BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL(SZ)
CHENNAI.

O.A. No. 85 of 2021. (SZ)

IN THE MATTER OF :-

M/S. Parisara Hitharakshana Petitioner

VERSUS.

Union of India and ors. Respondent

Next Date. 16/12/2021.

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THROUGH :-

Date:- 15/12/2021.
Place New Delhi

MR.DARPAN K.M
Advocate
K-6,LGF, Lajpat Nagar- 3
New Delhi 110024
Mob : + 91 9899125060
Email - darpan.advocate@gmail.com

SUBMISSION OF JOINT REPORT IN COMPLIANCE TO THE DIRECTIONS OF THE HON'BLE NATIONAL GREEN TRIBUNAL DATED:03.09.2021 and 18.11.2021 IN ORIGINAL APPLICATION (O.A.) No. 85 OF 2021 FILED BY M/s. PARISARA HITHARAKSHANA SAMITHI VERSUS UNION OF INDIA AND OTHERS.

1. It is submitted that the Hon'ble Tribunal by order dated 03.09.2021 directed the Joint Committee to file a report on environmental compensation for non-compliances notice due to the stone quarrying and crushing activities.

2. It is submitted that there are 10 No's of quarry leases granted in the area. Out of which, 05 quarry leases are operational and out of the remaining 05 quarry leases, 02 quarry leases are idle from the date of execution due to local problems and 03 quarry leases have not obtained other relevant statutory clearances and have not commenced their quarrying operations.

ACTION TAKEN BY DEPARTMENT OF MINING AND GEOLOGY

3. It is submitted that the State of Karnataka by order in No.FEE 25 FNG 2008 Bengaluru Dated 04.02.2009(UNIQUE No.35) mandated payment of Environment Protection Fee (for short EPF) under the ***"Polluter Pay Principle"*** calculated at the rate of Rs.34,006/- per acre as a compensation. Said amount is paid by 07 working lessees before execution of lease deed. Copy of the G.O No.FEE 25

FNG 2008 Bengaluru Dated 04.02.2009(UNIQUE No.35) is produced as **ANNEXURE-R1.**

4. It is submitted that rule 8-H of The Karnataka Minor Mineral Concession Rules reads as under:

8-H: *Mine Closure Plan.---* *Every quarry shall have Mine Closure Plan which shall be of two types: (a) Progressive Mine Closure Plan; and (b) Final Mine Closure Plan.*

(1) ***Submission of Progressive Mine Closure Plan.---***(a) *The lessee/licensee/working permission holder shall, in case of fresh grant or renewal of quarry lease/licence/ working permission, submit a progressive mine closure plan as a component of quarrying plan to the Competent Authority as the case may be.*

(b) The lessee/licensee/working permission holder shall, in case of existing quarry lease/licence/working permission, submit a progressive mine closure plan to the Competent Authority, as the case may be, for approval within a period of one year from the date of commencement of the Karnataka Minor Mineral Concession (Amendments) Rules, 2013.

(c) The lessee/licensee/working permission holder shall review the progressive mine closure plan every five years from the date of its approval in case of existing quarry or from the date of opening of the quarry in case of fresh grant or from the date of renewal of quarry lease/licence/working permission, as the case may be,

and shall submit to the Competent Authority, for its approval.

(d) The Competent Authority, as the case may be, shall convey his approval or refusal of the progressive mine closure plan within one hundred and twenty days of the date of its receipt.

(e) If approval or refusal of the progressive mine closure plan is not conveyed to the lessee/licence/working permission within the period as specified in clause (d), the progressive mine closure plan shall be deemed to have been provisionally approved, and such approval shall be subject to final decision whenever communicated.

(2) ***Submission of Final Mine Closure Plan.****----(a) The lessee/licensee/working permission holder shall submit a final mine closure plan to the Competent Authority, as the case may be, for approval one year prior to the proposed closure of the quarry.*

(b) The Competent Authority, as the case may be, shall convey his approval or refusal of the final mine closure plan within one hundred and twenty days of the date of its receipt to the licence/lease holder or his qualified person.

(c) If approval of refusal of the final mine closure plan is not conveyed to the license/lease holder or his qualified person within the period as specified in clause (b), the

final mine closure plan shall be deemed to have been provisionally approved and such approval shall be subject to final decision whenever communicated.

It is submitted that the quarry lease holders have submitted Final Quarry Closure Plan which contains Environment Management Plan (E.M.P.). The EMP includes Reclamation Proposal, Programme of Afforestation, Treatment and Disposal of water from mine, Protective Measures for Ground vibration/Air Blast caused by blasting etc. The quarry plan also contains Closure Plan which includes air, water quality management, waste management, top soil management and rehabilitation cost estimation. Copy of the quarry plan is submitted as **ANNEXURE-R2.**

5. It is submitted that the quarry lease holders have submitted Bank Guarantee/Bond as a security amount to the Dept of Mines and Geology during quarrying period. If these lease holders make default in payment or violate the quarry lease deed conditions, then the security amount will be forfeited.

6. It is submitted that Karnataka State Pollution Control Board has submitted the report imposing Environmental Compensation(EC) for non-compliances noticed in 3 numbers of stone crushes located in Devarayasamudra and Yelagondanahalli Villages and further stated that the Environmental Compensation paid by the Stone Crushers

has been debited to the Karnataka State Pollution Control Board and the details are as below :

List of Stone Crusher Licenses in Devarayasamudra

SL. No.	Name	Sy.No. & extent in Acres	Land Type	Form-C No. & date of grant	Validity	EC (Environmental compensation) imposed by KSPCB in Rs.
1.	GVV Stone Crusher	758 2.00	Patta Land (NA Converted)	89/2018-19 10.01.2019	09.01.2024	---
2.	Millenium Crusher	792 1.14	Patta Land (NA Converted)	03/2018-19 10.05.2019	31.03.2024	2,66,250/-
Stone Crusher Licenses granted in Yelagondanahalli						
3.	Balaji Crusher	69	Patta Land (NA Converted)	84/2018-19 26.12.2018	25.12.2023	2,66,250/-
4.	SVS & Associates	68	Patta Land (NA Converted)	85/2018-19	13.11.2023	2,66,250/-

M/s. GVV Stone Crusher was not operating since one year and authorities have completely dismantled the old plant and machineries and installation of new plant and machinery work is under progress. Hence, Environmental Compensation was not assessed. Copy of the KSPCB report dated 12.11.2021 is produced as **ANNEXURE-R3 To R7.**

7. It is submitted that Compensation of the estimated Rehabilitation cost of quarry leases in Sy.No. 199 of Devarayasamudra and Sy.No.64 of Yalagondanahalli and Bank Guarantee/Bond submitted are as below:

SL. No.	Name	Extent In acres	Period	Rehabilitation Cost (in Rs.)	Bank Guarantee (in Rs.)
1.	GVV Construction. QL.873	5.00	20 years from 17.09.2008	7,00,000/-	7,45,072/-
2.	S.Kumar QL.922	4.00	20 years from 01.02.2010	2,10,000/-	5,75,756/-
3.	T.V.Srinivas QL.928	2.00	20 Years from 12.04.2010	2,00,000/-	2,15,090/-
4.	P.M.Granites 1017	10.00	10 Years from 29.08.2016	No Rehabilation	50,000/-
5.	PMJ Constructions Export Pvt Ltd	10.00	10 Years from 29.08.2016	No Rehabilation	50,000/-
6.	K.Srirama	10.00	10 Years from 19.03.2020	4,20,000/-	18,78,452/-
7.	M/s.United Infra	10.00	QL Not Executed	7,00,000/-	0
8.	M/s.United Infra	10.00	QL Not Executed	7,00,000/-	0
List of Quarry Leases granted in Sy.No.64 of Yelagondanahalli					
9.	M/s. Balaji Granites	4.00	10 Years from 23.08.2008	6,00,000	8,53,940
10.	M/s SVS Associates	6.00	30 Years from 27.08.2008	7,00,000	10,24,000

8. It is submitted that The Karnataka Minor Mineral Concession Rules 1994 empowers the authority to impose penalty for violation of lease deed conditions and non-compliance of EC conditions shall also be treated as lease deed violation conditions. Under rule 6(3) of The Karnataka Minor Mineral Concession Rules 1994 (for short KMMC Rules 1994) penalty for violations/breach of conditions for building stone is Rs.10000/per instance. The officers of Mines and Geology, Kolar District have taken necessary steps and collected penalty required for implementation of rehabilitation plan and carried out survey using Drone/DGPS and assessed the quantity of mineral transported and imposed penalty for transportation of mineral in violation of condition of lease deed and the lessees have paid the penalty. The details are as follows:

SL. No.	Name	Extent In acres	Period	Dispatch of mineral in violation of conditions (In MT)	Penalty collected (In Rs.)
1.	GVV Construction. QL.873	5.00	20 years from 17.09.2008	6,422	1926600/-
2.	S.Kumar QL.922	4.00 acres	20 years from 01.02.2010	54,153	3249180/-
3.	T.V.Srinivas QL.928	2.00	20 Years from 12.04.2010	(Idle)	0
4.	P.M.Granites 1017	10.00	10 Years from 29.08.2016	0 (Idle)	0

5.	PMJ Constructions Export Pvt Ltd	10.00	10 Years from 29.08.2016	0 (Idle)	0
6.	K.Srirama	10.00	10 Years from 19.03.2020		0
7.	M/s.United Infra	10.00	QL Not Executed	0 (Idle)	0
8.	M/s.United Infra	10.00	QL Not Executed	0 (Idle)	0
9.	M/s. Balaji Granites	4.00	10 Years from 23.08.2008	3690.53	1107159/-
10.	M/s SVS Associates	6.00	30 Years from 27.08.2008	10455.51	3136653/-

A copy of the Drone/DGPS survey report and statement submitted by Senior Geologist for payment of penalty is produced as **ANNEXURE-R8 to R9.**

ACTION TAKEN BY SEIAA, KARNATAKA

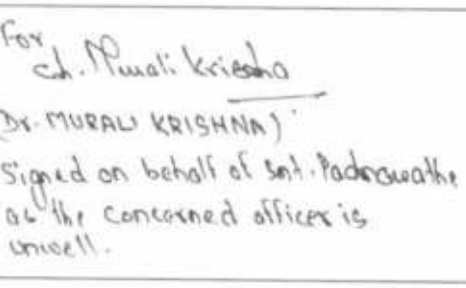
1. During the Joint Committee inspection held on 28.06.2021, the Member representing SEIAA, Karnataka have identified several non-compliances to the Environmental Clearance (EC) conditions and some of the non-compliances appears to be violation of EC conditions. Some of the identified major violations include inadequate bench heights, non-maintenance of buffer areas, inadequate safety measures as proposed in EC, no documentary evidence to establish compliance of CSR/CER activities etc. which are non-compliance/ violation as per EC. Accordingly, SEIAA, Karnataka have calculated environmental compensation as per Polluters Pay Principle. Copy of the report submitted by

SEIAA is enclosed as **ANNEXURE-10.** However, during the joint committee meeting, most of the Members opined that calculating compensation for the entire amount of material extracted may not be an appropriate decision by SEIAA, for which it was noted that all the quarries would be issued a show cause notice and an opportunity for hearing would be provided and based on that SEIAA, Karnataka would take further appropriate decision.

ACTION TAKEN BY THE REGIONAL OFFICE OF MOEF&CC

Based on perusal of records available, it was noted that none of the operating quarries have submitted their half yearly compliance reports (HYCRs) to the Regional Office of MoEF&CC and non-submission of half yearly compliance reports are a major non-compliance as per one of the General Conditions in EC granted by SEIAA, Karnataka. Accordingly, MoEF&CC have issued notices to all the quarries to submit their HYCRs within one month and also directed the Member Secretary, SEIAA to take appropriate action as deemed fit as they are empowered to act against such violations/non-compliances as per S.O 637 (E) dated 28.02. 2014.A copy of the report is submitted as **ANNEXURE-R11.**

The report of the Joint Committee is submitted to Hon'ble NGT (SZ) for further appropriate directions/ orders in this matter.

Dr. Selvamani.R DC, Kolar District, Karnataka State.	
Shri. Shivashankar. E Deputy Conservator of Forest (DCF), Kolar District, Karnataka.	
Smt. Padmawathe R. Deputy inspector General of Forest Senior Officer from Ministry of Environment, Forests and Climate Change (MoEF & CC) Regional Office, Bangalore.	
Shri. Mahantesha T. Joint Director, South Zone, Department of Mines & Geology Mysore, Karnataka.	
Shri. Ravikumar JK Scientific Officer, Karnataka State Environment Impact Assessment Authority (KSEIAA)	
Smt. Rekha R. Senior Environmental Officer, Bangalore East, Zonal Office, Karnataka State Pollution Control Board (KSPCB), Bangalore.	

ANNEXURE-R1

PROCEEDINGS OF THE GOVERNMENT OF KARNATAKA

Sub: Payment of "Environment protection fee" reg.

ANNEXURE-R1

Preamble:

Mining / quarrying where ever it is done leads to Environmental degradation on all count. These activities are known to have potential impact on the Environment both in terms of depletion of natural resources and in terms of polluting air, water and soil environment.

Taking the environmental loss due to mining / quarrying in to account, while diverting forest land for the non-forestry purposes, Government of India have stipulated mandatory raising of compensatory afforestation equal to the extent of mining in non forest land and that to be declared subsequently as reserve/protected forest. The cost of compensatory afforestation is levied on the mining cases in forest land. Even there is a provision in the Forest (conservation) Act, 1980, guidelines vide para 3.2 (VI) to raise compensatory afforestation over double the extent in degraded Forest land in certain category of public interest projects. The whole objective of raising compensatory afforestation is mainly to compensate/minimize the environmental losses sustained.

Received
Office of the
Dept. of Mines and Geology
12 FEB 2008
Bangalore - 560 001

ADM
DDCMA

Hon'ble Supreme Court in the order dated 1-8-2003 in I A No. 826 and 859 in LA No. 566 in W P (civil) No. 202 of, 1995 in the matter of compensatory afforestation has even directed for collection of 'Net present Value' (NPV) from the user agency for Forest land approved for diversion. In compliance of this, the state Government in Forest, Ecology and Environment Department vide notification No. FEE 273 FGL 2002 dated 17-1-2004 have fixed the NPV of Rs. 5.80 lakhs per hectare to Rs.9.20 lakhs per Hectare duly

categorizing the Talukas of the State depending upon the classification of vegetation in the Forest land.

The whole purpose of levying compensatory afforestation and Net Present Value (NPV) is to mitigate/minimize the environmental losses sustained due to diversion of forest land. Even though such a mechanism exists for use of Forest land for mining purpose, the same is not made applicable to mining/quarrying activity in non forest land / agriculture land /revenue land, in spite of the fact that environmental degradation impact is more or less same in magnitude.

The issue was discussed in the State Environment clearance committee meeting held on 17-7-2008 and therein it was decided to take a policy decision on this issue of mining/quarrying, etc. which leads to environmental degradation.

Therefore considering the merits and principles stated above, and following the principles of "Polluter to Pay", the Government has agreed in principle to impose 'Environment Protection Fee' for mining / quarrying in the non Forest-land / patta land / Revenue land, for mitigating the environmental losses so sustained.

Compensatory afforestation charges are revised to Rs.84,000/ Ha. vide Govt. order No. FEE 102 FAP 2008 dated 15.10.2008. The Government are of the opinion that the Environment Protection Fee proposed to be imposed for mining/quarrying in non Forest Land / patta land / Revenue land should at least be on par with the compensatory afforestation charges fixed by the Government vide Government Order No FEE 102 FAP 2008 dated 15.10.2008. It is therefore decided to impose "Environment

Protection Fee" of Rs.84,000/Ha. for mining/quarrying in non forest land/patta land/ revenue land etc. Hence the order.

GOVT. ORDER NO. FEE 25 ENG 2008, BANGALORE, DATED 04.02.2009 (UNIQUE NO. 35)

In view of the circumstances and decision taken, as explained above, the Government here by imposes an Environment Protection Fee at the rate of Rs.84,000/Ha. (Rupees eighty four thousand per Hectare) only on the non forest land / patta land / Revenue land that is permitted to use for mining/quarrying. This order shall come in to force with immediate effect. Remittance of the "Environment Protection Fee" shall be ensured as follows:

(a) **In the case of ongoing mining / quarrying cases where Mining / Quarrying Lease has been issued:**

The Director, Mines and Geology Department shall inform this mandatory provisions to all the mining/quarrying lease holders and ensure that Environment Protection Fee for the Lease area at the rate of Rs.84,000/Ha. is remitted within 3 months from the date of this Order.

(b) **In the fresh mining cases where the Mining / quarrying Lease is to be issued:**

The Director, Mines and Geology Department shall ensure that Environment Protection Fee for the Lease area at the rate of Rs.84,000/ha. is remitted while issuing the lease order.

The Director of Mines and Geology shall report the monthly receipt of Environment Protection Fee separately for the ongoing and fresh cases to the Secretary to Govt., Department of Ecology and Environment.

The proponent shall remit the Environment Protection Fee at the above rate for the sanctioned lease area for mining/ quarrying to the Government Treasury to Head of Account "0406-01-800-0-11 Environment Protection Fee".

The Karnataka State Pollution Control Board and the District administration shall ensure the full payment of the Environment Protection Fee imposed as per this order before the issue of necessary CFO / other statutory clearances for mining / quarrying.

This order is issued with the concurrence of the Finance Department vide No. FD 487 Exp-2/2008 dated 4-12-2008.

By order and in the name of
Governor of Karnataka

(N.R. Jaganmatha)
Under Secretary to Government,
Forest, Ecology and Environment Department.

To:

The Compiler, State Gazetteer, Bangalore with a request for publishing in the next issue of the Gazette and send 50 copies to the Department.

Copy:

1) The Accountant General, Karnataka, Bangalore.
2) All Principal Secretaries/Secretaries to the Government.
3) The Principal Chief Conservator of Forest, Aranya Bhavana, Malleshwaram, Bangalore.
4) Deputy Commissioners of all Districts.
5) The Chairman, The Karnataka State Pollution Control Board, Parisara Bhavana, No.49, Church Street, Bangalore-01.
6) The Director, Mines and Geology Department, Khanija Bhavana, Bangalore.
7) The Director, Treasury Department, V.V.Tower, Bangalore
8) All Regional Directors, (Environment), Forest, Environment and Ecology Department.
9) The Under Secretary to Government (Exp.-V), Finance Department, Bangalore.
10) S.G.file/Spare copies

ANNEXURE - R2

QUARRYING PLAN
&
PROGRESSIVE QUARRY CLOSURE PLAN

(FOR THE PERIOD OF FIVE YEARS

"BUILDING STONE QUARRY LEASE"
Q.L. NO. 873, EXTENT : 5-00 ACRES,
SITUATED IN PART OF SY. NO. 199 OF DEVARAYASAMUDRA VILLAGE,
MULABAGAL TALUK, KOLAR DISTRICT,
KARNATAKA.

Submitted under
"Karnataka Minor Mineral Concession (Amendment) Rules-2017".
(Semi-Mechanized/Non-Forest)

PREPARED BY:

SRI. M.C. DINESH,
M.Sc., (Appl. Geology),
RQP/BNG/343/2015/A

ADDRESS OF THE PROPONENT:

M/S. G V V CONSTRUCTIONS,
NO. 16, VARADAPURA VILLAGE,
VIRUPAKSHI POST,
MULBAGAL TALUK, KOLAR DISTRICT,
KARNATAKA - 563131

CERTIFICATE

This is to certify that Quarrying Plan in respect of our Building Stone Quarry Lease Q.L. No. 873, over an extent of 5-00 acres situated in part of Sy. No. 199 of Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District, Karnataka State has been prepared by Sri. M.C. Dinesh, Recognized Qualified person of Indian Bureau of Mines for preparation of Quarrying Plan and we agree to follow the same in accordance to the provisions of law.

M/s. G.V.V. Constructions

Partner

Place: Mulabagal
Date: 31.01.2019

12/2/19

Senior Geologist
Mines & Geology Dept.
Kolar

CERTIFICATE

This is to certify that the Progressive Quarry Closure Plan in respect of our Building Stone quarry lease Q.L. No. 873, over an extent of 5-00 acres situated in part of Sy. No. 199 of Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District, Karnataka State complies 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 this closure plan will be implemented in a time bound manner as proposed.

M/s. G.V.V. Constructions

Partner

Place: Mulabagal
Date: 31.01.2019

Senior Geologist
Mines & Geology Dept.
Kolar

CERTIFICATE

The provisions of Karnataka Minor Mineral Concession (Amendment) Rules-2017 have been observed in the preparation of Quarrying Plan for Building Stone quarry lease Q.L. No. 873, over an extent of 5-00 acres situated in part of Sy. No. 199 of Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District, Karnataka of M/s. G.V.V. Constructions, whenever any specific permission is required the lessee will approach the concerned authorities of the Department of Mines & Geology.

The Provisions of Mines Act, Rules & Regulations made there under have been observed in preparation of this Quarrying Plan. Whenever specific permission is required, the lessee will approach DGMS for approval. It is also certified that information furnished in the "Quarrying Plan" is true and correct to the best of my knowledge.

M.C. Dinesh,
M.Sc., (Appl. Geology),
RQP/BNG/343/2015/A

Place: Bengaluru
Date: 31.01.2019

Senior Geologist
Mines & Geology Dept.
Kolar

खनन योजना तैयार करने के लिए अहर्ता प्राप्त व्यक्ति के रूप में मान्यता

प्रमाण पत्र

CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON TOPREPARE MINING PLAN

(खनिज रियायत नियमावली 1960 के नियम 22सी के अंतर्गत)

(Under Rule 22C of Mineral Concession Rules, 1960)

श्री एम.सी. दिनेश पुत्र स्वर्गीय एम.सी.चन्द्रप्पा, निवासी - # 320, "कार्थिका", 3rdA मैन रोड, डी- ग्रुप लेआउट, श्रीगंधा कवालु , विस्वनीडोम पोस्ट, शहर- बैंगलोर, जिला -बैंगलोर-560091, राज्य- कर्नाटका, जिनका फोटो एवं हस्ताक्षर दिया गया है उनकी योग्यता तथा अनुभवो के संतोषजनक प्रमाण पत्र देने के एवज में एतद द्वारा खनिज रियायत नियमावली 1960 के नियम 22 सी के अंतर्गत खनन योजना/ खनन अभियोजना/उतरोत्तर खान-बंद/ अंतिम खान बंद करने की योजना तैयार करने के लिये अहर्ता प्राप्त व्यक्ति के रूप में मान्यता दी जाती है.

Shri M.C.Dinesh son of Late M.C.Chandrappa, resident of :- # 320, "Karthika", 3rdA Main road, D-Group Layout, Srigandha Kavalu, Viswaneedom Post, City - Bangalore, District- Bangalore-560091, State- Karnataka whose Photograph and Signature is appended herewith having given satisfactory evidence of his qualifications & experience is hereby granted RECOGNITION under Rule 22C of the Mineral Concession Rules,1960 as a Qualified Person to prepare Mining Plan / Scheme of Mining / Progressive Mine Closure Plan / Final Mine closure plan.

उनका पंजीकरण क्रमांक/ His Registration Number is

आर.क्यू.पी./बेंग/343/2015/ए	/	RQP/BNG/343/2015/A

यह मान्यता दस वर्ष की अवधि के लिए वैध है जो दिनांक 31.12.2024 को समाप्त होंगी।

The recognition is valid for a period of Ten Years ending on 31.12.2024.

खनन योजना / खनन अभियोजना /उतरोत्तर खान बंद/ अंतिम खान बंद करने की योजना में यदि कोई गलत/झूठ सूचनाएँ दी गई हो तो उनका यह प्रमाण पत्र वापस ले लिया जाएगा।

Furnishing any wrong/false information in the Mining Plan/Scheme of Mining / PMCP / FMCP may lead to withdrawal of this certificate.

आर.क्यू. पी. के हस्ताक्षर / Signature of RQP

01/01/15

स्थान/Place: बैंगलोर/Bangalore

दिनांक/Date: 01.01.2015

क्षेत्रीय खान नियंत्रक/

Regional Controller Of Mines

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06	Plate – 06	Environmental Management Plan	1 : 5000
07	Plate – 07	Progressive Quarry Closure Plan	1 : 1000

QUARRY PLAN FOR BUILDING STONE QUARRY LEASE, Q.L. NO. 873, OVER AN EXTENT OF 5-00 ACRES, SITUATED IN Sy. No. 199, DEVARAYASAMUDRA VILLAGE, AVANI HOBLI, MULBAGAL TALUK, KOLAR DISTRICT, KARNATAKA STATE OF M/s. G.V.V. CONSTRUCTIONS.

1. INTRODUCTION

The Quarry Lease for "Building Stone" in the Name of Licensee Sri Dhandi Dhasharatha Ramaiah., is situated in Sy. No. 199 of Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District, Karnataka State is granted by the Department of Mines & Geology, Government of Karnataka over an extent of 5-00 acres as Q.L. No. 873 for a period of 10 years w.e.f. 17.09.2008 & Quarry lease expires on 16.09.2018. The Copy of the Quarry Lease/Licence deed is enclosed as Annexure-01A. The subject quarry lease area is Govt. Revenue lands. After the death of Dhandi Dhasharatha Ramaiah, Lease is transferred to his son D. Kiran Kumar S/o Late D. Dhasaratha Ramaiah. Subsequently the same quarry lease is then transferred to GVV Construction as per Karnataka Minor Mineral Concession Rules, 1994 Rules (19 A) enclosed vide Letter No: DMG/SG (KOLAR)/QL/ 15-16/313 dated 25.04.2016. Further, as per KMMC (Amendment) Rules-2017 vide Rule No. 8A(2) the Quarrying leases granted before the commencement of the said amendment shall be deemed to have been granted for a period of twenty years in respect of Minor Mineral subject to the terms & conditions of the amended Rules

As per the order directed by the Supreme Court of India any Fresh/Renewal/Modified of quarry leases mandatory to get the Environmental Clearance from SEIAA/MoEF.

Further to this, The National Green Tribunal bench of India has directed that all the existing mining lease right holders would also have to comply with the requirement from SEIAA/MoEF in accordance with law within the period of six months from the pronouncement of the judgment dated 13.01.2015.

The subject area for quarrying does not involve any forest land or reserved forest and also any Wild life or Bird Sanctuary. The Lessee obtained requisite NOC from revenue and forest. Accordingly the Quarrying Plan is being prepared under Rule 18(3) of "Karnataka Minor Mineral Concession Rules - 1994" & amendment Rule 2017, to obtain approval from the Department of Mines & Geology. And further to obtain Environmental Clearance from State Environmental Impact Assessment Authority (SEIAA) Constituted by MoEF, Govt. of India.

Quarry operation is to be carried out from the day of granting permission, and the anticipated production details are furnished by the lessee. The lessee intends to commence with the quarrying & supply of the crushed stone (Jelly) to Domestic Industries which is found to have use for all sorts of construction activities.

The area is found to have prominent exposures of Granitic Gneiss covering most of the Quarry area. Surface study of the area has been done by the applicant by sampling the exposed blocks of Granitic Gneiss of the quarry. It is proposed to take up further detailed exploratory drilling & pits during the five years of this quarrying plan period. In view of the proposal for development and production of Granite, the applicant intends to go for small scale quarrying initially by engaging both manual & machineries i.e. Semi Mechanized Open cast method of quarrying.

2. GENERAL INFORMATION

a. **Name & Address of the Applicant:**

M/s. G V V Constructions,
No. 16, Varadapura Village,
Virupakshi Post,
Mulbagal Taluk, Kolar District
Karnataka - 563131

b. **Status of the Applicant:**

The lessee is in the name of the M/s G V V Constructions represented by Shri. Rajesh. V –Partner (Partnership deed is enclosed)

c. **Name, Address and Register no. of the Recognized Qualified Person, who has prepared this quarry plan:**

Sri. M C Dinesh,
RQP/BNG/343/2015/A
320, "Karthika", 3rd 'A' Main Road, 'D' Group Layout,
Srigandha Kavalu, Vishwaneedam Post,
Bengaluru – 560091

d. **Details of the selected area for quarrying**

The area selected for quarrying forms part of Sy. No.199 of Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District, Karnataka State as shown in Plate 01 and details are given here under in Table-1.

Table 1: Details of Area

State	Karnataka
District	Kolar
Taluk	Mulbagal
Hobli	Avani
Village	Devarayasamudra
Sy. no.	199
Area	5-00 Acres
Nature of land	Govt. Revenue Land

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Mines & Geology Dept.
Kolar

The area selected forms a part of Survey of India Toposheet No. 57 K/08 and bounded by the Latitude and Longitude as shown in **Plate 2 & 03**. GPS readings of the boundary points is given in the Table – 2.

Table 2: GPS Readings

GPS Points	Latitude	Longitude
A	13° 07' 54.68 N	78° 19' 35.11 E
B	13° 07' 56.20 N	78° 19' 32.34 E
C	13° 08' 04.33 N	78° 19' 38.66 E
D	13° 08' 05.67 N	78° 19' 39.24 E
E	13° 08' 05.01 N	78° 19' 40.43 E
F	13° 07' 58.56 N	78° 19' 36.58 E

e. Period for which the quarry lease is to be granted/ proposed to be applied

Q.L. No. 873 for a period of 10 years w.e.f. 17.09.2008.

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PART - A

3. GEOLOGY& EXPLORATION

(1) Physiography

(a) The Lease area is an average about 16 meters elevated from general ground level. Exposure stretching NE-SW direction sloping towards Southwest. The entire area is of Granitic Gneisses outcrop. The drainage of the area is towards Southeast.

The topography of the area shows saddle structure with small ridges and gradient in all directions. The highest elevation of the quarry lease area is 883 m and lowest is 867 m, above mean sea level as per the GPS readings and also DGPS surveyed contour plan. The mountain ranges extend in NW to SE. The lease area is a part of Devarayasamudra Village. The quarry area is well connected by road.

(b) The area identified forms a part of Sy. No. 199 covering a total area 5-00 Acres in Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District, Karnataka State. The identified area is Govt. Revenue land with no amenities. The area is connected by a road with a distance of 3.0 Km from Devarayasamudra Village. The site is situated by the side of Kolar-Mulbagal road at a distance of 25 kms from the district head quarter Kolar and connected by all season's road to Taluk & district headquarters along with neighbouring state villages. The location of site is shown in the (Plates 01 & 02) of Key Plan/Location Plan and cadastral map respectively.

The post office is situated from the quarry site at a distance of 3.0 km at Devarayasamudra village and the power line passes at a distance of 400 m from the identified quarry site. The nearest railway station is at Kolar, which is located about 25 kms situated on Chikkaballapura-Tirupattur broad gauge line. The nearest Air port identified is Kempegowda International Airport at a distance of 95 kms from the site and Harbor is Chennai which is about 260kms.

(c) Hydro-geologically, there is no perennial river flows in and around the identified site for quarry. There are few small pond/water bodies situated outside the lease area. Few bore wells are identified at a distance of more than 500 m from the quarry site and are supplying water to the nearby habitations for drinking.

Geology

i. Regional Geology

The Dharwar craton is one of classical and well studied Archaean granite greenstone terrains of the world and is principally composed of low k-tonalitic to trondhjemitic gneisses (Peninsular gneiss) with infolded supracrustals (Sargur group) and capped by younger series of volcano sedimentary sequences (Dharwar super group). Calc-alkaline granites form the latest Archaean magmatic event in the craton. The pronounced N-S elongation of regional grain in the craton is one of the most important and conspicuous feature.

Dharwar super group with profound unconformity, Rocks of Dharwar supergroup in WDC are divided into lower Bababudan and upper Chitradurga groups (Radhakrishna and Vaidyanadhan, 1997) and exposed in two large belts that may be called as super belts viz.,(1) Bababudan-Western Ghats-Shimoga and (2) Chitradurga-Gadaga (Ramakrishanan and Vaidyanadhan, 2008).

Gneiss is a common and widely distributed type of rock formed by high-grade regional metamorphic processes from pre-existing formations that were originally either igneous or sedimentary rocks. Gneissic rocks are usually medium to coarse foliated and largely recrystallized but do not carry large quantities of micas, chlorite or other platy minerals. Gneisses that are metamorphosed igneous rocks or their equivalent are termed granite gneisses, diorite gneisses, etc. However, depending on their composition, they may also be called garnet gneiss, biotite gneiss, albite gneiss, etc. Orthogneiss designates gneiss derived from an igneous rock, and paragneiss is one from a sedimentary rock.

Gneissose is used to describe rocks with properties similar to gneiss. Gneiss is a metamorphic rock form characterized by banding caused by segregation of different types of rock, typically light and dark silicates. Rather than an indication of specific mineral composition, the term is an indication of texture. The "gneissic texture" refers to the segregation of light and dark minerals. It is indicative of high-grade metamorphism where the temperature is high enough, say 600-700°C, so that enough ion migration occurs to segregate the minerals. Within the banded structure are mostly elongated and granular structures rather than sheets or plates. Some gneisses will split along the layers of materials, but most break in an irregular fashion. Gneiss often forms from the metamorphism of granite or diorite. The most common minerals in gneiss are quartz, potassium feldspar, and sodium feldspar. Smaller amounts of muscovite, biotite and hornblende are common. Gneiss can also form from gabbro or shale.

*Colour: Grey or pink but with dark streaks and layers.
Texture: Medium-to coarse grained, Characterized by discontinuous, altering light and dark layers, the former usually having a coarsely granular texture while the latter, which often contains mica, may be foliated.

Structure: In addition to the gneissose texture described above, gneisses tend to be banded on a large scale with layers and streaks of darker and lighter coloured gneiss. Granite and quartz veins and pegmatites are common may be folded.

Mineralogy:
Feldspar is abundant and, together with quartz, forms the granular, lighter coloured layers. Muscovite, biotite and hornblende are commonly present, while any of the minerals characteristic of higher grades of regional metamorphism may occur.

Field relations: At the highest grades of metamorphism rocks may approach melting temperature when they are able to re-crystallize freely and so produce the textures characteristic of gneisses. Thus gneisses occur, in association with magmatites and granites, in the central parts of metamorphic belts."(Hamilton et al 1976, 148).

LOCAL GEOLOGY:

The area is composed generally of granite gneisses exposure trending NE-SW as a narrow belt. The Geological setting of this area is of "Closepet Granite" the name given to this complex of medium grained texture to light Colour to light grey colour, monzonites and monzo-granites traversed by fine grained grey to pink Colour types, pegmatites and aplites. The granite gneisses are seen all along the quarry lease area the quarry exposure the boulders are found 15-16mtrs above the general ground. The area is completely of grey Colour granite gneisses and is moderately disturbed with well-developed Joints and gneissic complex. Building stone (Granitic-gneisses) out crops occur prominently exposed along the Quarry lease area.

The grey colour Granitic-gneisses (Sheets & Boulders) the rock units as exposed in the quarry lease area can be made out from the Surface Geological plan..

(2) Details of Exploration

i. Presently the area has been mapped on 1:2000 scale and with contour survey at an interval of 1m. An approach road has been formed from north western part of the site to proposed working place and the way is being made to transport the proposed aggregates so as to ensure the smooth work at quarry site during non-monsoon season.

ii. Anticipated Exploration at identified quarry site

The lessee has commenced the exploration at western part of the site and observed that medium to big boulders of dolerite rock is situated at the northern and western portion of the pit. It is suggested to put some exploratory trenches across the deposit in order to understand the continuity/extension of black rock types at various depths and also quality of the rock deposits. Further it is also suggested to put trenches at southern part the identified site to know the quality of the reserves. It is estimated to work for 5 years at the reserves area and the work plan is given in (Plate 04 – Year wise production & development plan for the first five years) for better understanding.

(3) Estimation of Geological Reserves

The following Parameters for reserve estimations of the Building Stone deposit:

The entire Quarry lease block is geologically mapped. The exposed dimensions of the Building Stone have been measured after digitizing the map on GIS format using Auto-CAD software.

The reserves assessed by cross section method based on the actual exposure and assumed depth of rock. The elevation difference is noticed within the quarry lease area is 883m to 887 m above mean sea level. General ground level outside the quarry lease area is about 860m RL up to general ground level is taken Prove Category only 5m below ground level will workings proposed plan period of five years. The limiting reserves based on the existing outcrops of Building Stone boulders, sheets maximum height (dimensions) and up to general ground level outside the quarry lease area 960m RL is taken for proved category, further below 5m is considered for probable category reserves and remaining below 5m resources (possible) category, basis being the indications observed in the surrounding area outcrops & workings of Building Stone.

For the Building Stone, reserves is calculated on the basis of the outcrops of boulders sheets maximum height & its area. The conventional methods the total surface area in square meters, depth in meters and recovery factor (Quantity= surface area X depth X recovery factor). The Building Stone recovery is about 98% and waste (mining losses) is about 2%.

RF (Recovery factor) test were conducted on the Building Stone in the field and the results of the Recovery factor is 98% for Building Stone.

The cut-off size has been considered as follows: - The cut-off size considered for Building Stone is - 10mm and above.

Photographs of the quarry lease are enclosed as Annexure-06.

Based on the geological studies of the lease area, the geological section and plans are prepared by using standard method and reserves are calculated by surface exposure & existing working pits depth method. Taken the recovery of the Building Stone at 98% for calculation of reserves based on the experience in the field. Taken a specific gravity of 2.80 and a depth of 16m. (11m depth is considered is proved & below 5m depth is considered probable) Details of category wise total Building Stone reserves/ reserves is given below

Table 3: Geological Reserves

Sections	Area in M²	Depth in (M)	Volume in Cu.m.	Recovery factor (%)	Total Reserves M³	Specific Gravity	Total Reserves Tons
Proved Reserves							
AA'	9530	11	1,04,830	98	1,02,733	2.80	2,87,654
BB'	4310		47,410		45,462		1,30,093
CC'	6050		66,550		65,219		1,82,613
Total			2,18,790		2,13,414		6,00,360
Probable Reserves							
AA'	9530	05	47,650	98	46,697	2.80	1,30,752
BB'	4310		21,550		21,119		59,133
CC'	6050		30,250		29,645		83,006
Total			99,450		97,461		2,72,891
Possible Reserves							
AA'	9530	05	47,650	98	46,697	2.80	1,30,752
BB'	4310		21,550		21,119		59,133
CC'	6050		30,250		29,645		83,006
Total			99,450		97,461		2,72,891

(4) Mineable Reserves estimation

The estimation of mineable reserves has been made on the basis of the surface area in square meters, depth in meters. The proved reserves are estimated considered up to the general ground level outside the quarry lease area & adjacent working depth of 955m RL's. Based on the experience gained by the earlier activities, around 98% of the geological reserves are taken as recoverable.

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Mines & Geology Dept.
Kolar

The Mineable reserves of the proposed area were carried out as per the field studies and geological mapping after leaving the buffer zone of 7.5 meters all along the lease boundary. Mineable reserve calculated based on conventional method of surface area in square meters, depth in meters and recovery factor of 98%. The detail of Mineable Reserves is furnished in Table - 4 and the (Plates 03 geological cross section) for better understanding.

Table 4: Mineable Reserves

Sections	Area in M²	Depth in (M)	Volume in Cu.m.	Recovery factor (%)	Total Reserves M³	Specific Gravity	Total Reserves Tons
Proved Reserves							
AA'	7250	11	79,750	98	78,155	2.80	2,18,834
BB'	3100		34,100		33,418		93,570
CC'	3660		40,260		39,455		1,10,473
Total			1,54,110		1,51,028		4,22,878
Probable Reserves							
AA'	7250	05	36,250	98	35,525	2.80	99,470
BB'	3100		15,500		15,190		42,532
CC'	3660		18,300		17,934		50,215
Total			70,050		68,649		1,92,217

4. Quarrying

The method of working for Building Stone in the Quarry lease area for the plan period is by Semi Mechanized method of opencast quarrying. Considering the technical parameters like surface topography, quality variations, geo-technical aspects, required rate of production & available resources etc, it is proposed to work this deposit by adopting 8m bench height and with an ultimate pit slope of 45° by Small scale quarrying activity with small dia. jack Hammer drilling & blasting and use of Hydraulic Rock Breaker. The benches height and the width will be maintained as specified by DGMS. The width of the working benches, shall not be less than the height. The Year wise Production & Development plan indicates the workings, site for disposal of waste/overburden etc., as shown in Plate No-04. The Plan showing the position of workings, proposed extensions, bench parameters, pit configuration at the end of Plan Period is indicated in Production & Development plan.

Due care will be taken in designing the benches by straightening & advancing the benches for effective and economical operation of the quarry. Since the ground water table is not at much depth and the rainfall is moderate during monsoon, drainage of water shall be properly coursed with series of check dams & retaining walls so as not to disturb the natural drainage pattern of the area.

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i. Quarryable Reserves and anticipated life of the Quarry:

The proposed present rate of Building Stone saleable average production is 1,00,012 tons per annum. It is proposed to work by Semi Mechanized method of quarrying. On this basis and considering the total mineable reserves of 6,15,095 tons of mineable reserves, the anticipated life of the quarry, works about 05 years subject to further exploration results anticipated from the plan period & re-assessment.

ii. Year wise development for first Five Years:

The quarry will be done manually by using few machines. Therefore it is planned to adopt the semi mechanized method of quarrying (open cast method) in identified area. An area of 13,800 Sq. m is proposed to work for 1st Five years. The details of assessment of year-wise production plan are furnished in Table-5.

Table 5: Production Assessment for first five years

Year	Sections	Area in M²	Depth in (M)	Volume in Cu.m.	Recovery factor (%)	Total Reserves M³	Specific Gravity	Total Production Quantity (in Tons)
First	BB'	1807	8	14,456	98	14,167	2.80	39,667
	CC'	3660		29,280		28,694		80,344
Total				43,736		42,861		1,20,012
Second	BB'	1807	8	14,456	98	14,167	2.80	39,667
	CC'	3660		29,280		28,694		80,344
Total				43,736		42,861		1,20,012
Third	AA'	2881	8	23,048	98	22,587	2.80	63,244
	BB'	2586		20,688		20,274		56,768
Total				43,736		42,861		1,20,012
Fourth	AA'	5467	8	43736	98	42,861	2.80	1,20,012
Fifth	AA'	5467		43736		42,861		1,20,012
Total				2,18,680	98	2,14,305	2.80	6,00,058

Summary for balance four Years total production from all benches are calculated as 6,00,058 Tons. However, average production per month is calculated as 10,000 tons/ Month.

iii. Proposed Rate of Production when the Quarry is fully functional:

It is proposed to produce 1,20,012 Tons of building stone of different sizes per annum for 1st five years, when the quarry is fully functional.

iv. Proposed Method of Quarrying:

Quarrying will be carried out through Open cast method by manually and semi-mechanized by using air compressor operated Jack hammer drills, excavators, truck dumpers, etc., since the rocks and reserves are exposed, the open cast quarrying is sufficient to extract the deposits. Further continuous development and production will be ensured till the deposits exhaust.

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v. Extent of Mechanization:

The Quarry is being carried out by semi-mechanized method with the help of following machinery.

Sl. No.	Type	No's.	Size/ capacity	Make	Motive Power
01	Compressor	02	440 cfm	Atlas Copco	Diesel
02	Jack Hammer	05	33mm dia.	Atlas Copco	-
03	Hydraulic Rock Breaker/Excavator	01	1.2 cu.m	-	Diesel
04	Tipper	02	20 tons	-	Diesel
05	Water tanker	01	5000 liter	Mahindra	Diesel
06	Tractor	01	04 tons	Mahindra	Diesel
07	JCB/Wheel Loader	01		JCB	Diesel

The transportation will be made by own vehicles or hired trucks to dispatching points like Road, Rail & Port.

vi. Drilling:

There is proposal for small dia. drilling & blasting for the quarrying plan period. Apart from use of jack hammer drill holes, further latest technology to reduce drilling/blasting methods shall be deployed such as mechanical breaking by using hydraulic rock breaker etc.,

vii. Blasting:

There is proposal for small dia. drilling & blasting for the quarrying plan period. Apart from use of jack hammer drill holes, further latest technology to reduce drilling/blasting methods shall be deployed such as mechanical breaking by using hydraulic rock breaker etc., In view of small scale production requirement blasting shall be carried out once in a fortnight. The Blasting shall be carried out by certified blaster under MMR-1961.

viii. Loading and Hauling: Loading of the Building Stone blocks will be done mechanically to tippers of 20 tons capacity and transported from the quarry to the Stack yard and mineral rejection/waste will also be handled mechanically. In the quarry the road will be maintained with 1 in 16 gradients. Sufficient number of bunds and parapet walls will be made all along the quarry haulage roads wherever necessary in order to maintain safe working conditions by using the waste generated during the course of quarry operations.

ix. Transport:

The Building Stone will be transported by hired trucks. The destinations will be as per the buyer's requirement/industries. The mode of transport will be by road. The transport is by Tippers and Leyland Trucks depending on their availability in the market.

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5. Leveling

The waste generated from the process of quarrying will be used for back filling of the pit developed in previous year. Till then it will be shifted to the identified place for dumping, and the leveling will be done with respect to the altitude of the surrounding environs and without hampering the serenity of the native.

6. Quarry Drainage

The identified quarry site is in undulating terrain. The natural slope seen will help the water to drain out from the boundary. However, it is suggested to develop an artificial drainage system by the side of quarrying block and dump yard so as to channelize the water to move further to natural slopes. It is also advised to pump out the anticipated accumulation of groundwater in the pit when the pit is deepened below the existing surface.

7. Disposal of Waste

The proposed to be generations of waste about 13,472 cubic meters of overburden & mining losses 12,246 Tons (2% of ROM) for Five Years. The waste rock mainly consists of weathered rock and intercalated wastes which are non-toxic in nature. Same will be utilized for formations of safety bund all along the 7.5m safety zone, used for retention wall, roads maintenance etc., reaming waste will be managed in as per the progressive mine closure.

8. Use of Mineral

Extracted grey granitic rock will be used for different purposes depending on the shape and size. However, here the extracted material will be used for jelly making and building materials. There is a huge demand for jelly in local market and roads & highway sector. Railways are also coming forward to purchase the jelly for construction purpose locally.

9. Surface Transport

Building stone will be transported to the dispatching point (Railway docks and Port yards if necessary) by hired vehicles like trucks and tippers.

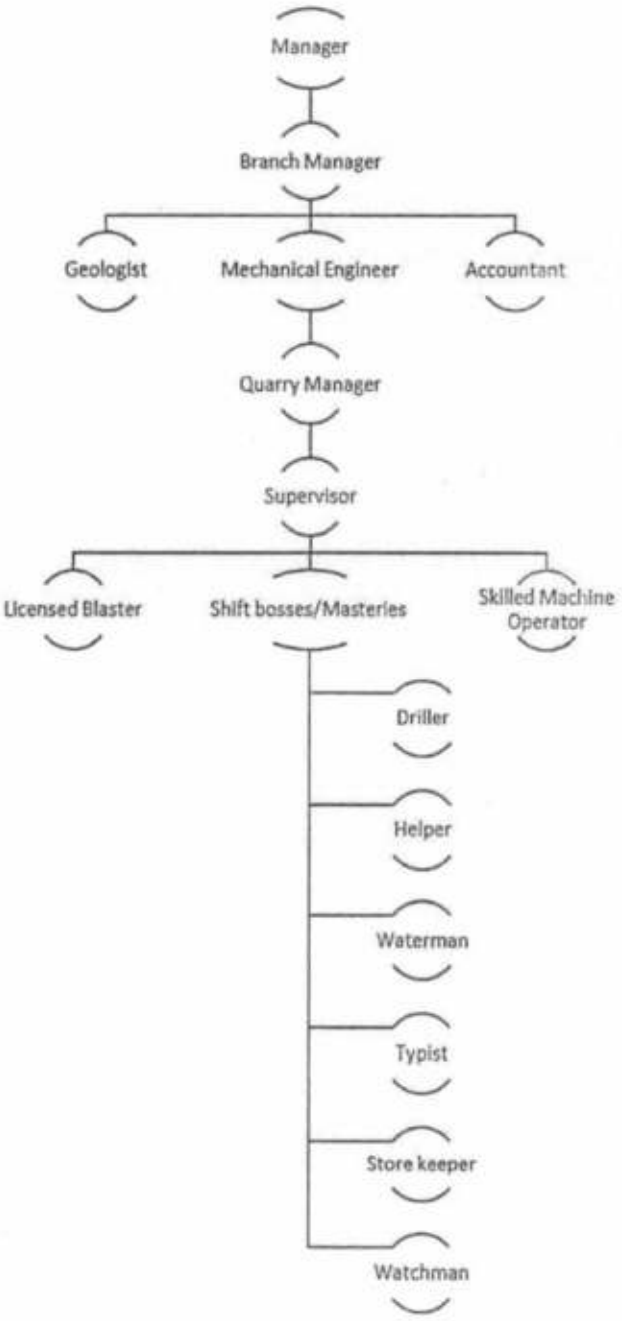
10. Site Services

Site services like Site Office, Workers Shelter, Site Workshop, Store Room, First Aid counter, Drinking water storage are proposed to be provided outside the quarry lease area.

11. Employment Potential

Once the quarrying starts at lease area, the required personnel are to be recruited and put to service for uninterrupted extraction activity and the employment potential will be generated at the lessee end as per the norms. The Flow Chart of the Employment is given here under:

Figure 1- Manpower Organogram



1. Management & Supervisory Personnel

(i) Management Team:

Sl. No.	Team Composition	Nos.
a)	Mines Manager/ Certificate Holder	01
b)	Mining Engineer/ Geologist	01
c)	Mechanical Engineer	01
d)	Accountant	01
e)	Clerk/ Typist	01
f)	Office Boy	01

(ii) Supervisory Team:

Sl. No.	Team Composition	Nos.
a)	Mine Foreman/ Quarry Manager	01
b)	Supervisor (Optional)	01
c)	Machine Operators – Skilled (Excavator 2, Compressor 2, Tipper 2,)	07
d)	Blaster (Certificate Holder)	01
e)	Store Keeper	01

(iii) Site Work Force:

Sl. No.	Team Composition	Nos.
a)	Skilled Driller	03
b)	Helper & Waterman	03
c)	Watchman	02

The strength of the laborers varies depending on the production size and schedule.

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Mines & Geology Dept.
Kolar

PART – B
ENVIRONMENTAL MANAGEMENT PLAN

a) STATUS OF BASELINE INFORMATION

(i) Land use pattern.

The quarry lease area falls in Govt. Revenue land. The area is covered by rocky exposures and without trees. The lease area is proposed to be utilized for quarrying and except for quarrying the land is not used for any other purpose.

The details of the utilization of the proposed area and for next five years are as follows:

PROPOSED LAND USE PLAN FOR NEXT FIVE YEARS

Sl. No.	Particulars	End of Plan Period Extent of area (Ha)
01	Area to be excavated	1.380
02	Storage of top soil	Nil
03	Overburden dumps	Nil
04	Mineral storage	Temporary within the pit
05	Infrastructure	Out side
06	Roads.	0.020
07	Railways	Nil
08	Green Belt	Outside
09	Tailing ponds	Nil
10	Effluent Treatment Plant	Nil
11	Mineral Separation Plant	Nil
12	Township area	Nil
13	Others (Parapet walls, settling tank)	0.120
	Sub Total	1.520
14	Undisturbed area	0.503
	Total	2.023

ii) WATER REGIME:

There is no perennial stream or springs in the lease area and the ground water level, lies far below in the valley outside the quarry lease area. The nallas flow towards the slopes in the area. These will have water only during monsoon period the water table 160-200m below the general ground level and the quarrying operations will not affect the water regime.

iii) FLORA AND FAUNA:

Due to rocky exposures on the surface of the area, except for shrubs-bushes, there is no other vegetation in the lease area. The buffer zone outside consists of forests, agricultural lands etc., There is no wild life in around close by vicinity of the area.

Senior Geologist
Geology

iv) QUALITY OF AIR, AMBIENT NOISE LEVEL AND WATER:

Quality of air is normal and there is no cause for any pollution of air in the area but manual/mechanically loading, jack hammer drilling, rock breaker, shovel working and trucks transportation generate air pollution in the form of dust which has to be controlled. Ambient noise level is far below the threshold value, as the area is calm and no human settlement around 0.50 km radius from the quarry lease area.

There is no source of water in the area. The water for use at quarry will have to be transported from the private land Borehole water located near by the quarry lease area.

v) CLIMATIC CONDTIONS.

The climate of the area can be described as semi-arid zone, the maximum temperature of about 36°C and minimum temperature of 20°C. Rainfall is (about 1130 mm) and confined to monsoon period only. In general the area is drought prone.

vi) HUMAN SETTELEMENTS:

There is no human habitation in around 0.50kms radius from the area. The nearest village is Ramasagara, located about 0.60 kms Northwestern side of the quarry area.

VILLAGES AND POPULATION OF SURROUNDING AREA

Sl. No	Villages	Distance (in kms)	Directions	Population (No's)
01	Devarayanasamudram	2.90	W	1959
02	Varadaganahalli	1.30	E	991
03	Vijalapura	3.00	SE	502
04	Ganjikunte	3.00	SE	646
05	Kasipura	4.80	SE	335
06	Avani	2.80	S	3077
07	Kempapura	3.80	SW	623
08	Hosakere	3.90	SW	403
09	Jammanahalli	2.60	NE	611
10	Anantapura	2.80	NE	548
11	Ramasagara	0.60	S	-
12	Tattanagunte	1.10	NW	-
13	Gangapura	2.60	E	-
	Total			9,695

vii) PUBLIC BUILDINGS:

There are no public buildings, monuments or wild life parks in and around the adjacent vicinity of lease area. The applicant should construct retaining walls & check dams to avoid surface run off to agricultural lands. Panchayath road existing in the boundary of the area, which connects the Highway at a distance of 5 Kms (Bangalore-Chittoor), is being used to transport the produced Building Stone.

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Mines & Geology Dept.
Kolar

However there are no open wells or bore wells within the vicinity of quarrying block. The proposed quarrying area is also situated at an elevation of about 883m from the surrounding area. As such it is presumed that the water table is not going to be effected. Noise levels should be kept within permissible limits. lessee will approach the concerned authorities for their consent, if necessary.

b) ENVIRONMENTAL IMPACT ASSESSMENT STATEMENT:

i) The Quarry Lease area (core zone) has been proposed for medium scale activities, for the next five years quarry workings shall prevail in the quarry area and around the leasehold in the buffer zone. There are no adverse changes on the land environment. Most of the area in the buffer zone will still remain virgin with natural vegetation & topography.

PROPOSED LAND USE PLAN FOR NEXT FIVE YEARS

Sl. No.	Particulars	End of the Five Year Plan Period Extent of area (Ha)
01	Area to be excavated	1.380
02	Storage of top soil	Nil
03	Overburden dumps	Nil
04	Mineral storage	Temporary within the pit
05	Infrastructure	Out side
06	Roads.	0.020
07	Railways	Nil
08	Green Belt	Outside
09	Tailing ponds	Nil
10	Effluent Treatment Plant	Nil
11	Mineral Separation Plant	Nil
12	Township area	Nil
13	Others (Parapet walls, settling tank)	0.120
	Sub Total	1.520
14	Undisturbed area	0.503
	Total	2.023

The quarry activity will not affect any public buildings, monuments of archaeological importance, as none exist in the vicinity of the proposed quarrying block.

ii) AIR QUALITY:

Quarrying operations of Building Stone involve jack hammer drilling and blasting. Use of machinery for excavation & loading of mined minerals, is a major contributor for affecting the air quality. Loading and transport of minerals generate some small quantities of dust, which again depend on factors such as the topography, nature of material handled and climatological parameters like wind speed, wind direction and stability classification of the area viz. location of buffer zone villages. The quantum of quarrying operations is very limited (ROM 1,22,461 tons maximum per annum i.e. about 408 tons/day) and hence there shall not be regular fugitive emissions.

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However, care will be taken to suppress dust by sprinkling water at all loading places, mineral dressing/stack yards etc.

iii) WATER QUALITY:

a) Surface water: There are a couple of small nallahs and Pond situated nearby the quarry lease, which are of seasonal nature. Precautions will have to be taken to avoid the wash- off from the quarry to nearby nallahs by construction of Check dams & retaining walls.

b) Ground water: Ground water is unlikely to be encountered during the proposed period of working this quarry. So any change in the ground water condition is ruled out.

iv) NOISE LEVEL:

The noise level of the core & buffer zone is expected to be within the permissible limits. Quarrying activity is likely to increase the noise levels at the loading points and jack hammer drilling locations. However since the workers will not be expected to be exposed to high levels of noise for considerable period of time, no extra precaution is proposed. The workers shall be provided with ear plugs & nose masks.

v) VIBRATION LEVELS (DUE TO BLASTING)

Since drilling & working of quarry with small scale earth moving machinery is proposed the impact on ground vibration levels is insignificant and level of vibration of machinery by working will be within the permissible limit. Use of explosives shall be restricted to the minimum possible by use of hydraulic rock breaker.

vi) WATER REGIME:

The existing seasonal nallahs in the buffer zone remain dry and becomes active during rainy day. Since the watercourses are shallow and the workings are situated at higher elevations, water will not pose any problem. Since rain fall is comparatively high sufficient check dams & retaining walls shall be constructed, there will not be much siltation or run-off problems. However, proper precautionary measures will be taken up to avoid any impact on water regime. The requirement of water at the quarry site is for domestic consumption/drinking only & water is not intended to be used for purposes of mineral beneficiation or washing etc.,

vii) SOCIO ECONOMICS

There are 13 villages and hamlets within the 5 Kms radius buffer zone with a population of about 9,695 as per 2011 census. Presently they are engaged in seasonal agricultural activities and thus are not employed fully. Some people will be directly working while some shall be on contractual role depending upon the nature and period of the requirement of the quarrying activities. Jobs for so many services, related for the total population shall be opened up. Thus the impact of new quarrying activity is beneficial. The communication, health and education shall also improve within the buffer zone.

OCCUPATIONAL HEALTH AND SAFETY:

Main occupation of the people is agriculture; quarrying related activities etc & lately many of them have found more rewarding jobs in the quarrying sector.

Further safety shoes, helmets, goggles, leather gloves, earmuffs, breathing mask etc will be provided to all the eligible workers as per the prescribed norms of Director General of Mines Safety.

viii) HISTORICAL MONUMENTS ETC.

There are no historical monuments or places of importance located within 5 Kms radius.

c) ENVIRONMENTAL MANAGEMENT PLAN:

i) TEMPORARY STORAGE AND UTILIZATION OF TOP SOIL:

We would at the very outset wish to state that we are very much interested in afforestation programmes. As the quarrying is confined to the slopes of the hills in the quarry block, and the topsoil on the slopes is less than 2m in thickness that too in small patches, the question of destroying the topsoil does not arise. Whatever available the topsoil seen in the area will be carefully taken out for afforestation purpose.

ii) RECLAMATION PROPOSAL:

During the first five years it is proposed to quarry the Building Stone on a medium scale of maximum ROM about 1,22,461tons per annum. The overburden if any that would accumulate in the proposed quarrying will also be stacked separately. These will be used to fill up pits likely to occur in the future to bring back the surface as far as possible to the original topography. However, as the quarrying area is a hilly tract and the building stone is confined to the ridges and slopes the question of filling up of pits does not arise. The structures such as shelters will be removed and the land restored as much as possible to its original condition.

iii) PROGRAMME OF AFFORESTATION:

It is proposed to develop a green belt outside the lease area. In addition, the place around the haul road outside the lease area after obtaining necessary permissions from concerned authorities. Every year it is proposed to carry out afforestation by planting 100 saplings per annum within & outside the lease area. Proper care will be taken for projection & growth of these sampling. The bio-fuel saplings like Honge, Neem and Badam etc. The details of the afforestation program are as given below: Afforestation program for the five year plan:

Year	No's	Survival	Saplings
First	100	70%	Bio-Fuel plants like Honge, Neem, Badam etc.,
Second	100		
Third	100		
Fourth	100		
Fifth	100		
Total	500		

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iv) STABILIZATION AND VEGETATION OF DUMPS

There is no existing old dumps so, stabilizations and vegetation of dumps doesn't arise. The quantity of waste/mining losses generated is very less & the same shall be utilized for formation of safety bunds, road leveling work to fill pot holes etc.

v) TREATMENT AND DISPOSAL OF WATER FROM MINE:

As explained above, there are no water sources in and around the quarry block, except seasonal surface water/tank southern side of the quarry. The quarry lease area is also situated in a mound/hilly tract with the first five years of quarrying confined to the Building Stone within the pit. Therefore, there is no possibility of accumulation of water in the pit and treatment and disposal of water from the quarry does not arise.

vi) MEASURES FOR MINIMIZING ADVERSE EFFECTS ON WATER REGIME

Water regime in the area will not be affected as explained above.

vii) PROTECTIVE MEASURES FOR GROUND VIBRATION/AIR BLAST CAUSED BY BLASTING

For the first five years, production will be by using jackhammer small dia. Drill holes for blasting are necessary in the proposed quarrying. Therefore, the vibration caused by blasting is negligible as controlled blasting techniques will be followed.

viii) MEASURES FOR PROTECTING HISTORICAL MONUMENTS AND REHABILITATION OF HUMAN SETTLEMENT:

Not applicable

ix) SOCIO – ECONOMIC BENEFITS ARISING OUT OF MINING

This Semi mechanized Quarrying proposal will bring continuous employment of labors for nearby villagers, otherwise they are fully depend on agriculture and quarrying lease about 25 direct employment and another fifty indirect employment will be generated. Thereby economic condition of the local people will improve.

PART – IV

PROGRESSIVE QUARRY CLOSURE PLAN

1 INTRODUCTION:

Name of the Applicant : G.V.V. Constructions,

Extent of the lease : 5-00 Acres

Type of lease area : Govt. Revenue land

Present Land use : Area is a Govt. Revenue land covered by few Pits and rocky exposures. Details of area are given below.

Present land use pattern (Area in Hectares)

Type of Land Used	Area put on use at start of the plan
Area to be excavated till end of plan period	0.370
Storage for top soil	-
Overburden/Waste Dump	-
Mineral Storage	-
Infrastructure (Workshop, Admin, and Bldg)	-
Roads	0.020
Railways	-
Greenbelt	-
Tailing Pond	-
Effluent Treatment Plant	-
Mineral separation plant	-
Township area	-
Others (parapet walls, settling tanks)	-
Sub Total	0.390
Undisturbed area	1.633
Total	2.023

Details of the area with location map

The lease area is marked on the Key Plan Plate No.1.

Village : Devarayasamudra Village

Taluk : Mulabagal

District : Kolar

State : Karnataka

Khasra No's : Sy. No.199

Latitudes 13°07' 54.68"N – 13°08' 05.67"N

Longitudes 78°19' 32.34"E – 78°19' 40.43"E

Method of Mining : Semi-mechanized Method of Opencast Mining

Mineral Processing Operations: No mineral processing is involved.

Deputy Geologist
Mines & Geology Dept.
Kolar

1.1 Reasons for Closure:

The Plan prepared is for progressive quarry closure, as final closure plan will be prepared & submitted one year prior to the proposed closure of the quarrying operations as per the directives & proposed guidelines of Minor Mineral Conservation & Development Rules.

Progressive Closure of quarrying operations are discussed for reclamation/rehabilitation of areas. The geology of the leasehold area & the present mine/quarrying workings indicate continuation of the Building Stone deposit further below. In anticipation of working the Building Stone to the total economical depth & quarrying activities, it is observed that the Quarry is not mature enough during the present Plan period for Quarry closure. Hence only protective measures & land rehabilitation proposals are discussed.

1.2 Statutory Obligations:

The progressive Quarry Closure Plan is prepared as per the directives of draft guidelines of Minor Mineral Conservation & Development Rules as a component of the Quarrying Plan. The applicant will abide by the terms & conditions imposed in the lease deed, comply with the statutory directions of the State Department of Mines & Geology, DGMS, MOEF & Forest Dept, & other State/ Central Govt. agencies from time to time.

1.3 Progressive Mine Closure Plan Preparation

Name and Address of Applicant	:	M/s G V V Constructions, No. 16, Varadapura Village Virupakshi Post Mulbagal Taluk, Kolar District Karnataka - 563131
Name of the Recognized Qualified Persons	:	Sri. M C Dinesh RQP/BNG/343/2015/A
Name of the executing agency	:	M/s G V V Constructions,

2 MINE DESCRIPTION

The Quarry Lease area is located at a distance of 25Km from Kolar.

2.1 GEOLOGY

TOPOGRAPHY: The Lease area is an average about 16 meters elevated from general ground level. Exposure stretching NE-SW direction sloping towards Southwest. The entire area is of Granitic Gneisses outcrop. The drainage of the area is towards Southeast.

The topography of the area shows saddle structure with small ridges and gradient in all directions. The highest elevation of the quarry lease area is 883 m and lowest is 867 m, above mean sea level as per the GPS readings and also DGPS surveyed contour plan. The mountain ranges extend in NW to SE. The lease area is a part of Devarayasamudra Village. The quarry area is well connected by road.

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Mines & Geology Dept.
Kolar

LOCAL GEOLOGY:

The area is composed generally of granite gneisses exposure trending NE-SW as a narrow belt. The Geological setting of this area is of "Closepet Granite" the name given to this complex of medium grained texture to light Colour to light grey colour, monzonites and monzo-granites traversed by fine grained grey to pink Colour types, pegmatites and aplites. The granite gneisses are seen all along the quarry lease area the quarry exposure the boulders are found 15-16mtrs above the general ground. The area is completely of grey Colour granite gneisses and is moderately disturbed with well-developed Joints and gneissic complex. Building stone (Granitic-gneisses) out crops occur prominently exposed along the Quarry lease area.

The grey colour Granitic-gneisses (Sheets & Boulders) the rock units as exposed in the quarry lease area can be made out from the Surface Geological plan..

2.2 Reserves:

Estimated Reserves of Building Stone are given in below:

Geological Reserves

Sections	Area in M²	Depth in (M)	Volume in Cu.m.	Recovery factor (%)	Total Reserves M³	Specific Gravity	Total Reserves Tons
Proved Reserves							
AA'	9530	11	1,04,830	98	1,02,733	2.80	2,87,654
BB'	4310		47,410		45,462		1,30,093
CC'	6050		66,550		65,219		1,82,613
Total			2,18,790		2,13,414		6,00,360
Probable Reserves							
AA'	9530	05	47,650	98	46,697	2.80	1,30,752
BB'	4310		21,550		21,119		59,133
CC'	6050		30,250		29,645		83,006
Total			99,450		97,461		2,72,891
Possible Reserves							
AA'	9530	05	47,650	98	46,697	2.80	1,30,752
BB'	4310		21,550		21,119		59,133
CC'	6050		30,250		29,645		83,006
Total			99,450		97,461		2,72,891

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Mines & Geology Dept
Kolar

Mineable Reserves

Sections	Area in M²	Depth in (M)	Volume in Cu.m.	Recovery factor (%)	Total Reserves M³	Specific Gravity	Total Reserves Tons
Proved Reserves							
AA'	7250	11	79,750	98	78,155	2.80	2,18,834
BB'	3100		34,100		33,418		93,570
CC'	3660		40,260		39,455		1,10,473
Total			1,54,110		1,51,028		4,22,878
Probable Reserves							
AA'	7250	05	36,250	98	35,525	2.80	99,470
BB'	3100		15,500		15,190		42,532
CC'	3660		18,300		17,934		50,215
Total			70,050		68,649		1,92,217

Mineable reserves proved and probable only considering the ultimate pit limit after leaving safety/buffer zone of 7.5mtrs boundary.

2.3 Mining Method

The Quarry is proposed to be operated by Semi- Mechanized opencast mining. The details of production level etc are discussed in Chapter- 4 of the Quarrying plan.

2.4 Mineral Beneficiation

There is no beneficiation plant or factory situated in quarrying area.

3.0 REVIEW OF IMPLEMENTATION OF QUARRYING PLAN INCLUDING FIVE YEARS PROGRESSIVE CLOSURE PLAN UPTO THE FINAL CLOSURE OF THE MINE.

The quarrying operations in the leasehold area will be carried out by medium scale machineries right from the inception of the quarry. The quarrying operations were in accordance to the domestic requirement.

3.1 Abstract of the Proposals for protection of Environment

Temporary storage and utilizations of top soil: As per the proposed quarrying programme over next five/balance years, the top soil quantity generated is very less. However, any small quantity if generated will be stacked and used for afforestation purposes.

3.2 Quarrying and allied activities:

As per the proposed production and development plan for plan period, area for quarrying is 1.38 Ha.

3.3 Year Wise Proposal for Reclamation:

Since Building stone deposits are likely to continue, concurrent reclamation is not feasible and after working pits are exhausted, than concurrent backfilling will be proposed. The mined out areas as shown in the relevant year wise production & development plans will be not matured enough for reclamation. Hence, the backfilling on worked out pits for reclamation programme is not envisaged presently.

Senior Geologist
Mines & Geology Dept.
Kolar

Suitable afforestation techniques will be adopted for reclamation after winning of the mineral. Proper fencing will be provided all around in order to prevent accidental falling of animals and human trespassing to the working pits. The details of protective measures mentioned above are shown on the Environmental plan.

3.4 Afforestation Programme:

It is proposed to develop a green belt outside the lease area. In addition, the place around the haul road outside the lease area after obtaining necessary permissions from concerned authorities. Every year it is proposed to carry out afforestation by planting 100 saplings per annum. The species chosen for green belt are fast growing with good canopy and dense leaf density, eco friendly commercial/spices and some ornamental plants to give good aesthetic look.

3.5 Stabilization of the Dumps:

The generation of Overburden and waste during the proposed Quarrying Plan period will be about 13,472 cubic meters and waste (mineral losses) 12,246 tons. There is no requirement for storage of waste as it will be utilized for leveling of roads & maintenance.

Measure to control erosion/sedimentation of water courses: The existing watercourses shall not be disturbed and rain water will continue to flow in the same direction. Sufficient check dams would be constructed in the drainage nallahs so as to arrest the surface run-off. The details are discussed in the Chapter of Environmental Management Plan.

Treatment and disposal of water from mine: Since there are no mine water or ground water, the proposal of pumping out or any sort of treatment and disposal of water from the quarry does not arise.

Measures for minimizing adverse effects on water regime: Watercourses shall not be disturbed & rainwater will continue to flow in the same direction as it is in existence. Since the water is not withdrawn for quarrying purposes or the water is pumped out during the quarrying operations no adverse impact is foreseen on the existing water regime.

Measure for protecting historical monuments and for Rehabilitation of the habitat:

No historical monuments are located within 5 Kms distance and hence need of protecting does not arise.

4.0 CLOSURE PLAN

4.1 Mined Out Land

The present worked out area is 0.37 Ha, since the remaining lease area Building Stone deposit continues further, there is no reclamation of the mined out areas during the present proposed plan period due to persistence of deposit further and it is envisaged to take up reclamation only after cessation of the quarrying activities i.e. after full exploitation of the deposit.

If there is any temporary discontinuance of the Quarry, the applicant will take appropriate measures to restrict access to unauthorized entry, provide protective measures & fence the quarry opening or workings & all other structures. It shall also be ensured that the quarry workings, overburden dumps, stock piles & other structures if any will be maintained in stable & safe conditions.

The proposed area to be worked during the first five years is shown in the year wise Production & Development Plans. Only reclamation by way of Afforestation and open places outside the lease area, are proposed. The actual worked out area shall be periodically reclaimed as discussed by backfilling in future & made suitable for agriculture or as creating a water body/reservoir.

The details of the present land use are given below.

Present land use pattern (Area in Hectares)

Type of Land Used	Area put on use at start of the plan
Area to be excavated till end of plan period	0.370
Storage for top soil	Nil
Overburden/Waste Dump	Nil
Mineral Storage	Nil
Infrastructure (Workshop, Admin, and Bldg)	Nil
Roads	0.020
Railways	Nil
Greenbelt	Nil
Tailing Pond	Nil
Effluent Treatment Plant	Nil
Mineral separation plant	Nil
Township area	Nil
Others (parapet walls, settling tanks)	Nil
Sub Total	0.390
Undisturbed area	1.623
Total	2.023

4.2 Water Quality Management

Water quality is good because there is no source of pollution due to Building Stone quarry.

4.3 Air Quality Management

Dust generated by this quarrying activity is quite less. The major source of air pollution is due to jack hammer drilling activity, rock breaker operations and loading of building stone & overburden/waste. The management of air quality shall be by suppression of dust by water sprinkling on haulage roads and wet drilling methods. Also, In the vicinity of the area no major industries are seen and the deposit is worked on a very small scale.

Senior Geologist
Mines & Geology Dept.
Kolar

4.4 Noise level and Vibration:

No Deep hole drilling & blasting activity involved in quarrying operations except small dia. Jack hammer drilling is proposed. Protective ear muffs, nose masks & hand glouse, safety shoes etc., are provided to reduce the effect of sound/noise & vibrations for the drill operators.

4.5 Waste Management

The generation of waste material is very less from this quarry and the same is utilized for afforestation.

4.6 Top Soil Management

The top soil covered is less than 2 meters as patches in small patches. During quarrying activity the top soil will be kept aside and it will be refilled once quarrying activity is stopped.

4.7 Infrastructure

Besides during 1st five year plan period there is no proposal for initiating closure operation. There will not be much infrastructure in the area which is required to be attended. The lease area presently does not have any public roads; railways lines, telephone lines, public buildings etc.

Regular monitoring & maintenance of the existing infrastructural facilities such as roads, buildings & structures, transport etc., will be done.

4.8 Disposal of Quarrying Machinery:

There is no proposal of disposal of quarrying machineries during the present Plan Period.

4.9 Safety and Security:

The lessee will follow prevailing Mines Act, Karnataka Minor Mineral Concession Rules & Regulations etc, as well as other directions given to him time to time by Directorate General of Mines safety. The applicant will securely fence the excavated area by barbed wire of 1.5m height to prevent the free access and unauthorized people to the quarrying area. The applicant will appoint security persons to ensure to prevent unauthorized entry on weekly off-days, festival days and during the time of discontinuance of quarrying operation.

4.10 Disaster Management & Risk Assessment

All the safety measures during this quarrying will be taken as per the norms of DGMS. Safety of the men and machine are most important during this quarrying activity.

No danger to public life and property arises as only trucks ply from quarry site through public road. There are no water impoundments at higher levels or at lower contours.

Police station and good hospitals are situated at Mulabagal & Kolar at about 15kms & 25Kms from the Quarry Lease area.

Contact person who can act in case of emergency is:

M/s G V V Constructions,
No. 16, Varadapura Village
Virupakshi Post
Mulbagal Taluk, Kolar District
Karnataka - 563131

4.11 Care and maintenance during temporary discontinuance:

The requisite care and maintenance procedures shall be followed during temporary discontinuance of the quarry. The Notice of temporary discontinuance in prescribed forms shall be submitted to the appropriate authorities concerned in this regard with details of protective measures being taken up. Security of the working areas, fencing & suitable display boards shall be put up during the temporary period of discontinuance.

5.0 ECONOMIC REPERCUSSIONS OF CLOSURE OF MINE & MANPOWER RETRENCHMENTS

Manpower retrenchment, compensation to be given in final quarry closure plan as it is not applicable at this stage, however few salient features to some extent is briefed below:

5.1 Number of local residents employed in the quarry, status of the continuation of family occupation and scope of joining the occupation back.

The local employed are about 75%. Those who are directly employed they are basically from agriculture back ground, they will be put back to their original occupation. Necessary counseling will be taken care.

5.2 Compensation given or to be given to the employees connecting with sustenance of himself and their family members.

Compensation as provided in the statute will be given, at the time of final quarry closure to the eligible persons.

5.3 Satellite occupations connected to the quarrying industry - number of persons engaged therein - continuance of such business after quarry closes.

Most of the satellite occupations are not fully depending upon the quarrying activity or closure of mines and the quarrying operations is medium scale. So the occupations like workshops, hotel & tea shops will not affect continuance their business.

5.4 Continued engagement of employees in the rehabilitated status of quarrying lease area and any other remnant activities.

Security and essential service people will continue to be employed for purely short term/temporary basis. Where operations are discontinued for longer period, it is not continue with their employment and so these will be reduced to minimum, counseling will be extended for their rehabilitation.

Senior Geologist
Mines & Geology Dept.
Kolar

5.5 Envisaged repercussions on the expectation of the society around due to closure of mine/quarry.

There will be effect on their economy, communication, transportation to some extent, but still these difficulties will be manageable to large extent. The details will be given in the final quarry closure plan.

6.0 ABANDONMENT/REHABILITATION COST & COST ESTIMATION

The cost based estimation on the activities required for implementing the protective and rehabilitation measures including their maintenance & monitoring programme are depicted in the statement furnished below.

S. No	Activity	Quantity	Recur cost/annum (Rs)
01	Green Belt development	100 sapling	25,000
02	Fencing (All along the lease boundary)	860m (first two year only)	1,75,000
03	Safety Bund	800m (first two years only)	1,00,000
04	Dust suppression	2000 liters/day	1,00,000
05	Environmental Monitoring	Annual	1,00,000
06	Occupational Health & Miscellaneous	Annual	2,00,000
	Total		7,00,000

7.0 TIME SCHEDULING FOR ABANDONMENT

The present Plan prepared is a Progressive Quarry Closure Plan indicating the reclamation & rehabilitation measures being taken up simultaneously with the quarrying operations. No abandonment of quarrying activities is envisaged. The manpower and other resources for implementing the protective & rehabilitation measures will be dealt in detail in the Quarry closure plan to be prepared for approval before abandonment of the quarry. The details of afforestation inside and outside the quarrying lease area, reclamation and rehabilitation, environmental monitoring details, machinery performance and socio-economic impact of quarrying shall be regularly Monitored and furnished to DMG. Records of the same shall also be maintained.

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Kolar

8.0 FINANCIAL ASSURANCE

The Details of Financial assurance & the manner in which it is being submitted a required under Rule 8L (1) of Karnataka Minor Mineral Concession (amendment) Rules, 2017 is furnished below.

Indicating the breakup of areas in the quarrying lease for calculation of financial assurance

SL No	Head	Area put on use at start of plan in Ha. (A)	Additional Requirement during plan period in Ha. (B)	Total in Ha. (C=A+B)	Area considered as fully reclaimed & rehabilitated in Ha. (D)	Net area considered for Calculation in Ha. (E=C-D)
1	Area under Mining (Old Slab Quarries)	0.370	1.010	1.380	-	1.380
2	Storage of top soil	-	-	-	-	-
3	Overburden/Dump (inactive)	-	-	-	-	-
4	Mineral Storage	-	-	Temporary within pit	-	Temporary within pit
5	Infrastructure (Workshop, Administrative buildings etc)	-	-	Outside	-	Outside
6	Roads	0.020	-	0.020	-	0.020
7	Railways	-	-	-	-	-
8	Greenbelt	-	-	Outside	-	Outside
9	Tailing pond	-	-	-	-	-
10	Effluent Treatment plant	-	-	-	-	-
11	Mineral Separation plant	-	-	-	-	-
12	Township area(Existing Houses)	-	-	-	-	-
13	Others (Retention wall, Check-dams Etc.)	-	0.120	0.120	-	0.120
14	untouched/Undisturbed/7.5m Buffer zone	1.633	-	0.503	2.023	0.503
	Total	2.023				

The precise area required for quarrying activities under various heads is 5-00 Acres. For Non Specified minor mineral quarry lease/license/working permission, the financial assurance required to be furnished is @Rs.5,000/- per Acre and amounts to Rs. 25,000/-

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12. ANY OTHER RELEVENT INFORMATION:

The area can be economically worked out by adopting systematic and advanced scientific method for exploring building Stone in the balance plan period of five years. The production of Building Stone shall be enhanced if any need or requirement arises due to change in the market scenario. Conversation of minerals and protection of environment, future proposals, if any need or requirement arises. Accordingly any modifications in the method of quarrying will be submitted. The reserves will be re-estimated and furnished after completion of the proposed exploration activities in the leasehold area. This will be intimated and prior approval & guidance of DMG will be obtained. The lessee shall submit Financial assurance of Rs. 25,000/- (Rupees twenty five thousand only) towards progressive quarry closure as per Notification dated 16-12-2013.

M.C. Dinesh
M. Sc (Appl. Geology),
RQP/BNG/343/2015/A

M/s. G.V.V. Constructions,

Partner

Senior Geologist
Mines & Geology Dept.
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Annexure - 07

ESTIMATION OF GEOLOGICAL RESERVES

Proved — BUILDING STONE (Quantity in tons)

Cross Sections	Area in Square meters	Depth in meters	Volume in Cu. Mtrs	TCF	Building Stone ROM Quantity	Building Stone 98% of ROM	Mining Losses 2% of ROM	REMARKS
A-A'	9530	11	104830	2.80	293524	287654	5870	TCF= Tonnage conversion factor for Building Stone
B-B'	4310	11	47410	2.80	132748	130093	2655	
C-C'	6050	11	66550	2.80	186340	182613	3727	
Total					612612	600360	12252	

Probable — BUILDING STONE (Quantity in tons)

Cross Sections	Area in Square meters	Depth in meters	Volume in Cu. Mtrs	TCF	Building Stone ROM Quantity	Building Stone 98% of ROM	Mining Losses 2% of ROM	REMARKS
A-A'	9530	5	47650	2.80	133420	130752	2668	TCF= Tonnage conversion factor for Building Stone
B-B'	4310	5	21550	2.80	60340	59133	1207	
C-C'	6050	5	30250	2.80	84700	83006	1694	
Total					278460	272891	5569	

Possible(Resources) — BUILDING STONE (Quantity in tons)

Cross Sections	Area in Square meters	Depth in meters	Volume in Cu. Mtrs	TCF	Building Stone ROM Quantity	Building Stone 98% of ROM	Mining Losses 2% of ROM	REMARKS
A-A'	9530	5	47650	2.80	133420	130752	2668	TCF= Tonnage conversion factor for Building Stone
B-B'	4310	5	21550	2.80	60340	59133	1207	
C-C'	6050	5	30250	2.80	84700	83006	1694	
Total					278460	272891	5569	

SUMMARY OF BUILDING STONE GEOLOGICAL RESERVES

Reserves	(Quantity in Tonnes)
Proved Reserves:	600360
Probable Reserves :	272891
Possible(Resources) :	272891
Total	1146141

Assistant Geologist
Mines & Geology Dept.
Kolar

ESTIMATION OF GEOLOGICAL RESERVES

Proved

BUILDING STONE (Quantity in tons)

Cross Sections	Area in Square meters	Depth in meters	Volume in Cu. Mtrs	TCF	Building Stone ROM Quantity	Building Stone 98% of ROM	Mining Losses 2% of ROM	REMARKS
A-A'	7250	11	79750	2.80	223300	218834	4466	TCF= Tonnage conversion factor for Building Stone
B-B'	3100	11	34100	2.80	95480	93570	1910	
C-C'	3660	11	40260	2.80	112728	110473	2255	
Total					431508	422878	8630	

Probable

BUILDING STONE (Quantity in tons)

Cross Sections	Area in Square meters	Depth in meters	Volume in Cu. Mtrs	TCF	Building Stone ROM Quantity	Building Stone 98% of ROM	Mining Losses 2% of ROM	REMARKS
A-A'	7250	5	36250	2.80	101500	99470	2030	TCF= Tonnage conversion factor for Building Stone
B-B'	3100	5	15500	2.80	43400	42532	868	
C-C'	3660	5	18300	2.80	51240	50215	1025	
Total					196140	192217	3923	

SUMMARY OF BUILDING STONEMINEABLE RESERVES

Reserves	(Quantity in Tonnes)
Proved Reserves:	422878
Probable Reserves :	192217
TOTAL	615095

UNFC Classification of Reserves :

	(Quantity in tonnes)
Category (111):	422878
Category (122):	192217
TOTAL	615095

Mineable reserves considering the Ultimate Pit limit (after leaving safety/buffer zone of 7.5 mtrs boundary) is : 6,15,095 tons

Senior Geologist
Mines & Geology Dept.
Kolar

YEARWISE PLAN PERIOD PRODUCTION DETAILS

Year	Cross Sections	Area in Square meters	Depth in meters	Volume in Cu. Mtrs	TCF	ROM Quantity	Saleable Building Stone (98% of ROM)	Mining Losses (2% of ROM)	REMARKS
1st	B-B'	1807	8	14456	2.80	40477	39667	810	
	C-C'	3660	8	29280	2.80	81984	80344	1640	
	Total					122461	120012	2449	
2nd	B-B'	1807	8	14456	2.80	40477	39667	810	
	C-C'	3660	8	29280	2.80	81984	80344	1640	
	Total					122461	120012	2449	
3rd	A-A'	2881	8	23048	2.80	64534	63244	1291	
	B-B'	2586	8	20688	2.80	57926	56768	1159	
	Total					122461	120012	2449	
4th	A-A'	5467	8	43736	2.80	122461	120012	2449	
5th	A-A'	5467	8	43736	2.80	122461	120012	2449	
Grand Total						612304	600058	12246	

Senior Geologist
Mines & Geology Dept.
Kolar

CONCEPTUAL PLAN PERIOD PRODUCTION DETAILS

(Quantity in tons)

Year	Cross Sections	Area in Square meters	Influence in meters	Volume in Cu. Mtrs	TCF	ROM Quantity	Saleable Building Stone (98% of ROM)	Mining losses (2% of ROM)	Remarks
Conceptual Period	A-A'	685	8	5480	2.80	15344	15037	307	TCF= Tonnage conversion factor for Building Stone
Total						15344	15037	307	

Senior Geologist
Mines & Geology Dept.
Kolar

OVERBURDEN/WASTE DETAIL

Area in Square meters	Depth in meters	WASTE in Cu. Mtrs
6736	2	13472
	Total	13472

YEAR WISE PLAN PERIOD OVERBURDEN/WASTE

Year	Depth Square meters	depth in meters	Volume Over Burden in Cu. Mtrs
1st	0	2	0
2nd	0	0	0
3rd	1456	2	2912
4th	5280	2	10560
5th	0	0	0
		Total	13472

Senior Geologist
Mines & Geology Dept.
Kolar

PHOTOGRAPHS SHOWING THE BUILDING STONE EXPOSURES WITHIN THE QUARRY LEASE AREA

LIST OF PLATES

ANNEXURE-R3

Regional Office
Karnataka State Pollution Control Board
Parisara Bhavan,
Plot No.14B, KIADB Indl. Area,
Tamaka, KOLAR - 563 101.
Tele Fax : 08152-243199
e-mail : kolar@kspcb.gov.in

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ
ಪ್ರಾದೇಶಿಕ ಕಛೇರಿ
ಪರಿಸರ ಭವನ, ಪ್ಲಾಟ್ ನಂ. 14ಬಿ,
ಕೆಐಎಡಿಬಿ ಕೈಗಾರಿಕಾ ಪ್ರದೇಶ,
ಟಮಕ, ಕೋಲಾರ - 563 101.

towards a cleaner Karnataka

No PCB/RO-KLR/NGT-SC/2021-22/ 211 Date: 12 NOV 2021

To,

The Member Secretary,
Karnataka State Pollution Control Board,
No. 49, 5th Floor, Parisara Bhavana,
Church Street, Bangalore-01.

//Kind Attention : SEO, Mines Section //

Sir,

Sub : Submission of Inspection reports of Stone Crushers in Compliance to the directions of the Hon'ble National Green Tribunal dated : 23.03.2021 in original application (O.A.) No. 85, of 2021 filed by M/s. Parisara Hitharakshna Samithi Versus union of India and others - reg.

Ref : Inspection of the crusher units by the Regional Officer along with Deputy Environmental Officer of this office on 08.11.2021.

* * * *

With reference to the above, please find herewith enclosed the Inspection reports of following Stone Crusher in Compliance to the directions of the Hon'ble National Green Tribunal dated : 23.03.2021 in original application (O.A.) No. 85, of 2021 filed by M/s. Parisara Hitharakshna Samithi Versus union of India and others for your kind perusal and further necessary action.

Sl. No.	Name and address of the Stone Crusher
1	M/s. Millennium Crusher, Sy No.790, Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District.
2	M/s. Sri Balaji Crushers, Sy. No. 69, Yalagondanahalli Village, Avani Hobli, Mulbagal Taluk, Kolar District.
3	M/s. S V S & Associates Sy. No. 68, Yelagondahalli Village, Avani Hobli, Mulbagal Taluk, Kolar District

This is for kind information and needful.

Yours faithfully,

ENVIRONMENTAL OFFICER,
REGIONAL OFFICE, KOLAR.

17/11/2021.

Copy submitted to : The Senior Regional Senior Environmental Officer, KSPCB, Bangalore East for kind information.

NGT OA NO. 85/2021

ANNEXURE-K4

INSPECTION REPORT OF SRI, S. RAJASHEKAR, ENVIRONMENTAL OFFICER, REGIONAL OFFICE, KOLAR.

Office Accompanied: Sri. B.C. Shivamurthy, DEO

Name and Address of the Crusher Inspected	M/s. Millennium Crusher, Sy No.790, Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District.
Date of Inspection	08.11.2021
Number of employees	18 No's
Person Contacted	Sri. S. Kumar - Partner
Capital Investment & Category	Total cost of Rs. 446 Lakhs - Small-Orange.
Activity and capacity	i. Stone aggregates of different sizes (Stone Crushing) of capacity 120 TPH (20,000 MT/Month) ii. M-Sand of capacity 80 TPH (31,000 MT/Month
Consent Status	Valid up to 31.03.2024
Year of commissioning	2010
Area in acres	1.14 Acres

Preamble: M/s. Millennium Crusher, Sy. No. 790, Devarayasamudar Village, Avani Hobli, Mulbagal Taluk, Kolar District is an existing Stone Crusher unit and obtained consent for operation for carrying out stone aggregates of capacity 20,000 MT/Month M-sand of capacity of 31,000 MT/Month respectively which is valid up to 31.03.2024 .

As per the direction of NGT OA No. 85/2021 (SZ) Dated : 23.03.2021 and Board Office direction, the said crusher unit was inspected by the Regional Senior Environmental Officer, Bangalore-East on 08.07.2021 along with Regional Officer and Deputy Environmental Officer, Regional Office, Kolar. At the time of inspection some non-compliances were observed. Accordingly this office has issued Show-Cause Notice to the crusher authorities.

Further, The Hon'ble NGT order has passed on order in the matter of the O.A. No. 85 of 2021 (SZ) dated : 03.09.2021 stating that, neither Karnataka State Pollution Control Board / State Level Environmental Impact Assessment Authority have not assessed Environmental compensation even through certain violations have been noted during the inspection by the ZSEO, Bangalore East on 08.07.2021. Based on the Hon'ble NGT order the said stone crusher unit was inspected by the Regional Officer along with Deputy Environmental Officer of this office on 17.09.2021 to verify the compliances made by the stone crusher. At the time of inspection the following non-compliances were noticed.

- Crusher unit was not provided Continuous water sprinkling arrangements and authorities have been advised to provide to continuous Water sprinkling arrangement, during the operation phase of the crusher to mitigate the dust pollution during the operation of the crusher.

- Metaled / concrete roads are not provided with in the crusher premises and approach road for vehicle movement it may cause the fugitive dust emission.

Based on the above non-compliances this office has submitted a report to Zonal office, Bangalore East on 23.09.2021 with recommended to issue **"Notice of Proposed Directions"** to stone crusher as per the relevant provisions Water Act, 1974 and Air Act, 1981. Accordingly RSEO, Bangalore – East has issued Notice of Proposed Directions to the said crusher on 04.10.2021 and also recommended to Board Office to issue demand for Environmental Compensation of Rs. 2,66,250/- to the above said stone crusher. Accordingly the Board Office has issued the Demand for Environmental Compensation of Rs. 2,66,250/- under the section 31 (A) of the Air (Prevention & Control of Pollution) Act 1981, Read with Rule 20 (A) of Air (Prevention & Control of Pollution) Rules.

After issue of "Notice of Proposed Directions" and Demand of Environmental Compensation, the crusher authorities have submitted reply letter to the Notice of Proposed Directions to this office on 12.10.2021. Based on the reply letter submitted by the crusher authorities the said crusher unit was again inspected by the Regional Officer along with Deputy Environmental Officer of this office on 08.11.2021 to verify the compliances made to the direction of the Board. At the time of inspection the following observations were made :

- The crusher was operating at the time of inspection.
- Crusher authorities have covered zinc sheet to the Primary jaw crusher, Secondary jaw crusher, Vibratory screen and conveyer belts.
- Crusher authorities have provided barricades in 03 direction.
- Wet mix metalling / concrete roads are provided with in the crusher premises and approach road for vehicle movement.
- Provided continuous water sprinkling arrangements, during the operation phase of the crusher to mitigate the dust pollution.
- The crusher authorities have paid Environmental Compensation of Rs. 2,66,250/- on 04.11.2021 through NEFT of Bank of Baroda vide UTR No. BARBH21308825073.

Recommendation :

The crusher authorities have generally complied the consent condition under the Provisions of the Air (Prevention & Control of Pollution) Act, 1981 and paid the Environmental Compensation of Rs. 2,66,250/-.

ENVIRONMENTAL OFFICER,
REGIONAL OFFICE, KOLAR.

ANNEXURE-R5

INSPECTION REPORT OF SRI, S. RAJASHEKAR, ENVIRONMENTAL OFFICER, REGIONAL OFFICE, KOLAR.

Office Accompanied: Sri. B.C. Shivamurthy, DEO

Name and Address of the Crusher Inspected	M/s. Sri Balaji Crushers, Sy. No. 69, Yalagondanahalli Village, Avani Hobli, Mulbagal Taluk, Kolar District.
Date of Inspection	08.11.2021
Number of employees	16 No's
Person Contacted	Sri. Bhagavan - Incharge
Capital Investment & Category	Total cost of Rs. 170 Lakhs - Small-Orange.
Activity and capacity	i. Stone aggregates of different sizes (Stone Crushing) of capacity 25,000 MT/Month ii. M-Sand of capacity 25,000 MT/Month
Consent Status	Valid up to 30.09.2029
Year of commissioning	2008
Area in acres	2.00 Acres

Preamble :

M/s. Sri Balaji Crushers, Sy. No. 69, Yalagondanahalli Village, Avani Hobli, Mulbagal Taluk, Kolar District had obtained CFO from the Board vide No. AW-318923 PCB ID : 27997 Dated : 09.07.2020 for the for the production of Stone aggregates of capacity 25,000 MT/Month and M-Sand of capacity 25,000 MT/Month which is valid up to 30.09.2029.

As per the direction of NGT OA No. 85/2021 (SZ) Dated : 23.03.2021 and Board Office direction, the said crusher unit was inspected by the Regional Senior Environmental Officer, Bangalore-East on 08.07.2021 along with Regional Officer and Deputy Environmental Officer, Regional Office, Kolar. At the time of inspection some non-compliances were observed. Accordingly this office has issued Show-Cause Notice to the crusher authorities.

Further, The Hon'ble NGT order has passed on order in the matter of the O.A. No. 85 of 2021 (SZ) dated : 03.09.2021 stating that, neither Karnataka State Pollution Control Board / State Level Environmental Impact Assessment Authority have not assessed Environmental compensation even through certain violations have been noted during the inspection by the ZSEO, Bangalore East on 08.07.2021. Based on the Hon'ble NGT order the said stone crusher unit was inspected by the Regional Officer along with Deputy Environmental Officer of this office on 17.09.2021 to verify the compliances made by the stone crusher. At the time of inspection the following non-compliances were noticed.

- Crusher unit was not provided Continuous water sprinkling arrangements and authorities have been advised to provide to continuous Water sprinkling arrangement, during the operation phase of the crusher to mitigate the dust pollution during the operation of the crusher.

- Metaled / concrete roads are not provided with in the crusher premises and approach road for vehicle movement it may cause the fugitive dust emission.

Based on the above non-compliances this office has submitted a report to Zonal office, Bangalore East on 23.09.2021 with recommended to issue **"Notice of Proposed Directions"** to stone crusher as per the relevant provisions Water Act, 1974 and Air Act, 1981. Accordingly RSEO, Bangalore – East has issued Notice of Proposed Directions to the said crusher on 04.10.2021 and also recommended to Board Office to issue demand for Environmental Compensation of Rs. 2,66,250/- to the above said stone crusher. Accordingly the Board Office has issued the Demand for Environmental Compensation of Rs. 2,66,250/- under the section 31 (A) of the Air (Prevention & Control of Pollution) Act 1981, Read with Rule 20 (A) of Air (Prevention & Control of Pollution) Rules.

After issue of "Notice of Proposed Directions" and Demand of Environmental Compensation, the crusher authorities have submitted reply letter to the Notice of Proposed Directions to this office on 13.10.2021. Based on the reply letter submitted by the crusher authorities the said crusher unit was again inspected by the Regional Officer along with Deputy Environmental Officer of this office on 08.11.2021 to verify the compliances made to the direction of the Board. At the time of inspection the following observations were made :

- The crusher was operating at the time of inspection.
- Crusher authorities have covered zinc sheet to the Primary jaw crusher, Secondary jaw crusher, Vibratory screen and conveyer belts.
- Crusher authorities have provided barricades in 02 direction and one side is fully covered with eucalyptus trees are developed.
- Wet mix metalling / concrete roads are provided with in the crusher premises and approach road for vehicle movement.
- Provided continuous water sprinkling arrangements, during the operation phase of the crusher to mitigate the dust pollution.
- The crusher authorities have paid Environmental Compensation of Rs. 2,66,250/- on 08.11.2021 through NEFT of Pragathi Krishna Gramin Bank vide UTR No. PKGBH21312870295.

Recommendation :

The crusher authorities have generally complied the consent condition under the Provisions of the Air (Prevention & Control of Pollution) Act, 1981 and paid the Environmental Compensation of Rs. 2,66,250/-.

ENVIRONMENTAL OFFICER,
REGIONAL OFFICE, KOLAR.

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ANNEXURE -R6

INSPECTION REPORT OF SRI, S. RAJASHEKAR, ENVIRONMENTAL OFFICER, REGIONAL OFFICE, KOLAR.

Officer Accompanied: Sri. B.C. Shivamurthy – DEO

Name and Address of the Crusher Inspected	M/s. S V S & Associates Sy. No. 68, Yelagondahalli Village, Avani Hobli, Mulbagal Taluk, Kolar District
Date of Inspection	18.09.2021
Number of employees	18 No's
Person Contacted	Sri. Jagadeesh - Partner
Capital Investment & Category	Total cost of Rs. 165 Lakhs - Small-Orange.
Activity and capacity	i. Stone aggregates of different sizes (Stone Crushing) of capacity 26,000 MT/Month ii. M-Sand of capacity 26,000 MT/Month
Consent Status	Valid up to 30.09.2023
Year of commissioning	2011
Area in acres	1.27 Acres

Preamble :

S V S & Associates (Formerly M/s. Venkateshwara Stone Crusher) Sy. No. 68, Yelagondahalli Village, Avani Hobli, Mulbagal Taluk, Kolar District had obtained CFO from the board vide No. AW-308703 PCB ID : 74885 Dated : 30.11.2018 for the for the production of Stone aggregates of capacity 26,000 MT/Month and M-Sand of capacity 26,000 MT/Month valid up to 30.09.2023.

As per the direction of NGT OA No. 85/2021 (SZ) Dated : 23.03.2021 and Board Office direction, the said crusher unit was inspected by the Regional Senior Environmental Officer, Bangalore-East on 08.07.2021 along with Regional Officer and Deputy Environmental Officer, Regional Office, Kolar. At the time of inspection some non-compliances were observed. Accordingly this office has issued Show-Cause Notice to the crusher authorities.

Further, The Hon'ble NGT order has passed on order in the matter of the O.A. No. 85 of 2021 (SZ) dated : 03.09.2021 stating that, neither Karnataka State Pollution Control Board / State Level Environmental Impact Assessment Authority have not assessed Environmental compensation even through certain violations have been noted during the inspection by the ZSEO, Bangalore East on 08.07.2021. Based on the Hon'ble NGT order the said stone crusher unit was inspected by the Regional Officer along with Deputy Environmental Officer of this office on 17.09.2021 to verify the compliances made by the stone crusher. At the time of inspection the following non-compliances were noticed.

- Crusher unit was not provided Continuous water sprinkling arrangements and authorities have been advised to provide to continuous Water sprinkling arrangement, during the operation phase of the crusher to mitigate the dust pollution during the operation of the crusher.

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- Metaled / concrete roads are not provided with in the crusher premises and approach road for vehicle movement it may cause the fugitive dust emission.

Based on the above non-compliances this office has submitted a report to Zonal office, Bangalore East on 23.09.2021 with recommended to issue **"Notice of Proposed Directions"** to stone crusher as per the relevant provisions Water Act, 1974 and Air Act, 1981. Accordingly RSEO, Bangalore – East has issued Notice of Proposed Directions to the said crusher on 04.10.2021 and also recommended to Board Office to issue demand for Environmental Compensation of Rs. 2,66,250/- to the above said stone crusher. Accordingly the Board Office has issued the Demand for Environmental Compensation of Rs. 2,66,250/- under the section 31 (A) of the Air (Prevention & Control of Pollution) Act 1981, Read with Rule 20 (A) of Air (Prevention & Control of Pollution) Rules.

After issue of "Notice of Proposed Directions" and Demand of Environmental Compensation, the crusher authorities have submitted reply letter to the Notice of Proposed Directions to this office on 13.10.2021. Based on the reply letter submitted by the crusher authorities the said crusher unit was again inspected by the Regional Officer along with Deputy Environmental Officer of this office on 08.11.2021 to verify the compliances made to the direction of the Board. At the time of inspection the following observations were made :

- The crusher was operating at the time of inspection.
- Crusher authorities have covered zinc sheet to the Primary jaw crusher, Secondary jaw crusher, Vibratory screen and conveyer belts.
- Crusher authorities have provided barricades in 03 direction and one side is fully covered with eucalyptus trees are developed.
- Wet mix metalling / concrete roads are provided with in the crusher premises and approach road for vehicle movement.
- Provided continuous water sprinkling arrangements, during the operation phase of the crusher to mitigate the dust pollution.
- The crusher authorities have paid Environmental Compensation of Rs. 2,66,250/- on 11.11.2021 through RTGS of Union Bank of India vide UTR No. BARB202111111315799226.

Recommendation :

The crusher authorities have generally complied the consent condition under the Provisions of the Air (Prevention & Control of Pollution) Act, 1981 and paid the Environmental Compensation of Rs. 2,66,250/-.

ENVIRONMENTAL OFFICER,
REGIONAL OFFICE, KOLAR.

ANNEXURE-R7

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INSPECTION REPORT OF SRI, RAJASHEKAR S. ENVIRONMENTAL OFFICER, REGIONAL OFFICE, KOLAR.

Officer Accompanied: Sri. B.C. Shivamurthy – DEO

Name and Address of the Crusher Inspected	M/s. G.V.V. Stone Crusher, Sy. No. 758, Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District.
Date of Inspection	17.09.2021
Number of employees	20 No's
Person Contacted	Sri. Rajesh – Proprietor
Capital Investment & Category	Total cost of Rs. 390 Lakhs - Small-Orange.
Activity and capacity	**i.** Stone aggregates of different sizes (Stone Crushing) of capacity 20,000 MT/Month **ii.** M-Sand of capacity 31,000 MT/Month
Consent Status	Valid up to 09.01.2024
Year of commissioning	2018
Area in acres	2.00 Acres

Preamble :

G.V.V. Stone Crusher, Sy. No. 758, Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District had obtained CFO from the board vide No. AW-314779 PCB ID : 63993 Dated : 13.09.2019 for the for the production of Stone aggregates of capacity 20,000 MT/Month and M-Sand of capacity 31,000 MT/Month which is valid up to 09.01.2024.

As per the Hon'ble NGT OA No. 85 and Board Office direction crusher unit was inspected by the Regional Senior Environmental Officer, Bangalore East along with EO and DEO, Regional Office, Kolar on 17.09.2021. During inspection certain non-compliances were observed and notice was issued to the crusher authority vide this office Notice No. 205 Dated : 17.07.2021. Further, In view of the pendency of proceedings before the Hon'ble NGT south zone, Chennai OA No. 84 of 2021 and order dated : 03.09.2021 issued by Hon'ble NGT to verify the compliances the stone crusher located at Sy. No. 758, Devarayasamudra Village, Avani Hobli, Mulbagal Taluk, Kolar District inspected on 17.09.2021 the following observations were made:

Non-compliances observed	Compliances made by the crusher unit
Metaled / concrete roads are not provided with in the crusher premises and approach road for vehicle movement it may cause the fugitive dust emission	Not provided

Not submitted the CFO compliance details to consent condition and other Air Quality Monitoring details and Form V- Environmental Statement	Crusher authorities have submitted Form-V, Environmental Statement Air Quality Monitoring report not submitted.
Completely dismantled all the old plant and machineries in the premises, and proposed to installation of new plant and machinery without obtaining CFE expansion of the Board and without intimation work has been started.	After issue of notice crusher authorities have applied CF-Expansion application.

- The crusher was not operating and authorities are completely dismantled all the old plant and machineries in the premises, and installation of new plant and machinery work under progress. In this regard crusher authorities have submitted CF-Exp application to this office to obtained CF-Exp. Photographs enclosed for kind reference.

- Crusher authorities have provided barricades in 03 direction and one side is fully covered with eucalyptus trees are developed.

- There are no villages in the vicinity of 500 mtrs from the crusher unit and Ramasrandra Village existing at a distance of about 850 Mtrs in an East direction.

- There are no protected area are monuments of archeological importance in Devarayasamudra Village and Yalagondahalli Village.

- There are no reserved forest / protected forest around the stone crusher.

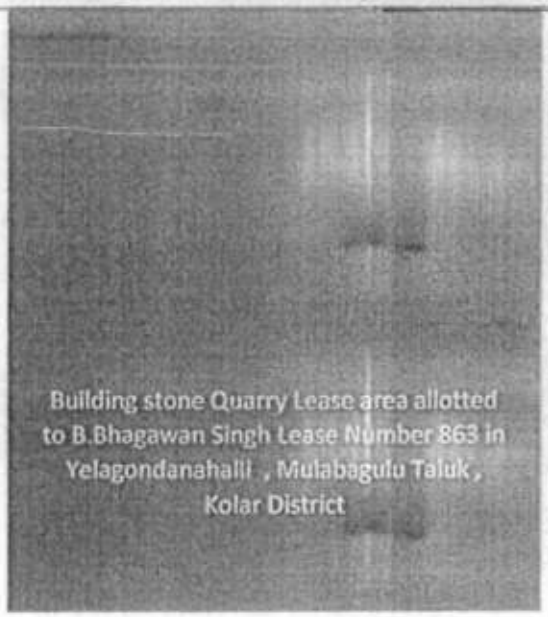
- There are no any structure, lakes and habitat within the distance of 500 Mtrs from the stone crusher area. The nearest lake is Deverayasamudra lake situated at a distance of more than 01 Km and Thantanakunte water tank is at a distance of more than 500 Mtrs from stone crusher.

- This office has not received the complaints against stone crusher regarding dust pollution, health problems and agricultural crop loss.

In view of the above, circumstances and the crusher was not operating since from One year, Environmental Compensation was not assessed

ENVIRONMENTAL OFFICER,
REGIONAL OFFICE, KOLAR.

ANNEXURE-R8



Building stone Quarry Lease area allotted to B.Bhagawan Singh Lease Number 863 in Yelagondanahalli , Mulabagulu Taluk , Kolar District

DGPS, Electronic Total Station and UAV/Drone Based Photogrammetry SURVEY REPORT

- Quarry Boundary point ,Collection of Reduced Level,Assessment of Quantity Excavted both with in and Outside lease area and Encroachment Extent if any.

Submitted By BI Tech Solutions

BITECH SOLUTIONS BANGALORE-40

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

INDEX

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

Objective of the Survey:

- To collect the co-ordinate of Boundary Points of Building stone quarry under supervision of Competent Authority.
- To acquire reduced level of the Building Stone Quarry.
- To acquire Aerial Imagery of the Quarry pit area.
- To analyse Extent of Encroachment area, Quantity of Mineral excavated both within and outside lease area.
- To Facilitate Competent authority to arrive at Demand Collection and Balance from Each Quarry Area.

Methodology of Survey

Methods used to conduct the Survey:To meet the objective of this survey following methodology is used for data acquisition:

- DGPS Based Boundary Data Collection in Real Time Kinematics Mode.
- Post Collection of DGPS data UAV based Photogrammetry survey is conducted to acquire imagery for Encroachment and cut volume analysis.
- Post Identification of Boundary points reduced level data is acquired from the field through Electronic Total Station Survey.

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

About DGPS Instrument in Real Time Kinematics Mode:

DGPS (Differential GPS) is essentially a system to provide positional corrections to GPS signals. DGPS uses a fixed, known position to adjust real time GPS signals to eliminate pseudorange errors. An important point to note is that **DGPS** corrections improve the accuracy of position data only.

Real-time kinematic (RTK) positioning is a satellite navigation ed to enhance the precision of position data derived from satellite-based positioning systems (global navigation satellite systems-GNSS). It uses measurements of the phaseof the signal's carrier wave in addition to the information content of the signal and relies on a single reference station or interpolated virtual station to provide real-time corrections, providing up to centimeter -level accuracy. With reference to GPS in particular, the system is commonly referred to as **carrier-phase enhancement**, or **CPGPS**.[2] It has applications in land survey, hydrographic survey, and in consumer unmanned aerial vehicle navigation.

About UAV/Drone based Photogrammetry Survey:

Unmanned Aerial Photogrammetric Survey is the use of Unmanned Aerial Vehicles (UAVs) to take photos for use in photogrammetry, the science of making measurements from photographs. Instruments manufactured for UAVs could be mounted on unmanned flying platforms of various sizes and types, such as octocopters. These machines are suitable for the full geodetic survey of a study site by creating a point cloud of measurements of nearly homogenous quality and accuracy. These detailed point clouds (of various types of data) could be used in line with orthophotos etc. to obtain a complex data system representing the study site.

Similarly to manned aerial surveys, UAVs are suitable to acquire three-dimensional digital models and orthophoto mosaics for a certain area

About Electronic Total Station (ETS) Survey:

A **total station (TS)** or **total station theodolite (TST)** is an electronic/optical instrument used for surveying and building construction. The total station is an electronic theodolite (transit) integrated with an electronic distance measurement (EDM) to read slope distances from the instrument to a particular point, and an on-board computer to collect data and perform advanced coordinate based calculations.

ETS is used for:

- Angle Measurement.
- Distance Measurement
- Co-Ordinates Measurement

Explanation of Abbreviations or Acronyms:

Abbreviation or Acronym	Explanation
UAV	Unmanned Aerial Vehicle
KMZ	Key Mark hole Language Zipped
DGPS	Differential Global Position System
ETS	Electronic Total Station Survey
CAD	Computer Aided Drawing
DSM	Digital Surface Model
DTM	Digital Terrain Model
DEM	Digital Elevation Model
Ortho Photo	Stitched photos
GIS	Geographical Information System
RF Antenna	Radio Frequency Antenna
GPRS	General Pocket Radio Service
RTK	Real Time Kinematics

Procedure for Differential Global Positioning System(DGPS) based boundary points identification and coordinates data acquisition of the quarry Pit.

1. Collect Scanned copy of the original Blue print of lease execution sketch from Lessee.
2. Digitization of the Lease execution Sketch using AutoCAD or any other drafting application before visiting quarry area.
3. In the presence of respective Hobli Surveyor and Junior Engineer, DMG, Kolar District Identify ground control points mentioned in the lease execution sketch and village Map.
4. DGPS instrument will have two part

    - **Base Station:** This unit will be fixed in the open area and this instrument will connect with 20 to 25 Satellites. After observation of at least 2 hours Temporary Bench Mark (TBM) is established near to the base station using rover system. Every time the instrument is reset or re started TBM point is updated to Base Station and base station will correct its reading accordingly.
    - **Rover or Stake out Unit:** Rover is Mobile unit having DGPS reader which will work on RTK and RF/GPRS Method for communication with Base station.

5. Once Ground Control points are identified then these control point's co-ordinates are collected using DGPS instrument and are used to align the scanned lease execution sketch to ground control points of respective survey numbers. This is called as fit to scale process
6. Post completion of fit to scale process,Revenue Surveyor will use chain method to arrive at boundary points by offset and Bisect method.
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Assumptions for arriving at Boundary Co-ordinates,

1. Lease execution sketch is showing extent and boundary points are correct.
2. Lease Execution Sketch Provided to us is Considered as error free Sketch.
3. No dispute on Boundary Points between lessee and other Party.
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DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

Procedure Followed for UAV/Drone based Photogrammetry Survey of the Building Stone Quarry **Pit**

1. Keep reflecting Flex Sheet of 2 feet by 2 feet size on all boundary points identified through DGPS survey in the quarry lease area.
2. Prepare KMZ file consisting of co-ordinates of all boundary points with extra coverage of 20% to 30% more than leased area.
3. Upload KMZ file to auto pilot mobile app and finalize the grid for UAV/drone flying. Provide instruction to UAV to fly in the assigned grid with altitude of between 70m to 100m depending on the obstructions nearby.
4. Fly UAV in the assigned grid and capture images in fixed intervals.
5. UAV acquires the same data twice by flying in horizontal and vertical grids of the leased area for improved quality.
6. Data collected from the field is processed through Drone Image processing application for generation of orthophoto, Digital surface Model, Digital Terrain Model and Digital Elevation Model.
7. Post Generation of DEM, DSM and Ortho Image, this data is used for calculation of cut volume based on the level selected as cut area.
8. Ortho Image is superimposed on GIS application along with boundary points to calculate extent of Encroachment.

Assumptions for arriving at Encroachment and Cut volume Calculation,

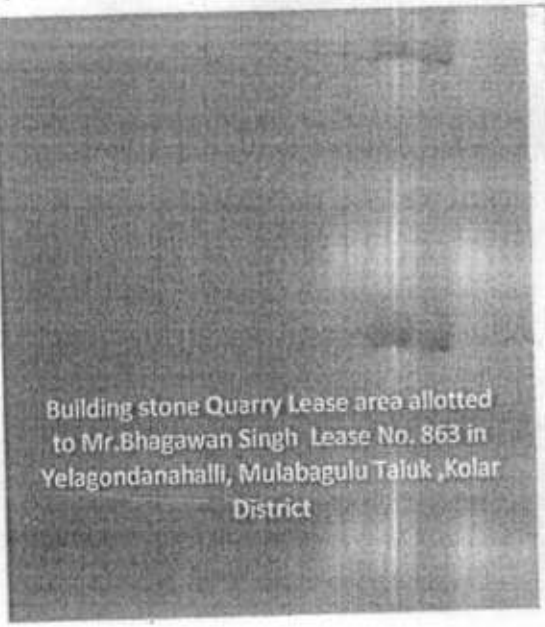
1. Boundary points shown by lessee during flying are correct.
2. No dispute on Boundary Points between lessee and other Party.
3. Boundary pillars are erected exactly over the points shown through DGPS points by competent authority to lessee.
4. 3D Image Volume calculation is executed by identifying the pit cut area based on the pit opening line w.r.t layer change (Soil cap to Stone).
5. Cut volume data only consists of cut volume and has not considered geological aspects of Mineral like Soft Rock, Soil cap over mineral and Wastages as per EC.
6. In case of dispute arising out of Volume arrived over our understanding of Cut volume line, we will provide raw data of captured image and provide access to Data processing software in arriving at exact starting of Pit Opening level for accurate pit volume generation.

Procedure for conducting Electronic Total Station Survey:

1. Acquisition of Reduced Level data in the quarry pit.
2. Acquisition of Boundary points.
3. Acquisition of Public Infrastructure if any.
4. Post collection of Levels contours are drawn at 1 M Interval.
5. Setting up of Temporary Bench Mark for future reference.

Assumptions

1. Boundary points shown by lessee during ETS survey are correct.
2. No dispute on Boundary Points between lessee and other Party.
3. Boundary pillars are erected exactly over the points shown through DGPS points by competent authority to lessee.



Building stone Quarry Lease area allotted to Mr.Bhagawan Singh Lease No. 863 in Yelagondanahalli, Mulabagulu Taluk ,Kolar District

UAV/Drone Based Photogrammetry Survey Report

- Assessment of Quantity Excavted both with in and Outside lease area and Encroachment Extent if any.

Submitted By BI Tech Solutions

UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

Procedure Followed for UAV/Drone based Photogrammetry Survey of the Building Stone Quarry Pit .

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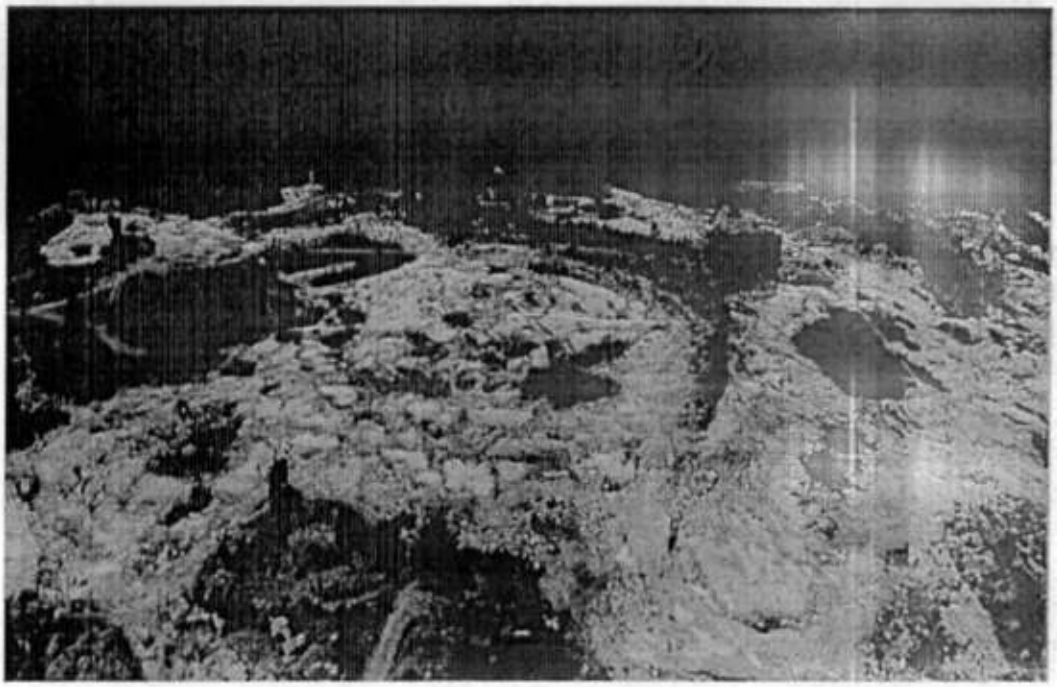

3D Image

NAME: Bhagawan Singh **Survey No. 64** **Q.L No.: 863**
Village: Yelagondananahalli **Taluk: Mulabagulu** **District: Kolar**
Report Date: 24-7-2018
Lease Area: 4 acres

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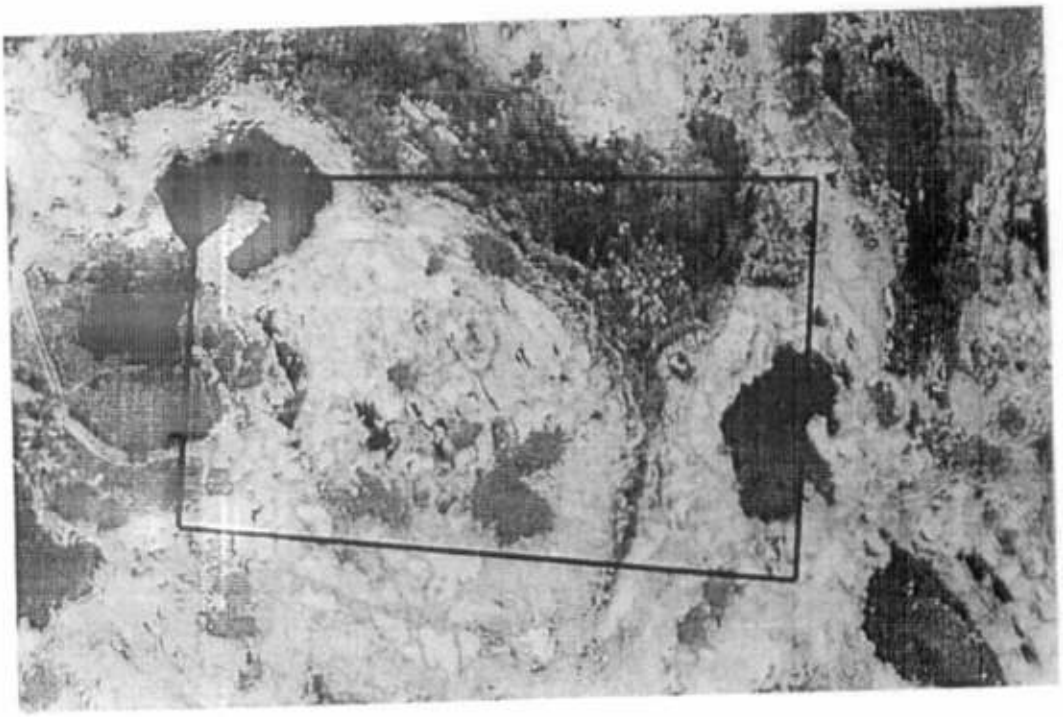
For



Ortho Image.

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Village: Yelagondananahalli
Report Date: 24-7-2018
Lease Area: 4 acres

Survey No. 64
Taluk: Mulabagulu

Q.L No.: 863
District: Kolar

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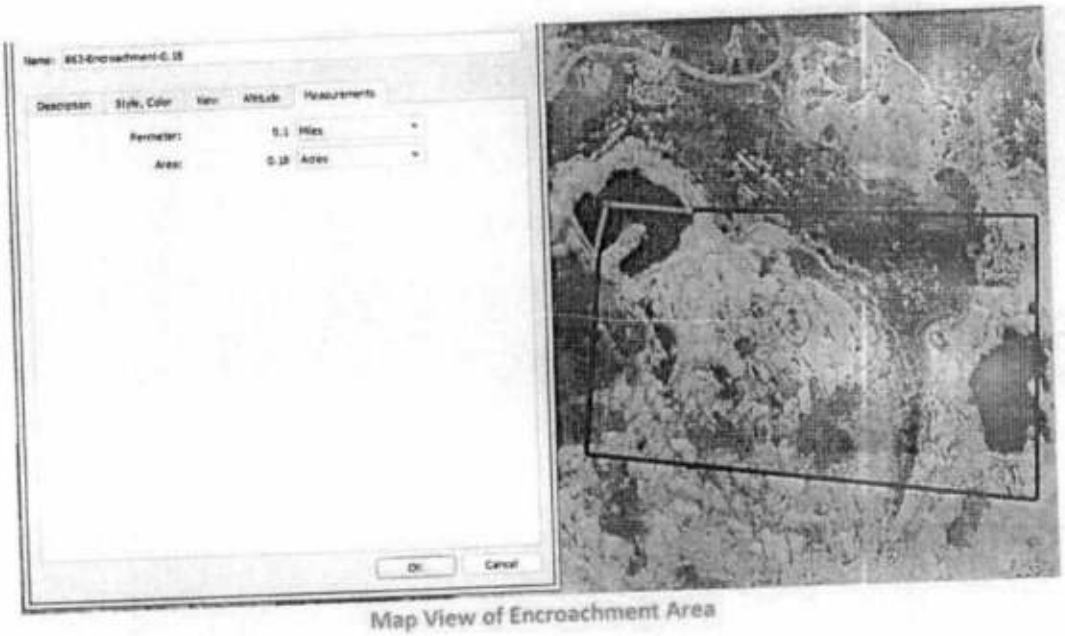
UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT



Map View of Encroachment Area

NAME: Bhagawan Singh **Survey No. 64** Q.L No.: 863
Village: Yelagondananahalli **Taluk: Mulabagulu** District: Kolar
Report Date: 24-7-2018
Lease Area: 4 acres
Encroached area: 0.18 Acres

Note:

1. Above Conclusion is arrived based on the boundary points shown to us before flying UAV for Data capture.
2. Above Report assumes that Boundary pillars are erected by lease owner exactly on the points where Revenue Department has identified boundary.
3. Above conclusion is arrived based on the Input provided by Respective Lease Owner.

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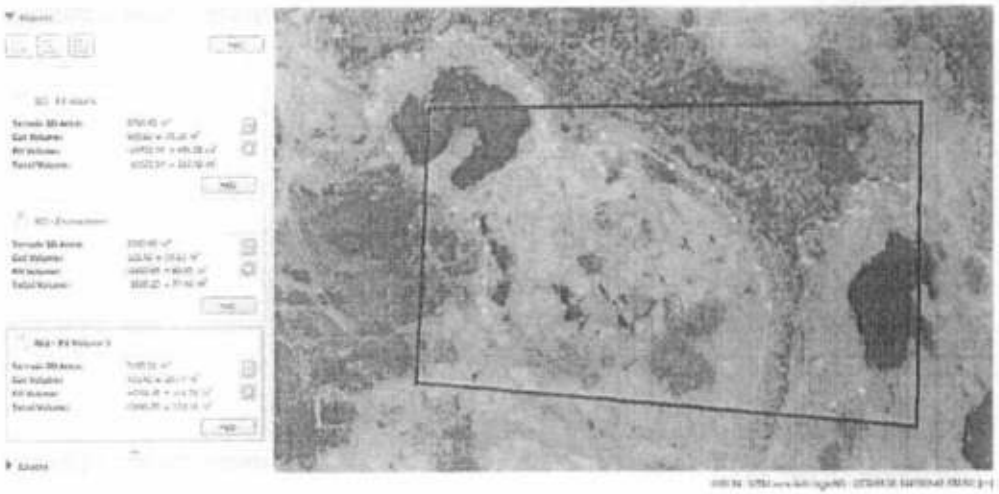
For

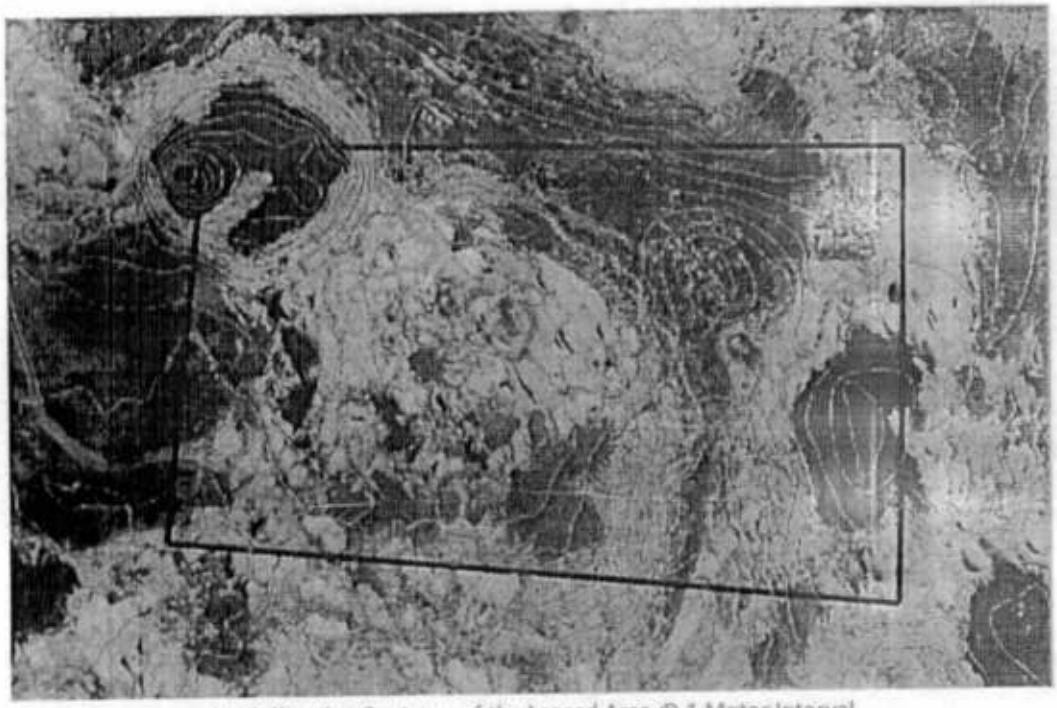
UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT



Name of the Lessee	Lease No.	Leased Area in Acre	Encroachment Area in Acres	Total Volume Excavated Both Within and Outside Lease Area	Total Volume Excavated in Encroached Area
Bhagawan Singh	863	4	0.13	15912	1900

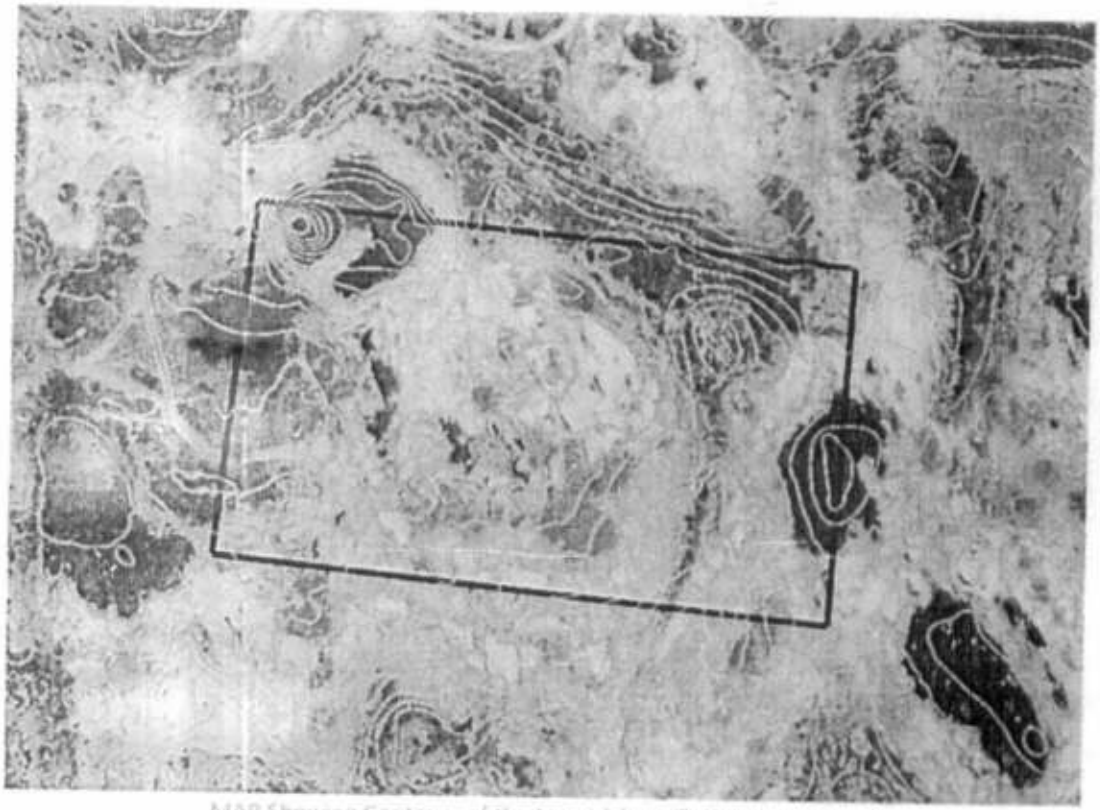
Note:

1. Above conclusion is arrived based on the input provided by Respective Lease Owner.
2. We will provide access to Drone data processing software if in case any dispute arising post submission of this report.



MAP Showing Contours of the Leased Area @ 1 Meter Interval

NAME: Bhagawan Singh **Survey No. 64** **Q.L No.: 363**
Village: Yelagondananahalli **Taluk: Mulabagulu** District: Kolar
Report Date: 24-7-2018
Lease Area: 4 acres

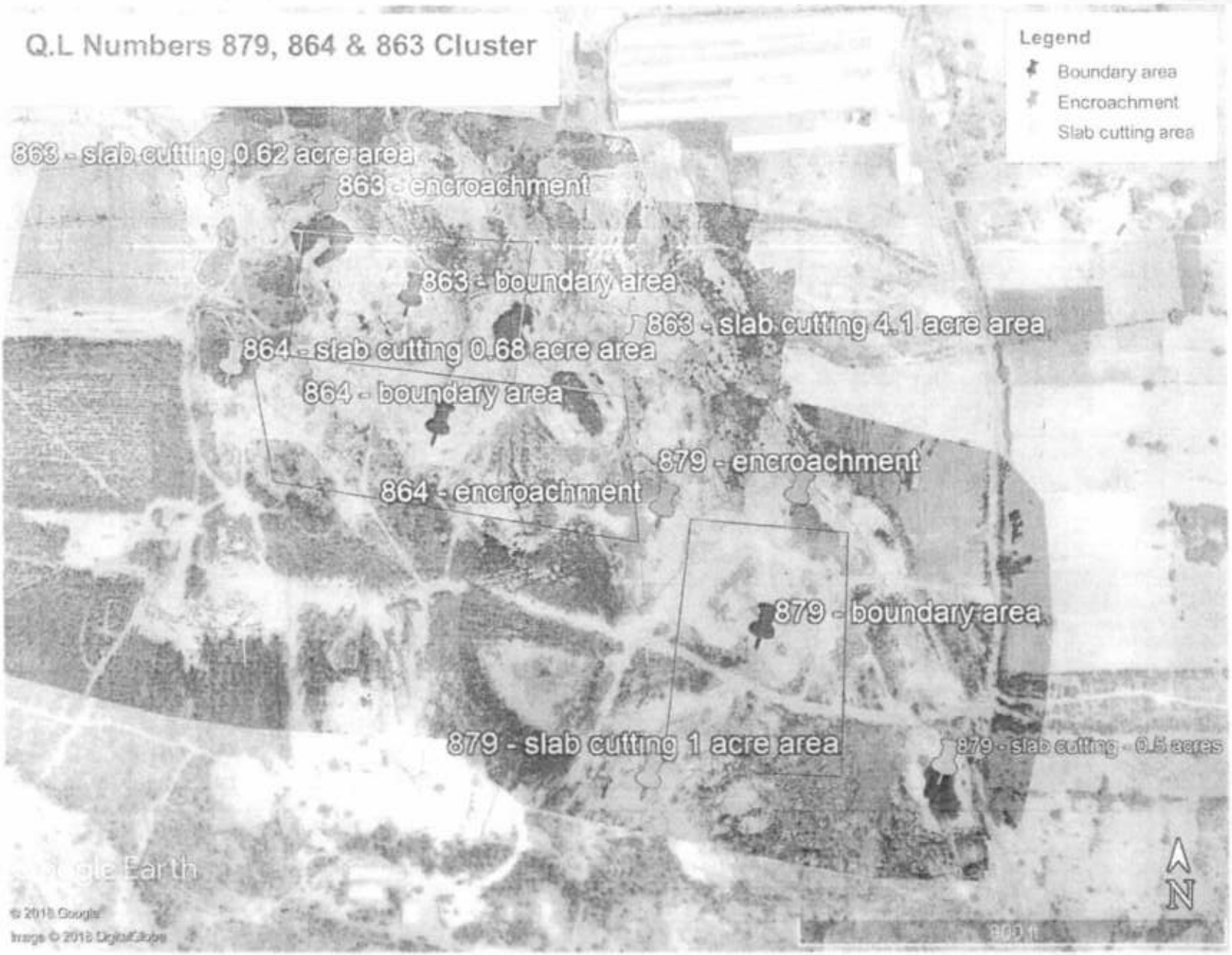


MAP Showing Contours of the Leased Area @ 1 Meter Interval

NAME: B.Bhagawan Singh
Survey No. 64Q.L No.: 863
Village: Yelagondananahalli Taluk:Mulabagulu District:Kolar
Report Date: 24-7-2018
Lease Area: 4 acres

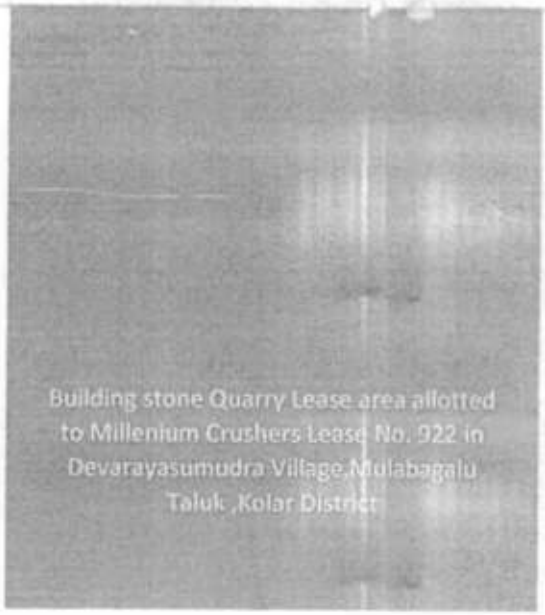
MAP View of 2006 Satellite Imagery

NAME: B.Bhagawan Singh
Survey No. 64Q.L No.: 863
Village: Yelagondananahalli Taluk:Mulabagulu District:Kolar
Report Date: 24-7-2018
Lease Area: 4 acres


Q.L Numbers 879, 864 & 863 Cluster
Legend
Boundary area
Encroachment
Slab cutting area
863 - slab cutting 0.62 acre area
863 - encroachment
863 - boundary area
863 - slab cutting 4.1 acre area
864 - slab cutting 0.68 acre area
864 - boundary area
879 - encroachment
864 - encroachment
879 - boundary area
879 - slab cutting 1 acre area
879 - slab cutting - 0.5 acres
N
Google Earth
© 2018 Google
Image © 2018 DigitalGlobe

REPORT ON DCB(DEMAND COLLECTION & BALANCE)			
SL.NO.	PARTICULARS	DCB DETAILS	Calculation Index
1	Name of the Lessee	B.Bhgawan Singh	1=1
2	Date of Lease Grant		2=2
3	Lease No.	863	3=3
4	Leased Area in Acre	4	4=4
5	Encroachment Area in Acres	0.18	5=5
6	Total Volume Excavated Both Within and Outside Lease Area in Cum	15912	6=6
7	Total Volume Excavated in Encroached Area in Cum	1899	7=7
8	Total Volume Excavated in Lease Area in Cum	14013	8=6-7
9	Quantity Excavated with in Lease Area in MT	36433.8	9=8*2.6
10	Total Quantity Excavated in Encroached Area in Recovery of 95% In MT	4937.4	10=7*2.6
11	Total Quantity Excavated Both within and Outside Lease area in MT	41371.2	11=6*2.6
12	Quantity Excavated with in Lease Area with Recovery of 95% In MT	34612.11	12=(9*0.95)
13	Total Quantity Excavated in Encroached Area in MT Recovery of 95% In MT	4690.53	13=10*0.95
14	Fine paid for the encroached quantity in MT	0	14=14
15	Net Quantity Excavated in Encroached area after deducting quantity for which fine paid In MT	4690.53	15=13-14
16	Total Quantity Excavated Both within and Outside Lease area in MT	39302.64	16=15+12
17	Audited Quantity in period of Lease in MT	59600	17=17
18	Excess Quantity in MT	24987	
19	Quantity of Soil Cap Excavated and dumped near lease area in MT	0	19=19
20	Difference of Quantity of the Mineral with in the lease boundary in MT	0	20=12-19-17
21	Royalty for Quantity Excavated with in lease area @60 per MT in INR	0	21=20*60
22	Five times of the royalty for difference of quantity with in leased area in INR	0	22=21*5
23	Five times of the Royalty for the quantity excavated in encroached area in INR	1407159	23=15*60*5
24	Total Amount to Be Collected in INR	1407159	24=22+23

87



DGPS, Electronic Total Station and UAV/Drone Based Photogrammetry SURVEY REPORT

- Quarry Boundary point ,Collection of Reduced Level,Assessment of Quantity Excavted both with in and Outside lease area and Encroachment Extent if any.

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DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

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Objective of the Survey:

- To collect the co-ordinate of Boundary Points of Building stone quarry under supervision of Competent Authority.
- To acquire reduced level of the Building Stone Quarry.
- To acquire Aerial Imagery of the Quarry pit area.
- To analyse Extent of Encroachment area, Quantity of Mineral excavated both within and outside lease area.
- To Facilitate Competent authority to arrive at Demand Collection and Balance from Each Quarry Area.

Methodology of Survey

Methods used to conduct the Survey: To meet the objective of this survey following methodology is used for data acquisition:

- DGPS Based Boundary Data Collection in Real Time Kinematics Mode.
- Post Collection of DGPS data UAV based Photogrammetry survey is conducted to acquire imagery for Encroachment and cut volume analysis.
- Post Identification of Boundary points reduced level data is acquired from the field through Electronic Total Station Survey.

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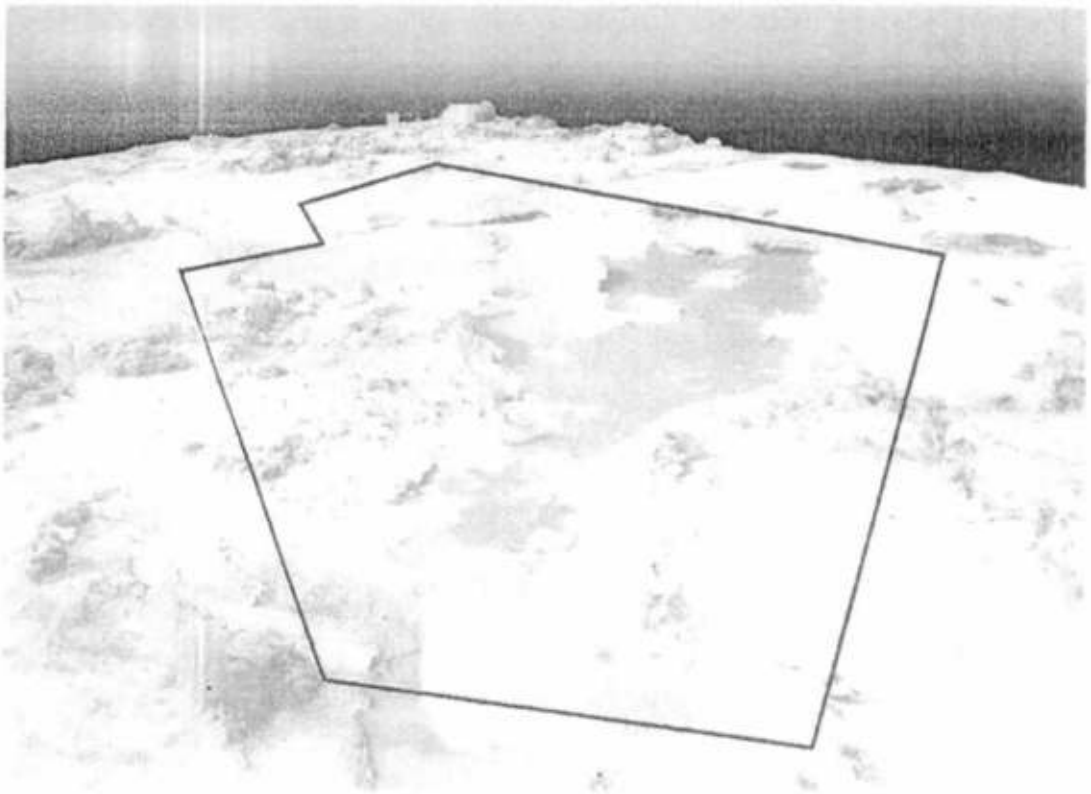
6. In case of dispute arising out of Volume arrived over our understanding of Cut volume line, we will provide raw data of captured image and provide access to Data processing software in arriving at exact starting of Pit Opening level for accurate pit volume generation.
7. This Report is prepared based on the Input provided by Respective Lease Owner.
8. Mines and Geology , Kolar District will verify this Report assessment before Proceeding on DCB Notice.
9. Any Dispute arising out of this report only Respective Lease Owner will be responsible as this Report is prepared based on the Input provided by Respective Lease Owner.

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

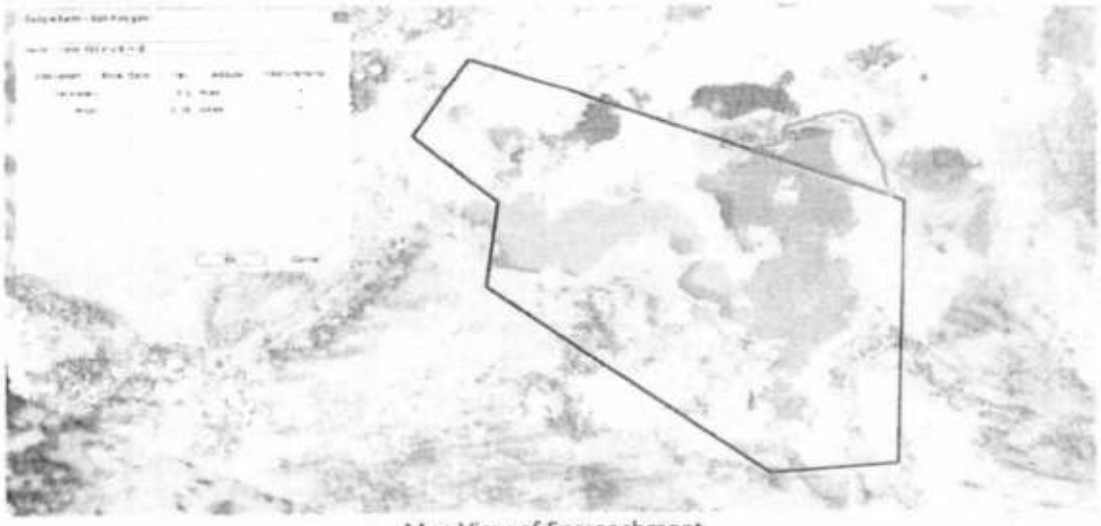


Map View of 3D Image

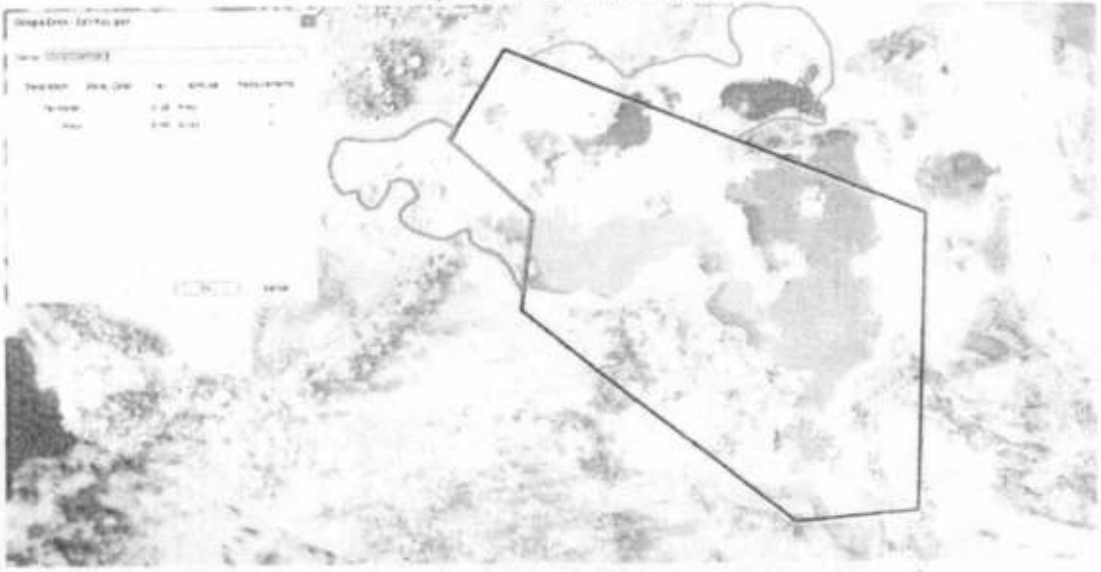
NAME: S. Kumar
Lease Area: 4.0 acres
Report Date: 24-09-2018

Q.L No.: 922
Taluk: Mulabagalu
District: Kolar

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT



Map View of Encroachment



Map View of un-autorised Slab Cutting(As per Lease Owner's Input)

NAME: S.Kumar **Q.L No.: 922**

Lease Area: 4.0 acres **Taluk: Mulabagalu** **District: Kolar**

Report Date: 24-09-2018

Encroachment Area: 0.1 Acres (First Image)

Note:

1. Above Report assumes that Boundary pillars are erected by lease owner exactly on the points where Revenue Department has identified boundary.
2. Above report is prepared based on the Input Provided by Respective Lease Owners.
3. Lease Owner has informed us that Un-authorised slab cutting by local People in North west side of the lease boundary.
4. Lease owner would like to update the DMG that when survey was done before Quarrying process the point was shown 30 meter towards north side.

Pit and Encroachment volumes

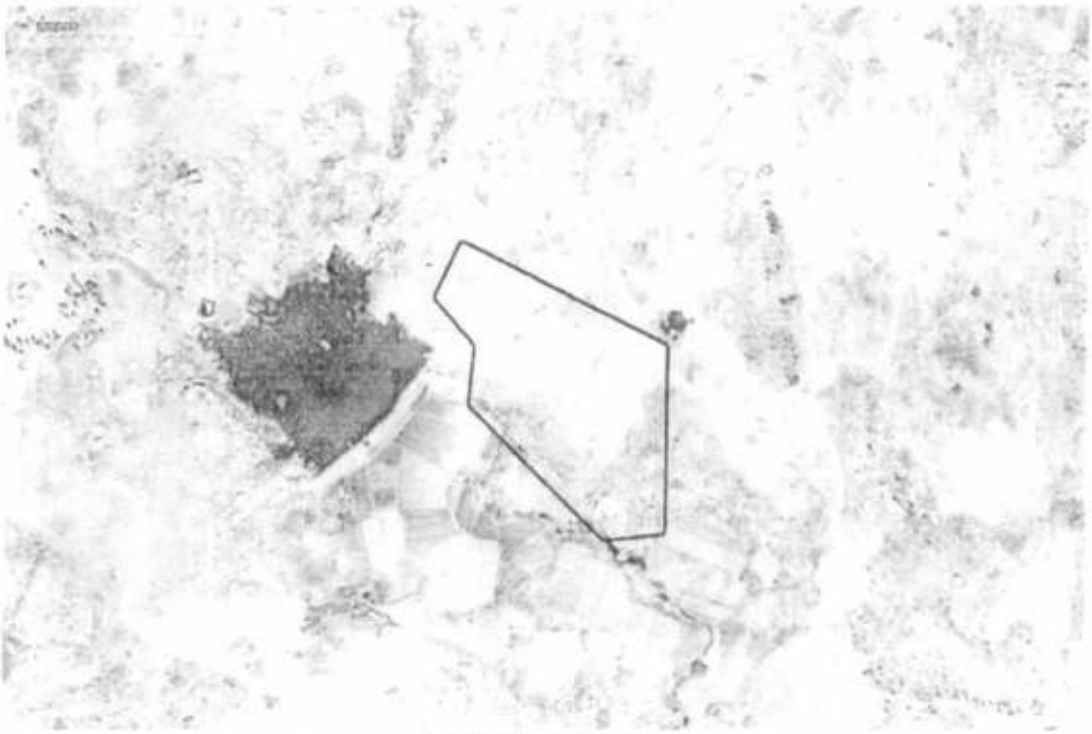
Name of the Lessee	Lease No.	Leased Area in Acre	Encroach-ment Area in Acres	Total Volume Exca-vated Both Within and Outside Lease Area	Total Volume Excavated in Encroached Area
S.Kumar	922	4-00	0.10	33544	2869

Note:

1. Above conclusion is arrived based on the Input provided by Respective Lease Owner.
2. We will provide access to Drone data processing software if in case any dispute arising post Submission of this report.
3. Lease Owner has informed us that Un-authorised slab cutting by local People in North west side of the lease boundary.
4. Lease owner would like to update the DMG that when survey was done before Quarrying process the point was shown 30 meter towards north side.

REPORT ON DCB(DEMAND COLLECTION & BALANCE)			
SL.NO.	PARTICULARS	DCB DETAILS	Calculation Index
1	Name of the Lessee	S.Kumar	1=1
2	Date of Lease Grant		2=2
3	Lease No.	922	3=3
4	Leased Area in Acre	4	4=4
5	Encroachment Area In Acres	0.1	5=5
6	Total Volume Excavated Both With in and Outside Lease Area	33544	6=6
7	Total Volume Excavated in Encroached Area	2869	7=7
8	Total Volume Excavated in Lease Area	30675	8=6-7
9	Quantity Excavated With in Lease Area	79755	9=8*2.6
10	Total Quantity Excavated in Encroached Area	7459.4	10=7*2.6
11	Total Quantity Excavated Both with in and Outside Lease area	87214.4	11=6*2.6
12	Quantity Excavated With in Lease Area With Recovery of 95%	75767.25	12=(9*0.95)
13	Total Quantity Excavated in Encroached Area in MT Recovery of 95%	7086.43	13=10*0.95
14	Fine paid for the encroached quantity in MT	0	14=14
15	Net Quantity Excavated in Encroached area after deducting quantity for which fine paid.	7086.43	15=13-14
16	Total Quantity Excavated Both with in and Outside Lease area	82853.68	16=15+12
17	Audited Quantity in period of Lease	28700	17=17
17A	Permit Taken in 17-18 & 18-19	0	
18	Excess Quantity	0	
19	Quantity of Soil Cap Excavated and dumped near lease area in MT		19=19
20	Difference of Quantity of the Mineral with in the lease boundary	47067.25	20=12-19-17-17A
21	Royalty for Quantity Excavated with in lease area @60 per MT	2824035	21=20*60
22	Five times of the royalty for difference of quantity with in leased area	14120175	22=21*5
23	Five times of the Royalty for the quantity excavated in encroached area	2125929	23=15*60*5
24	Total Amount To Be Collected	16246104	24=22+23

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT



Satellite Imagery-2006

NAME: S.Kumar
Q.L No.: 922
Lease Area: 4.0 acres
Taluk: Mulabagalu
District: Kolar
Report Date: 24-09-2018

DGPS, Electronic Total Station and UAV/Drone Based Photogrammetry SURVEY REPORT

- Quarry Boundary point ,Collection of Reduced Level,Assessment of Quantity Excavted both with in and Outside lease area and Encroachment Extent if any.

Submitted By BI Tech Solutions

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

INDEX

Objective of the Survey:

- To collect the co-ordinate of Boundary Points of Building stone quarry under supervision of Competent Authority.
- To acquire reduced level of the Building Stone Quarry.
- To acquire Aerial Imagery of the Quarry pit area.
- To analyse Extent of Encroachment area, Quantity of Mineral excavated both within and out-side lease area.
- To Facilitate Competent authority to arrive at Demand Collection and Balance from Each Quarry Area.

Methodology of Survey

Methods used to conduct the Survey: To meet the objective of this survey following methodology is used for data acquisition:

- DGPS Based Boundary Data Collection in Real Time Kinematics Mode.
- Post Collection of DGPS data UAV based Photogrammetry survey is conducted to acquire im-agery for Encroachment and cut volume analysis.
- Post Identification of Boundary points reduced level data is acquired from the field through Electronic Total Station Survey.

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

About DGPS Instrument in Real Time Kinematics Mode:

DGPS (Differential GPS) is essentially a system to provide positional corrections to GPS signals. DGPS uses a fixed, known position to adjust real time GPS signals to eliminate pseudo range errors. An important point to note is that **DGPS** corrections improve the accuracy of position data only.

Real-time kinematic (RTK) positioning is a satellite navigation ed to enhance the precision of position data derived from satellite-based positioning systems (global navigation satellite systems- GNSS). It uses measurements of the phase of the signal's carrier wave in addition to the information content of the signal and relies on a single reference station or interpolated virtual station to provide real-time corrections, providing up to centimeter -level accuracy. With reference to GPS in particular, the system is commonly referred to as **carrier-phase enhancement**, or **CPGPS**.[2] It has applications in land survey, hydrographic survey, and in consumer unmanned aerial vehicle navigation.

About UAV/Drone based Photogrammetry Survey:

Unmanned Aerial Photogrammetric Survey is the use of Unmanned Aerial Vehicles (UAVs) to take photos for use in photogrammetry, the science of making measurements from photographs. Instruments manufactured for UAVs could be mounted on unmanned flying platforms of various sizes and types, such as octocopters. These machines are suitable for the full geodetic survey of a study site by creating a point cloud of measurements of nearly homogenous quality and accuracy. These detailed point clouds (of various types of data) could be used in line with ortho photos etc. to obtain a complex data system representing the study site.

Similarly to manned aerial surveys, UAVs are suitable to acquire three-dimensional digital models and ortho photo mosaics for a certain area

About Electronic Total Station (ETS) Survey:

A **total station** (TS) or **total station theodolite** (TST) is an electronic/optical instrument used for surveying and building construction. The total station is an electronic theodolite (transit) integrated with an electronic distance measurement (EDM) to read slope distances from the instrument to a particular point, and an on-board computer to collect data and perform advanced coordinate based calculations.

ETS is used for:

- Angle Measurement.
- Distance Measurement
- Co-Ordinates Measurement

Explanation of Abbreviations or Acronyms:

Abbreviation or Acronym	Explanation
UAV	Unmanned Aerial Vehicle
KMZ	Key Mark hole Language Zipped
DGPS	Differential Global Position System
ETS	Electronic Total Station Survey
CAD	Computer Aided Drawing
DSM	Digital Surface Model
DTM	Digital Terrain Model
DEM	Digital Elevation Model
Ortho Photo	Stitched photos
GIS	Geographical Information System
RF Antenna	Radio Frequency Antenna
GPRS	General Pocket Radio Service
RTK	Real Time Kinematics

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

Procedure for Differential Global Positioning System (DGPS) based boundary points identification and coordinates data acquisition of the quarry Pit.

1. Collect Scanned copy of the original Blue print of lease execution sketch from Lessee.
2. Digitization of the Lease execution Sketch using Auto CAD or any other drafting application before visiting quarry area.
3. In the presence of respective Hobli Surveyor and Junior Engineer, DMG, Kolar District Identify ground control points mentioned in the lease execution sketch and village Map.
4. DGPS instrument will have two part

    - **Base Station:** This unit will be fixed in the open area and this instrument will connect with 20 to 25 Satellites. After observation of at least 2 hours Temporary Bench Mark (TBM) is established near to the base station using rover system. Every time the instrument is reset or re started TBM point is updated to Base Station and base station will correct its reading accordingly.
    - **Rover or Stake out Unit:** Rover is Mobile unit having DGPS reader which will work on RTK and RF/GPRS Method for communication with Base station.

5. Once Ground Control points are identified then these control point's co-ordinates are collected using DGPS instrument and are used to align the scanned lease execution sketch to ground control points of respective survey numbers. This is called as fit to scale process
6. Post completion of fit to scale process, Revenue Surveyor will use chain method to arrive at boundary points by offset and Bisect method.
7. Using Rover DGPS instrument co-ordinates and MSL of the boundary point is acquired.
8. Post-acquisition of point coordinate of lease area, CAD software assists the Hobli surveyor and Junior Engineer to verify points by showing the sketch in CAD software.
9. CAD software facilitates measuring distance between each points of the lease area and control points. Each point is finalized using scale fit digitized lease execution sketch by bearing procedure in CAD software.
10. These points are finalized in the field by DGPS instrument once Hobli surveyor and Junior Engineer, DMG, Kolar is satisfied after mapping all co-ordinates in the CAD software.

Assumptions for arriving at Boundary Co-ordinates,

1. Lease execution sketch is showing extent and boundary points are correct.
2. Lease Execution Sketch Provided to us is Considered as error free Sketch.
3. No dispute on Boundary Points between lessee and other Party.
4. Points shown by Revenue surveyor using chain method is correct.

Procedure Followed for UAV/Drone based Photogrammetry Survey of the Building Stone Quarry Pit

1. Keep reflecting Flex Sheet of 2 feet by 2 feet size on all boundary points identified through DGPS survey in the quarry lease area.
2. Prepare KMZ file consisting of co-ordinates of all boundary points with extra coverage of 20% to 30% more than leased area.
3. Upload KMZ file to auto pilot mobile app and finalize the grid for UAV/drone flying. Provide instruction to UAV to fly in the assigned grid with altitude of between 70m to 100m depending on the obstructions nearby.
4. Fly UAV in the assigned grid and capture images in fixed intervals.
5. UAV acquires the same data twice by flying in horizontal and vertical grids of the leased area for improved quality.
6. Data collected from the field is processed through Drone Image processing application for generation of ortho photo, Digital surface Model, Digital Terrain Model and Digital Elevation Model.
7. Post Generation of DEM, DSM and Ortho Image, this data is used for calculation of cut volume based on the level selected as cut area.
8. Ortho Image is superimposed on GIS application along with boundary points to calculate extent of Encroachment.

Assumptions for arriving at Encroachment and Cut volume Calculation,

1. Boundary points shown by lessee during flying are correct.
2. No dispute on Boundary Points between lessee and other Party.
3. Boundary pillars are erected exactly over the points shown through DGPS points by competent authority to lessee.
4. 3D Image Volume calculation is executed by identifying the pit cut area based on the pit opening line w.r.t layer change (Soil cap to Stone).
5. Cut volume data only consists of cut volume and has not considered geological aspects of Mineral like Soft Rock, Soil cap over mineral and Wastages as per EC.
6. In case of dispute arising out of Volume arrived over our understanding of Cut volume line, we will provide raw data of captured image and provide access to Data processing software in arriving at exact starting of Pit Opening level for accurate pit volume generation.

DGPS, ELECTRONIC TOTAL STATION AND UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

Procedure for conducting Electronic Total Station Survey:

1. Acquisition of Reduced Level data in the quarry pit.
2. Acquisition of Boundary points.
3. Acquisition of Public Infrastructure if any.
4. Post collection of Levels contours are drawn at 1 M Interval.
5. Setting up of Temporary Bench Mark for future reference.

Assumptions,

1. Boundary points shown by lessee during ETS survey are correct.
2. No dispute on Boundary Points between lessee and other Party.
3. Boundary pillars are erected exactly over the points shown through DGPS points by competent authority to lessee.

UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

Procedure Followed for UAV/Drone based Photogrammetry Survey of the Building Stone Quarry Pit .

1. Keep reflecting Flex Sheet of 2 feet by 2 feet size on all boundary points identified through DGPS survey in the quarry lease area.
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Assumptions for arriving at Encroachment and Cut volume Calculation,

1. Boundary points shown by lessee during flying are correct.
2. No dispute on Boundary Points between lessee and other Party.
3. Boundary pillars are erected exactly over the points shown through DGPS points by competent authority to lessee.
4. Using 3D Image Volume calculation is executed by identifying the pit cut area based on selecting pit opening line depending on the visibility of layer change.
5. Cut volume data only consists of cut volume and has not considered geological aspects of Mineral like Soft Rock, Soil cap over mineral and Wastages as per EC.
6. In case of dispute arising out of Volume arrived through over understanding of Cut volume line, We will provide raw data of captured image and provide access to Data processing software in arriving at exact starting of Pit Opening level for accurate pit volume generation.

Ortho Image

NAME: GVV Constructions
Village: Devarayasamudra
Report Date: 24-7-2018
Lease Area: 5 acres

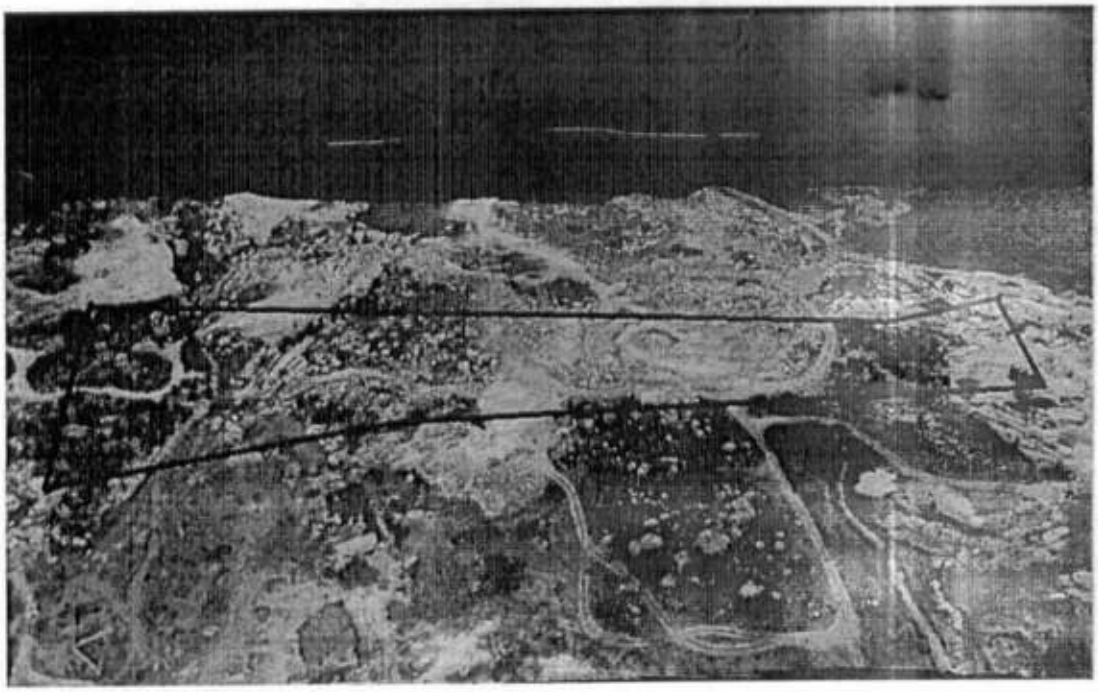
Survey No. 199
Taluk:Mulabagulu

Q.L No.: 873
District:Kolar

BI-TECH SOLUTIONS

For

UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT



3D Image.

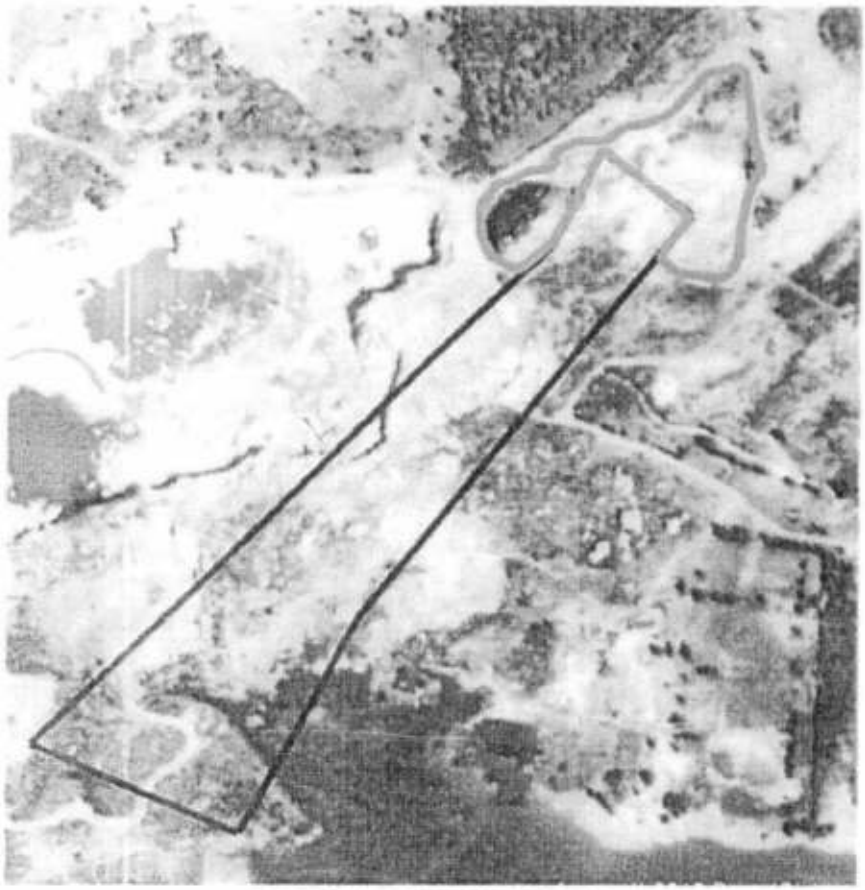
NAME: GVV Constructions
Village: Devarayasamudra
Report Date: 24-7-2018
Lease Area: 5 acres

Survey No. 199
Taluk:Mulabagulu

Q.L No.: 873
District:Kolar

BI-TECH SOLUTIONS

For



Map View of Encroachment Area

NAME: GVV Constructions **Survey No. 199** **Q.I No.: 873**
Village: Devarayasamudra **Taluk: Mulabagulu** **District: Kolar**
Report Date: 24-7-2018
Lease Area: 5 acres

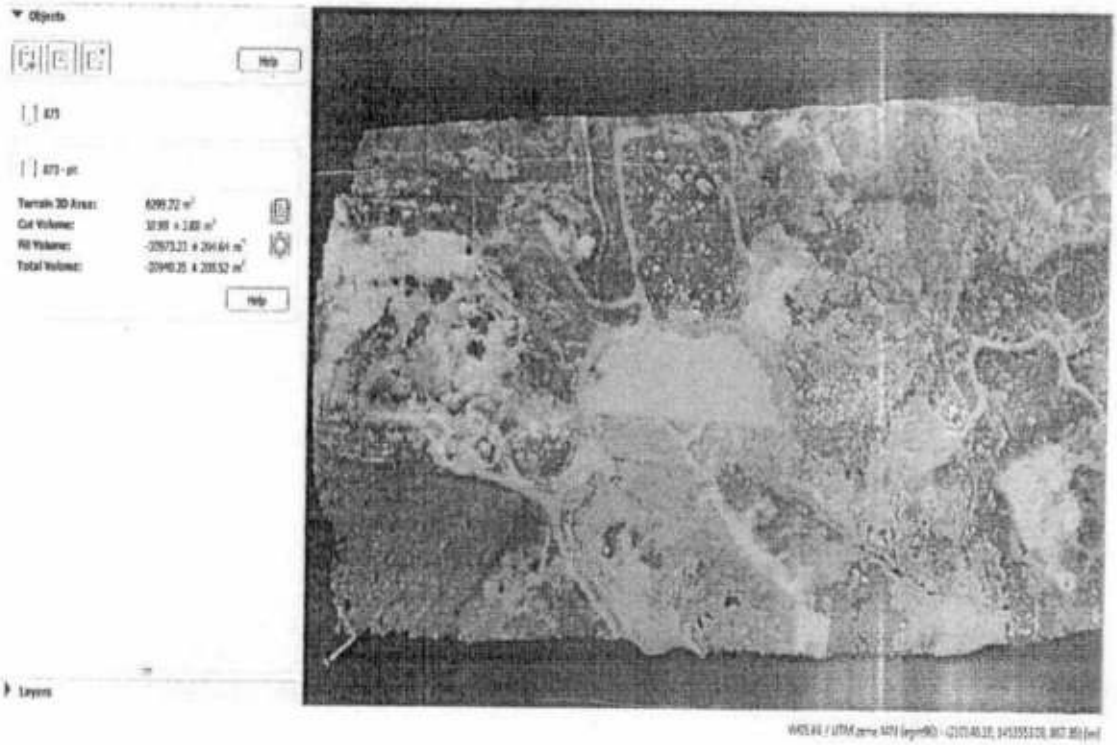
Encroached area: 1 Acre.

Observation Surrendered Lease area adjacent to 873 Lease Area and Slab removal by local villagers around above lease area.

Note:

1. Above Conclusion is arrived based on the boundary points shown to us before flying UAV for Data capture.
2. Above Report assumes that Boundary pillars are erected by lease owner exactly on the points where Revenue Department has identified boundary.

UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT



Name of the Lessee	Lease No.	Leased Area in Acre	Encroachment Area In Acres	Total Volume Excavated Both Within and Outside Lease Area	Total Volume Excavated in Encroached Area
GVV Constructions	873	5	1	30940	2600

Note: 1. Above Report is submitted based on the input provided by respective Lease Owners.
2. We will provide access to Drone data processing software access if in case any dispute arising post submission of this report

MAP Showing Contours of the Leased Area @ 1 Meter Interval

NAME: GVV Constructions
Village: Devarayasamudra
Report Date: 24-7-2018
Lease Area: 5 acres

Survey No. 199
Taluk:Mulabagulu

Q.L No.: 873
District:Kolar

UAV/DRONE BASED PHOTOGRAMMETRY SURVEY REPORT

MAP View of 2006 Satellite Imagery

NAME: GVV Constructions
Village: Devarayasamudra
Report Date: 24-7-2018
Lease Area: 5 acres

Survey No. 199
Taluk:Mulabagulu

Q.L No.: 873
District:Kolar

BI-TECH SOLUTIONS

For

REPORT ON DCB(DEMAND COLLECTION & BALANCE)			
SL.NO.	PARTICULARS	DCB DETAILS	Calculation Index
1	Name of the Lesses	GVV Construc-tions	1=1
2	Date of Lease Grant		2=2
3	Lease No.	873	3=3
4	Leased Area in Acre	5	4=4
5	Encroachement Area In Acres	1	5=5
6	Total Volume Excavated Both With in and Outside Lease Area	30940	6=6
7	Total Volume Excavated in Encroached Area	2600	7=7
8	Total Volume Excavated in Lease Area	28340	8=6-7
9	Quantity Excavated With in Lease Area	73684	9=8*2.6
10	Total Quantity Excavated in Encroached Area	6760	10=7*2.6
11	Total Quantity Excavated Both with in and Outside Lease area	80444	11=6*2.6
12	Quantity Excavated With in Lease Area With Recovery of 95%	69999.8	12=(9*0.95)
13	Total Quantity Excavated in Encroached Area in MT Recovery of 95%	6422	13=10*0.95
14	Fine paid for the encroached quantity in MT	0	14=14
15	Net Quantity Excavated in Encroached area after deducting quantity for which fine paid.	6422	15=13-14
16	Total Quantity Excavated Both with in and Outside Lease area	76421.8	16=15+12
17	Audited Quantity in period of Lease	125600	17=17
17A	Permit Taken in 17-18 & 18-19		
18	Excess Quantity	55600.2	
19	Quantity of Soil Cap Excavated and dumped near lease area in MT		19=19
20	Difference of Quantity of the Mineral with in the lease boundary	0	20=12-19-17-17A
21	Royalty for Quantity Excavated with in lease area @60 per MT	0	21=20*60
22	Five times of the royalty for difference of quantity with in leased area	0	22=21*5
23	Five times of the Royalty for the quantity excavated in encroached area	1926600	23=15760*5
24	Total Amount To Be Collected	1926600	24=21+23

115 ANNEXURE-R9

ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿಯವರ ಕಛೇರಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಕೊಠಡಿ ಸಂಖ್ಯೆ: S3 & S3A, 2ನೇ ಮಹಡಿ,
ಜಿಲ್ಲಾಡಳಿತ ಭವನ, NH-75 (04), ಕುಂಬಾರಹಳ್ಳಿ, ಕೋಲಾರ-563103
Office of the Senior Geologist, Dept. of Mines & Geology, Room No. S3& S3A, 2nd Floor, Zilla Adalitha Bhavan, NH-75 (04), Kumbarahalli, KOLAR-563103
ಇ-ಮೇಲ್: sgkolar@gmail.com ದೂರವಾಣಿ: 08152-243547

No.SG/DMG/Kolar/NGT/2021-22/ Date:13-12-2021

To,

The Nodal Officer and Joint Director
South Zone, Department of Mines and Geology
Mysore-

Respected sir,

Sub: Submission of Environmental Compensation to Quarries granted in Devarayasamudra Sy.No.199.

******

With reference to the Subject and the OA No. 85/2021 (SZ) submitted at Hon'ble National Green Tribunal in the matter of M/s Parisara Hitharakshana Samithi V/s Union of India and others, the Hon'ble Court had given order dated 18th November 2021, to Calculate and submit a compliance report regarding the assessment of Environmental degradation and the Action taken by the concerned departments.

The details of quarry leases and stone crusher licenses granted in Sy.No.199 of Devarayasamudra and Sy.No.64 of Yalagondanahalli are given in the table as follows:

List of Quarry Leases in Sy.No.199 of Devarayasamudra and Sy.No.64 of Yelagondanahalli Villages:

List of Quarry Leases in Sy.No.199 of Devarayasamudra

SL. No.	Name	Extent In acres	Period	Remarks
1.	GVV Construction. QL.873	5.00	20 years from 17.09.2008	Working
2.	S.Kumar QL.922	4.00 acres	20 years from 01.02.2010	Working
3.	T.V.Srinivas QL.928	2.00	20 Years from 12.04.2010	Working
4.	P.M.Granites 1017	10.00	10 Years from 29.08.2016	Idle
5.	PMJ Constructions Export Pvt Ltd.	10.00	10 Years from 29.08.2016.	Idle
6.	K.Srirama	10.00	10 Years from 19.03.2020.	Idle
7.	M/s.United Infra	10.00	QL Not Executed	E.C. not submitted
8.	M/s.United Infra	10.00	QL Not Executed	E.C. not submitted

List of Quarry Leases granted in Sy.No.64 of Yelagondanahalli				
1.	M/s. Balaji Granites	10.00	10 Years from 23.08.2008	Working
2.	M/s SVS Associates	6.00	30 Years from 27.08.2008	Working

The List of Stone Crushers granted in Devarayasamudra and Yelagondanahalli villages.

List of Stone Crushers granted in Devarayasamudra village

SL. No.	Name	Sy.No. & extent	Land Type	Form-C No. & date of grant	Validity
1	GVV Stone Crusher.	758 2.00	Patta Land (NA Converted)	89/2018-19 10.01.2019	09.01.2024
2.	Millenium Crusher	792 1.14	Patta Land (NA Converted)	03/2018-19 10.05.2019	31.03.2024
Stone Crusher Licenses granted in Yelagondanahalli					
3.	Balaji Crusher	69	Patta Land(NA Converted)	84/2018-1926.12.2018	25.12.2023
4.	SVS & Associates	68	Patta Land(NA Converted)	85/2018-19	13.11.2023

The production details and the Royalty collection details for the above 8 leases are as follows: -

SL. No.	Name	Extent In acres	Grant Date	Period	Total Production Of Building Stone	Royalty Paid
1.	GVV Construction. QL.873	5.00	17.09.2008	20	70100	3223000
2.	S.Kumar QL.922	4.00	01.02.2010	20	249900	5626000
3.	T.V.Srinivas QL.928	2.00	12.04.2010	20	104100	6021000
4.	P.M.Granites QL. 1017	10.00	29.08.2016	10	Idle Quarry	
5.	PMJ Constructions Export Pvt Ltd. QL. 1018	10.00	29.08.2016.	10	Idle Quarry	
6.	K.SriramaQL.1024	10.00	19.03.2020	10	Idle Quarry	
7.	M/s.United Infra	10.00	QL Not Executed			
8.	M/s.United Infra	10.00	QL Not Executed			
9.	M/s. Balaji Granites	4.00	23.08.2008	10	70100	3223000
10.	M/s SVS Associates	6.00	27.08.2008	30	104200	5626000

Further, in the 2017-18, The Department had carried out Drone-Based DGPS and TOTAL Station Survey to assess the Total Quantity of Minor mineral Removed by the quarry owner in the Quarry Leased areas. On verification of the Drone survey Reports the excess quantity removed by the owner is assessed and as per the provisions of sub rule 44 of Karnataka Minor Mineral Concession Rules-1994, Royalty and Penalty of 5 five times of

royalty. The royalty and five times of Royalty as penalty imposed and the collection details are as follows: -

SL. No.	Name	Extent In acres	Total Production of Building Stone.	Excess quantity removed as per DRONE survey	Royalty + Penalty imposed	Royalty + Penalty Paid by the Quarry owner
1.	GVVConstruction.QL.873	5.00	70100	6422	19,26,600	19,26,600
2.	S.Kumar QL.922	4.00	249900	54153	1,62,45,900	32,49,180 (Royalty paid)
3.	T.V.SrinivasQL.928	2.00	104100	0	0	0
4.	P.M.Granites 1017	10.00	Idle Quarry			
5.	PMJ Constructions Export Pvt Ltd.	10.00	Idle Quarry			
6.	K.Srirama	10.00	Idle Quarry			
7.	M/s.United Infra	10.00	Idle Quarry			
8.	M/s.United Infra	10.00	Idle Quarry			
9.	M/s. Balaji Granites	10.00	70100	3690.53	13,28,559	13,28,559
10.	M/s SVS Associates	6.00	104200	10455.51	37,63,953	37,63,953

Senior Geologist
Department of Mines & Geology
Kolar

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ANNEXURE-R10

सत्यमेव जयते

State Level Environment Impact Assessment Authority-Karnataka

(Constituted by MoEF, Government of India, under section 3(3) of E(P) Act, 1986)

No. SEIAA 1 EAA 2021 Date: 02.12.2021

To,

The Joint Director and
Nodal Officer for Joint Committee.
Department of Mines and Geology,
South Zone, Mysore.

Respected Sir,

Sub:- Submission of Environmental Compensation to violation of earlier EC conditions.

Ref:- Hon'ble NGT order dated 18th Nov 2021 and 03.09.2021 O.A No 85/2021(SZ)

*****

This has reference to the order dated 18th Nov 2021 and 03.09.2021 of Hon' ble National Green Tribunal (SZ) in the OA No 85/2021(SZ) in the matter of M/s Parisara Hitharakshana Samithi V/s Union of India and Others, where in Hon'ble NGT have directed to submit the further report by the committee.

The Environmental Compensation for non compliances to the earlier Environmental Clearance conditions calculated based on the judgement in Common Cause Vs. Union of India & Ors. (2017) 9 SCC 499 dated 02.07.2017and polluters pays principle is attached with this letter for submission to the Hon'ble NGT(SZ) Chennai.

Yours faithfully,

Scientific Officer 2/12/21.
SEIAA, Karnataka

Room No. 706, 7th Floor, 4th Gate, M.S. Building, Bangalore - 560 001 Phone : 080-22032497 Fax : 080-22254377
Website : http://environmentclearance.nic.in http://seiaa.karnataka.gov.in e-mail : msseiaakarnataka@gmail.com

Calculation of Environmental Compensation for non compliances to the EC conditions with regard to the Joint Committee appointed by Hon'ble National Green Tribunal (NGT, SZ Chennai) vide order dated 18th Nov 2021 and 03.09.2021 O.A No 85/2021(SZ)

Details of grant of ECs, mined quantities as per DMG and other details for the quarry projects under the OA 85 of 2021

Sl No	Name of the lease holder	EC issued date	Extent in acres	Quantity mined after issue of EC as per DMG	Royalty in Rs	No of days of non compliance till inspection of the project sites by the joint committee i.e on 28th June 2021
1	M/s G.V.V Constructions	18.07.2019	5-00	40000	60.00	710
2	M/s Balaji Granites	19.08.2019	4-00	20000	70.00	687
3	M/s S V S Associates	03.09.2020	6-00	55000	70.00	295
4	Sri T V Srinivas	19.08.2019	2-20	80600	70.00	687
5	Sri S Kumar	19.08.2019	2-20	176200	70.00	687
6	M/s P M Granites Exports Pvt Ltd	05.03.2016	10-00	nil	nil	Nil
7	M/s P M J Constructions Pvt Ltd	15.03.2016	10-00	nil	Nil	nil
8	M/s Manjula Bran Traders	27.05.2016	10-00	nil	nil	Nil

I) Environmental compensation based on judgement in "*Common Cause Vs. Union of India & Ors. (2017) 9 SCC 499*"

The case relates to mining activity covered under EIA, 1994 and EIA, 2006(i.e mining in more than 5 ha). Following are the directions contained in the Judgement dated 02.07.2017 of Hon'ble Supreme Court in Common Cause Vs. Union of India & Ors. (2017) 9 SCC 499:

" (5) Any iron ore or manganese ore extracted contrary to EIA 1994 or EIA 2006 would constitute illegal or unlawful mining (as understood and interpreted by us) and compensation at 100% of the price of the mineral should be recovered from 2000-2001 onwards in terms of Section 21(5) of the MMDR Act, if the extracted mineral has been disposed of. In addition, any rent, royalty or tax for the period that such mining activity was carried out outside the mining lease area should be recovered.

(6) With effect from 14th September, 2006 all mining projects having a lease area of 5 hectares or more are required to have an EC. The extraction of any mineral in such a case without an EC would amount to illegal or unlawful mining attracting the provisions of Section 21(5) of the MMDR Act.

(7) For a mining lease of iron ore or manganese ore of less than 5 hectares area, the provisions of EIA 1994 will continue to apply subject to EIA 2006."

In view of the above judgement, 100 % of the price of this material and Royalty need to be recovered. According to DMG, the price of the material of Royalty Rate till 30th June 2020 Rs 60.00 per Metric ton and from 1st July 2020 to till date Rs 70.00 is considered.

a) M/s G V V Constructions:-

Environmental Compensation = 100% Price of the material mined = 40000 x 60 = Rs 24,00,000.00(Twenty Four Lakh Rupees Only)

b) M/s Balaji Granites:-

Environmental Compensation = 100% Price of the material mined = (4000 x 60 = Rs 24,000.00) + (25000 x 70 = Rs 17,50,000.00) = 17,74,000.00 (Seventeen Lakh Seventy Four Thousand Rupees Only)

c) M/s S V S Associates:-

Environmental Compensation = 100% Price of the material mined = 55,000 x 70 = Rs 38,50,000.00 (Thirty Eight Lakh Fifty Thousand Rupees Only)

d) Sri T V Srinivas :-

Environmental compensation = 100% Price of the material mined = (29,300 x 60 = Rs 17,58,000.00) + (51,300x70 = Rs 35,91,000.00) = Rs 53,49,000.00 (Fifty Three Lakhs Forty Nine Thousand Rupees Only)

e) **Sri S Kumar:-**

Environmental compensation = Price of the material mined = (91,096 x 60 = Rs 54,65,760.00) + (1,35,104 x 70 = Rs 94,57,280.00) = Rs 1,49,23,040.00(One Crore Forty Nine Lakhs Twenty Three Thousand Forty Rupees Only)

II) **Environmental compensation Calculation based on polluters pays principle**

The environmental compensation based on the 'Polluter Pays Principle'

EC= PI x N x R x S x LF

Where PI is Pollution Index (Red-80, Orange-50, and Green – 30),

N is No of days, R is Factor of Rupees (between 100-500),

S is Size (Big-1.5, medium-1.0 and small- 0.5) and

LF is Location Factor (less than 5 million -1.25, 5 to 10 million 1.5 and 10 million- 2)

PI is considered as 50, R is considered as 200 (average) and S is 0.5, and LF is 1.25.

a) **M/s G V V Constructions:-**

Environmental Compensation= 50 x 710 x 200 x 0.5 x 1.25 = Rs.44,37,500.00(Forty Four Lakhs Thirty Seven Thousand Five Hundred Rupees Only)

b) **M/s Balaji Granites:-**

Environmental Compensation= 50 x 687 x 200 x 0.5 x 1.25= Rs.42,93,750.00(Forty Two Lakhs Ninety Three Thousand Seven Hundred Fifty Rupees Only)

c) **M/s S V S Associates:-**

Environmental Compensation= 50 x 295 x 200 x 0.5 x 1.25 = Rs.18,43,750.00 (Eighteen Lakhs Forty Three Thousand Seven Hundred Fifty Rupees Only)

d) **Sri T V Srinivas:-**

Environmental Compensation= 50 x687 x 200 x 0.5 x 1.25= Rs.42,93,750.00(Forty Two Lakhs Ninety Three Thousand Seven Hundred Fifty Rupees Only)

e) **Sri S Kumar:-**

Environmental Compensation= 50 x687 x 200 x 0.5 x 1.25= Rs.42,93,750.00 (Forty Two Lakhs Ninety Three Thousand Seven Hundred Fifty Rupees Only)

So, Environmental Compensation works out to be as follows:-

Sl. No.	Name of the Quarry owner	As per **"Common cause Vs Union of India & others"** in Rs	As per **'Polluters pay principle" in Rs**
1	**M/s G.V.V Constructions**	24,00,000.00	44,37,500.00
2	**M/s Balaji Granites**	17,74,000.00	42,93,750.00
3	**M/s S V S Associates**	38,50,000.00	18,43,750.00
4	**Sri T V Srinivas**	53,49,000.00	42,93,750.00
5	**Sri S Kumar**	1,49,23,040.00	42,93,750.00

Scientific Officer
SEIAA, Karnataka

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ANNEXURE-R11

सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
पर्यावरण ,वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
समन्वित क्षेत्रीय कार्यालय
INTEGRATED REGIONAL OFFICE
Kendriya Sadan, IVth Floor, E& F Wings, 17th Main Road,
IInd Block, Koramangala, Bangalore – 560 034.
Tel.No.080-25635902, E. Mail: rosz.bng-mef@nic.in

EP/FCCSA/12.7/647/KER 1228

Dated: 14.12.2021

To
The Member Secretary,
State Environmental Impact Assessment Authority (SEIAA)
Dept of Forest, Ecology and Environment
Government of Karnataka
Room no 709, 7th Floor 4th Gate
MS building, Bangalore 560 001

Sub: OA-No.85 of 2021 Filed by M/s. Parisara Hitharakshana Samithi, Karnataka Vs Union of India and Others in the Hon'ble NGT (SZ) – Reg.

Dear Sir,

This has reference to the subject mentioned above. Based on the direction of the Hon'ble NGT, a report has been filed by the Joint Committee wherein it was reported that "*The quarry authorities **have not submitted the mandatory Half Yearly EC compliance report** to the concern departments and there are certain non- compliances/violations of EC conditions as noted by the Joint Committee comprising of a representative from SEIAA, Karnataka during its inspection held on 28.06.2021 along with an Officer from this Regional Office, who is currently tested Covid- 19 Positive and undergoing medical treatment.*

Based on the deliberations of the Joint Committee in its meeting held on 13.12.2021 and also based on discussions with Member, SEIAA, it is noted that there were certain violation of EC conditions like no maintenance of benches, no buffer zone, no fencing, no CSR/ CER activities etc. and accordingly, this office has issued Notices to all the Quarries and directed them to submit their Action Taken Report (ATR) within one month. As per records verified, it is noted that no Quarry Authority have been submitting HYCRs on a regular basis which is a Non-Compliance as per one of the General Conditions in EC.

Further, Hon'ble NGT vide order dated 18.11.2021 while constituting the Joint Committee directed to examine and submit a report including action taken and environmental compensation, if there are any violations. Since there were non- compliances/ violations of EC condition as per observations of Member from SEIAA, Karnataka as noted during the Joint Committee Inspection on 28.06.2021, you are kindly requested to consider taking appropriate action against the project authorities as felt deemed fit, as SEIAA is empowered to act against such violations/non-compliances as per S.O 637 (E) dated 28.02. 2014.

This issues with the approval of Competent Authority.

Yours faithfully

M. Murali Krishna

(Dr. Murali Krishna)
Scientist 'E'

Copy to:

1. The Joint Director, Nodal Officer for Joint Committee in OA No. 85 of 2021, Department of Mines and Geology, South Zone, Mysore, Karnataka. (Email: jdszmysore@gmail.com; sgkolar@gmail.com)

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भारत सरकार
GOVERNMENT OF INDIA
पर्यावरण ,वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
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Tel.No.080-25635902, E. Mail: rosz.bng-mef@nic.in

EP/FCCSA/12.7/647/KER 1229

Dated: 14.12.2021

To
The Joint Director
Nodal Officer for Joint Committee
Department of Mines and Geology,
South Zone, Mysore, Karnataka

Sub: Inputs in OA-No.85 of 2021 Filed by M/s. Parisara Hitharakshana Samithi, Karnataka Vs Union of India and Others in the Hon'ble NGT (SZ) – Reg.

Dear Sir,

This has reference to the Order of Hon'ble NGT dated 18.11.2021 and 03.09.2021 in OA No. 85 of 2021, I am directed to inform that concerned Member of the Joint Committee Smt. R. Padmawathe, DIG is unwell and infected with Covid-19 and undergoing medical treatment and accordingly, I have been directed to communicate these inputs on her behalf.

As per the discussions held in Joint Committee meeting held on 13.12.2021 and after perusal of relevant records and also based on inputs received from the Member, SEIAA who have visited the Quarry sites along with Member from this Office on 28.06.2021, the following is submitted:

1) As per the verified records, it is noted that no quarry proponents are submitting their half Yearly Compliance Reports (HYCRs) to this regional office which is a Condition (General Condition No.13) stipulated in Environmental Clearance (EC) granted to the projects. Accordingly, non-submission of HYCRs is a major non-compliance.

2) All the project proponents (quarries) listed in this instant OA No. 85 of 2021 have been issued notices to submit their latest HYCR within a period of one month.

3) Further, since the ECs are issued by State Environmental Impact Assessment Authority (SEIAA), Karnataka, vide this office letter No. EP/FCCSA/12.7/647/KAR dated 14.12.2021, SEIAA have been requested to take appropriate enforcement action as per the powers conferred to them vide S.O 637 (E) dated 28.02. 2014 as certain violations to EC conditions have been noted by the Member SEIAA during the Joint Committee inspection held on 28.06.2021.

This issues with the approval of Competent Authority.

Yours faithfully

M. Murali Krishna

(Dr. Murali Krishna)
Scientist 'E'