കുന്നതാണ്.
3. സ്പോടക വസ്തുക്കളുടെ അധിതമാല ഉപയോഗം മൂലം പരിസരവാസികൾക്ക് പ്രശ്നമുണ്ടാകുകയില്ല. എന്റെ/കുടുംബത്തിന്റെ/സ്വാധീനത്തിന്റെ പേരിലുള്ള എക്സ്പ്ലോസീവ് ലൈസൻസ് പ്രകാരം വാണിക്കുന്ന സ്പോടകവസ്തുക്കൾ ഉപയോഗിച്ച് മാത്രമേ ഞാൻ ഖനനം നടത്തുകയുള്ളൂ.
4. സമീപവാസികളിൽ നിന്നും പരാതിക്ക് ഇട വരാത്ത വിധത്തിൽ മാത്രമേ ഖനന പ്രവർത്തനം നടത്തുകയുള്ളൂ.
5. ക്വാറിയിൽ ജോലി ചെയ്യുന്ന തൊഴിലാളികൾക്കും ക്വാറിയിലുടനീളം ബന്ധപ്പെട്ട പ്രവർത്തിക്കുന്നവർക്കും മറ്റ് പൊതുജനങ്ങൾക്കും ക്വാറി പ്രവർത്തനം മൂലം അപകടങ്ങൾ സംഭവിക്കാതിരിക്കുന്നതിനു വേണ്ടിയുള്ള സുരക്ഷാ പ്രതീകരണങ്ങൾ ക്വാറിയിലും പരിസരത്തും നടത്തുന്നതാണ്. ക്വാറിക്ക് പുറത്തും ഹെൽസിങ്ങ് ആവശ്യമുള്ള പക്ഷം ഹെൽസിങ്ങ് നടത്തുന്നതാണ്.
6. അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയിരിക്കുന്ന രേഖകളിൽ ഒന്നും തന്നെ തെറ്റായ വിവരങ്ങളോ വ്യാജരേഖകളോ ഇല്ലാത്തതാണ്. അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയിരിക്കുന്ന രേഖകളിൽ ഒന്നും തന്നെ തെറ്റായ വിവരങ്ങളോ വ്യാജരേഖകളോ ഇല്ലാത്തതാണ്. അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയ സാക്ഷ്യപത്രങ്ങൾക്കും / പവർ ഓഫ് അറ്റോർണിക്കും ഇപ്പോഴും നിലമുണ്ടാകുന്നതാണ് ഞാൻ ഉറപ്പ് നൽകുന്നു. ഈ

Contd.....3

ഒത്തുനോട്ടത്തിൽ തോമസ്

Thomas

2/15







രേഖകളിൽ ചെിട്ടിരിക്കുന്നത് ഇതുമാലി ബന്ധപ്പെട്ട വ്യക്തികൾ മാത്രമാണ്. സമതപ്തം / പവർ ഓഫ് അറ്റോർണി നൽകിയ വ്യക്തികൾക്ക് ഇപ്പോഴും ഇന്ത്യൻ പൗരത്വമുള്ളതാണ്. കമ്പനി/പാർട്ണർഷിപ്പ് ഹോം എനിവി സംബന്ധിച്ച് ഞാൻ ഹാജരാക്കിയ എല്ലാ രേഖകളും നിരമാനുസൃതമായതും നിലവിൽ സാധുതയുള്ളതുമാണ്. ക്വാറീക്കോട്ടു ചേർന്നു കിടക്കുന്ന റവന്യൂ പുറമ്പോക്കിൽ നിന്നും ഞാൻ/ഞങ്ങൾ അനധികൃത ഖനനം നടത്തുന്നതല്ല, അപ്രകാരം ഖനനം നടത്തുന്ന പക്ഷം ആകെതിന് ഉത്തരവാദി ഞാൻ/ഞങ്ങൾ തന്നെയാണെന്ന് എനിക്ക് ബോധ്യപ്പെട്ടിട്ടുണ്ട്. അപ്രകാരം ഖനനം നടത്തുന്ന പക്ഷം എനിക്കെതിരെ ഉണ്ടായേക്കാവുന്ന ഏതൊരു നടപടിക്കും ഞാൻ തടസ്സം നിൽക്കുന്നതല്ല. അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയിരിക്കുന്ന രേഖകളിൽ തെറ്റായ വിവരങ്ങൾ ഉണ്ടെന്നോ ഏതെങ്കിലും രേഖകൾ വ്യാജമാണെന്നോ തെളിയിക്കുന്ന പക്ഷം ആകെതിന്റെ പൂർണ്ണ ഉത്തരവാദിത്വം എനിക്കു തന്നെയാണെന്ന് എനിക്ക് ബോധ്യപ്പെട്ടിട്ടുണ്ട്. അപ്രകാരമുള്ള എന്തൊരു പ്രവൃത്തിക്കെതിരെ ഏതു നിലമു നടപടിയും സ്വീകരിക്കുന്നതിന് തടസ്സമില്ലാത്തതും തെറ്റായ വിവരങ്ങൾ നൽകിയോ വ്യാജ രേഖകൾ നൽകിയോ ആണ് ഞാൻ/ഞങ്ങൾ അനുമതി സമ്പാദിച്ചതെന്ന് തെളിയിക്കുന്ന പക്ഷം എനിക്ക്/കമ്പനിക്ക്/സാധനത്തിന് അനുവദിച്ച അനുമതികൾ റദ്ദ് ചെയ്യുന്നതിനും എനിക്ക്/ഞങ്ങൾക്ക് പൂർണ്ണ സമതവുമാണ്. അപേക്ഷയിലും അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയ രേഖകളിലും ബന്ധപ്പെട്ട ഉദ്യോഗസ്ഥരോ ബന്ധപ്പെട്ട വ്യക്തികളോ മാത്രമാണ് ചെിട്ടിരിക്കുന്നത്. മേൽ വിവരങ്ങൾ സത്യമാണ്.

മടങ്ങിനാമറ്റത്തിൽ തോമസ്

*Thomas*

Literate deponents solemnly affirmed and signed before me on this the 31<sup>st</sup> day of April 2019 at Kuthuparamba

*V.P. Ramkadan*







भारतीय गैर न्यायिक

पचास  
रुपये

रु.50



FIFTY  
RUPEES

Rs.50

INDIA NON JUDICIAL



BT 143857

AFFIDAVIT

I, Madathinamattathil Thomas S/o Annamma, aged 54 years, residing at Madathinamattathil House, Kannavam amsom Kaicheri desom Thalassery Taluk Kannur District Managing Director of Kottiyoor Metals Pvt.Limited Registration NO.U14294 KL 2017PTC 048364 of Company/firm, having reregistered office at Pottankal, Thondiyill P.O Peravoor Iritty Taluk Kannur Dt. do hereby solemnly affirm and state as follows:-

I/the firm/the company have filed the up to date Income Tax returns, paid the

Cont...2

Madathinamattathil Thomas

*Thomas*

T 280 57  
4/4/15

NO.117

3/4/2019

Directed madathinamattathil Thomas  
Kottiyoor metals Pvt.Ltd.

Poyyammala

Chungamkannur

val.50/-

P. SUNIL KUMAR  
STAMP VENDOR  
KUTHUPARAMBA





Income Tax assessed thereon and paid the Income Tax on the basis of self assessment as per the provisions contained in the Income Tax Act 1961:-

What is stated above are true to the best of my knowledge and belief.

Dated this the <sup>4<sup>th</sup></sup> day of April 2019.

M. M. Thomas Thomas

Deponent: Name and Signature

Seal of the Firm/Company

Literate deponent solemnly affirmed and signed before me on the 4<sup>th</sup> day of April 2019 at Kuthuparamba.

V. P. Tharakan







# GLOBAL Environment & Mining Services

(Analytical Laboratory, Consulting Engineers, Mine designers, Geologist & Surveyors)

3<sup>rd</sup> Main Road, Bisaveerwara Badavane, HOSAPETE - 583201,

Dist., Bellary (Karnataka) Ph: +91-8394 651111, 229433

e-mail : [gems\\_hpt@yahoo.com](mailto:gems_hpt@yahoo.com), [gemslab.hpt@gmail.com](mailto:gemslab.hpt@gmail.com) Website: [www.globalmining.in](http://www.globalmining.in)



Certificate No: TC-5323

GEMS-LD/TF/11/01

Date: 17.07.2019

## Analysis Report of Ambient Air Quality Monitoring

- |                                   |   |
|-----------------------------------|---|
| 1 Name of the Customer/Address    | Granite Building Stone Quarry of<br>M/s. Kottiyoor Metals Private Limited,<br>Extent: 4.8171 Ha. (11.9030 Acres)<br>Re-Sy. Nos. KPD 833, KPD 836, KPD 1148 & KPD 838,<br>Kelakam Village, Iritty Taluk,<br>Kannur District, Kerala State. |
| 2 Sample Description              | Ambient Air Quality Monitoring  |
| 3 Sample Collected By             | GLOBAL Environment & Mining Services  |
| 4 Particulars of Sample Collected | Combined Sampler (GTI-241)  |
| 5 Duration of the Monitoring      | 24 Hour of Sampling   |
| 6 Name of the Station             | Core zone area (A1)   |
| 7 Sample Received                 | 13.07.2019  |
| 8 Date of Analysis                | 15.07.2019  |
| 9 Date of Analysis Completion     | 17.07.2019  |
| 10 Sample Code                    | GEMS/GBSQKMPL/AAQM/2019-20/1619   |
| 11 Report Number                  | ULR-TC53231900000519F   |

## Results

Date of Monitoring	PM10 [ $\mu\text{g}/\text{m}^3$ ]	PM2.5 [ $\mu\text{g}/\text{m}^3$ ]	SO <sub>2</sub> [ $\mu\text{g}/\text{m}^3$ ]	NO <sub>2</sub> [ $\mu\text{g}/\text{m}^3$ ]
	IS : 5182: (Part 23) 2006 (RA 2012)	USEPA 2001	IS : 5182: (Part 2) 2001 (RF 2014)	IS : 5182: (Part 6) 2006 (RF 2014)
10.07.2019	40.4	18.8	14.6	12.4
Standard	100	60	80	80

### INFERENCE

As per CPCB Standards,

Report Status: - Measured Values for the above parameters are within the limit.

\*\*End of Report\*\*

Analysed By  
J.M. Thippeswamy  
Chemist

Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager

### Note:

- The valid limit refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15 Days, Minerals 1 Month, Effluents 7 Days and ILCC samples from the date of issue of Month report certificate unless otherwise specified.
- This report is not to be reproduced, whole or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
- Legal liability of our information is limited to the service rendered. Any dispute arising out of this report is subject to Bangalore jurisdiction only.





GEM

**GLOBAL Environment & Mining Services**

(Analytical Laboratory, Consulting Engineers, Mine designers, Geologists &amp; Surveyors)

3<sup>rd</sup> Main Road, Basaveswara Badavane, HOSAPETE - 583201,

Dist., Bellary (Karnataka) Ph: +91-8394 651111, 229433

e-mail : [gems\\_hpt@yahoo.com](mailto:gems_hpt@yahoo.com), [gems\\_hpt@gmail.com](mailto:gems_hpt@gmail.com), Website: [www.globalmining.in](http://www.globalmining.in)

Certificate No: TC-5323

GEMS-LD/TF/11/01  
Date: 17.07.2019**Analysis Report of Ambient Air Quality Monitoring**

- |                                   |   |
|-----------------------------------|---|
| 1 Name of the Customer/Address    | Granite Building Stone Quarry of<br>M/s. Kottiyoor Metals Private Limited,<br>Extent: 4.8171 Ha. (11.9030 Acres)<br>Re-Sy. Nos. KPD 833, KPD 836, KPD 1148 & KPD 838,<br>Kelakam Village, Iritty Taluk,<br>Kannur District, Kerala State. |
| 2 Sample Description              | Ambient Air Quality Monitoring  |
| 3 Sample Collected By             | GLOBAL Environment & Mining Services  |
| 4 Particulars of Sample Collected | Combined Sampler (GTI-241)  |
| 5 Duration of the Monitoring      | 24 Hour of Sampling   |
| 6 Name of the Station             | Poyyamala (A2)  |
| 7 Sample Received                 | 13.07.2019  |
| 8 Date of Analysis                | 15.07.2019  |
| 9 Date of Analysis Completion     | 17.07.2019  |
| 10 Sample Code                    | GEMS/ GBSQKMPL/AAQM/2019-20/1620  |
| 11 Report Number                  | ULR-TC5323190000520F  |

**Results**

Date of Monitoring	PM10 [ $\mu\text{g}/\text{m}^3$ ]	PM2.5 [ $\mu\text{g}/\text{m}^3$ ]	SO <sub>2</sub> [ $\mu\text{g}/\text{m}^3$ ]	NO <sub>2</sub> [ $\mu\text{g}/\text{m}^3$ ]
	IS: 5182: (Part 23) 2006 (RA 2012)	USEPA 2001	IS: 5182: (Part 2) 2001 (RF 2014)	IS: 5182: (Part 6) 2006 (RF 2014)
10.07.2019	42.6	20.4	14.8	14.2
Standard	100	60	80	80

**INFERENCE**

As per CPCB Standards,

Report Status: - Measured Values for the above parameters are within the limit.

\*\*End of Report\*\*

*[Signature]*  
Analysed By  
J.M. Thippeswamy  
Chemist

*[Signature]*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager

**Note:**

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be delivered after 10 Days. Minerals & Metals, Filter papers & Membranes 7 Days and ILC samples from the date of issue of Monthly certificate unless otherwise specified.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
- Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bangalore jurisdiction only.



## GLOBAL Environment & Mining Services

(Analytical Laboratory, Consulting Engineers, Mine designers, Geologist & Surveyors)

3<sup>rd</sup> Main Road, Basaveswara Hallavane, HOSAPETE - 583201,

Dist. Bellary (Karnataka) Ph: +91-8394 651111, 229433

e-mail : [gems\\_hpt@yahoo.com](mailto:gems_hpt@yahoo.com), [gems\\_hpt@gmail.com](mailto:gems_hpt@gmail.com), Website: [www.globalmining.in](http://www.globalmining.in)



Certificate No: TC-5323

GEMS-LD/TF/08/01

Date: 17.07.2019

### TEST REPORT OF AMBIENT NOISE LEVEL MONITORING

1. Name of the Customer/Address	Granite Building Stone Quarry of M/s. Kottiyoor Metals Private Limited, Extent: 4.0171 Ha. (11.9030 Acres) Re-Sy. Nos. KPD 833, KPD 836, KPD 114B & KPD 838, Kadakkal Village, Irithy Taluk, Kannur District, Kerala State.
2. Sample Description	Ambient Noise Level Monitoring
3. Sample Collected By	GLOBAL Environment & Mining Services
4. Particulars of Sample Collected	Digital LCD Sound Level Meter (EO-6080-W8N0)
5. Duration of the Monitoring	24-Hour of Sampling
6. Date of Sample Receipt	13.07.2019
7. Date of Analysis Completion	15.07.2019
8. Sample Code	GEMS/GBSQKMP/L/ANLM/2019-20/1621 & 1622
9. Report Number	ULR-TC53231900000521F

Date	13.07.2019	14.07.2019
Name of the Location	Core Zone	Poyyamala
Time (hrs)	N1	N2
6.00	40.2	40.4
7.00	44.0	42.6
8.00	44.2	44.8
9.00	46.6	48.4
10.00	48.2	50.2
11.00	48.8	50.6
12.00	48.6	52.8
13.00	48.4	52.4
14.00	48.4	50.4
15.00	46.2	50.2
16.00	46.8	52.8
17.00	46.4	54.4
18.00	46.6	54.2
19.00	46.8	52.8
20.00	42.4	48.4
21.00	40.2	44.2
22.00	40.0	40.4
23.00	36.8	38.2
00.00	36.0	38.0
01.00	36.0	38.0
02.00	36.2	38.2
03.00	36.4	38.4
04.00	36.8	38.8
05.00	38.2	40.2
Lmax	48.8	54.4
Lmin	36.0	38.0
Ld	46.71	51.06
Ln	37.50	39.90
Leq	47.0	50.7

\*\*End of Report\*\*

#### Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be delivered after 03 Days, Minerals 1 Month. Final report of Drilling, Filling and ILC samples from the day of issue of Non-test certificate unless otherwise specified.
- This report is not to be reproduced, stored in a retrieval system or used in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without prior permission in writing from the laboratory.
- Liability of any laboratory is limited to the scope of the contract. Any dispute arising out of this report is subject to the jurisdiction of the court of law.

# **NOISE (AMBIENT STANDARDS)**

Area Code	Category of Area	Limit in dB(A) Leq	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Area	50	40



Note	Day time shall mean from 6:00 am and 10:00 pm
	Night time shall mean from in between 10:00 pm and 5:00 am
	Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority
	Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority
	*dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which relatable to human being
	A "decibel" is a unit in which noise is measured
	"A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear
Leq: It is energy mean of the noise level over a specified period.	



**Authorised Signatory**  
K. Ramakrishna Reddy  
Technical Manager

## **Note:**

- The result/ report refers only to the tested sample & applicable parameters. Endorsement of products is neither inferred nor implied.
- Waste Samples will be destroyed after 15 Days. Minors 3 Months. Filter papers & Tintines 7 Days and B/C samples from the date of issue of Month test certificate unless otherwise specified.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
- Total liability of our laboratory is limited to the fee paid amount. Any dispute arising out of this report is subject to Hospet jurisdiction only.





GEMS



# GLOBAL Environment & Mining Services

(Analytical Laboratory, Consulting Engineers, Mine designers, Geologists &amp; Surveyors)

3<sup>rd</sup> Main Road, Heaveswara Badavine, HOSAPETE - 583201,

Dist., Bellary (Karnataka). Ph: +91-8394 651111, 229433

e-mail : [gems\\_hpt@yahoo.com](mailto:gems_hpt@yahoo.com), [gems.hpt@gmail.com](mailto:gems.hpt@gmail.com), Website: [www.globalmining.in](http://www.globalmining.in)

Certificate No: TC-5323

GEMS-LD/TF/23/01

Date: 17.07.2019

## Analysis Report of Drinking Water

Name of the Customer/Address

Granite Building Stone Quarry of  
M/s. Kattiyoor Metals Private Limited,  
Extent: 4.8171 Ha. (11.9030 Acres)  
Re-Sy. Nos. KPD 833, KPD 836, KPD 1148 & KPD 838,  
Kelakam Village, Irity Taluk,  
Kannur District, Kerala State.  
Well Water  
Buffer area (WW1)  
13.07.2019  
15.07.2019  
17.07.2019  
GEMS/GBSQ&MPL/WW/2019-20/16123  
ULR-TC5323190000522F

- 2 Sample Collected By
- 3 Sample type
- 4 Name of the location
- 5 Date of Sample Collection
- 6 Date of Sample Received
- 7 Date of Sample Analyzed
- 10 Sample Code
- 11 ULR Number

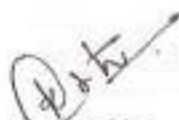
Sl. No.	Parameters	Protocol	Unit	Results	Standards as per IS: 10500 : 2012	
					Desirable Limits	Permissible Limits
1	pH	APHA 22 <sup>nd</sup> Edition 2012 4500 B (Pg No. 4-92 to 4-96)	-	7.80	6.5 to 8.5	No Relaxation
2	Conductivity	APHA 22 <sup>nd</sup> Edition 2012 2510 B (Pg No. 2-54)	µS/cm	146	-	-
3	Turbidity (NTU)	APHA 22 <sup>nd</sup> Edition 2012 2130 B (Pg No. 2-14)	NTU	0.18	1	5
4	Total Dissolved Solids	APHA 22 <sup>nd</sup> Edition 2012 2540 B (Pg No. 2-65)	mg/L	114	500	2000
5	Calcium as Ca	APHA 22 <sup>nd</sup> Edition 2012 3900 Ca II (Pg No. 3-80)	mg/L	18	75	200
6	Magnesium as Mg	APHA 22 <sup>nd</sup> Edition 2012 3900 B-Mg By Calculation	mg/L	5.84	30	100
7	Total Suspended Solids	APHA 22 <sup>nd</sup> Edition 2012 2500 B (Pg No. 2-60 to 2-67)	mg/L	1.22	-	-
8	Dissolved Oxygen	IS 3025 (part 38) - 1999, RA - 2014 Winkler titrimetric azide modification	mg/L	7.40	-	-
9	BOD 5 days at 20°C	IS 3025 (part 44) - 1993, RA-2014	mg/L	NIL	-	-
10	COD as CO <sub>2</sub>	APHA 22 <sup>nd</sup> Edition 2012 2540 B (Pg No. 5-19 to 5-20)	mg/L	NIL	-	-
11	Dissolved Phosphorus as P	IS 3025 (part 38) - 1999, RA - 2014, Stannous chloride method	mg/L	<0.01	-	-
12	Sodium as Na	APHA 22 <sup>nd</sup> Edition 2012 Na 3500 B (Pg No. 3-97 to 3-98)	mg/L	8.4	-	-
13	Potassium as K	APHA 22 <sup>nd</sup> Edition 2012 3500 B (Pg No. 3-87 to 3-88)	mg/L	0.56	-	-
14	Total Hardness as CaCO <sub>3</sub>	APHA 22 <sup>nd</sup> Edition 2012 2540 C (Pg No. 2-46)	mg/L	88	200	600
15	Chloride as Cl	APHA 22 <sup>nd</sup> Edition 2012 4500 Cl (Pg No. 4-72)	mg/L	14.0	250	1000
16	Total Iron as Fe	APHA 3500 B (Pg No. 3-77)	mg/L	0.16	0.30	No Relaxation
17	Sulphate as SO <sub>4</sub>	APHA 22 <sup>nd</sup> Edition 2012 4500 SO <sub>4</sub> E (Pg No. 4-100)	mg/L	88	200	400
18	Fluoride as F	APHA 22 <sup>nd</sup> Edition 2012 4500 F-ES (Pg No. 4-87 to 4-88)	mg/L	0.20	1	1.50
19	Nitrate Nitrogen as NO <sub>3</sub>	APHA 22 <sup>nd</sup> Edition 2012 4500 NO <sub>3</sub> E (Pg No. 4-125 to 4-127)	mg/L	10	45	No Relaxation
20	Total Alkalinity as CaCO <sub>3</sub>	APHA 22 <sup>nd</sup> Edition 2320 B (Pg No. 2-55)	mg/L	38	200	400
21	Oil & Grease	APHA 22 <sup>nd</sup> Edition 2012 5510 B	mg/L	NIL	-	-

### Note:

- 1 The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither implied nor implied.
- 2 Water Samples will be destroyed after 10 Days, Minimum 1 Month, Filter papers & Chemicals 7 Days and ILC samples from the date of issue of Month from certificate unless otherwise specified.
- 3 This report is not to be reproduced, wholly or in part & cannot be used as evidence in the Court of law & should not be used as advertising media without special permission or writing.
- 4 Total liability of our Laboratory is limited to the fee received. Any dispute arising out of this report is subject to Bangalore jurisdiction only.

		(Pg No 5-40 to 5-41)				
11	Total Coliform count*	APHA 22 <sup>nd</sup> Edition 2012 9222 B (Pg No 9-46) Membrane filter technique	MPN/ 100ml	Absent	Shall not be detectable in any 100 ml sample	-
11	Escherichia coli count*	APHA 22 <sup>nd</sup> Edition 2012 9222 B (Pg No 9-46) Membrane filter technique	E.Coli/ 100ml	Absent	Shall not be detectable in any 100 ml sample	-

**\*\*End of report\*\***



**Analysed By**  
Keerthana Yadav B.R.  
Chemist



  
**Authorized Signatory**  
K. Ramakrishna Reddy  
Technical Manager



**Note:**

1. The result valid only for the tested samples & applicable parameters. Extrapolation of results is neither recommended nor implied.
2. Water Samples will be preserved after 30 days. Maximum 3 Months, 100 papers & 1000 litres 7 days and H.C.T samples from the date of receipt of sample certificate unless otherwise specified.
3. This report is not to be reproduced wholly or in part, without the consent of the laboratory. In the Court of law & should not use any advertising media without special permission in writing.
4. Total liability of our laboratory is limited to the fee/charge amount. Any dispute arising out of this report is subject to HOSPET jurisdiction only.



**National Accreditation Board for  
Testing and Calibration Laboratories**

(A Constituent Board of Quality Council of India)



## **CERTIFICATE OF ACCREDITATION**

### **GLOBAL ENVIRONMENT & MINING SERVICES**

has been assessed and accredited in accordance with the standard

**ISO/IEC 17025:2005**

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

3rd Cross, 60 feet Main Road, 16th Ward, Basaveshwara Badavane,  
Hospet, Karnataka

in the field of

**TESTING**

**Certificate Number** TC-5323

**Issue Date** 12/10/2017

**Valid Until** 11/10/2019

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website [www.nabl-india.org](http://www.nabl-india.org))

Signed for and on behalf of NABL

*N. Venkateswaran*

N. Venkateswaran  
Program Director



89076970100030000405

*Anil Relia*

Anil Relia  
Chief Executive Officer





# PLATES

KERALA STATE

KANNUR DISTRICT



CONJUGATE

**GRANITE BUILDING STONE QUARRY OF**  
**M/s. Kottivoor Metals Private Limited**

**M/S. KOLLYOOR MECHANICALS PVT.LTD**

Title	ADMINISTRATIVE PLAN
Scale	NTS
Easting: 4 8171 1b (1:400000)	

Certified that the above plan is correct.

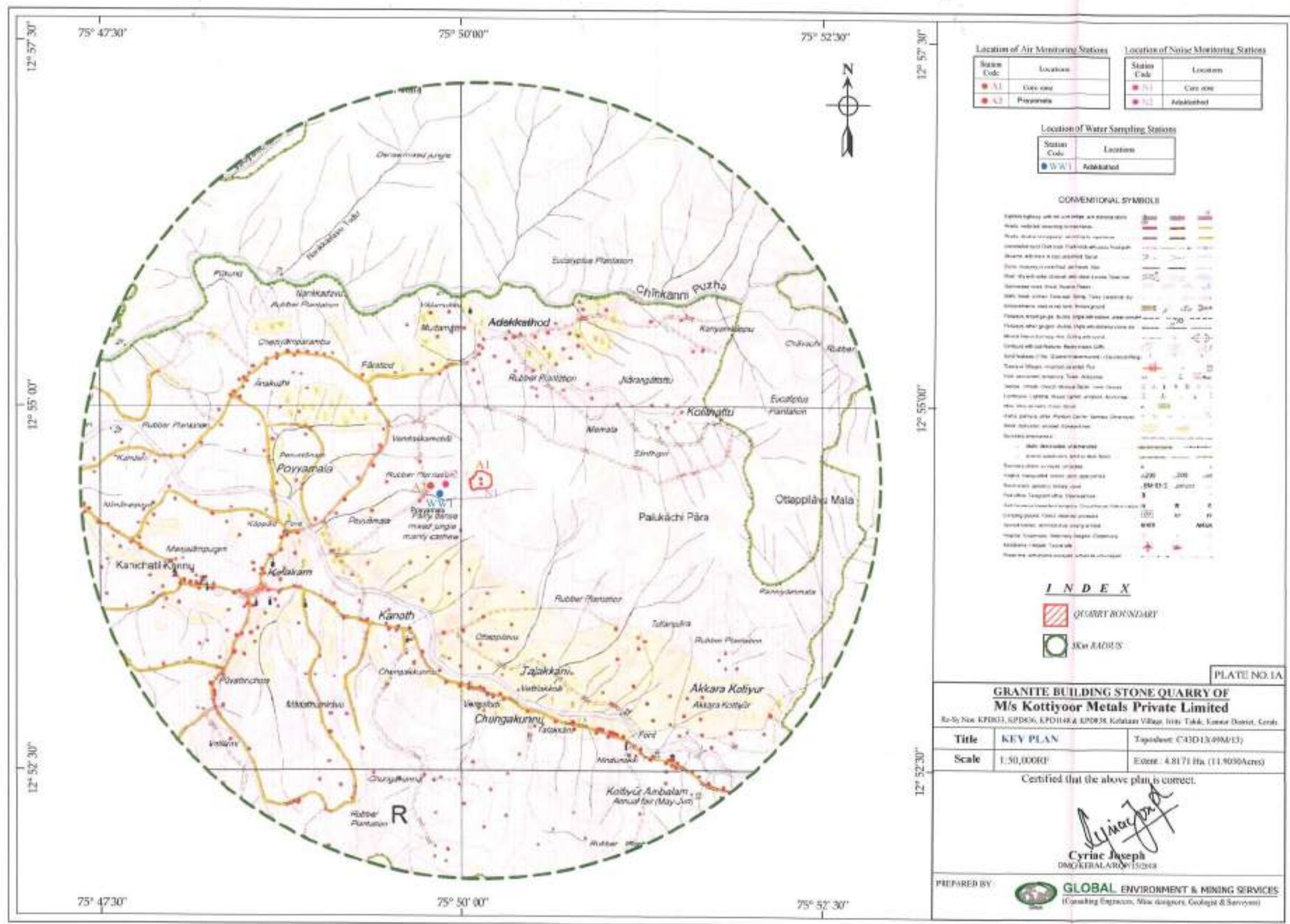
~~Michael~~  
Cyril Joseph  
michael.joseph@nhs.uk

© 2000 Blackwell Science Ltd

GLOBAL ENVIRONMENT &amp; MOVING SERVICES









Village: Kelakam  
Taluk: Iritty  
District: Kannur  
State: Kerala

03/2019

# SURVEY MAP

TOTAL MINING LEASE APPLICATION AREA



Scale: 1:2000  
1cm = 20m  
All dimensions are in metres

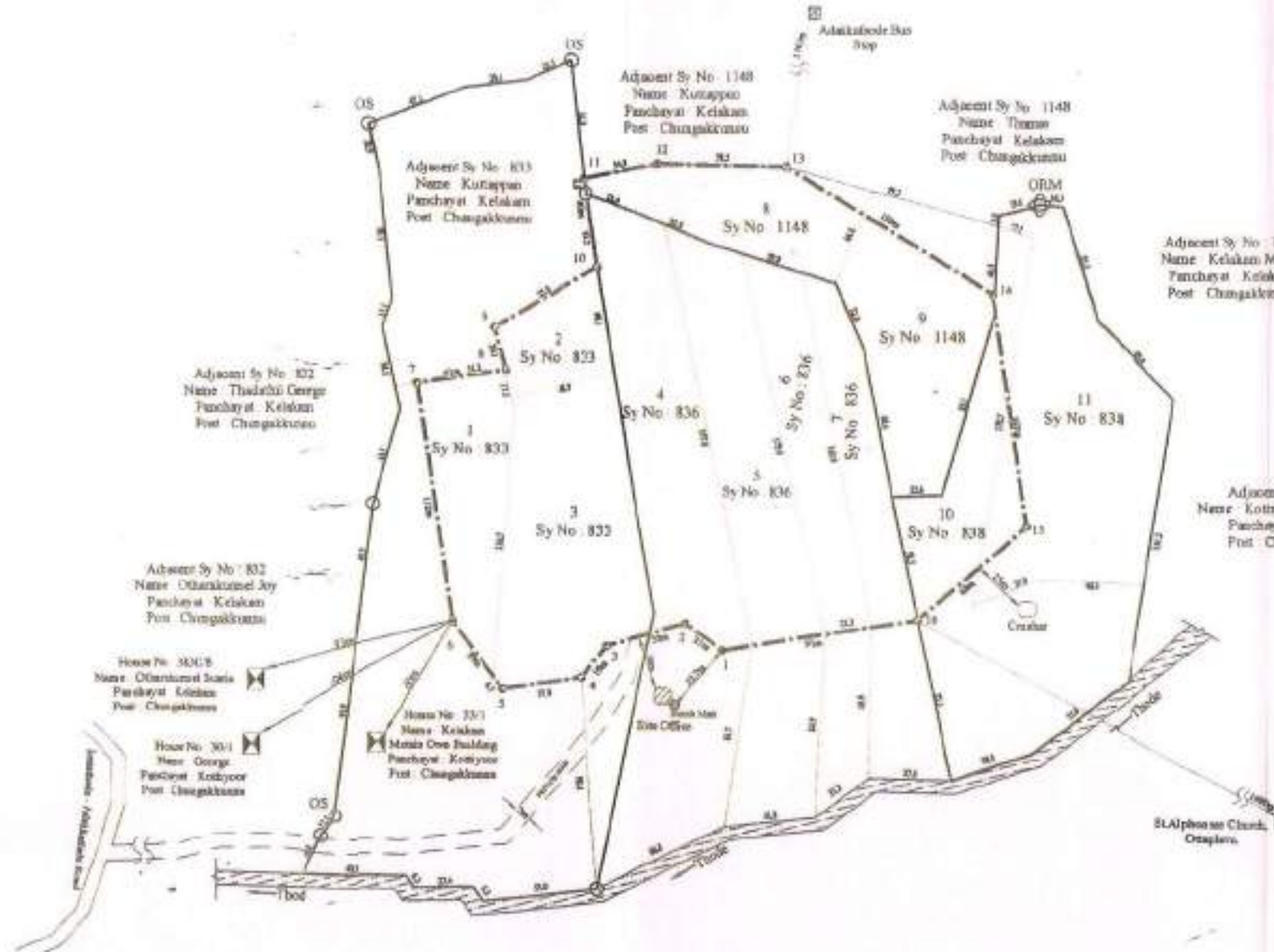
Re-Sy. Nos.: KPD833, KPD836, KPD838 & KPD1148

## INDEX

- Village Road
- Private Road 7m
- Known point (Landmark)
- Houses
- Site Office
- Crusher
- ORM
- Thode
- Bench Mark
- OS

GPS READINGS OF BOUNDARY PILLARS  
MAP DATUM - WGS84

Ground Control Points	Name	Latitude	Longitude
G.C.P. - 1	Survey Stone	N-11°34'29.833"	E-75°30'17.763"
G.C.P. - 2	Bench Mark	N-11°34'22.347"	E-75°30'02.196"
Known Point - 1	St. Alphonsus Church, Kallur	N-11°35'06.997"	E-75°30'54.637"
Known Point - 2	Adakkabode Bus Stop	N-11°35'26.357"	E-75°30'13.481"



GPS READINGS OF BOUNDARY PILLARS  
MAP DATUM - WGS84

Boundary Pillar	Latitude	Longitude
1	N-11°34'21.100"	E-75°30'12.811"
2	N-11°34'23.568"	E-75°30'12.812"
3	N-11°34'23.214"	E-75°30'11.171"
4	N-11°34'22.543"	E-75°30'10.769"
5	N-11°34'22.559"	E-75°30'10.470"
6	N-11°34'23.583"	E-75°30'10.833"
7	N-11°34'27.187"	E-75°30'10.128"
8	N-11°34'27.292"	E-75°30'10.566"
9	N-11°34'28.021"	E-75°30'10.410"
10	N-11°34'29.051"	E-75°30'10.077"
11	N-11°34'31.208"	E-75°30'10.400"
12	N-11°34'31.429"	E-75°30'10.308"
13	N-11°34'31.385"	E-75°30'10.340"
14	N-11°34'28.523"	E-75°30'10.103"
15	N-11°34'23.067"	E-75°30'10.181"
16	N-11°34'21.541"	E-75°30'10.100"



This mining plan is approved

26/11/19

**V. DIVAKARAN**  
SENIOR GEOLOGIST  
DEPT. OF MINING & GEOLOGY  
DISTRICT OFFICE, CIVIL STATION  
KANNUR-670002

Submitted before Mining & Geology Department

APPLICANT -

Sri. M.M Thomas (Director)  
M/s Kottiyoor Metals Pvt Ltd  
POTTANKAL, THONDYIL PO  
PERAVOOR, KANNUR DISTRICT  
Kerala, India, 670002

Authorized Signature

Land Index of Mining Lease Area

S.No	Dec. No.	Thondappan Re-survey No.	Re-sy. No.	Village Name	Name of the owner	Area of possession in Ha.	Total Applied Area in Ha.	Area Already Under Quarrying in Ha.
1	174/2018	NA	NA	KPD 833	Mahalingam Thiruvalluvar	0.2023	0.2023	0.0000
2	824/2018	NA	NA	KPD 836	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	1.0117	0.8137	0.0000
3	485/2017	NA	NA	KPD 838	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	1.0765	0.1371	0.0000
4	3605/2018	NA	NA	KPD 836	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	0.8094	0.6138	0.0000
5	3787/2018	NA	NA	KPD 836	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	0.4977	0.2982	0.0000
6	3606/2018	NA	NA	KPD 836	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	0.8094	0.3238	0.0000
7	3606/2018	NA	NA	KPD 836	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	0.4047	0.3857	0.0000
8	425/2017	NA	NA	KPD 1148	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	1.3317	0.5443	0.0000
9	425/2017	NA	NA	KPD 1148	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	1.0281	0.2950	0.0000
10	425/2017	NA	NA	KPD 836	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	1.3424	0.3724	0.0000
11	425/2017	NA	NA	KPD 836	Pottankal Suresh Suresh & Mahalingam Thiruvalluvar	11.0315	4.8171	0.0000



TAHSILDAR  
IRITTY

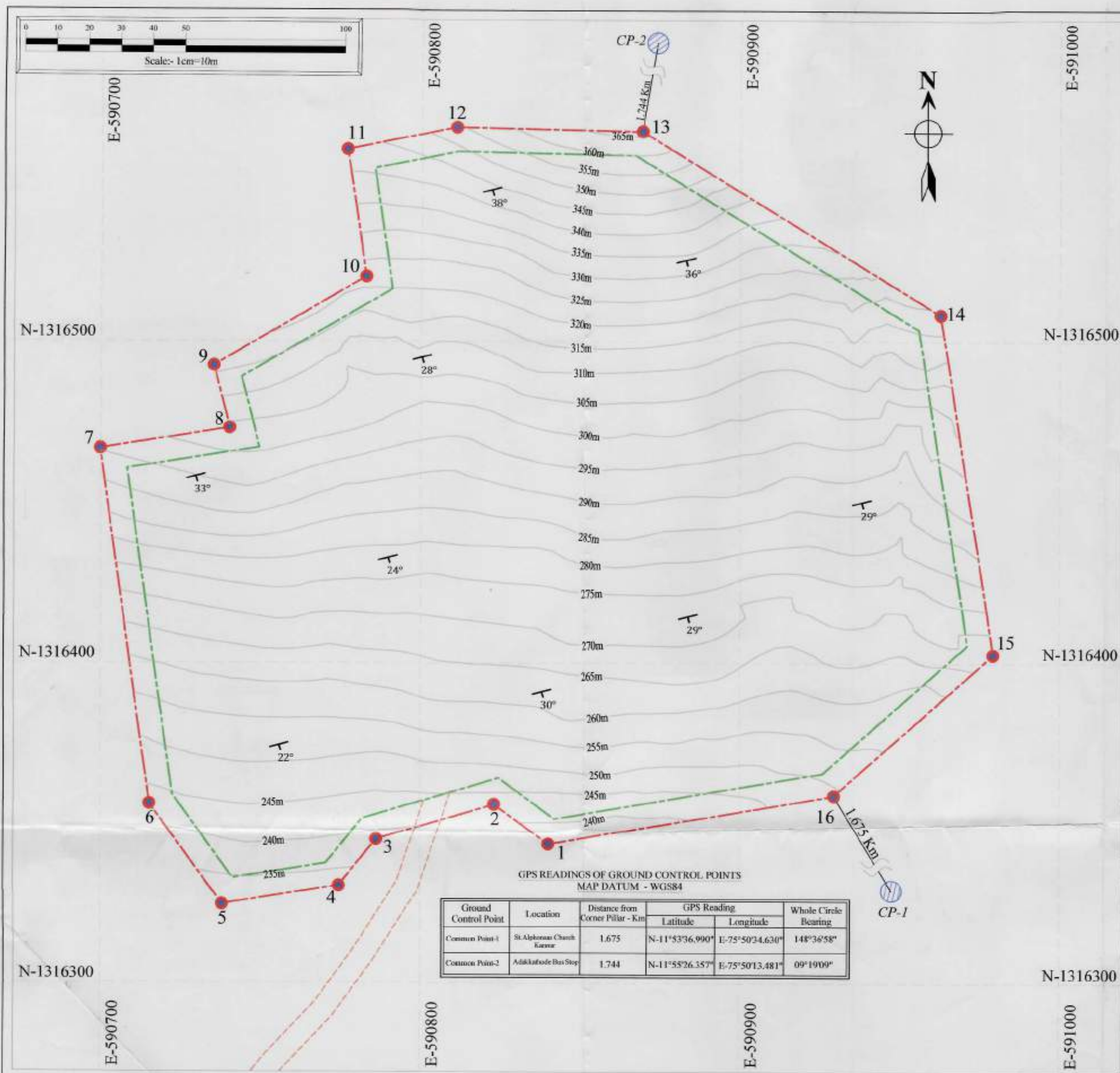
TAHSILDAR  
IRITTY

TALUK SURVEYOR  
IRITTY



VILLAGE OFFICE  
KELAKAM





GPS READINGS OF BOUNDARY PILLARS  
MAP DATUM - WGS84

Boundary Pillars	Latitude	Longitude
1	N-11°54'23.160"	E-75°50'02.953"
2	N-11°54'23.568"	E-75°50'02.392"
3	N-11°54'23.216"	E-75°50'01.177"
4	N-11°54'22.743"	E-75°50'00.789"
5	N-11°54'22.559"	E-75°49'59.579"
6	N-11°54'23.588"	E-75°49'58.830"
7	N-11°54'27.187"	E-75°49'58.328"
8	N-11°54'27.392"	E-75°49'59.666"
9	N-11°54'28.025"	E-75°49'59.502"
10	N-11°54'28.921"	E-75°50'01.077"
11	N-11°54'30.208"	E-75°50'00.883"
12	N-11°54'30.429"	E-75°50'02.009"
13	N-11°54'30.385"	E-75°50'03.943"
14	N-11°54'28.523"	E-75°50'07.020"
15	N-11°54'25.067"	E-75°50'07.581"
16	N-11°54'23.645"	E-75°50'05.903"

#### INDEX

- QUARRY BOUNDARY
- 7.5m SAFETY BARRIER
- CONTOURS
- ROAD
- COMMON POINTS
- NATURAL HILL SLOPE

PLATE NO.3

#### GRANITE BUILDING STONE QUARRY OF M/s. Kottiyoor Metals Private Limited

Re-Sy Nos. KPD833, KPD836, KPD148 & KPD838, Kelakam Village, Irithy Taluk, Kannur District, Kerala.

Title	SURFACE PLAN	Date of Survey: 12.07.2019
Scale	1:1000 RF	Extent : 4.8171 Ha. (11.9030 Acres)

Certified that the above plan is correct.

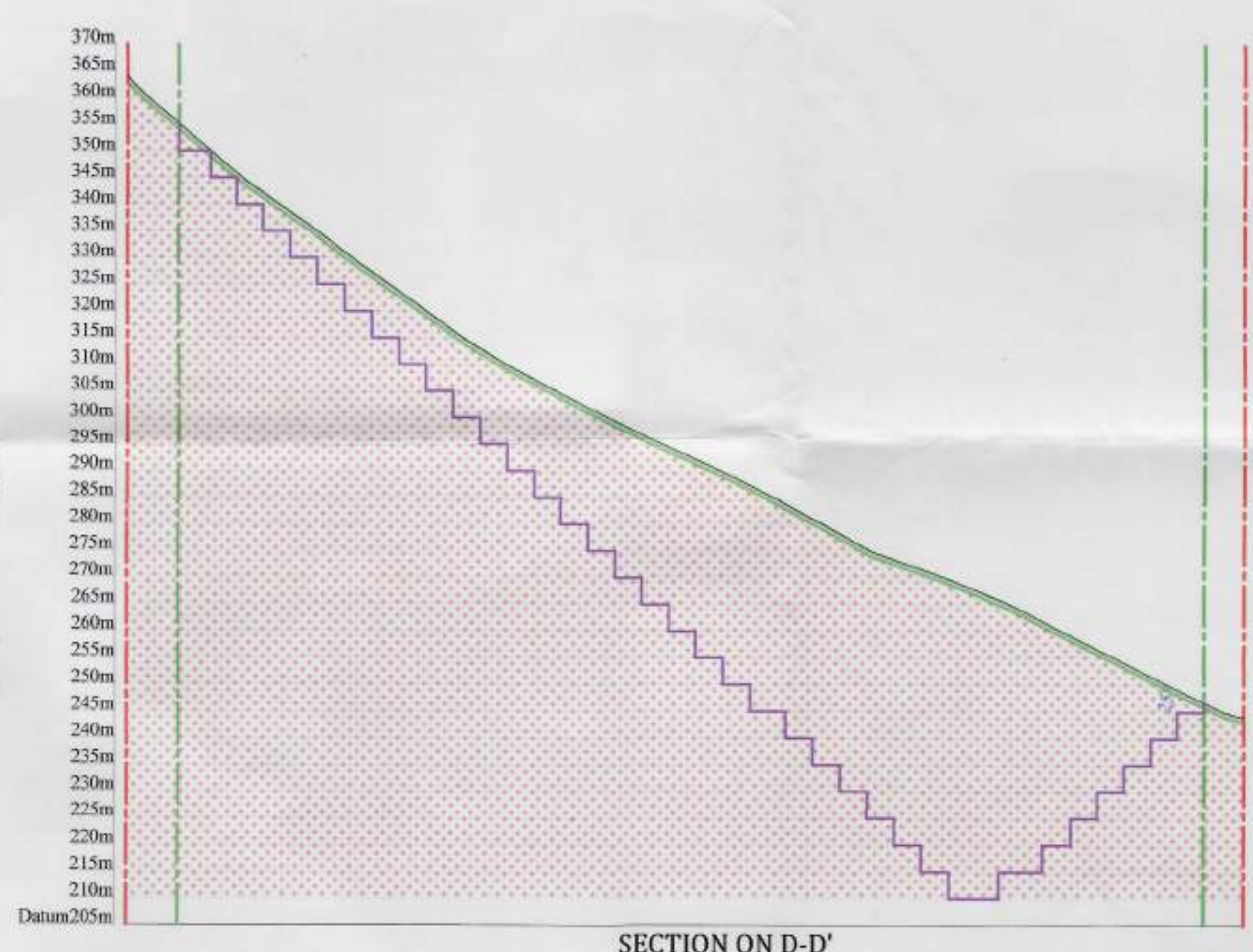
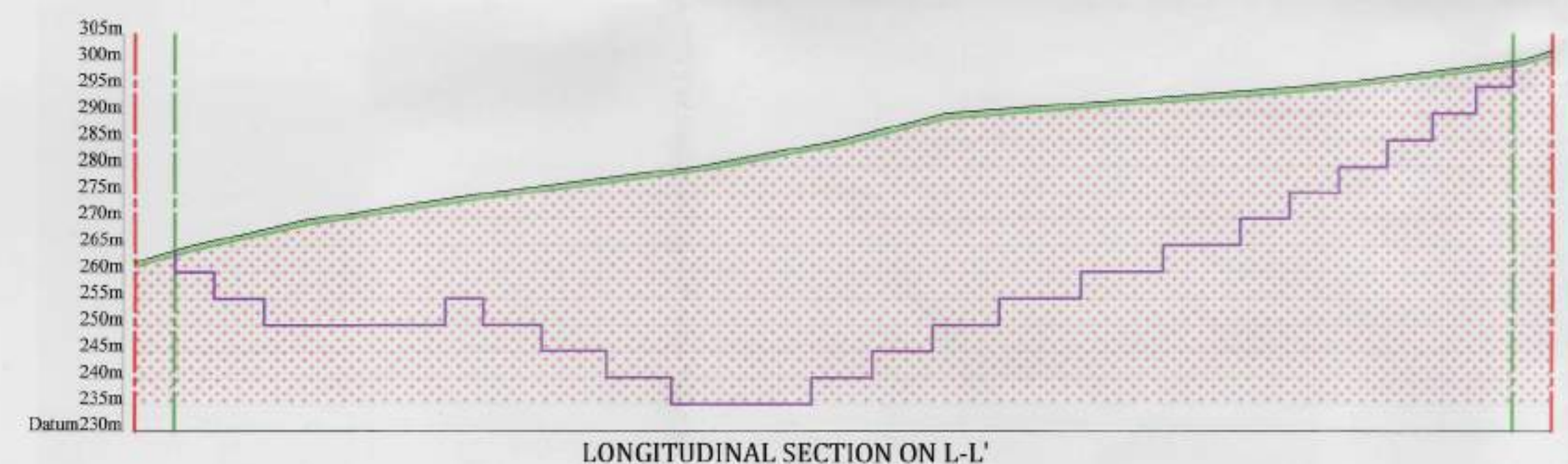
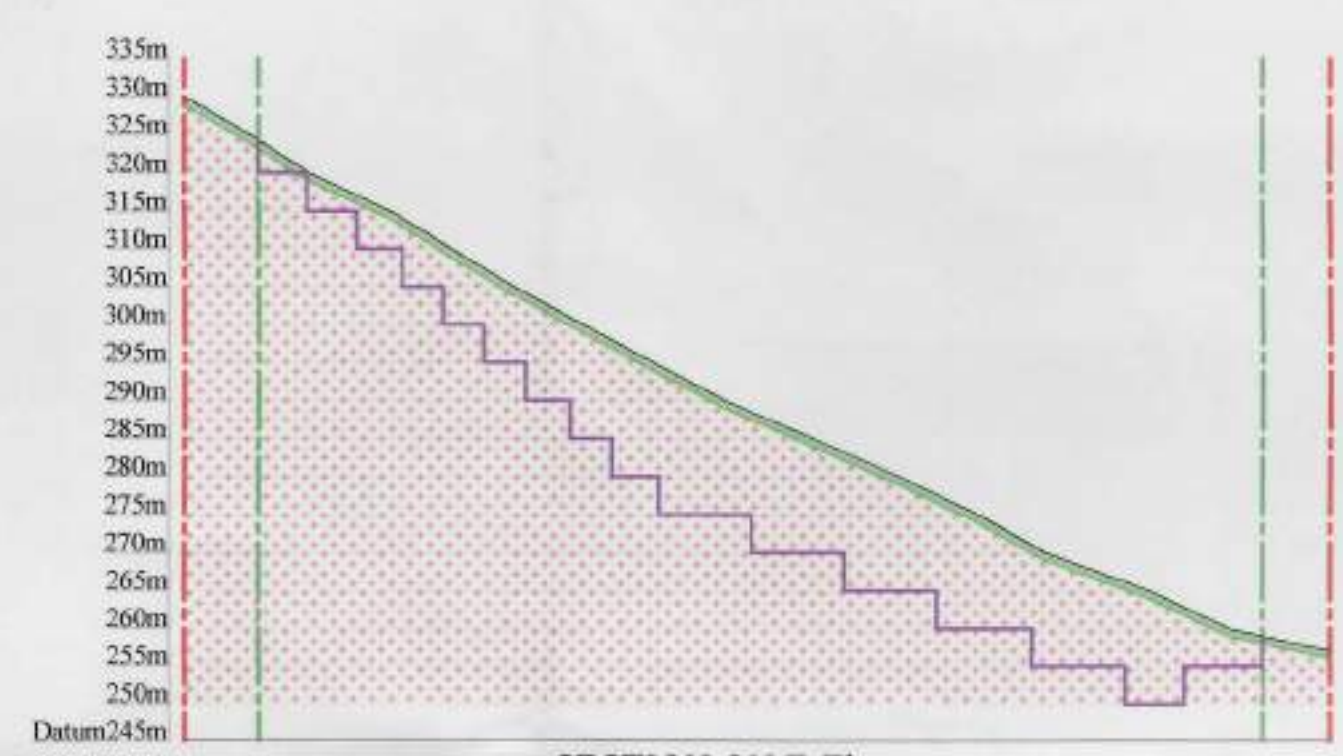
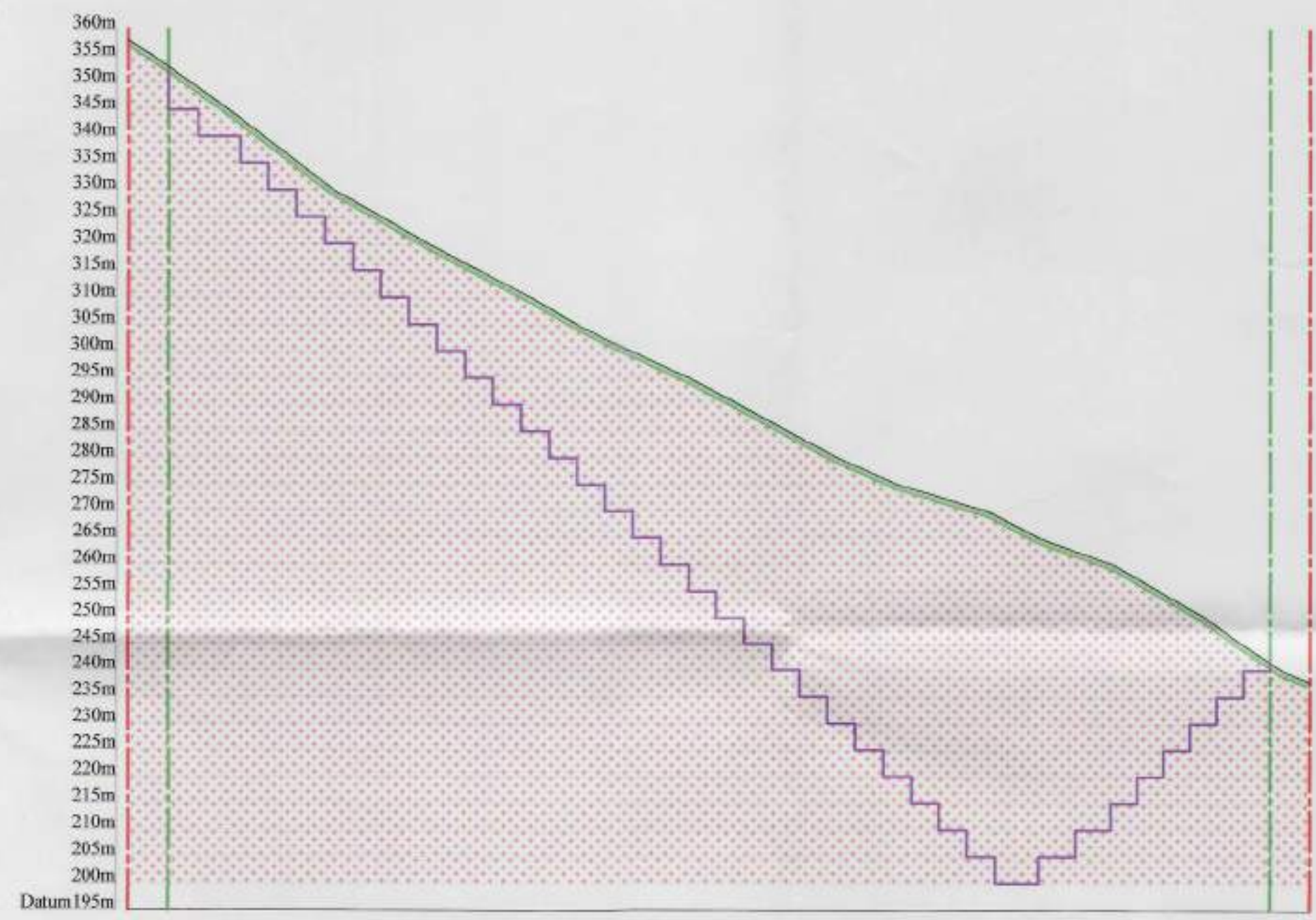
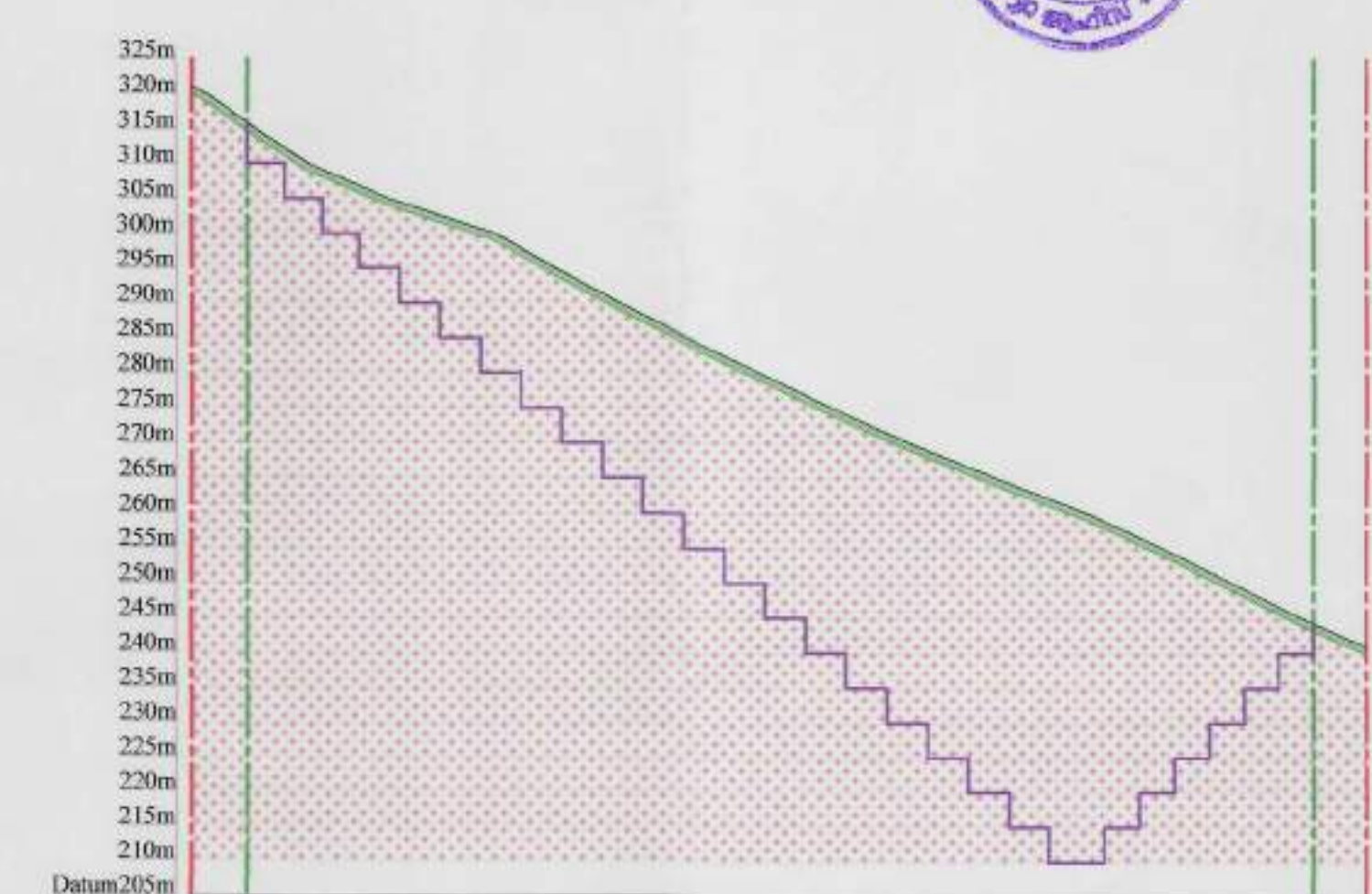
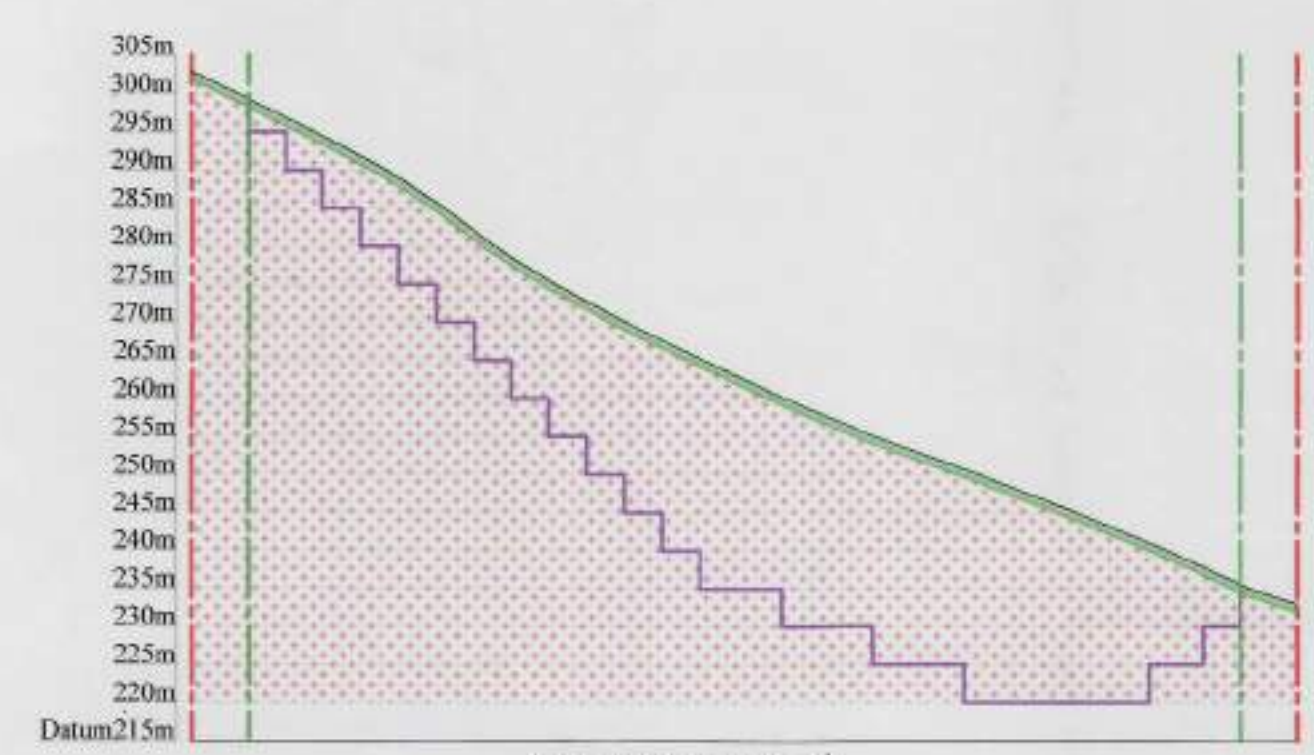
Cyriac Joseph  
DMG/KERALA/RQP/13/2018

PREPARED BY :



**GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)





### INDEX

- QUARRY BOUNDARY
- 7.5m SAFETY BARRIER
- CONTOURS
- ROAD
- ULTIMATE PIT LIMIT
- SECTION LINE
- SOIL COVER
- GRANITE

PLATE NO.4

**GRANITE BUILDING STONE QUARRY OF**  
**M/s. Kottiyoor Metals Private Limited**  
Re-Sy Nos. KPD833, KPD836, KPD1148 & KPD838, Kelakam Village, Irity Taluk, Kannur District, Kerala.

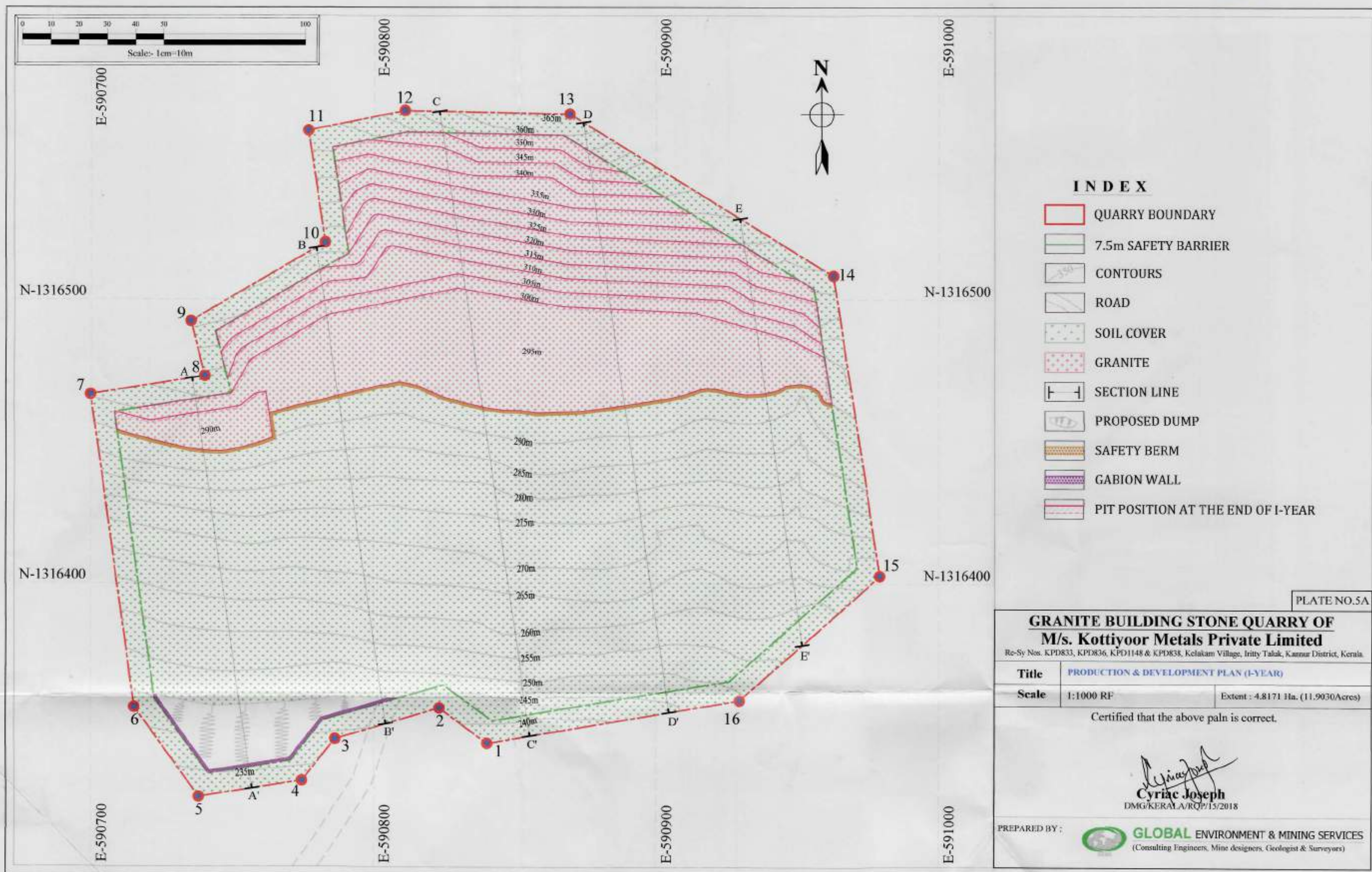
<b>Title</b>	GEOLOGICAL PLAN & CROSS SECTIONS	
<b>Scale</b>	1:1000 RF	Extent : 4.8171 Ha. (11.9030 Acres)

Certified that the above plan & sections is correct.

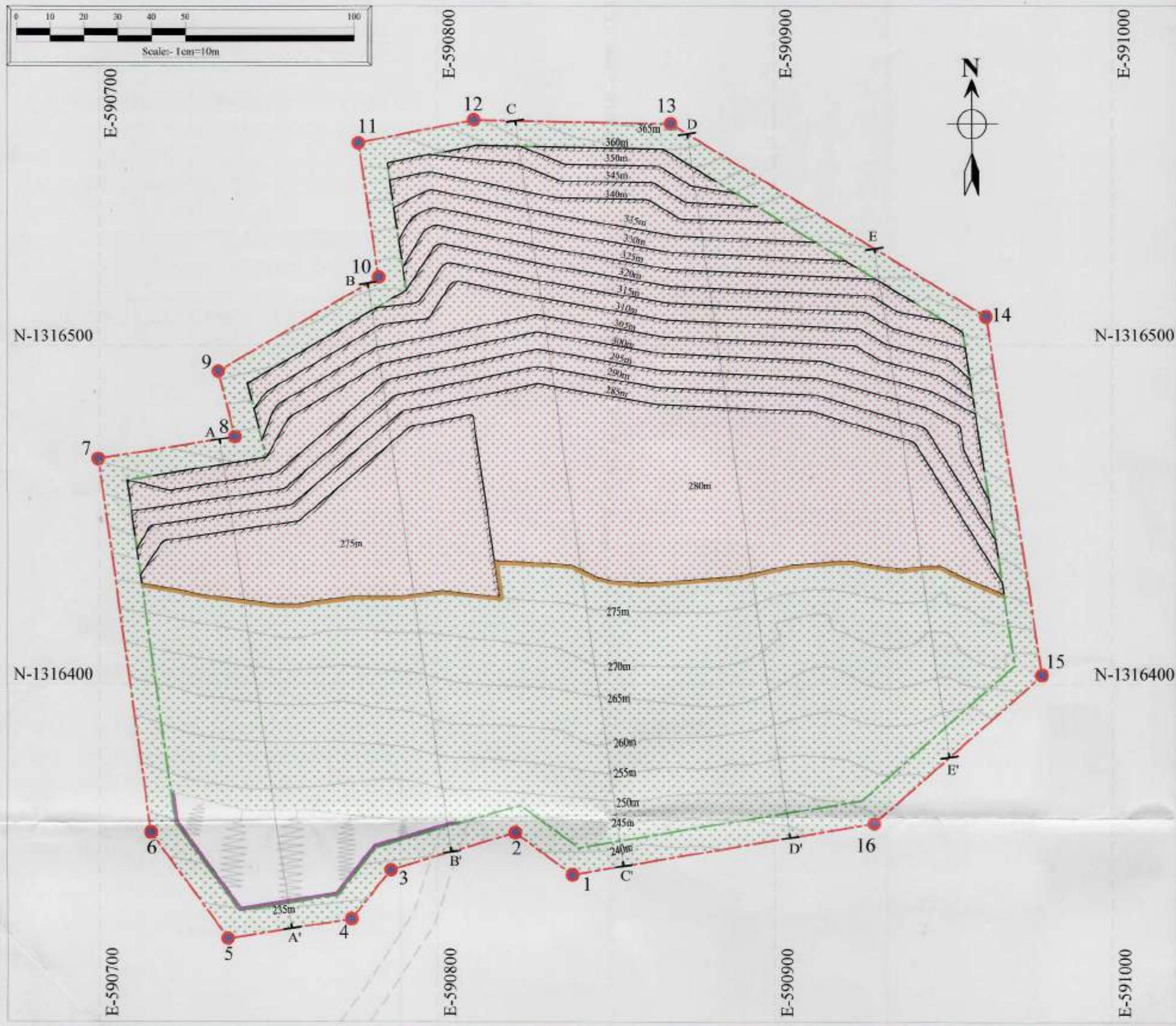
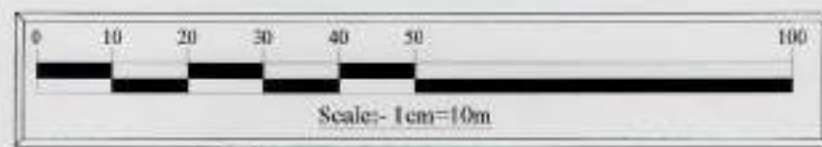
**Cyriac Joseph**  
DMG/KERALA/RQP/15/2018

PREPARED BY : **GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)









### INDEX

- QUARRY BOUNDARY
- 7.5m SAFETY BARRIER
- CONTOURS
- ROAD
- SOIL COVER
- GRANITE
- SECTION LINE
- PROPOSED DUMP
- SAFETY BERM
- GABION WALL
- PIT POSITION AT THE END OF II-YEAR

PLATE NO.5B

### GRANITE BUILDING STONE QUARRY OF M/s. Kottiyoor Metals Private Limited

Re-Sy Nos. KPD833, KPD836, KPD1148 & KPD838, Kelakum Village, Irinny Taluk, Kannur District, Kerala.

Title PRODUCTION & DEVELOPMENT PLAN (II-YEAR)

Scale 1:1000 RF Extent : 4.8171 Ha. (11.9030 Acres)

Certified that the above plan is correct.

**Cyriac Joseph**  
DMG/KIRAL/ROP/15/2018

PREPARED BY :

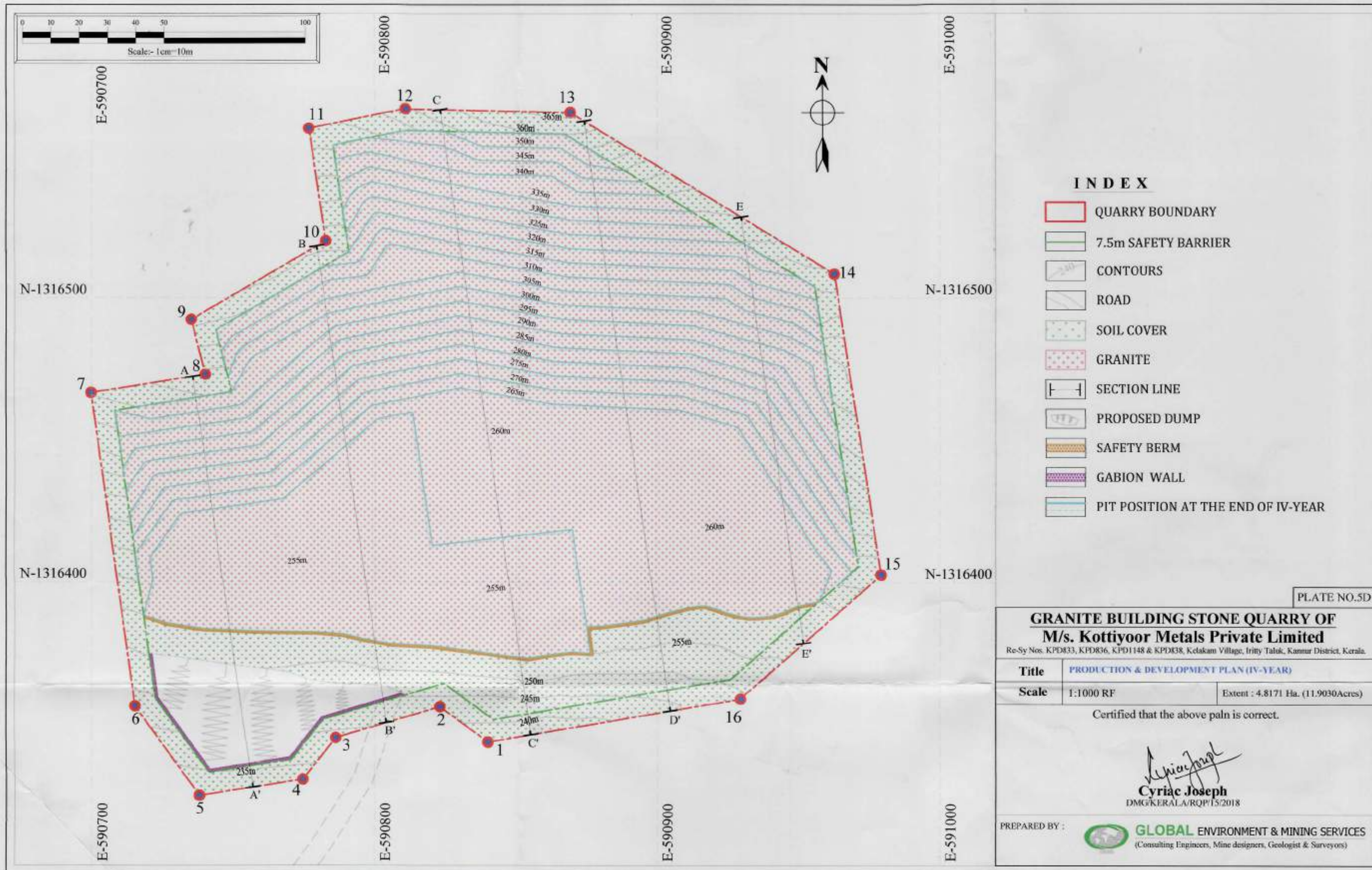


**GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)

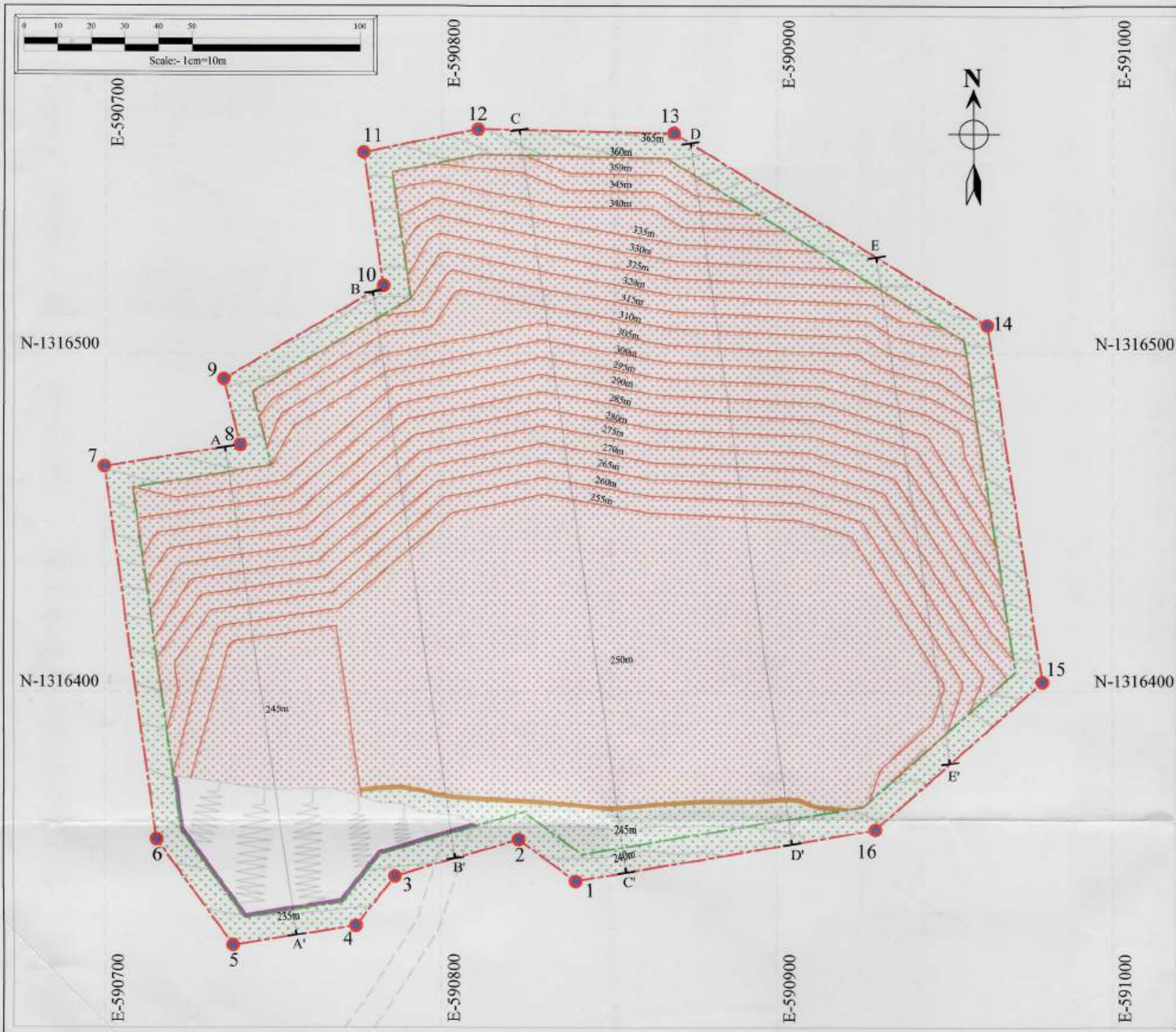












### INDEX

- QUARRY BOUNDARY
- 7.5m SAFETY BARRIER
- CONTOURS
- ROAD
- SOIL COVER
- GRANITE
- SECTION LINE
- PROPOSED DUMP
- GABION WALL
- PIT POSITION AT THE END OF V-YEAR

PLATE NO.5E

### GRANITE BUILDING STONE QUARRY OF M/s. Kottiyoor Metals Private Limited

Re-Sy Nos. KPD833, KPD836, KPD1148 & KPD838, Kelakam Village, Irithy Taluk, Kannur District, Kerala.

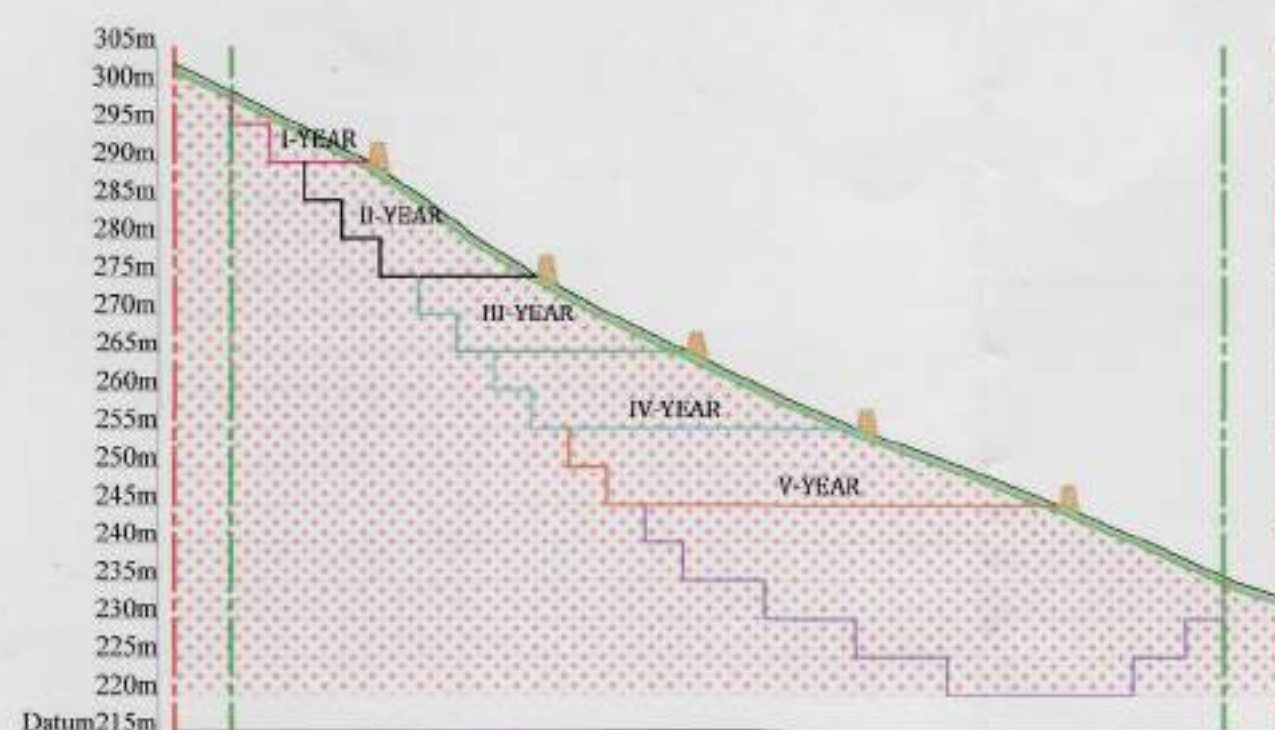
Title	PRODUCTION & DEVELOPMENT PLAN (V-YEAR)	
Scale	1:1000 RF	Extent : 4.8171 Ha. (11.9030 Acres)

Certified that the above plan is correct.

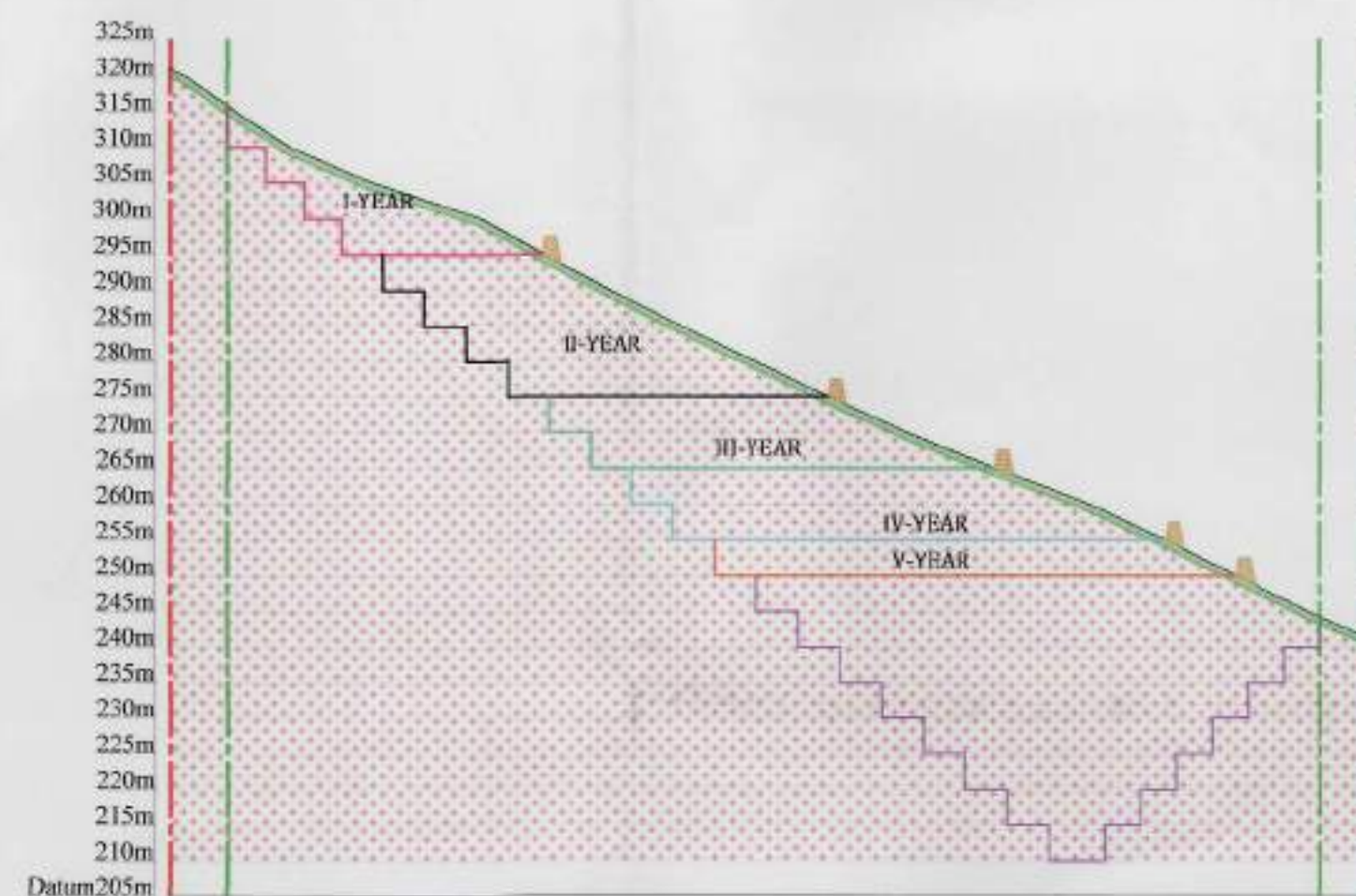
**Cyriac Joseph**  
DMG/KERALA/RQP/15/2018

PREPARED BY : **GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)

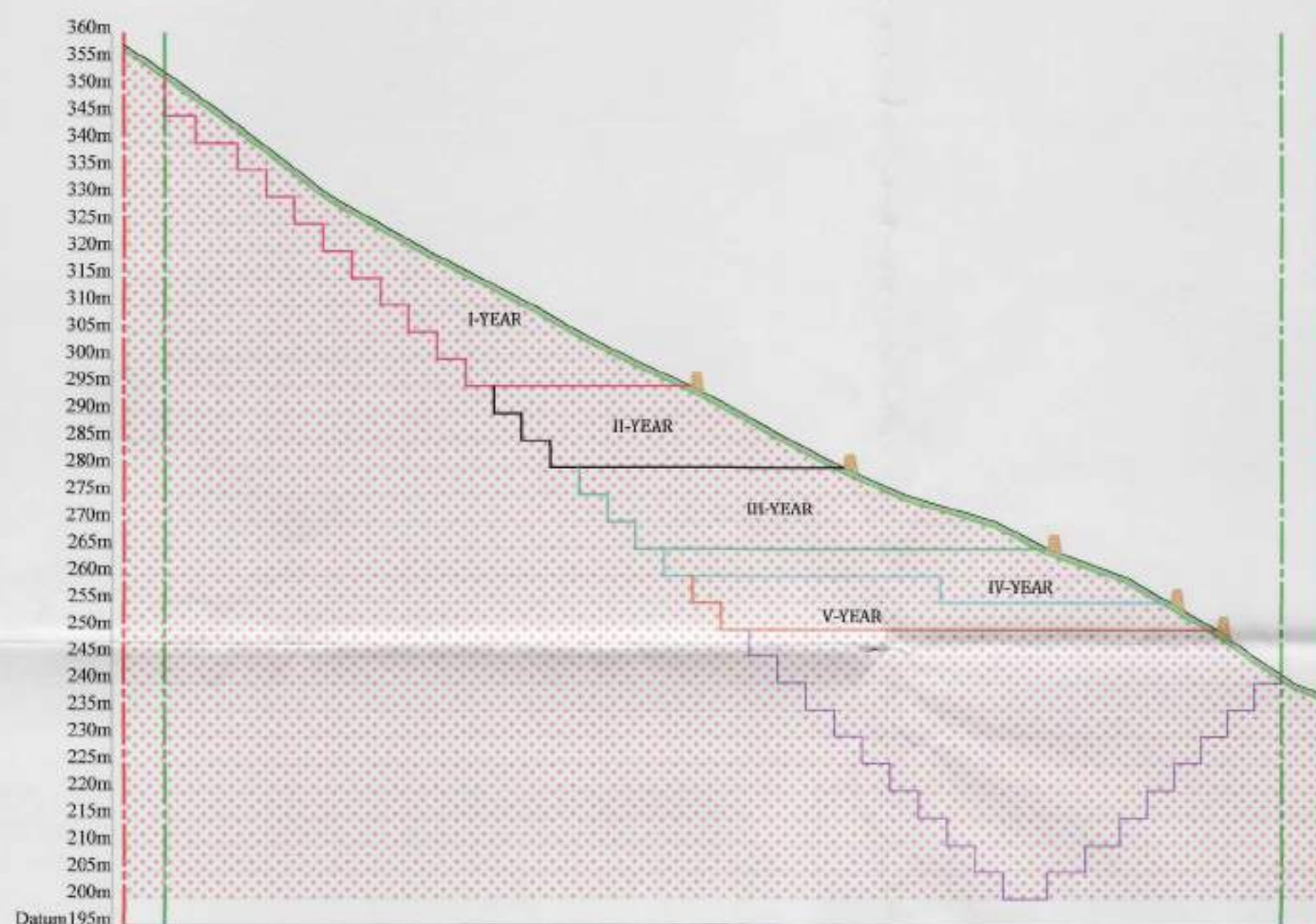




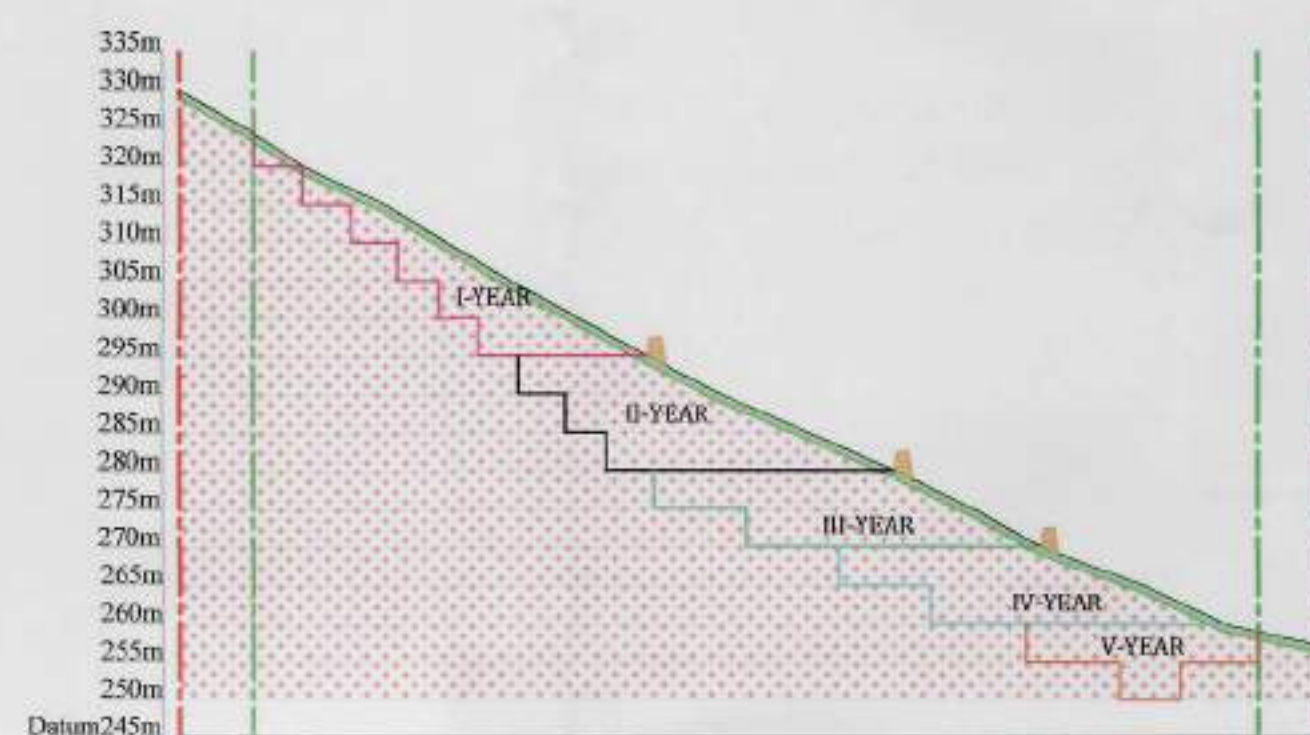
SECTION ON A-A'



SECTION ON B-B'



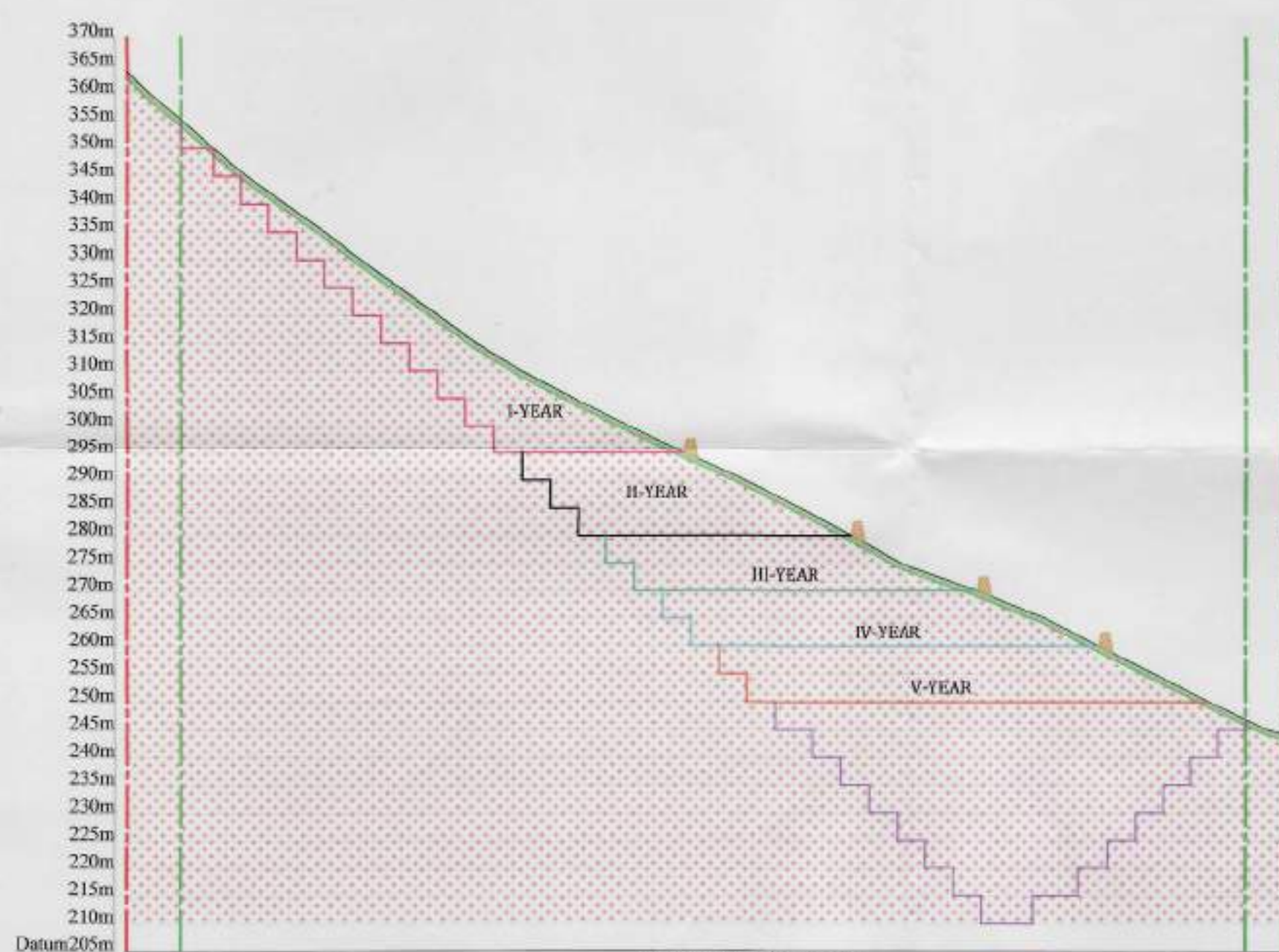
SECTION ON C-C'



SECTION ON E-E'

#### INDEX

- QUARRY BOUNDARY
- 7.5M SAFETY BARRIER
- ULTIMATE PIT LIMIT
- SOIL COVER
- GRANITE
- PIT POSITION AT THE END OF I-YEAR
- PIT POSITION AT THE END OF II-YEAR
- PIT POSITION AT THE END OF III-YEAR
- PIT POSITION AT THE END OF IV-YEAR
- PIT POSITION AT THE END OF V-YEAR
- SAFETY BERM



SECTION ON D-D'

PLATE NO.6

### GRANITE BUILDING STONE QUARRY OF M/s. Kottiyoor Metals Private Limited

Re-Sy Nos. KPD833, KPD836, KPD1148 & KPD838, Kelakam Village, Iritty Taluk, Kannur District, Kerala.

Title **PRODUCTION & DEVELOPMENT SECTION**

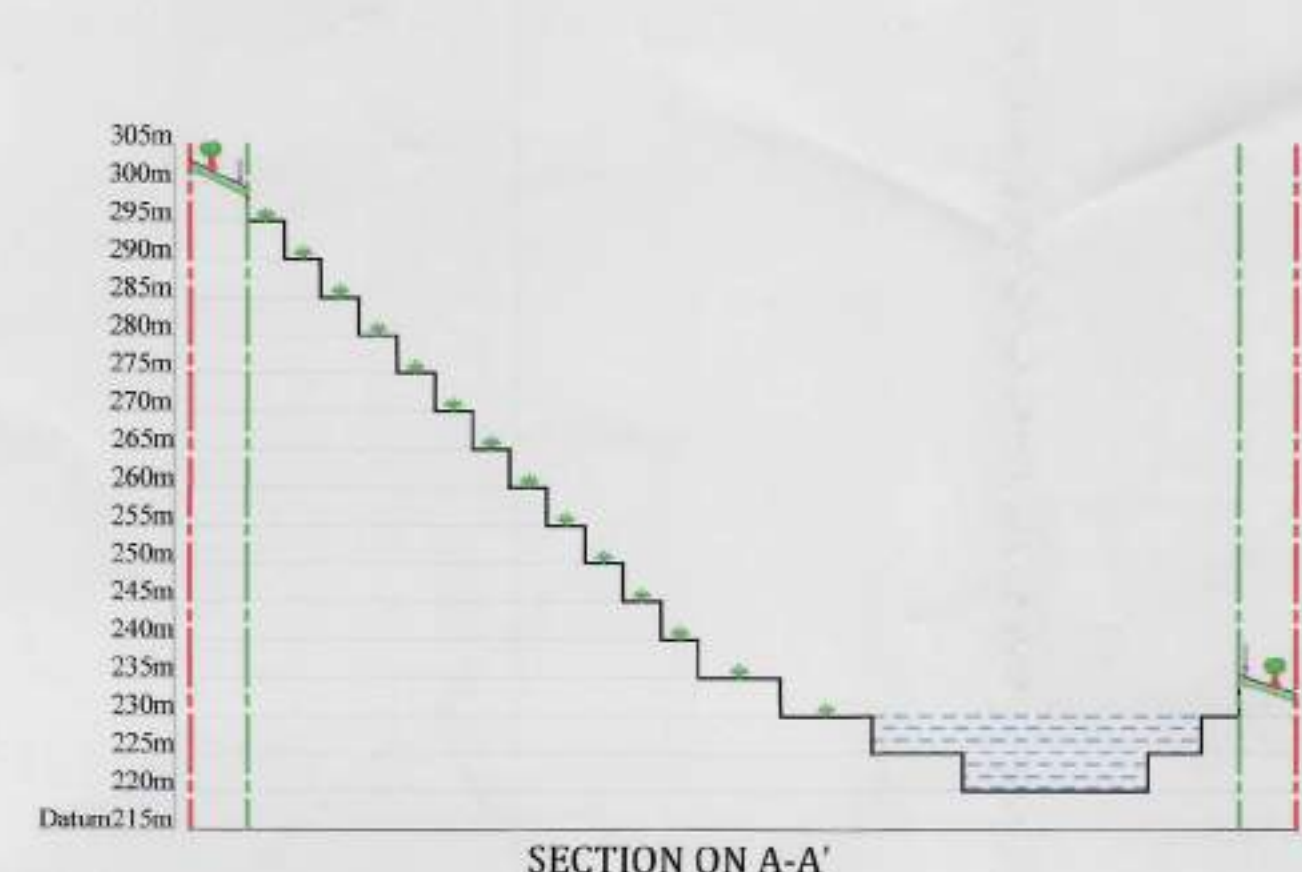
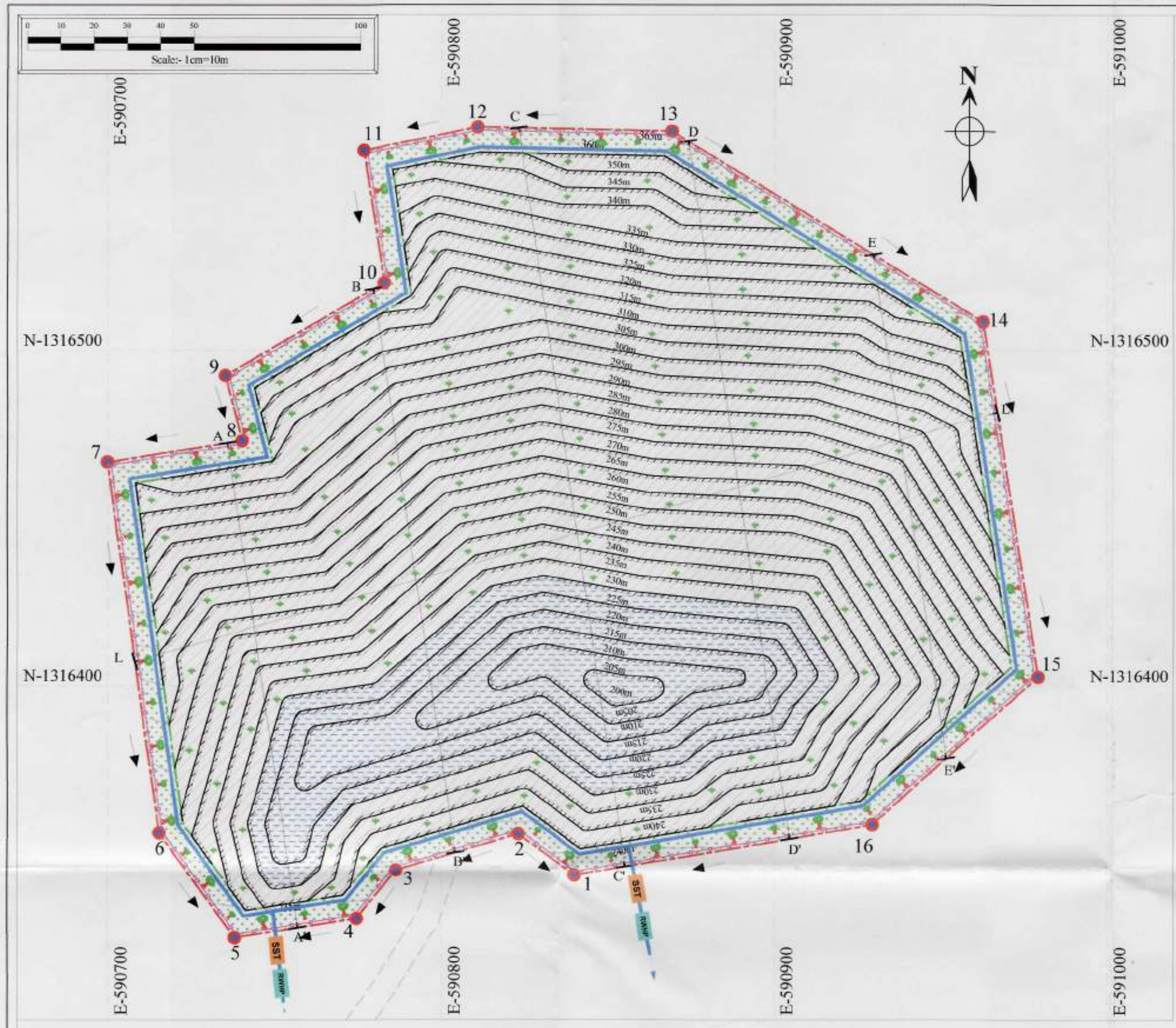
Scale 1:1000 RF Extent : 4.8171 Ha. (11.9030 Acres)

Certified that the above sections is correct.

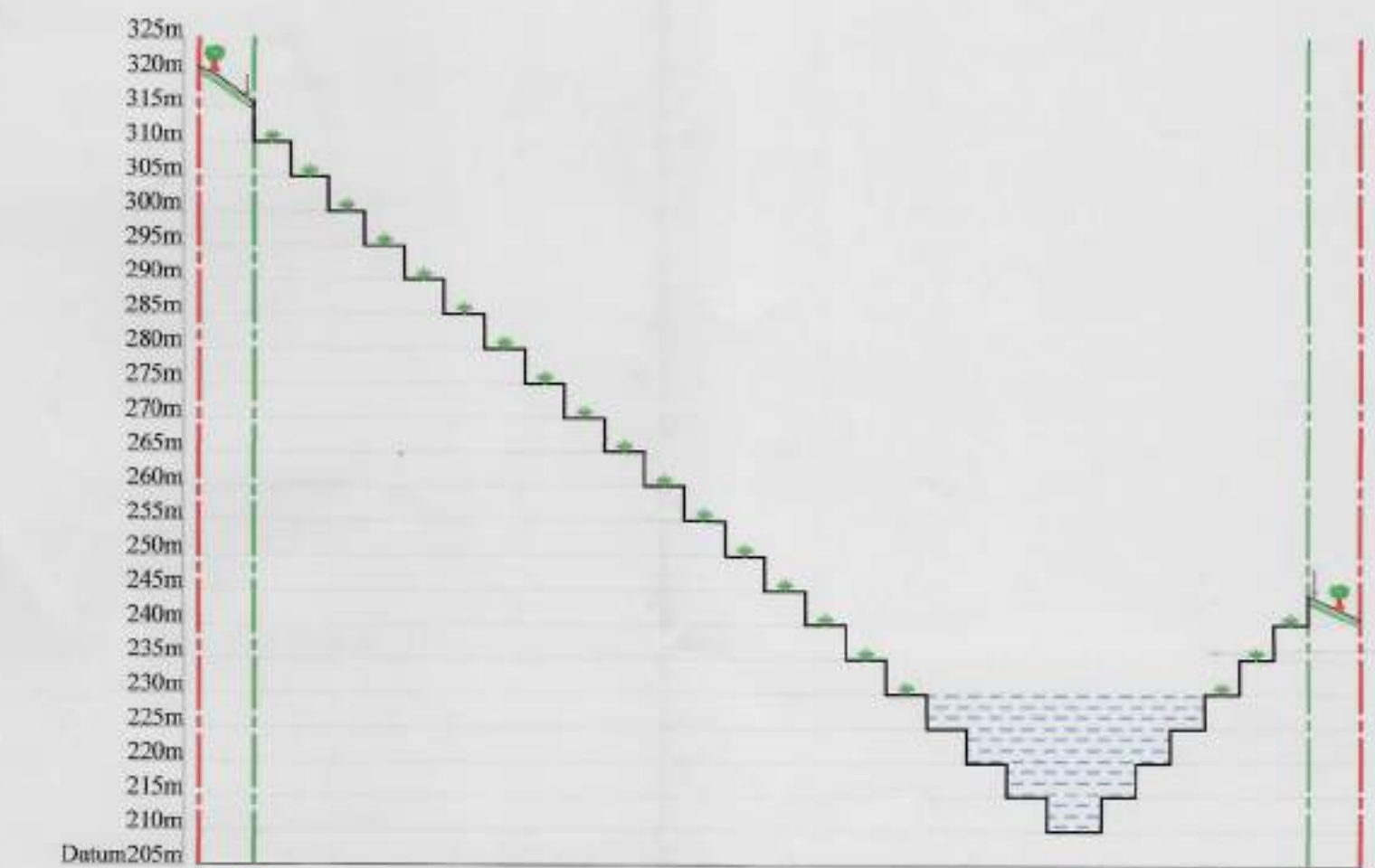
**Cyriac Joseph**  
DMG/KERALA/RQP/15/2018

PREPARED BY : **GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)

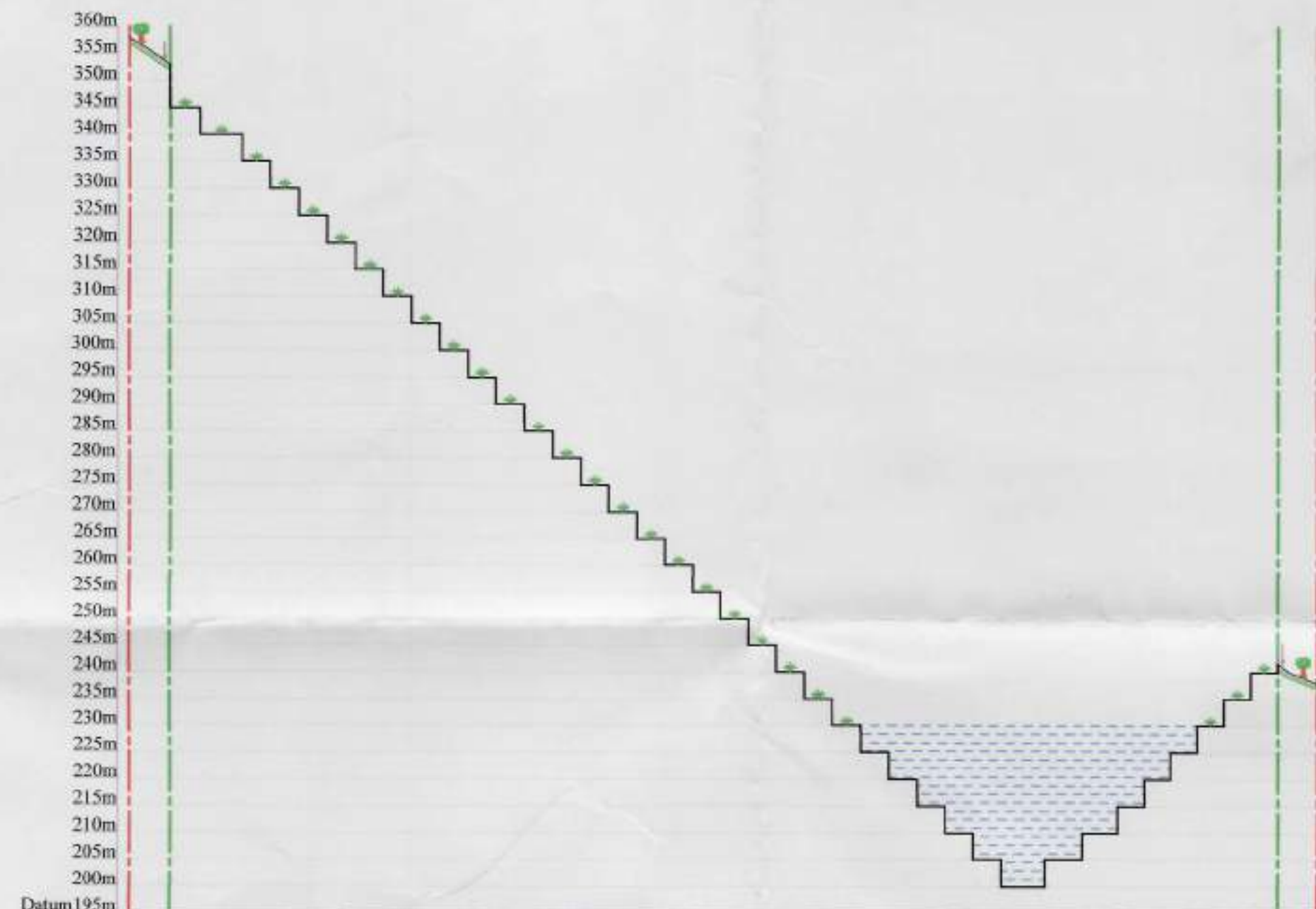




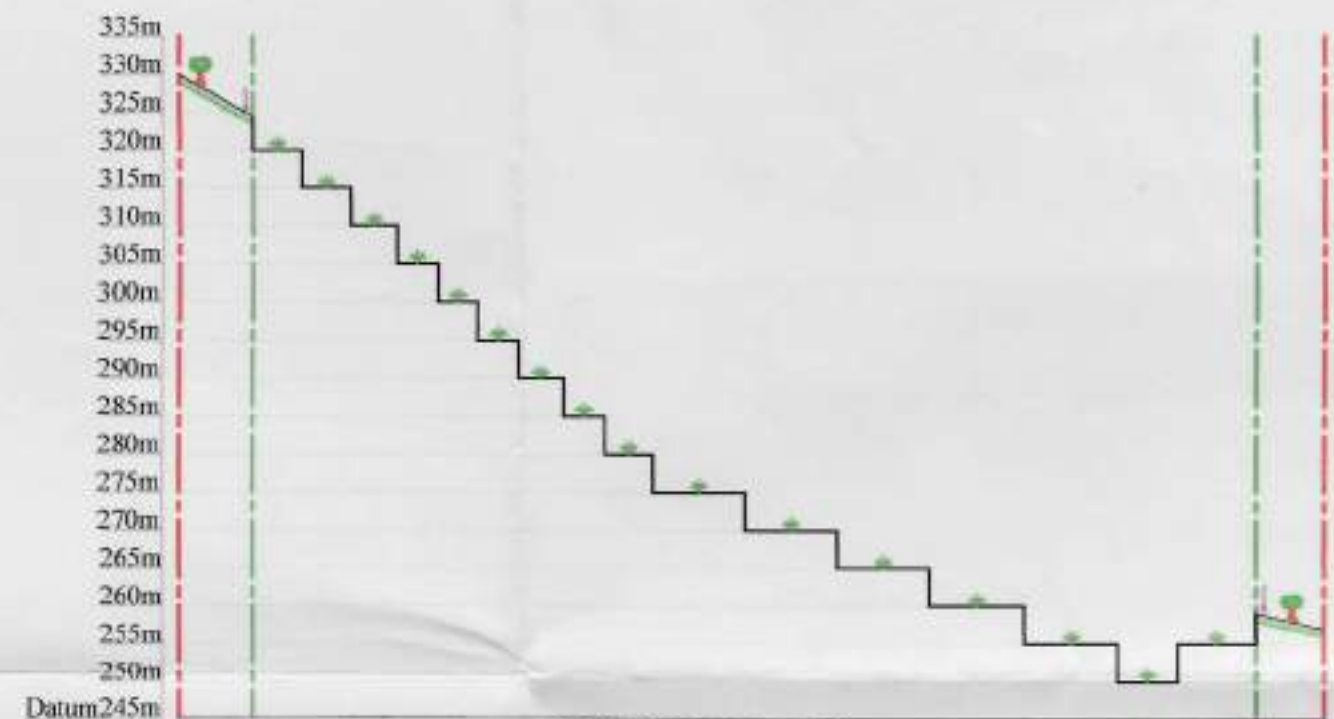
SECTION ON A-A'



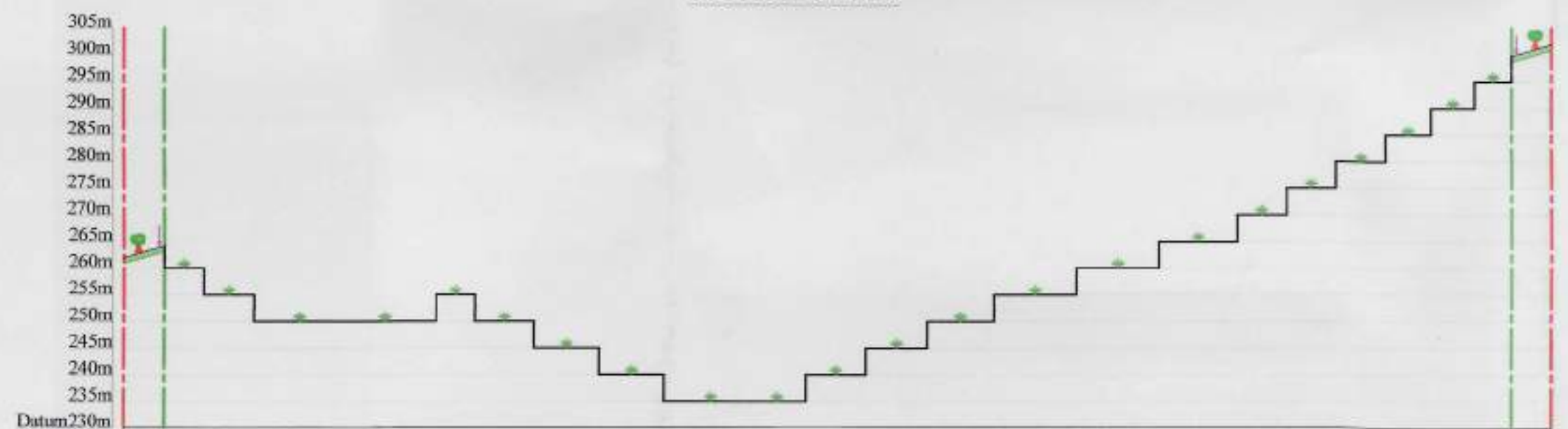
SECTION ON B-B'



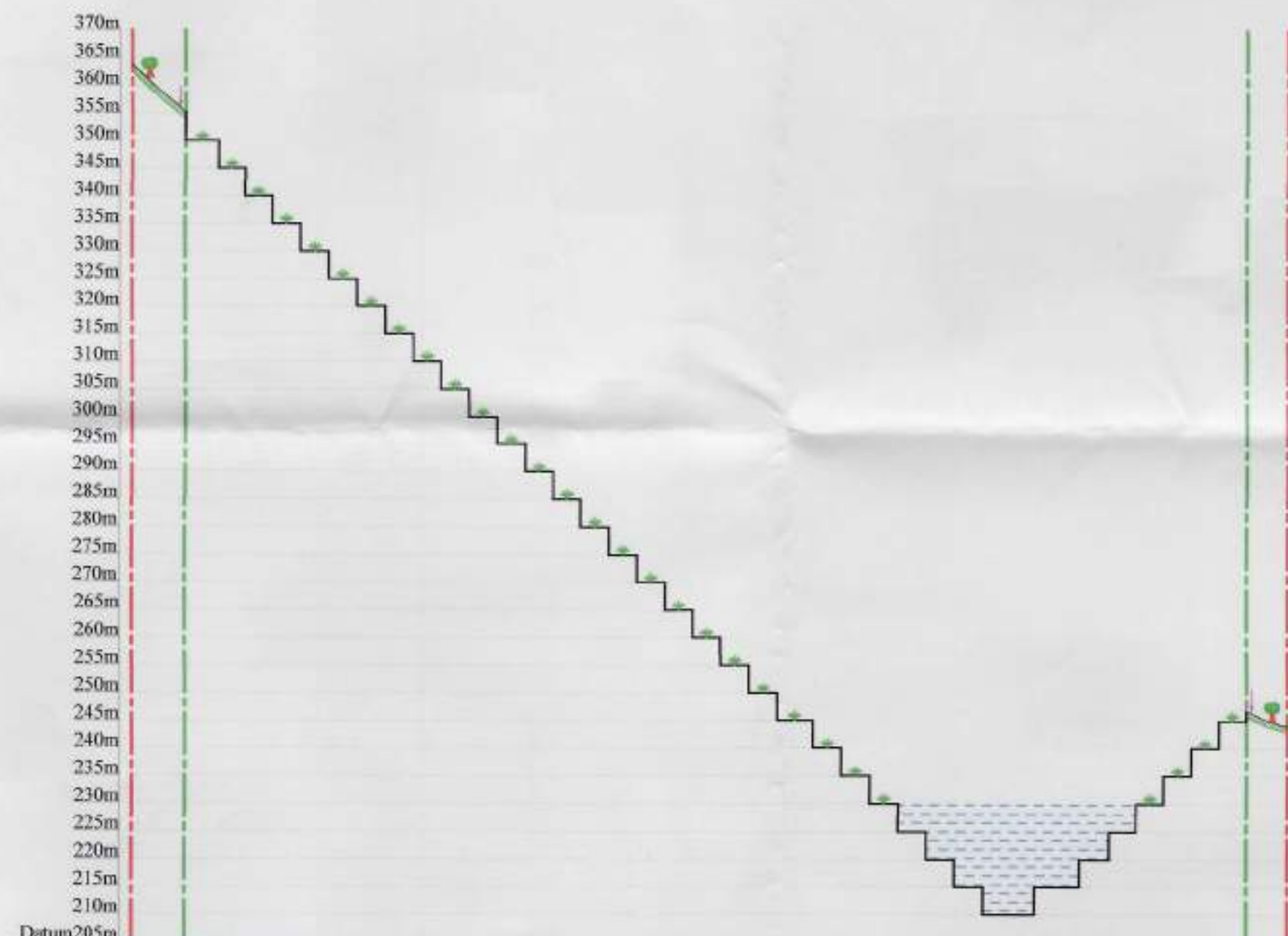
SECTION ON C-C'



SECTION ON E-E'



LONGITUDINAL SECTION ON L-L'



SECTION ON D-D'

LAND USE AT CONCEPTUAL STAGE (Ha.)

PARTICULARS	AREA IN Ha.
AREA FOR QUARRYING	4.1703
AREA FOR SAFETY BARRIER	0.6468
TOTAL	4.8171

INDEX

- QUARRY BOUNDARY
- 7.5m BUFFER ZONE PLANTATIONS
- CONTOURS
- ROAD
- PLANTATION IN BENCHES
- SECTION LINE
- ULTIMATE BENCHES
- WATER POND
- FENCING

PLATE NO.7

GRANITE BUILDING STONE QUARRY OF  
M/s. Kottiyoor Metals Private Limited

Re-Sy Nos. KPD833, KPD836, KPD1148 & KPD838, Kelakam Village, Irity Taluk, Kannur District, Kerala.

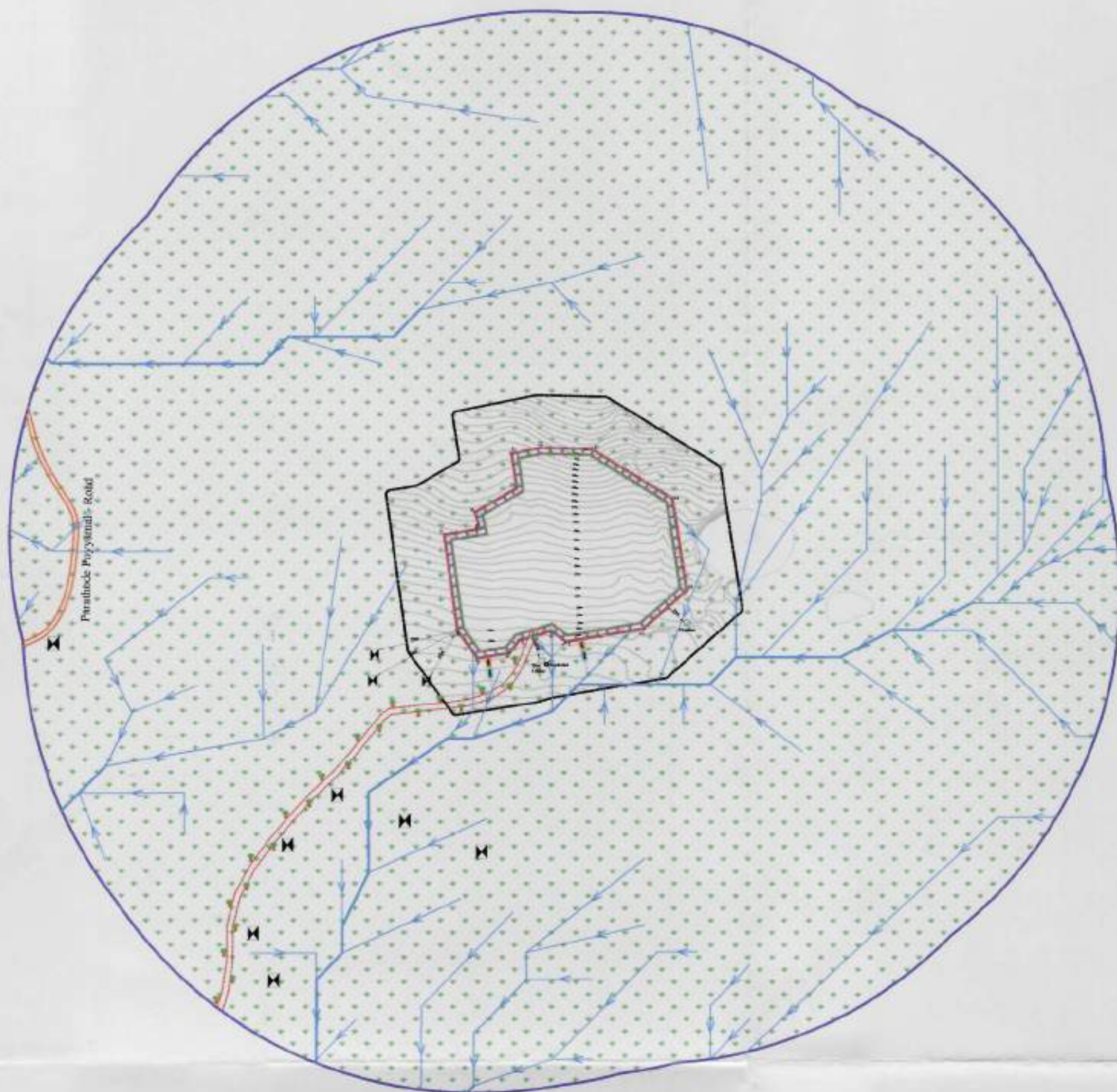
Title	CONCEPTUAL PLAN & CROSS SECTIONS	
Scale	1:1000 RF	Extent : 4.8171 Ha. (11.9030 Acres)

Certified that the above plan & sections is correct.

*Cyriac Joseph*  
**Cyriac Joseph**  
DMG/KERALA/RQP/15/2018

PREPARED BY :  **GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)





### INDEX

- QUARRY BOUNDARY
- 7.5m SAFETY BARRIER
- CONTOURS
- VILLAGE ROAD
- PRIVATE ROAD
- 60m LIMIT LINE
- 500m LIMIT LINE
- PRIVATE LAND
- PROPOSED PLANTATIONS
- GARLAND DRAIN
- SST SILT SETTLING TANK
- RWHP RAIN WATER HARVESTING POND
- DIRECTION OF NATURAL WATER FLOW
- HOUSES / SHEDS
- NEAR MINE
- DIRECTION OF WATER FLOW
- CRUSHER
- SITE OFFICE
- BENCH MARK

PLATE NO.8

### GRANITE BUILDING STONE QUARRY OF M/s Kottiyoor Metals Private Limited

Plot No. 1, SPDS1, SPDS2, SPDS3, SPDS4 & SPDS5, Kottiyoor Village, Irity Taluk, Kottayam District, Kerala.

**ENVIRONMENT / DRAINAGE PLAN**  
(After showing all features of site & surroundings within 500m radius)

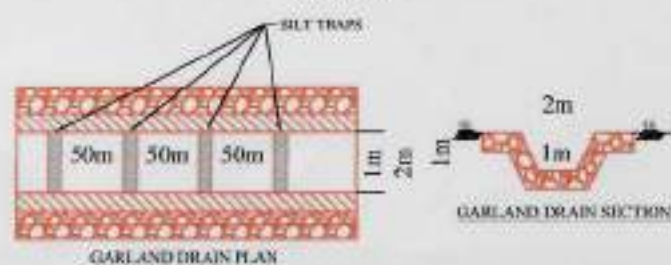
**Title** Scale 1:5000 RF Extent: 4.8171 Ha. (11.9030 Acres)

Certified that the above plan is correct

*(Signature)*  
Cyril Josep  
DMG/KERALA/RQP/15/2018

PREPARED BY: **GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)

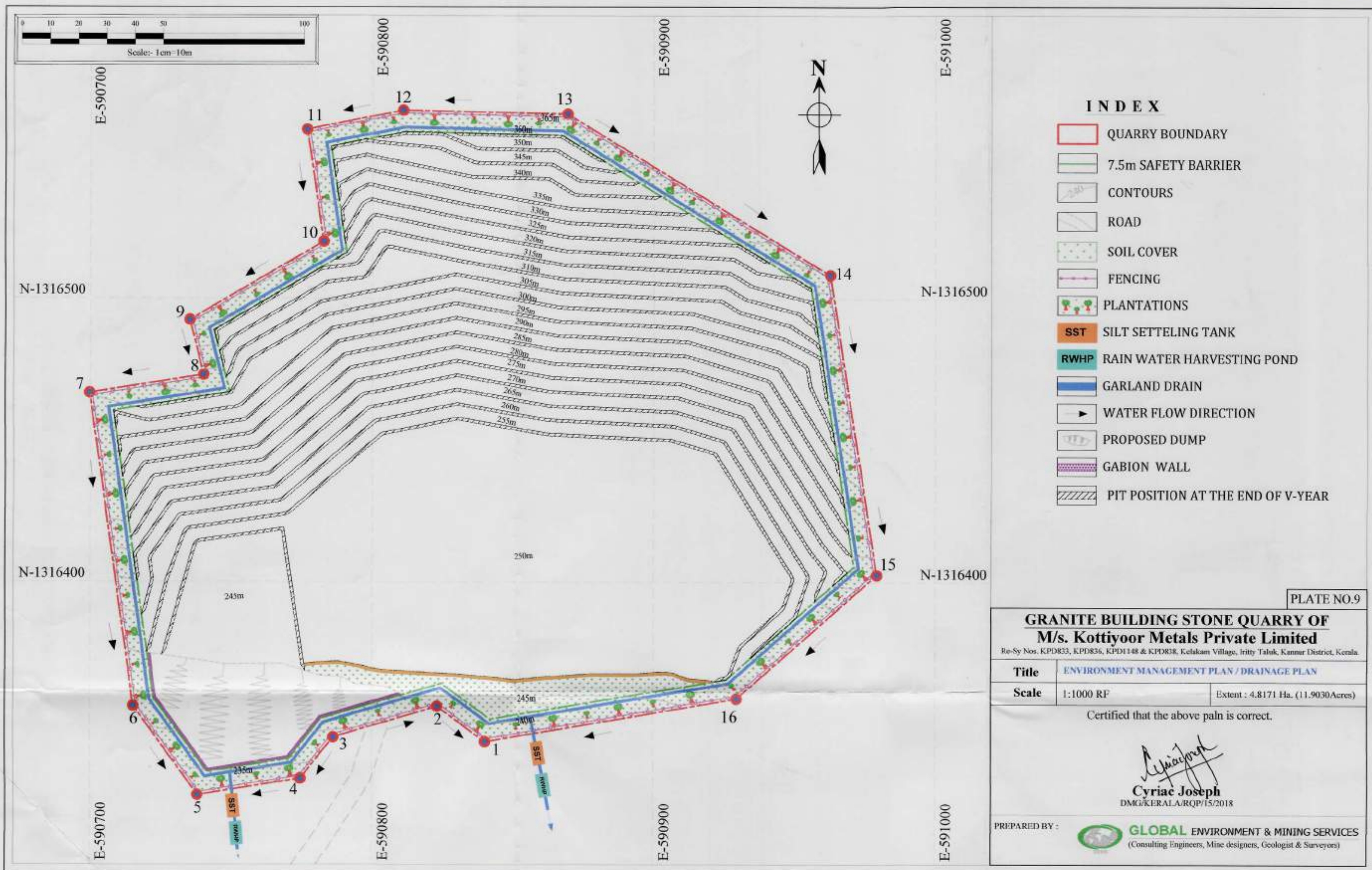
TYPICAL PLAN AND SECTIONS OF GARLAND DRAIN  
SCALE - NTS



SETTLING TANK - 30m X 15m X 3m











#### LAND USE AT PROGRESSIVE STAGE (Ha.)

PARTICULARS	AREA IN Ha.
AREA FOR QUARRYING	3.8437
AREA FOR SAFETY BARRIER	0.6468
AREA FOR WASTE DUMP	0.2113
<b>TOTAL</b>	<b>4.7018</b>
UNUSED AREA	0.1153
<b>GRAND TOTAL</b>	<b>4.8171</b>

#### I N D E X

- QUARRY BOUNDARY
- 7.5m SAFETY BARRIER
- CONTOURS
- SOIL COVER
- ROAD
- PROPOSED DUMP
- GABION WALL
- PIT POSITION AT THE END OF V-YEAR

PLATE NO.10

#### GRANITE BUILDING STONE QUARRY OF M/s. Kottiyoor Metals Private Limited

Re-Sy Nos. KPD833, KPD836, KPD1148 & KPD838, Kelakam Village, Irity Taluk, Kottiyoor District, Kerala.

Title	PROGRESSIVE MINE CLOSURE PLAN	
Scale	1:1000 RF	Extent : 4.8171 Ha. (11.9030 Acres)

Certified that the above plan is correct.

  
**Cyrrac Joseph**  
DMG/KERALA/ROP/15/2018

PREPARED BY:  **GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)





## INDEX

- QUARRY BOUNDARY
- 7.5m SAFETY BARRIER
- 240 CONTOURS
- VILLAGE ROAD
- PRIVATE ROAD
- 500m LIMIT LINE
- HOUSES / SHEDS
- NEAR MINE
- CRUSHER
- SITE OFFICE
- BENCH MARK

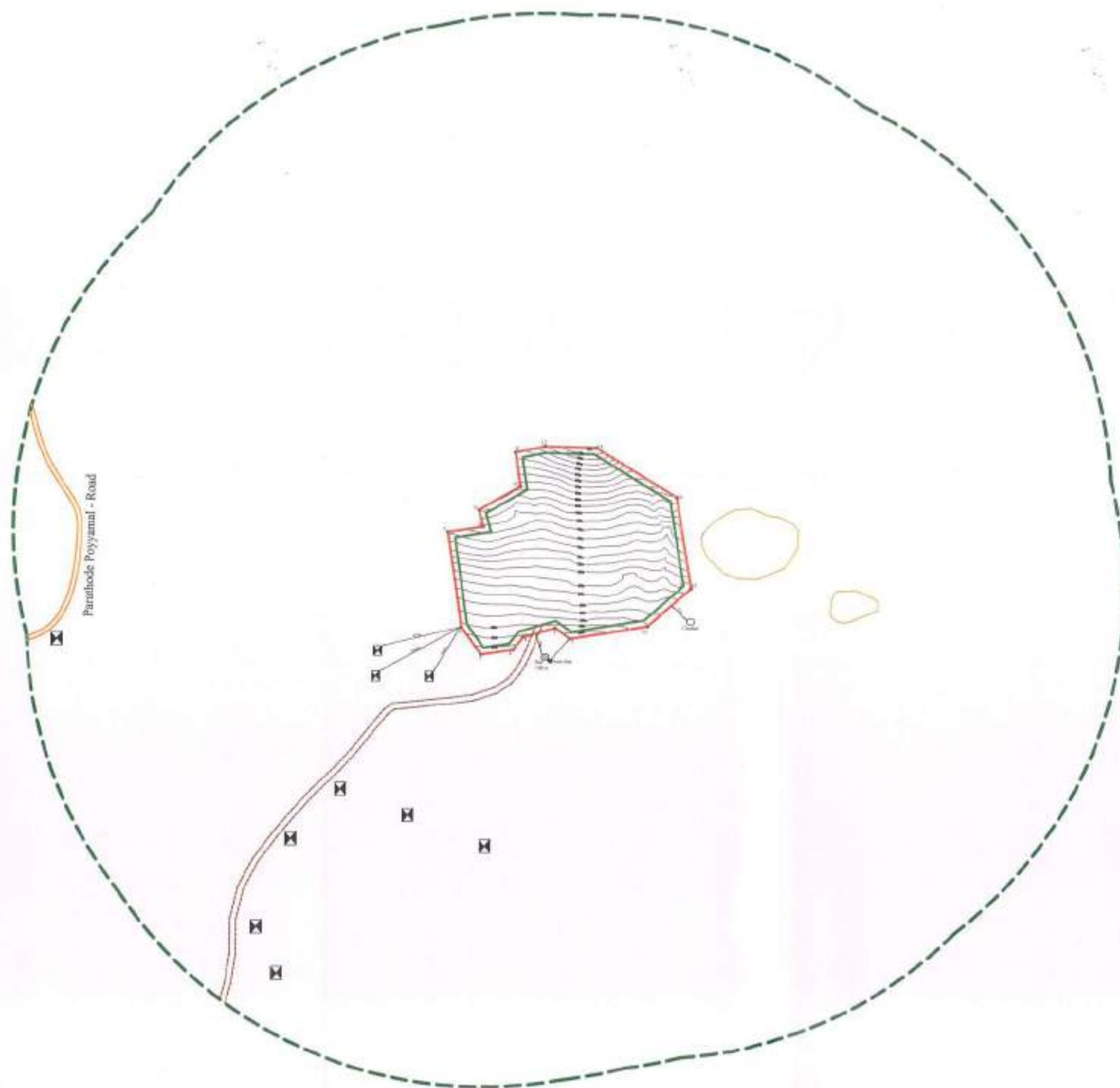


PLATE NO.11

GRANITE BUILDING STONE QUARRY OF  
M/s Kottiyoor Metals Private Limited

Re-Gr No. EPD013, EPD014, EPD015, EPD016 & EPD017, Kottiyoor Village, Kottiyoor Taluk, Kottiyoor District, Kerala.

Title INFRASTRUCTURE PLAN

Scale 1:5000 RF Extent: 4.8171 Ha. (11.9030 Acres)

Certified that the above plan is correct

*Cyril Joseph*  
Cyril Joseph

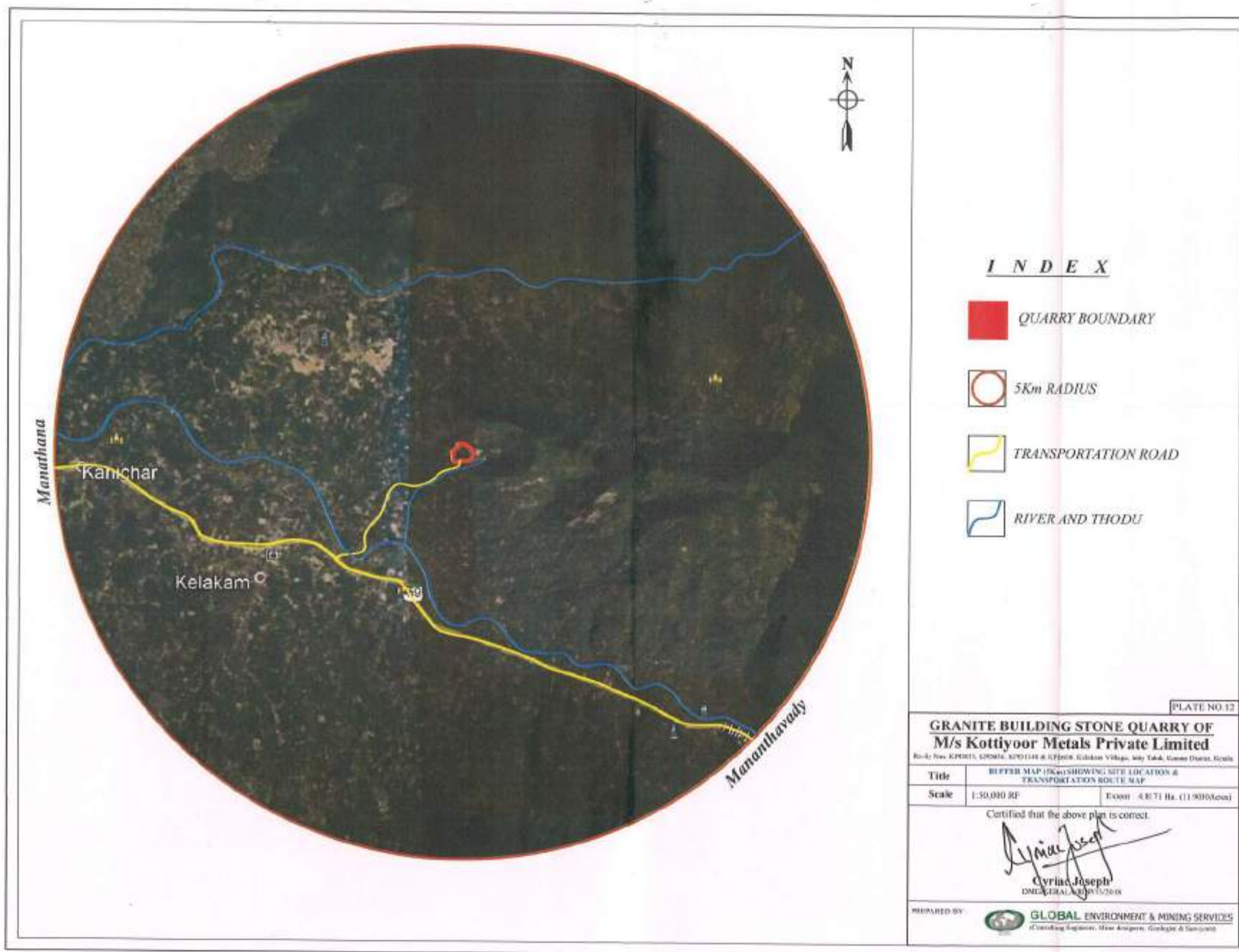
DMG/KERALA/RQP/15/2018

PREPARED BY



GLOBAL ENVIRONMENT & MINING SERVICES  
(Consulting Engineers, Mine designers, Geologist & Surveyors)









#### INDEX

- QUARRY BOUNDARY
- 7.5m SAFETY BARRIER
- CONTOURS
- ROAD
- SOIL COVER
- PLANTATION IN BENCHES
- SST
- RWHP
- GARLAND DRAIN
- DIRECTION OF WATER FLOW
- PROPOSED DUMP
- GABION WALL
- PIT POSITION AT THE END OF V-YEAR
- TOP SOIL FOR PLANTATION IN SAFETY BARRIER

*This Mining plan is approved*

*V. Divakaran*  
**V. DIVAKARAN**  
SENIOR GEOLOGIST  
DEPT. OF MINING & GEOLOGY  
DISTRICT OFFICE, CIVIL STATION  
KANNUR-870002

PLATE NO.13

#### GRANITE BUILDING STONE QUARRY OF M/s. Kottiyoor Metals Private Limited

Re-Sy Nos. KPD833, KPD836, KPD1148 & KPD838, Kelakum Village, Iritty Taluk, Kannur District, Kerala.

Title **TOPSOIL / WASTE MANAGEMENT PLAN**

Scale 1:1000 RF

Extent : 4.8171 Ha. (11.9030 Acres)

Certified that the above plan is correct.

*Cyriac Joseph*  
**Cyriac Joseph**  
DMG/KERALA/RQP/15/2018

PREPARED BY :



**GLOBAL ENVIRONMENT & MINING SERVICES**  
(Consulting Engineers, Mine designers, Geologist & Surveyors)