



## **RAMSHREE CONSTRUCTION COMPANY**

### **ENGINEERS & CONTRACTORS**

Shree Ram Complex, G. Floor, N.H. 17, Kodibag, Karwar - 581303, U.K. Dist. Karnataka State, India  
Grams : "Ramshree" ☎ : 91-8382-222007 (Off.) / Fax : 91-8382-223860, e-mail : ramshree@sancharnet.in

To,

Date: 01.03.2024

The Deputy Conservator of Forest,  
Karwar Division,  
Karwar.

Dear Sir,

Sub: Proposal for diversion of Forest land in survey No. 52A1A at Arga village for grant of quarry lease.

I would like to bring the following points for your kind consideration.

1. In the year 2014, M/s Ramshree Construction Company, a partnership firm with Mr. Shivaprasad G K and Mr. Jayaprakash K Pillai Partners had manually applied for diversion of land in survey No. 52A1A of Arga Village for quarry lease for extracting building stones with Letter Ref No. RCC/KWR/QUARRY/2014-15/854 Dated: 07.10.2014 to Nodel Officer and Additional Chief Principal Conservator of Forest, Aranya Bhavan, Bangalore. (Copy Enclosed Page No. 4 to 5)
2. Ministry of Environment, Forest and Climate Change (Forest Conservation Division) New Delhi had launched a web portal for online submission of FC clearance proposals. Accordingly in the year 2018, again we M/s Ramshree Construction Company had applied through online proposal for Diversion of 9.98 Hectre after deducting Port Kharab land from compensatory land given by us it has came to 8.88 hectre for Quarry License for extracting building stones, this application with all the attachments were uploaded in the Parivesh Portal on 03.02.2018 (Proposal No.: FP/KA/QRY/31539/2018).
3. The DCF, Karwar visited with the site on 24.09.2021, the compensatory land site was also visited on 16.12.2020 and the proposal was forwarded from DCF, Karwar on 11.10.2021 to CCF, Sirsi (Ref No.: B4/GFC/FCA/CR-12/2019-20).
4. The proposal was further forwarded from CCF Sirsi to the Nodel office, Aranya Bhavan, Bangalore on 18.10.2021 (Ref No.: B2/GFC/QUARRY/CR-17/2021-22/1939).



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5. On 17.12.2021, the proposed site for diversion was inspected by Sri Sanjay Mohan PCCF (HOFF) and Sri Rajiv Ranjan PCCF (FC), along with the DCF, Karwar, after the site inspection the proposal was then forwarded to the Government of India.
6. On 03.05.2022, at the Kendriya Sadan, Government of India, raised some queries on this proposal, and the file was sent to PCCF Sri Vijay Sharma, after verifying all the submissions the PCCF asked for some rectification of the proposal and asked to resubmit the proposal as per the norms of DMG (Department of Mines and Geology).
7. When we approached the DMG, as per the DMG norms the quarry proposal can be processed only for individuals/ organization owning a crusher Industry with M Sand license can apply for a quarry in FORM 31-ZC up to 50 Acres on Government land/ Forest land/ Private land. (copy of Letter Enclosed Page No 06 to 13)
8. As Mr. Shivaprasad G K is having a valid crusher license (FORM C) valid up to 2040 with the license to produce M Sand as per the norms of DMG and this license is issued in the name of M/s Shivaprasad Industries Proprietor Mr. Shivaprasad G K (Copy of FORM C enclosed Page No. 14).

Mr. Shivaprasad G K Pillai is a managing partner of M/s Ramshree Construction Company.

9. As the proposal for diversion of survey No. 52A1A Arga village for grant of quarry lease was applied in the name of M/s Ramshree construction Company and this firm has only two partners myself Mr. Shivaprasad G K and my younger brother Mr. Jayaprakash K Pillai. An Affidavit, Consent/ NOC from Mr. Jayaprakash K Pillai is attached for changing the name of the applicant of the proposal for diversion of land at survey No. 52A1A Arga Village for grant of quarry lease from M/s Ramshree construction Company to M/s Shivaprasad Industries is enclosed ( Page 17 to 19).
10. In the regard I have lodged a complaint in Parivesh Complaint Management System on 16.02.2024 Complaint ID: TIC-24004006, Proposal No.: 31539 in complaint management system for change of name in the name from M/s Ramshree Construction Company to M/s Shivaprasad Industries, as the Department of Mines and Geology have proceeded the quarry proposal in the name of crusher license i.e. M/s Shivaprasad Industries. As we have got reply on 21.02.2024 to "Kindly provide a letter from IRO for any change in user agency details". (Respective Copy enclosed page No. 21)



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11. As per the requirement of The Department of Mines and Geology (DMG), the survey sketch of the proposed land for the quarry lease should be square type with maximum 4 to 5 co-ordinates/ Points and the dump yard should be adjacent to quarry so that the extracted materials and over burden can be stacked first in the dump yard for accessing the quantity of material and material dispatch permit (MDP) can be issued accordingly, to fulfill this requirement of DMG the dump yard shown in the previous sketch has been revised/ shifted adjacent to the newly proposed quarry. A joint survey was conducted by the DMG in the presence of the forest department officials/ staff on 04.12.2023. The DGPS survey report 4 sets along with the Mineral availability report 4 sets in the form of a booklet duly certified by the DMG has been submitted. ( Copy letter enclosed page No. 15 to 16 along with the copy of respective sketch page No. 20)

Therefore it is kindly requested to process the matter with the change of name in proposal From M/s Ramshree Construction Company to M/s Shivaprasad Industries.

We humbly request you to kindly do the needful.

Thanking you.

Yours Faithfully

M/s Ramshree Construction Company



  
Mr. Shivaprasad G K Pillai  
( Partner)

|| SHREE RAM PRASANNA ||



# RAMSHREE CONSTRUCTION COMPANY

## ENGINEERS & CONTRACTORS

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 Grams : "Ramshree" ☎ : 91-8382-222007 (Off.) / Fax : 91-8382-223860, e-mail : ramshree@sancharnet.in

Ref: RCC/KWR/ QUARRY/2014-15/854

07.10.2014

To,  
 Nodel Officer &  
 Additional Chief Principal Conservator of Forests,  
 (Forest Conservation),  
 O/o. the Principal Chief Conservator of Forests,  
 "ARANYA BHAWAN",  
 Malleshwaram, 18<sup>th</sup> Cross,  
 Bangalore.



Sub: Request /application for sanction of additional 10 Hectares land surrounding the existing land (Quarry).

Dear Sir,

Please refer to your letter No.A5(2). QRY.CR.35/2013-14 dated.21.01.2014 on the above subject informing that our proposal for purpose of quarrying and removal of boulders, size stones cannot be consider. In this regard we write to inform that we are the class - 1 contractor in road building and building construction for Public Works Department (PWD), Pradhana Mantri Grama Sadak Yojana (PMGSY), National Highway (NH), Karnataka Power Corporation Ltd (KPCL) etc under the government of Karnataka and Military Engineering Services (MES) for Seabird Naval Base, Karwar.

Vide their letter no. FEE 202 FFM 2011 dated 26.09.2012 the government of Karnataka communicated that stone quarry proposals in North Kanara district pertaining to Government agencies / Departments shall only be considered. At the same time, you would appreciate that we are the only legal building stone quarry holder in the entire district of North Kanara. We are being awarded road building and building construction by most of the government agencies as stated above. Although we have our own quarry at Arga Village, Karwar Taluka, Uttara Kannada District the area being small the production there in is insufficient to meet the requirement of building stone and jelly to complete the work awarded to us by the government agencies as stated above. For your kind information the following works have been awarded to us by the department of Pradhana Mantri Grama Sadak Yojana (PMGSY), Public Works Department (PWD), National Highway (NH) etc under Government Karnataka.

- 1) Package - 89- Imp to Aurad - Sadashivagad S.H. -34 from km 687.56 to 725.34 (Selected Reaches) in Karwar Taluka of Uttar Kannada District under State Highway Development Project Phase-II

Contd.....2



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--2--

- 2) Improvement to road from Honneball Cross to Near Kogre in Ankola Tq. in Uttara-Kannada Dist. [Package No.KN 27-01]
- 3) Improvement to road from Makkeri to Madibag in Karwar Tq. in Uttara Kannda Dist.[Package No.KN 27-06]
- 4) Improvements to Heggur Magod Nagarbastikere Road [in selected reaches] from Km. 0.00 to 24.00 in Honavar Taluk of Uttar Kannada District under Central Road Fund
- 5) Improvements to Honavar Salkod Dodmane Menasi Road From K.M. 00.00 to 27.80 in Honavar Taluk of Uttar Kannada District.
- 6) Improvements to Heggade katta- Devanahalli-Vaddighat SH from Km.47.15 to 79.15 in Sirsi constituency,UK Dist. (Selected reaches.)
- 7) Improvements to Sadashivgad- Goa Frontier Road From Km 0.00 to km 9.00 in Karwar Tq. U.K Dist. Under Centrally sponsored Schemes of Interstate Connectivity(ISC) for the year 2013-14 in State of Karnataka
- 8) Providing Coastal Protective Work at Devbag in Karwar Tq. of Uttar-Kannada District (CH 297.075 to 297.116 km)
- 9) Improvements to Gotegali-Goyar Road Km 6.00 to 10.00 in Karwar Tq. U.K Dist under NABARAD RIDF-XIX

The copy of the work orders of most of the above works are enclosed herewith for your perusal and ready reference. Therefore, The granite jelly to meet the requirement to complete the above works, we need additional area for granite quarrying.

In view of the above we are submitting herewith fresh application (in six sets) in the prescribed preforma 'FORM - A' along with the relevant maps/drawings of the proposed land with request to accord sanction for additional land.

We request you to kindly process our application and forward to appropriate authorities with your recommendation for necessary further action at their end.

Thanking You,

Yours Faithfully,

For Ramshree Construction Company

(SHIVAPRASAD G.K.)  
PARTNER



## FORM-AQL

(See rules 3B,3D,3E,3F,8-B 9,9C,31C,31U,31-U,31-Z,31-ZC and 32)

### APPLICATION FOR GRANT OF QUARRY LEASE/QUARRYING LICENCE/ COMPOSITE LICENSE FOR BUILDING STONE M- SAND

For \_\_\_\_\_ (Name of the Minor mineral).

(To be submitted in duplicate with sketches in triplicate)

Received at \_\_\_\_\_ Place), on \_\_\_\_\_ (date) and

Entered in the register (FROM-QLA/RAQP), Vol -No \_\_\_\_\_ at Serial

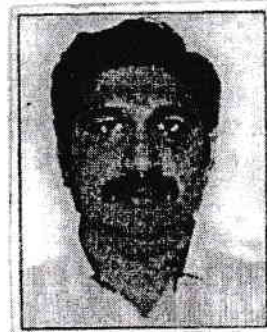
No. \_\_\_\_\_ on Page No. \_\_\_\_\_.



Signature and  
Designation of receiving Officer

From,

M/s. Shivaprasad Industries  
Prop: Sri. Shivaprasad G. K.,  
P.B. No.29, "Shreeram Complex",  
1st Floor, Kodibag,  
Karwar Taluk,  
Uttara Kannada District,  
Karnataka - 581303.



To,

The Director,  
Dept. of Mines and Geology  
Bangalore.

Sir,

I/We submit an application for grant of Quarry Lease/Quarrying License/Composite License for quarrying (minor Mineral) for a period of (50) Years over an extent of 19.09759 acres of land in the area specified in this application.



A total sum of rupees 1,93,900/- being the Application fees calculated at rupees 10,000 / - per acre has paid to government vide Treasury challan no MG0423085300000921 & Date 03/04/2023 For rupees 1,93,900 / -rupees respectively.

The required particulars are given below:

1.	Name of the applicant with permanent and correspondence address in full. (Address proofs shall be enclosed) and Mobile / Land line Number and e-mail ID.	M/s. Shivaprasad Industries Prop: Sri. Shivaprasad G. K., P.B. No.29,"Shreeram Complex", 1st Floor, Kodibag, Karwar Taluk, Uttara Kannada District, Karnataka – 581303.
2.	Is the applicant a individual/ Government Company / firm /Association or Registration Co-operative Society.	Proprietorship/ Firm
3.	a) Names of the directors/Members/Partners and their Nationality. b) Nationality of the individual applicant.	INDIAN
4.	Place and address of Registration of the company/ Firm/Association or Registered Co- operative Society. (Registered Document shall be enclosed)	
5.	Profession or nature of business of the applicant.	MINING
6.	Minor Mineral which the applicant intends to quarry (if it is any type of granite , structure be given in brief)	M-SAND
7.	Period for which quarrying lease /license is required as per rules.	50 YEARS
8.	Details of Area applied for: 19.09 ACRES	
	District	Taluk
	Village	Block No. & Sy. no.
	Extent and type of land	
	Uttara Kannada	Karwar
	Argha	52A1A
		19.09759
(to be supported by)		
(a)	Ammonia print of village Plan/ Forest land in triplicate on scale 1"=660 ft. showing the area applied with DGPS Co-ordinates.	ENCLOSED
(b)	R.R. Extract/village Map in original (Clearly state whether it is Patta / Revenue /Forest land )	ENCLOSED
(c)	Certified copies of documents to establish that the applied area is a patta land granted patta land and that the applicant has full ownerships rights in the applied area. (in case of patta land registered GPA or Consent Letter (CFQ) land owner if necessary)	NA

9.	Particulars of areas, mineral wise, already held under court order in individual capacity or partner/Director/ Member of any company /Firm Association/ Registered Co-operative Society.	NA
10.	Particulars of areas, mineral wise, already held under quarrying lease or License or License or working permissions or under Court order in individual capacity or Partner/Director/Member of any company/Firm I Association/ Registered Co-operative Society.	NILL
11.	Whether any new major/ minor mineral has been discovered in the held leased area or the existing minerals will be used as a different end product if so given details.	NO NEW MINERAL
12.	Particulars of areas, mineral wise, already applied for quarrying lease or lease or license in individual name or as a partner/Director/member of any company/ firm/association/Registered Co-Operative Society.	NILL
13.	Particulars of areas, minerals wise already applied for quarrying lease or lease license in individual name or as a partner/ director/ member of any company/Firm/ association/Registered Co-Operative Society.	NILL
14.	If the applicant, on the date of application does not hold any quarrying lease or license or working permission for quarrying or any area Under Court Order an affidavit to this effect should be furnished with this application.	ENCLOSED
15.	Proposed method of quarrying and investment. (a) Mechanised / quasi mechanized/manul. (b) Investment in accordance with	MECHANISED
16.	Whether the applicant is the owner of an any mineral based industries or intent to establish any mineral based industries that use minor minerals as raw material in state. (Schedule I B) If so furnish details regarding: (a) Name of the Unit: (b) Date of establishment: (c) Location and Address of the unit: (d) Capacity of the unit in terms of production.	ENCLOSED
17.	Whether the applicant belongs to scheduled Caste /Schedule Tribe or Registered Society of such persons/ physically challenged (physically disabled)/ economically weaker section and traditional quarry operator by profession/ others.	NA



18.	If so, persons belonging to scheduled Caste / Scheduled Tribe or Registered Society of such persons, / physically challenged (Physically disabled) / economically weaker section and traditional quarry operator by profession shall produce a certificate from the concerned Taluk Tashildar or concerned competent authority.	
19.	Financial resources of the applicant furnish Banker's credit certificate.	NA
20.	<b>Payment Details:</b> <b>(a) EMD</b> Amount paid : Payment mode : Treasury Challen/ RTGS/NIFT Details of payment: <b>(b) Application fee</b> Amount paid : Payment mode :treasury Challan/RTGS/NIFT Details of payment: <b>(c) Processing Fee</b> Amount paid : Payment Mode: Treasury Challen/RTGS/NIFT Details of payment:	ENCLOSED
21.	Turnover of the applicant during the last 5 years (rupees in lakhs) (1) ..... year (2) ..... year (3) ..... year (4) ..... year (5) ..... year To be supported by Certificate from chartered accountant	ENCLOSED
22.	Positive Networth of the applicant during last 3 years [ rupees in lakhs]:- ..... Year ..... Year	ENCLOSED

	..... Year	
	To be supported by certificate from chartered Accountant.	
23.	Does the applicant has convicted of any offence involving moral turpitude/ illegal mining activity?	NO
24.	Bankers reference, if any	-
25.	Brief write up about the company/firm/individual	Proprietorship/ Firm
26.	Particulars of areas, mineral wise already applied and holding quarry leases.	NILL
27.	Proposed method of areas, mineral wise already applied and holding quarry leases.	MECHANIZED
28.	Clearance Certificate with respect to royalty dead rent, surface rent and any other dues toward department.	ENCLOSED
29.	Does the applicant holds office of profit: yes / no	YES
30.	Does the applicant has convicted of any offence involving moral turpitude/illegal mining activity.	NO
31.	Any other relevant information like; (i)Duly registered GPA document, if the application is filed by the GPA holder. (ii) Authorization letter to represent Firm/ company etc., along with board resolution to this effect.	NA
32.	Any other particulars which the applicant wishes to furnish.	-

#### **DECLARATION**

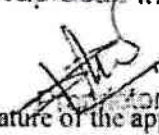
I/We hereby declare that:-

- (a) The particulars Submitted/ uploaded are factual and correct and we are agreeable to furnish any other information/details, plans sketches etc. as may be required by competent authority.
- (b) I /We agree and declare that I/we are fully familiar with the terms and conditions of the tender cum auction process as notified by the Government/ District sand committe..... District and agree to abide by the terms and conditions issued by the Government/ district Sand Committee .....District.
- (c) Delete whichever is not applicable.

Date: 05-04-2023

Place: BANGALORE

Yours faithfully  
Shivaprasad Industries

  
(Signature of the applicant)

[Name with Full Address]

M/s. Shivaprasad Industries  
Prop: Sri. Shivaprasad G. K,  
P.B. No.29, "Shreeram Complex",  
1st Floor, Kodibag,  
Karwar Taluk,  
Uttara Kannada District,  
Karnataka - 581303.

Remitter's copy.



ಚಲನ್ ಚಾಲ್ತಿ ಅವಧಿ Challan Validity	ಜಿಲ್ಲೆ District	ಇಲಾಖೆ Department	ಡಿಡಿ ಕಛೇರಿ DDO Office	
7 Days	BENGALURU URBAN	DEPARTMENT OF MINES & GEOLOGY	DIRECTORATE OF MINES & GEOLOGY, BANGALORE	
ವರ್ಗ Category	ದಿನಾಂಕ Date	ಚಲನ್ ಉಲ್ಲೇಖ ಸಂಖ್ಯೆ Challan Reference Number	ಡಿಡಿ ಕೋಡ್ DDO Code	
Government	03/04/2023	MG0423085300000921	16101D	
ಸಂದಾಯದಾರನ ಹೆಸರು Remitter Name	SHIVAPRASAD INDUSTRIES PROP SRI SHIVAPRASAD G K			
ವಿಳಾಸ Address				
ಉದ್ದೇಶ Purpose	ಲೆಕ್ಕ ಶೀರ್ಷಿಕೆ Head of Account	ಉಪ ಉದ್ದೇಶದ ಹೆಸರು Sub Purpose Name	ಉದ್ದೇಶ ನಿರ್ದಿಷ್ಟ ಐಡಿ Purpose Specific ID	ಮೊತ್ತ Amount
FEES/PENALTY	0853~00~102~1~04~000	APPLICATION FEE	NA	193900.00
ಸಂದಾಯ ಮಾಡುವ ಬ್ಯಾಂಕ್ Remittance Bank	STATE BANK OF INDIA	ಒಟ್ಟು ಮೊತ್ತ Grand Total	193900.00	
ಪಾವತಿ ಹಂತ Payment Status	Payment Yet To Be Made At Agency Bank	ಒಟ್ಟು ಮೊತ್ತ ಅಕ್ಷರಗಳಲ್ಲಿ Total Amount in Words	One Lakh Ninety Three Thousand Nine Hundred Only	
ಪಾವತಿ ವಿವರಗಳು Payment Details				
ಪಾವತಿ ವಿಧ Payment Mode				

Cash  
STATE BANK OF INDIA  
TRANSFER/CLEARING/CASH  
-3 APR 2023  
J. 21606 a  
CHECKER

**GOVERNMENT OF KARNATAKA**

NO.DMG/DD(M.A)/M-Sand-31-ZC/QLA-482/2023/2023-24

2293

Office of the Director  
Department of Mines & Geology  
No.49, Khanija Bhavan, R.C.Road  
Bangalore-01, Dated: -2023.

**"FORM-A"**  
(See rules 31-ZC)

22 JUN 2023

**Acknowledgement for receipt of application for grant of quarry lease for  
Building Stone (M-Sand)**

Received one application for **Building Stone (M-Sand)** (name the minor mineral) in  
Sy.No. 52A1A of Extent 19-09759 Acres (Revenue land/Forest land/ Patta land) in Argha  
Village of Karwar Taluk of Uttarakannada District from M/s. Shivaprasad Industries on  
(date) 05.04.2023.

**Enclosures as follows:-**

- 1) K2 Challan No. MG0423085300000921 Dt:03.04.2023, Rs.1,93,900-00.
- 2) GPS Sketch.
- 3) RTC.
- 4) Stone crusher CFO and Form-C.
- 5) Affidavit
- 6) Village Map

**Note:** This acknowledgment is issued subject to submission of additional documents as may  
be prescribed by the Department in connection with the Quarry Lease Application.

**Place:Bangalore**

Hilly  
Deputy Director (M.A)  
H.

To,  
M/s. Shivaprasad Industries  
Prop. Sri. Shivaprasad G K  
P.B.No.29, Shreeram Complex  
1<sup>st</sup> Floor, Kodibag,  
Karwar Taluk,  
Uttarakannada District.  
Karnataka-581 303.



0FORM C  
[See Rule 3(2)]  
**Licence for Stone Crusher**

**Licence No: 23 /DMG/UKD/CL/2020-21/1374/11 8 DEC 2020**

The licence for the establishment of a Stone crusher in favour of **M/s. Shivaprasad Industries**, in Sy No. **52/B** of **Arga Village, Karwar Taluk, Uttara Kannada** District is accorded for a period of **Twenty years** from the date of issue. The licensee should strictly adhere to the relevant Act and Rules.

This licence is valid up to **18-12-2040**

*ay*  
District Stone Crusher Licensing  
And controlling Authority  
Uttara Kannada District, Karwar

To,

**Shri. Shivaprasad G. K.**  
**M/s. Shivaprasad Industries,**  
**P.B. No.29, Karwar Taluk,**  
**Uttara Kannada District.**



ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿಯವರ ಕಛೇರಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆ, ಕಾರವಾರ -581 306

OFFICE OF THE SENIOR GEOLOGIST, DEPT. OF MINES & GEOLOGY, UTTARA KANNADA DISTRICT, KARWAR-581 306

Email: ddkar.dmg@gmail.com

ddkar.dmg-kan@nic.in

ದೂರವಾಣಿ : 08302-227395

ಸಂಖ್ಯೆ: ಗಭೂಇ/ಉಕಜ/ಕಗಗು/2023-24 / 2270

ದಿನಾಂಕ: 02-12-2023  
2 DEC 2023

ಇವರಿಗೆ,

ಉಪ ಆರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು,

ಕಾರವಾರ ವಿಭಾಗ, ಕಾರವಾರ

ಮಾನ್ಯರೇ,

ವಿಷಯ: ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆಯ ಕಾರವಾರ ತಾಲೂಕಿನ ಆರ್ಗಾ ಗ್ರಾಮದ ಆರಣ್ಯ ಸ.ನಂ.52A1A ರಲ್ಲಿ 19-0-0 ಎಕರೆ (9.98 ಹೆಕ್ಟರ್) ಕ್ಷೇತ್ರದಲ್ಲಿ ಕಲ್ಲು ಗಣಿಗಾರಿಕೆ ನಡೆಸಲು ಸಲ್ಲಿಸಿದ ಅರ್ಜಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಅರ್ಜಿತ ಪ್ರದೇಶದ DGPS ಸರ್ವೆ ನಡೆಸುವ ಕುರಿತು.

ಉಲ್ಲೇಖ: ಕೇಂದ್ರ ಕಛೇರಿಯ ಜ್ಞಾಪನ ಪತ್ರ ಸಂಖ್ಯೆ:ಗಭೂಇ/ಉ.ನಿ(ಖ.ಆ)/ಎಂ-ಸ್ಯಾಂಡ್/ನಿಯಮ 31ZC/2023-24/6429 ದಿನಾಂಕ:30-10-2023.

\*\*\*\*\*

ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಕರ್ನಾಟಕ ಉಪಖನಿಜ ರಿಯಾಯಿತಿ ನಿಯಮಾವಳಿ 1994 ರ ತಿದ್ದುಪಡಿ 2023 ರ ನಿಯಮ 31ZC ರಂತೆ ಎಂ-ಸ್ಯಾಂಡ್ ಉತ್ಪಾದಿಸುವ ಉದ್ದೇಶಕ್ಕಾಗಿ ಕಟ್ಟಡ ಕಲ್ಲು ಗಣಿಗುತ್ತಿಗೆಯನ್ನು ಮಂಜೂರು ಮಾಡಲು ಅವಕಾಶ ಕಲ್ಪಿಸಿದ್ದು ಅದರಂತೆ, ಮೆ|| ಶಿವಪ್ರಸಾದ ಇಂಡಸ್ಟ್ರೀಸ್. ಪ್ರೈ. ಶಿವಪ್ರಸಾದ ಜಿ. ಕೆ., ಕಾರವಾರ ಇವರು ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆಯ ಕಾರವಾರ ತಾಲೂಕಿನ ಆರ್ಗಾ ಗ್ರಾಮದ ಆರಣ್ಯ ಸ.ನಂ.52A1A ರಲ್ಲಿನ 19-0-0 ಎಕರೆ (9.98 ಹೆಕ್ಟರ್) ಕ್ಷೇತ್ರದ ಕಲ್ಲು ಗಣಿ ಗುತ್ತಿಗೆ ಮಂಜೂರಾತಿ ಕೋರಿ ಅರ್ಜಿ ಸಲ್ಲಿಸಿರುತ್ತಾರೆ. ಸದರಿ ಅರ್ಜಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಅರ್ಜಿತ ಪ್ರದೇಶದ ತಾಂತ್ರಿಕ ವರದಿಯನ್ನು ಹಾಗೂ DGPS ಸರ್ವೆ ವರದಿಯನ್ನು ತಯಾರಿಸಿ ನೀಡುವಂತೆ ಕೇಂದ್ರ ಕಛೇರಿಯಿಂದ ಉಲ್ಲೇಖಿತ ಜ್ಞಾಪನ ಪತ್ರದಲ್ಲಿ ಸೂಚಿಸಲಾಗಿರುತ್ತದೆ.

ಈ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಕಲ್ಲು ಗಣಿ ಗುತ್ತಿಗೆ ಮಂಜೂರಾತಿಗೆ ಕೋರಿರುವ ಜಾಗವು ಆರಣ್ಯ ಪ್ರದೇಶವಾಗಿರುವುದರಿಂದ ಸದರಿ ಪ್ರದೇಶದ DGPS ಸರ್ವೆಯನ್ನು ಹಾಗೂ ಅರ್ಜಿತ ಪ್ರದೇಶದ ಜಂಟಿ ಸರ್ವೆ ನಡೆಸಿ, ಗಡಿ ಗುರುತಿಸಬೇಕಾಗಿರುತ್ತದೆ. ತತ್ಸಂಬಂಧ, ಸರ್ವೆ ಕಾರ್ಯವನ್ನು ದಿನಾಂಕ:04-12-2023 ರಂದು ಬೆಳಿಗ್ಗೆ 11:00 ಗಂಟೆಗೆ ನಿಗದಿಪಡಿಸಲಾಗಿದ್ದು, ಸದರಿ ದಿನದಂದು ತಮ್ಮ ಕಛೇರಿ ಅಧಿಕಾರಿಗಳನ್ನು ನಿಯೋಜಿಸಿ ಸಹಕರಿಸುವಂತೆ ಈ ಮೂಲಕ ತಮ್ಮನ್ನು ಕೋರಿದೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ,

ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿ

ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ

ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆ, ಕಾರವಾರ.

ಪ್ರತಿಯನ್ನು: ಶಿವಪ್ರಸಾದ ಜಿ. ಕೆ., ಮೆ|| ಶಿವಪ್ರಸಾದ ಇಂಡಸ್ಟ್ರೀಸ್, ಕೋಡಿಬಾಗ, ಕಾರವಾರ ರವರ ಮಾಹಿತಿಗಾಗಿ ಹಾಗೂ ಸದರಿ ದಿನದಂದು ಹಾಜರಿರಲು ತಿಳಿಸಿದೆ.

ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳ ಕಛೇರಿ,  
ಕಾರವಾರ ವಿಭಾಗ, ಕಾರವಾರ,  
ಎಂ.ಟಿ.ರಸ್ತೆ, ಕಾಡುಬಾಗ,  
ಕಾರವಾರ-581 301  
ಕರ್ನಾಟಕ.



ದೂರವಾರ್ತೆ: 08382-226365  
ಇ-ಮೇಲ್: karwardef@gmail.

ಕ್ರ.ಸಂ:ಬಿ4/ಜಿಎಫ್‌ಎಲ್/ಎಫ್ ಸಿಎ/ಸಿಆರ್-12/2019-20

ದಿನಾಂಕ: 02-12-2023

ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ,  
ಕಾರವಾರ

-ರವರಿಗೆ,

ವಿಷಯ: ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆಯ ಕಾರವಾರ ತಾಲೂಕಿನ ಅರ್ಗಾ ಗ್ರಾಮದ ಅರಣ್ಯ ಸ.ನಂ: 52A1A ರಲ್ಲಿ 19-0-0 ಎಕರೆ (9.98 ಹೆಕ್ಟೇರ್) ಕ್ಷೇತ್ರದಲ್ಲಿ ಕಲ್ಲು ಗಣಿಗಾರಿಕೆ ನಡೆಸಲು ಸಲ್ಲಿಸಿದ ಅರ್ಜಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಅರ್ಜಿತ ಪ್ರದೇಶದ DGPS ಸರ್ವೆ ನಡೆಸುವ ಕುರಿತು

ಉಲ್ಲೇಖ: ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಉತ್ತರ ಕನ್ನಡ, ಕಾರವಾರ ರವರ ಪತ್ರ ಸಂಗ್ರಹಣೆ/ಉಕಜಿ/ಕಗಗು/2023-24/2269 ದಿನಾಂಕ: 02-12-2023

ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಮು: ಶಿವಪ್ರಸಾದ ಇಂಡಸ್ಟ್ರೀಸ್, ಪ್ರೌಢಿವಪ್ರಸಾದ ಜಿ.ಕೆ., ಕಾರವಾರ ರವರು ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆಯ ಕಾರವಾರ ತಾಲೂಕಿನ ಅರ್ಗಾ ಗ್ರಾಮದ ಅರಣ್ಯ ಸರ್ವೆ ನಂ: 52A1A ರಲ್ಲಿನ 19-0-0 ಎಕರೆ (9.98 ಹೆಕ್ಟೇರ್) ಕ್ಷೇತ್ರದ ಕಲ್ಲು ಗಣಿ ಗುತ್ತಿಗೆ ಮಂಜೂರಾತಿ ಕೋರಿ ಅರ್ಜಿ ಸಲ್ಲಿಸಿದಂತೆ, ಸದರಿ ಅರ್ಜಿತ ಪ್ರದೇಶದ DGPS ಸರ್ವೆ ಹಾಗೂ ಅರ್ಜಿತ ಪ್ರದೇಶದ ಜಂಟಿ ಸರ್ವೆ ನಡೆಸಿ ಗಡಿ ಗುರುತಿಸಬೇಕಾಗಿರುವುದರಿಂದ ದಿನಾಂಕ: 04-12-2023 ರಂದು ಬೆಳಿಗ್ಗೆ 11.00 ಗಂಟೆಗೆ ಸರ್ವೆ ಕಾರ್ಯವು ನಿಗದಿಪಡಿಸಲಾಗಿದ್ದು, ಸದರಿ ದಿನದಂದು ಅಧಿಕಾರಿಗಳನ್ನು ನಿಯೋಜಿಸಿ ಸಹಕರಿಸುವಂತೆ ಉಲ್ಲೇಖದ ಪತ್ರದಲ್ಲಿ ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಉತ್ತರ ಕನ್ನಡ, ಕಾರವಾರ ರವರು ಈ ಕಚೇರಿಗೆ ಕೋರಿಕೊಂಡಿರುತ್ತಾರೆ.

ಕಾರಣ, ಸದರ ದಿನದಂದು ಈ ಮೇಲಿನ ಕ್ಷೇತ್ರಕ್ಕೆ ದಾಖಲೆಗಳೊಂದಿಗೆ DGPS ಸರ್ವೆ ಕಾರ್ಯಕ್ಕೆ ಹಾಜರಾಗಿ ಸಹಕರಿಸಲು ಈ ಮೂಲಕ ತಿಳಿಸಿದೆ.

*Recevd*  
ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ,  
ಕಾರವಾರ ವಿಭಾಗ, ಕಾರವಾರ

ಪ್ರತಿಯನ್ನು ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ, ಕಾರವಾರ ಉಪ-ವಿಭಾಗ, ಕಾರವಾರ ರವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ ಸೂಕ್ತ ಕ್ರಮಕ್ಕಾಗಿ ಕಳುಹಿಸಿದೆ.

ಪ್ರತಿಯನ್ನು ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಉತ್ತರ ಕನ್ನಡ, ಕಾರವಾರ ಇವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ ಕಳುಹಿಸಿದೆ.

ಪ್ರತಿಯನ್ನು ಮು: ಶಿವಪ್ರಸಾದ ಇಂಡಸ್ಟ್ರೀಸ್, ಪ್ರೌಢಿವಪ್ರಸಾದ ಜಿ.ಕೆ., ಕಾರವಾರ ಇವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ ಕಳುಹಿಸಿದೆ.





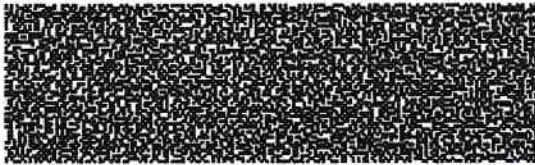
सत्यमेव जयते

## INDIA NON JUDICIAL

### Government of Karnataka

#### e-Stamp

Certificate No.	: IN-KA94473504850286W
Certificate Issued Date	: 08-Jan-2024 04:38 PM
Account Reference	: NONACC (FI)/ kaksfcl08/ KARWAR3/ KA-KW
Unique Doc. Reference	: SUBIN-KAKAKSFCL0854172333332906W
Purchased by	: SHIVAPRASAD G K AND OTHERS KARWAR
Description of Document	: Article 4 Affidavit
Description	: FOR AFFIDAVIT
Consideration Price (Rs.)	: 0 (Zero)
First Party	: SHIVAPRASAD G K AND OTHERS KARWAR
Second Party	: N A
Stamp Duty Paid By	: SHIVAPRASAD G K AND OTHERS KARWAR
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



Please write or type below this line

#### AFFIDAVIT

I, Sri. Shivaprasad G. K. Pillai, age :51, Occupation : Business, R/o Flat No. 5E, 5<sup>th</sup> Floor, Crescent court apartments, No.8, Crescent Road Bangalore, opposite Judicial Academy, Gandhinagar, High Grounds Bangalore, North Bangaluru, Pin-560001 now at "Saraswati Sadan", Shirwad, Karwar. Aadhaar No.5284 8191 0066, PAN :AFTPP0788C,

Contd...2

#### Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at 'www.shredstamp.com' or using e-Stamp Mobile App of Stock Holding.
2. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
3. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the competent authority.

No. OF CC

NOTARY, KARWAR.

Cell No.9449597677 do hereby state on solemn affirmation that the following facts are true and correct to the best of my belief, knowledge and information.

My self Sri.Shivaprasad G.K. Pillai and my younger brother Sri.Jayaprakash K. Pillai, residing at "Saraswati Sadan", Shirwad, Karwar, Aadhaar No.4675 6157 8221, PAN :AEUPP3714J, Cell No.9449597666 are partners of M/s. Ramshree Construction Company, Engineers and Contractors, Kodibag, Karwar. It is a partnership firm registered before Registrar of Firms Uttar Kannada Karwar, on 16-10-2020. Except myself Sri.Shivaprasad and my younger brother Sri.Jayaprakash K. Pillai there no other partners to the said Firm.

I Mr.Shivaprasad G.K. Pilli is the Proprietor of M/s. Shivaprasad Industries, and having Crusher License (Form C) issued by the Deputy Commissionier, Uttar Kannada, Karwar. Licence No.23/DMG/UKD/CL/ 2020-21/1374/18 DEC 2020.

M/s. Ramshree Construction Company, Engineers & Contractors has applied for a Quarry, the online application was filed on 03.02.2018 (Original), 21.06.2018 (resubmitted-I) 07.08.2020 (resubmitted-II), and 19.03.2021 (resubmitted-III) to principal chief Conservator of Forest (Forest Conservation) and Nodal Officer (FCA) for Quarry license/lease. The application is for consideration from the said authority.

M/s. Ramshree Construction Company, Engineers & Contractors, Kodibag, Karwar is not having Crusher License (Form C), but M/s. Shivaprasad Industries, Kodibag, Karwar belonging to me is having Crusher License (Form C). As per the present rule quarry license under 31ZC will be issued to the person/Organization who has a crusher lease / Crusher license under Form C.



Contd...3



As Ramshree Construction Company has already applied for Quarry lease / License and the application is under consideration, we request you to amend the name of the quarry License application from Ramshree Constructions company to M/s.Shivaprasad Industries, a Consent/NOC/ Affidavit of Mr.Jayaprakash K. Pillai, who is the only partner of Ramshree Constructions company is also attached.

I Sri. Jayaprakash K. Pillai, Aadhaar No.4675 6157 8221, PAN:AEUPP3714J, Cell No.9449597666, residing at "Saraswati Sadan", Shirwad, Karwar, who is a partner of M/s. Ramshree Constructions Company, hereby I give my consent to amend this name in the Quarry license/Lease which is with Nodal Officer from Ramshree Constructions Company to Shivaprasad Industries as Quarry License under 31ZC will be issued to the person /Organization who has a crusher lease / Crusher license under Form C.

I Sri.Jayaprakash K. Pillai have no objection and No Claim for what so ever for Changing the name of the applicant of the Quarry license/Lease from Ramshree Constructions Company to M/s.Shivaprasad Industries.

Hence we pray to kind self to amend this name of the Quarry License / Lease from Ramshree Constructions Company to M/s. Shivaprasad Industries.

Hence we are swearing this affidavit to produce before Deputy Conservator of Forest, Karwar.

Place : Karwar  
Date : 16.01.2024

Deponent is Identified by

**S. M. PANDIT**  
Advocate,  
Habbuwada, Karwar

1. Deponent  
Mr.Shivaprasad G. K. Pillai

2. Deponent  
Mr.Jayaprakash K. Pillai

**SWORN AND SIGNED BEFORE ME**

**S. M. DURGEKAR**  
NOTARY, KARWAR.

No. OF CORRECTIONS



DGPS SKETCH SHOWING THE AREA FOR ORDINARY BUILDING STONE QUARRY AS PER KMMCR 1994 AMMENDMENT RULE 2023 UNDER RULE 31-ZC IN FAVOUR OF M/S. SHIVAPRASAD INDUSTRIES IN PART OF GOVT.SY.NO.52A1A OVER AN EXTENT OF 07.72852HA (19.09759 Acres.Cents). IN ARGHA VILLAGE, KARWAR TALUK, UTTARA KANNADA DISTRICT, KARNATAKA.

Applied Area for sand block Over an extent of 19.09759 Acres.Cents

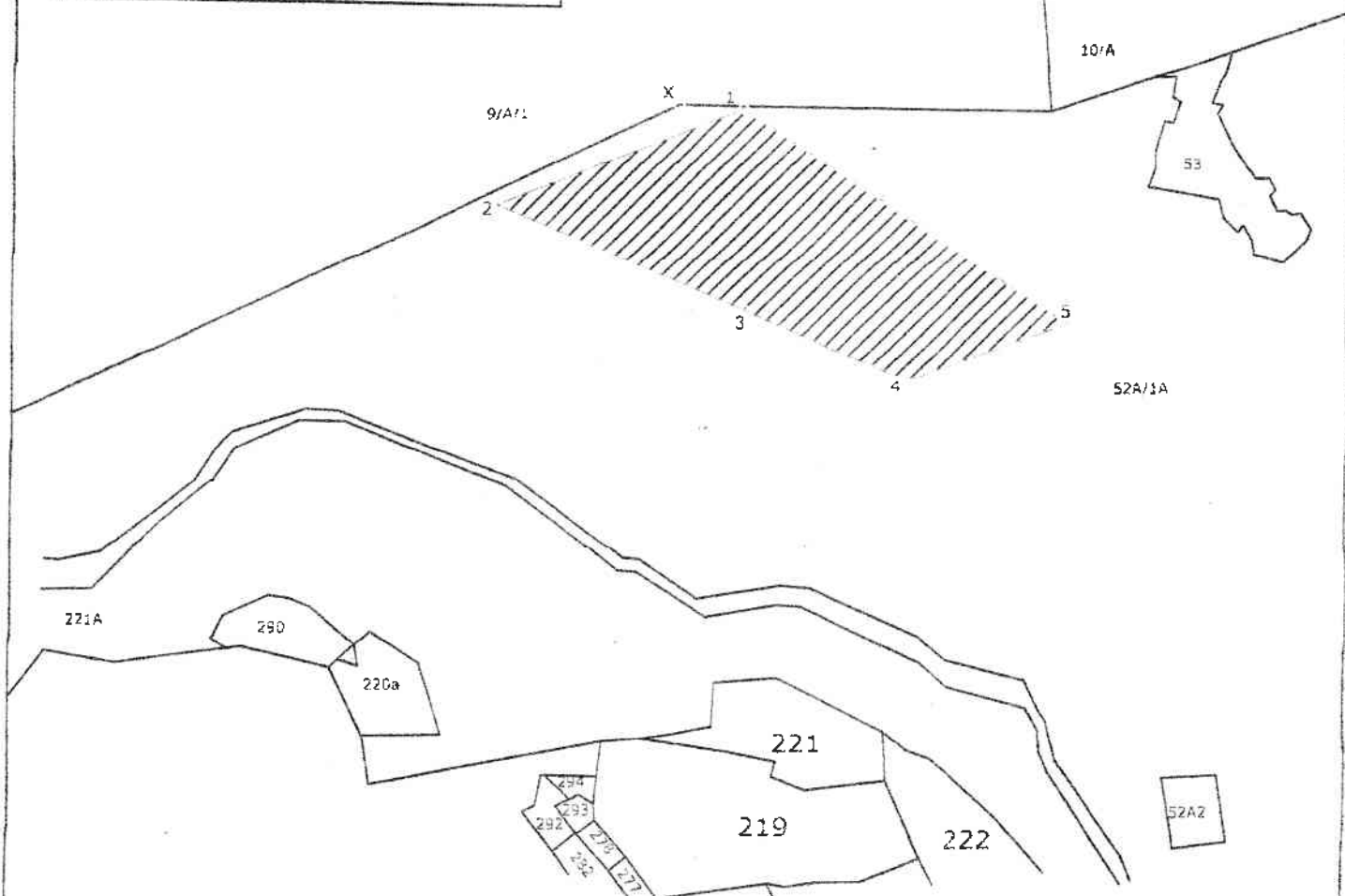


Scale: 1"=20 Chains  
(1":660 ft)

DGPS READING OF CORNER POINTS		
CORNER POINTS	LATITUDE	LONGITUDE
BP-1	14° 47' 10.0123"N	74° 08' 39.8152"E
BP-2	14° 47' 06.4665"N	74° 08' 31.0089"E
BP-3	14° 47' 02.9884"N	74° 08' 40.0122"E
BP-4	14° 47' 00.6662"N	74° 08' 45.7024"E
BP-5	14° 47' 02.8052"N	74° 08' 51.4114"E
BP-X	14° 47' 10.1001"N	74° 08' 37.5021"E
MAP DATUM - WGS-84		

#### BOUNDARIES OF QUARRY

NORTH	REMAINING PART OF SY NO 52A/1A
SOUTH	REMAINING PART OF SY NO 52A/1A
EAST	REMAINING PART OF SY NO 52A/1A
WEST	REMAINING PART OF SY NO 52A/1A



Applicant Signature

COMPLAINT DETAILS

Complaint ID and Proposal #	Complaint Details	Complaint Issuer Details	Feedback	Uploaded Screenshot
<b>Complaint ID:</b> TIC-24004006 <b>Proposal No:</b> 31539 <b>Date:</b> 16-02-2024 06:33 PM	<b>Issue Type:</b> Form-A (Part-1) <b>Clearance Type:</b> Forest Clearances	<b>Mobile No &amp; Email:</b> 9731413666 <b>State &amp; User Type:</b> KARNATAKA PP/User Agency	<p>We have applied a forest proposal for diversion of 8.80388 Ha vide proposal No. FPIKA/QRY/31539/2018 (parivesh-1 0) in the name of M/s RAMSHREE CONSTRUCTION COMPANY (User Agency in Item No. A-2-i). But the Department of Mines &amp; Geology have processed the quarry proposal in the name of our crusher license name i.e., M/s Shivaprasad Industries under 31ZC. Ownership is same for both the companies (M/s Ramshree Construction Company &amp; M/s Shivaprasad Industries). Now, the forest clearance proposal should be in the name of M/s Shivaprasad Industries instead of M/s RAMSHREE CONSTRUCTION COMPANY. Hence, we are requesting you to provide edit name of User Agency in Item No. A-2 (i) (Details of User Agency) in the proposal No. FPIKA/QRY/31539/2018.</p>	<a href="#">View Document</a>

Complaint Resolution Details

Complaint Details	Resolved Date	Resolved Remarks	Uploaded Screenshot(Resolve)	Issue Sub Category
<b>Complaint ID:</b> TIC-24004006 <b>Date:</b> 16-02-2024 06:33 PM	21-02-2024 11:01 AM	Kindly provide a letter from IRO for any change in user agency details	<a href="#">View Document</a>	Others



## **ANNEXURES**

<b>ANNEXURE</b>	<b>PARTICULARS</b>
Annexure-1	Copy of manual application submitted on 07.10.2014 to Nodal Officer, Aranya Bhavan, Bangalore.
Annexure-2	Online application was later submitted
Annexure-3	Our application to Department of Mines and Geology in FORM-AQL , Dated 15.04.2023 of Quarry application by Department of Mines and Geology under rule 31ZC
Annexure-4	Application accepted by Department of Mines & Geology and amount of Rs. 1,93,900/- accepted by Department of Mines & Geology Challan Copy submitted on 03.04.2023
Annexure-5	Acknowledgement for receipt of application for grant of quarry lease for Building Stone(M-sand), dated 22.06.2023
Annexure-6	Copy of crusher license in the name of M/s Shivaprasad Industries valid upto 2040 (Letter dated 18.12.2020)
Annexure-7	Letter by Department of Mines & Geology to DFO Karwar to do joint survey of the quarry, dated 02.12.2023
Annexure-8	Letter from DFO to ACF to conduct joint survey with Department of Mines & Geology on 02.12.2023
Annexure-9	Affidavit submitted
Annexure-10	Copy of the new sketch submitted after joint survey
Annexure-11	Complaint details
Annexure-12	A report of mineral availability of booklet duly certified by Department of Mines and Geology has been submitted along with 4 sets.
Annexure-13	DGPS Survey Report

# A REPORT ON MINERAL AVAILABILITY

AND

## FEASIBILITY FOR SCIENTIFIC QUARRYING

*As per*

*Government of Karnataka Order No. CI-MMN/106/2023,  
Bangalore dated 11/09/2023.*

Of

### ARGHA BUILDING STONE QUARRY

Name of the Applicant: M/s Shivaprasad Industries  
Extent of the area: 19.09759 Acres (Government land)  
Survey No.: 52 A/1A (part)  
Village: Argha  
Taluk & District: Karwar & Uttara Kannada  
State: Karnataka

Prepared by  
Ganapati S. Hegde  
DMG/DD(MA)RQP-04/2022-23  
#517, SAGAR REGAL, VI Main,  
Maruti Layout, Vasanthapura, Bangalore - 61.  
Ph No: +91- 9449984199  
January- 2024



FEASIBILITY REPORT		
Sr. Nos.	Contents	Page Nos.
1.0	GENERAL	5
2.0	SCOPE OF WORK	5
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## CERTIFICATE BY THE RQP

I HERE BY CERTIFY THAT

1. The provisions of Mines Act, Rules & Regulations made there under have been observed in preparation of the feasibility Report of the applied area which is located in part of survey no. 52 A/1A (Government Land) in Argha village of Karwar Taluk of Uttara kannada District, Karnataka. Whenever specific Permission is required for any deviation, the applicant will approach the Director of Mines & Geology.
2. The information furnished in the Feasibility Report is true and correct to the best of my knowledge.

Place: Bangalore  
Date: 12.01.2024

  
Ganapati S. Hegde

DMG/DD(MA)RQP-04/2022-23



OFFICE OF THE DIRECTOR,  
DEPARTMENT OF MINES AND GEOLOGY.



**CERTIFICATE OF THE RECOGNITION AS QUALIFIED PERSON TO  
PREPARE QUARRYING PLANS**

(Under Rule-8-E of Karnataka Minor Mineral Concession Rules-1994)

**Sri. Ganapati S Hegde, resident of F1, #517, Sagar Regal, 6<sup>th</sup> Main Road, Maruti Housing Layout, Vasanthapura, Bengaluru 560 061** having given satisfactory evidence of his qualifications and experience it is hereby recognized under Rule-8-E of Karnataka Minor Mineral Concession Rules-1994 as a qualified person to prepare quarrying plans. The certificate is valid for a period of Five (05) years from the date of issuance.

Recognition No. DMG/DD(MA)/RQP-04/2022-23

Place: Bangalore.

Date: 27-05-2022

Director

Department of Mines and Geology  
Bangalore.

**A REPORT  
ON MINERAL AVAILABILITY AND FEASIBILITY FOR SCIENTIFIC QUARRYING  
OF BUILDING STONE IN THE ARGHA VILLAGE LIMITS OF KARWAR TALUK OF  
UTTARA KANNADA DISTRICT, KARNATAKA**

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**1.0 GENERAL**

M/s Shivaprasad Industries has applied for grant of quarry applied for extraction of building stone which is located in part of Sy. No. 52 A/1A in Argha Village of Karwar Taluk of Uttara Kannada District, Karnataka over an extent of 19.09759 acres in Government land.

Since feasibility Report on availability of mineral/rock and its economic viability for quarrying and for other purpose is required as per Government of Karnataka Order No. CI-MMN/106/2023, Bangalore dated 11/09/2023, the feasibility report has been prepared accordingly by the Recognized Qualified Person over an extent of 19.09759 Acres area which is located in part of Sy. No. 52 A/1A in Argha village, Karwar Taluk, Uttar Kannada District, Karnataka. The sketch showing the applied area considered for feasibility study is enclosed as Plate No.2.

**2.0 SCOPE OF WORK**

Granite/gneissic granite deposit is very common in India especially in the southern India called Peninsular India, forming nearly 75% of the surface of the peninsula. The geological formations bearing granite and gneissic granite are the oldest rock formations in the earth's history (Archaean Age). The Archaean gneisses form an inexhaustible source of good material as building stone. The appearance and colour of granite render the stones highly ornamental and effective for a variety of decorative uses. Its durability is such that the numerous Ancient Temples and Monuments of South India built of granite stand today almost intact after centuries of wear.

Reconnaissance survey followed by geological field work to identify the different rock formations exposed on the surface with dip and strike, fold, fault and other tectonic structures of the litho-units and their relation with the granite formation.



Surveying and preparation of surface plan with contour interval of 5 mts for the applied area.

Preparation of Geological plan and Geological section with the help of Surface plan by incorporating surface geological information's collected during field work.

Calculate the Geological Reserve and mineable quantity of gneissic granite (building stone) from the Geological section by considering length, width and depth persistence of the gneissic granite stone to assess the economic viability of the quarry.

### 3.0 LOCATION & ACCESSIBILITY

a) **Details of the Area:** The applied area is demarcated on the Topo-sheet No 48 J/1 of the Survey of India and enclosed vide Plate. No.1 as key plan.

State	District	Taluk	Village	Sy. No.	Area in Acres	Ownership
Karnataka	Uttara Kannada	Karwar	Argha	52 A/1A	19.09759	Government land

b) **Existence of public road / railway line, port, Airport, if any nearby and approximate distance:** The nearest human habitation is at Argha village which is at a distance of 3.54 kms from the applied quarry site. The nearest railway station is at Karwar which is at a distance of 5.60 kms from the applied area. The Taluka headquarter Karwar is at 3.06 kms from the applied area. The nearest port is at Karwar at a distance of 4.28 kms. The nearest Airport is at Vasco-da-Gama, Goa at a distance of 90 kms.

c) Topo sheet No. with Latitude and longitude: Topo sheet No 48 J/1

DGPS READINGS OF BOUNDARY POINTS					
Point ID	Easting	Northing	Elevation	Latitude (Global)	Longitude (Global)
1	407922.0811	1634845.0012	210.6401	14° 47' 10.0123"N	74° 08' 39.8152"E
2	407658.3962	1634737.0620	168.0100	14° 47' 06.4665"N	74° 08' 31.0089"E
3	407927.1412	1634629.1601	145.6540	14° 47' 02.9884"N	74° 08' 40.0122"E
4	408096.9925	1634557.1641	155.2574	14° 47' 00.6662"N	74° 08' 45.7024"E
5	408267.9160	1634622.2451	175.8549	14° 47' 02.8052"N	74° 08' 51.4114"E
REF-X	407852.9421	1634847.9652	215.0021	14° 47' 10.1001"N	74° 08' 37.5021"E

d) General location and vicinity map showing the area boundaries: Key Plan of the area is enclosed, showing the existing roads, village, nallah, waste land, agricultural land, etc. as Plate. No. 1.

#### 4.0 TOPOGRAPHY AND CLIMATE

a) Topography and climate of the applied area:

i) Topography: The Applied area is located in Govt Land. The topography of the applied area is undulated topography located on the hill slope and sloping due South direction. The maximum elevation of the applied area is 210 mts and lowest elevation is 145 mts above the MSL having an elevation difference of 65.0 mts. The subject area falls within this region confining to a part of Argha village. Surface plan has been prepared on a scale 1:3000 RF and is enclosed as Plate No. 3

ii) Climate: The Uttara Kannada District experiences tropical monsoon climate. Generally, the weather is hot and humid on the coastal areas throughout the year. The district falls under the Hilly agroclimatic zone except for western parts of Karwar, Ankola, Kumta, Honnavar and Bhatkal taluks which fall under coastal agroclimatic zone. The temperatures start rising from January to peak in May, around 30 degrees is common. The highest day time temperatures rise some time up to 38°C. Thereafter they will decline during the monsoons. As can be expected, the humidity is lowest during the dry season and highest during the monsoons. The

winds are predominantly south westerly during the summer monsoon and northeasterly during the winter monsoon.

## **5.0 GEOLOGY & RESERVES**

### **5.1 Geology**

a) **General Geology with respect to Stratigraphy:** The geological formation of Karawar taluk are varieties of grey granitic gneisses and granites with some dykes are intruded here and there. The general trend of formation is N-S and showing foliations in almost all directions particularly in the present notified area the grey granitic gneisses are available slightly grey to bluish in color. The grey gneiss in this quarry area is compact and stretching almost N-S. The rock type is coarse grained to medium grained and is suitable for building stone material. The exposures of sheet rocks are seen as in situ rock above the ground level. The exposures appearing in the form of huge rock mass measuring approximately over a length of 441.26 m and 219.09 m width. Strikes joint are often beneficial structures for excavation. The Color and textures are uniform. The hardness of the grey gneisses is varying from 5 to 6 and it is having a specific gravity of 2.66. The area comprises generally of grey gneisses exposures trending in NW to SE. The area completely of gneissic granite sheet rock and moderately disturbed with joints.

b) **Geology of the applied area:** The applied area is found to have prominent deposit of gneissic granite rock below the soil cover of 01.00 mt to 02.00 mts thickness. The gneissic granite is metamorphic rock of even texture and light grey composed of quartz and feldspar as major minerals, and small quantity of mica, hornblende and other ferro magnesium minerals. The grey granitic gneisses available in the area is of coarse grained to medium grained and it is suitable for building stone material. The surface geological map is prepared on a scale 1:3000 and enclosed as Plate No. 3.

## 5.2 Reserve

a) **Reserve/Resource estimation method:** Cross-section method is followed for geological reserve/mineable reserve estimation. The reserve estimation has been made based on potential zone marked on the geological plan and cross section. The norms of Reserve estimation are of counting squares of sectional areas marked on the cross section. About 1,94,83,997 tons of 'Geological Resources' are estimated. In order to meet the various statutory requirement some part of the applied area cannot be excavated i.e., 7.5 mts safety zone area along the applied quarry license boundary & after deducting the quantity of non-mineable area, the Quarry able/Mineable reserves estimated are 1,67,78,579 tons. The details of reserve estimation are as follows:

### b) Geological Resources/Reserves:

- i) **Category of the deposit:** Identified the category of the deposit which comes under category-I. Bedded and massive deposit of regular habit as per Minerals (Evidence of minerals content) Rules, 2015.
- ii) **Bulk Density:** Bulk density: 2.66 tons/cu. mt for gneissic granite. The bulk density has been arrived from the working quarries from this sector.
- iii) **Recovery:** Recovery of gneissic granite is 95% and the remaining 5% is considered as intercalated waste which can be used for road maintenance work.
- iv) **Exploration:** Since the gneissic granite rock is massive derived from metamorphism which has extended in both the vertical and the horizontal directions, exploration is not required for such rock formations. Hence, the reserve is considered as G1 scale of exploration up to 100 mts RL depth and G2 scale of exploration for another 10 mts depth (up to 90 mts RL) as per Minerals (Evidence of minerals content) Rules, 2015
- v) **Reserve calculation method:** The geological cross-section is prepared on a scale of 1:2000 RF. The area of individual litho-units in the cross section is measured and multiplying with sectional interval to get the volume. Then tonnage is arrived by multiplying the volume with its bulk density.



Proved reserves have been calculated up to maximum depth of 100 mts RL. The ultimate average depth will be 100 mts RL by maintaining 70° pit slope angle, leaving 7.5m safety barrier from the applied area boundary.

vi) Quarrying method, Recovery factor, processing loss etc.: Quarry is being operated by Open cast semi mechanized method. Gneissic granite stone Recovery from ROM is considered @ 95% and remaining 5% is intercalated waste. The ultimate pit depth proposed is 100 mts RL by maintaining pit slope of 70° from safety barrier.

The gneissic granite which will be blocked beyond UPL has been calculated separately. The reserves blocked in 7.5m safety zone and ultimate pit slope maintenance calculated under resources.

By considering the above factors and after applying the results of feasibility study and economic evaluation, the gneissic granite reserves and resources are categorized as proved reserve (111) and probable reserve (121) as per Minerals (Evidence of minerals content) Rules 2015.

Category Wise Reserves Calculation of						
Building Stone Quarry for 19.09759 Acres area of						
M/s Shivaprasad Industries						
Section	Sectional area (Sq. mts.)	Sectional Influence (mts)	Volume (Cu. mts.)	ROM in tons (@ 2.66 tons/cu. mt)	Saleable Building stone (95%) in tons	Intercalated Waste (5%) in tons
Proved reserves						
LL'	37536.75	175.17	65,75,312.50	1,74,90,332	1,66,15,815	8,74,517
Probable reserves						
LL'	4278.69	175.17	7,49,498.13	19,93,665	18,93,982	99,683
TOTAL			73,24,810.63	1,94,83,997	1,85,09,797	9,74,200

### c) Mineable Reserves

Mineable Reserves Calculation of						
Building Stone Quarry for 19.09759 Acres area of						
M/s Shivaprasad Industries						
Section	Sectional area (Sq. mts.)	Sectional Influence (mts)	Volume (Cu. mts.)	ROM in tons (@ 2.66 tons/cu. mt)	Saleable Building stone (95%) in tons	Intercalated Waste (5%) in tons
Proved reserves						

LL'	35435.85	160.17	56,75,760.09	1,50,97,522	1,43,42,646	7,54,876
<b>Probable reserves</b>						
LL'	3945.66	160.17	6,31,976.36	16,81,057	15,97,004	84,053
<b>TOTAL</b>			<b>63,07,736.45</b>	<b>1,67,78,579</b>	<b>1,59,39,650</b>	<b>8,38,929</b>

Classification	Code	Quantity (tons)		
		Forest	Non-Forest	Total
<b>A. Mineral Reserve</b>			<b>1,67,78,579</b>	<b>1,67,78,579</b>
1. Proved Mineral Reserve (A)	111		1,50,97,522	1,50,97,522
2. Probable Mineral Reserve (A)	121 & 122		16,81,057	16,81,057
<b>B. Remaining Resources</b>			<b>27,05,418</b>	<b>27,05,418</b>
1. Feasibility Mineral Resource (B)	211			
2. Prefeasibility Mineral Resource (B)	221 & 222		27,05,418	27,05,418
3. Measured Mineral Resource (B)	331			
4. Indicated Mineral Resource (B)	332			
5. Inferred Mineral Resource (B)	333			
6. Reconnaissance Mineral Resource (B)	334			
<b>Total Mineral Resources (A+B)</b>			<b>1,94,83,997</b>	<b>1,94,83,996</b>

## 6.0 QUARRYING

### a) Quarrying method:

An open cast semi-Mechanized method will be adopted to operate the area. Since the annual production is about 4,70,000 tons per annum for the first five-year plan period, the Open cast method will be followed during the plan period. The proposed method of quarrying will be an opencast semi-mechanized method only by using Excavators, Dumpers, Compressors, etc. For production, it is proposed to work from North to South. It is proposed to work LL' sections during the Plan period. The Tonnages of saleable Building Stone and intercalated waste during the plan period is as given below.

b) Year wise production and development details:

Production and Development Calculation of						
Building Stone Quarry for 19.09759 Acres area of						
M/s Shivaprasad Industries						
Section	Sectional area (Sq. mts.)	Sectional Influence (mts)	Volume (Cu. mts.)	ROM in tons (@ 2.66 tons/cu. mt)	Saleable Building stone (95%) in tons	Intercalated Waste (5%) in tons
I year						
LL'	1161.21	160.17	1,85,991.35	4,94,737	4,70,000	24,737
II year						
LL'	1161.21	160.17	1,85,991.35	4,94,737	4,70,000	24,737
III year						
LL'	1161.21	160.17	1,85,991.35	4,94,737	4,70,000	24,737
IV year						
LL'	1161.21	160.17	1,85,991.35	4,94,737	4,70,000	24,737
V year						
LL'	1161.21	160.17	1,85,991.35	4,94,737	4,70,000	24,737
TOTAL			9,29,956.75	24,73,685	23,50,000	1,23,685

About 1,23,685 tons of intercalated waste is required to be handled during the plan period which will be utilized for strengthening the approach road. Excess quantity will be dumped within the applied area.

c) Proposed rate of production when the quarry is fully developed and life of quarry: From the above it may be seen that during the plan period, it is proposed to maintain a suitable Building Stone production of about 4,70,000 tons per year. At the given rate of proposed production of 4,70,000 tons/ annum, the life of the quarry will be (143,42,646/470,000) more than 30 years.

d) Extent of mechanization: The Method of quarrying shall continue to be semi-Mechanized method. There will be no changes in the proposed method of quarrying and deployment of machinery. The following machines are proposed to be hired and used in the quarry.

Type	Nos.	Capacity	Make	Motive Power
Excavator	5	1.2 cum	Volvo	Diesel Engine
Tippers	7	20 tons	Tata	Diesel Engine
Compressors	4	33	VT4 Atlas	Diesel Engine Compressed Air
Water tanker	3	5000 liters	Tata	Diesel Engine

**i) Drilling**

Type	Nos.	Size of hole mm	Size of Capacity	Make	Motive Power
1) Tractor Mounted compressor	4	-	140cum	VT4 Atlas	Diesel (Fuel)
2) Jack Hammers	6	33	-	-	Compressed Air

Drilling for development and production is largely by pneumatic as well as by hydraulic means supplied by compressor of different capacities are used. 33 mm. diameter holes are drilled ranging from 0.60 mt. to 6.00 mts. with the number of holes depending on the spacing and burden.

**ii) Loading Equipment:** Gneissic granite and waste will be loaded by excavator into the dumper. Both excavators and dumpers will be hired to handle the tonnage.

Equipment: 1.2 Cum excavator ..... 5 Nos

20 tons dumpers .....7 Nos

Justification for requirement of haulage equipment with calculations:

Total max., tonnage handling per year	4,94,737
Number of working days	200
Number of shifts / days	1
Daily average handling in tons	2473
Capacity of shovel	1.2 Cum
Effective handling hours/day	6.5
Bucket fill factor	0.80
Swell factor	0.80
System utility factor	0.50



Cycle time of shovel	45sec
Hence handling in 6.5 hrs shift	$0.8 \times 0.8 \times 0.5 \times 1.2 = 0.384 \times 2.66 \text{ (B. D.)} = 1.02 \text{ in 45}$ Secs $= 1.02 \times 60 / 45 = 1.36 \times 390 \text{ minutes} = 530 \text{ tons}$
For 1 shovel	530 tons

iii) Number of tippers/dumpers required.

Average hauling distance	0.90km
Back	0.90km
Total	1.8 kms
Average speed of dumper	10km/hour
For travelling 1.8 kms	10.8 min
Loading time and unloading time	10 min
Total time required/ trip	11+10=21 min
Hence each dumper will make 2.85 trips say 3 trips/hour	
In 6.5 hours	$3 \times 6.5 = 19.5 \times 20 \text{ tons} = 390 \text{ tons}$
To Handle 2473 tons/day	7 Numbers

iv) Haulage and Transport equipment

Haulage within the applied area:

Type	Nos.	Size of Capacity	Make	Motive Power
Tippers	7	20 Tons	Tata	Diesel Engine

Transport from quarry head to the destination: The transport from quarry head to the consumer is through hired tippers / trucks / tractor trailer by road.

e) Conceptual Quarry planning up to the end of applied period: Preparation of Conceptual Plan amounts to planning for quarrying and related activities throughout its life span. Therefore, preparation of ideal conceptual quarry plan for any quarry is difficult and such plan prepared remains acceptable only under given circumstances. It cannot be overlooked that; any such plan undergoes amendments and revisions in the course of progressive stages of exploration and exploitation.

However, the conceptual quarry plan is prepared up to the renewal applied period as per the guidelines applicable. At the proposed rate of average production of 470,000tons/annum, the life of quarry will be  $(143,42,646 / 4,70,000)$  more than 30 years. Accordingly, conceptual plan will be prepared.

#### f) Blasting

##### i) Broad blasting parameters & type of explosives to be used:

Considering the facts that the Building Stone requires blasting for its extraction and that class II explosives are to be used, the powder factor can be estimated to be 6 tons per Kg. of explosives.

The explosive required per annum at a powder factor of 6 tons/ kg will be  $4,94,737/6\text{t/kg} = 82,456$  Kgs (say). It is proposed to use slurry explosive. The charge per hole is 500gms; charging will be by safety fuse with the combination of Ordinary detonators and slurry explosive; handling - tie up with the explosive suppliers (sale, possesses and use of explosives); system of initiation - ordinary detonators.

In addition, we require about 2,32,635 mts of safety fuses and 1,55,089 numbers of ordinary detonators for initiation purposes. As only a few holes (max 50 / round) will be blasted at one time, no significant air blast or vibrations will be envisaged. If required, sandbags/ mud bags will be kept on holes and will be muffled in order to prevent the flying rocks.

**Powder factor:** The detailed calculations showing the powder factor in this area are as follows.

Spacing	1.00m
Burden	1.00m
Depth of the hole	1.50m
Bulk density	2.66t/Cum
Blasting efficiency	80%
Therefore, the powder factor	$1.00\text{m} \times 1.00\text{m} \times 1.5\text{m} \times 0.8 \times 2.66 \text{ t/cum} = 3.19$ tons for 0.5kg explosive
For 1 kg Explosive	6.38 say 6 t/kg
Therefore, each hole gives us	$1.00\text{m} \times 1.00\text{m} \times 1.5\text{m} \times 0.80 \times 2.66 \text{ t/cum} = 3.19$ tons ROM
The ROM to be handled	4,94,737/ tons per annum
No of holes required	$4,94,737/3.19 = 1,55,089$ Nos
Total drilling required	$1,55,089 \times 1.5\text{m} = 2,32,635$ mts
One Jack Hammer can give	40,000 mts/ Annum
No of Jack Hammer required	06 Nos

ii) Whether secondary blasting is needed, if so, describe in brief: In the case of boulders bigger than half a cubic meter, are broken after an initial blasting. 25 mm x 200mm cartridges of 140 gms shall be used for such secondary blasting.

iii) **Storage of Explosive:** Explosive will not be stored in the quarry since the entire Handling and blasting operations will be carried out by a licensed contractor who sell, possess and use of explosives having a magazine with license. Blasting operations will be carried out wherever it is permitted in the quarry License.

## 7.0 INFRASTRUCTURE

a) **Site services:** Since Karwar is at a distance of 3.06 kms, all the repairs of equipment will be undertaken there and hence, no workshop will be maintained at quarry site. First-aid stations, rest shelter and urinals will be constructed and maintained within the applied area. Potable Drinking water will be supplied to the persons working in the quarry by disinfected and cleaned water tank/cans. No colony will be maintained within the quarry as the workers come from the adjoining villages.

b) **Employment Potential:** In all, there will be about 52 face workers for the gneissic granite rock production of 4,94,737tons (saleable production of 4,70,000 tons) @ 50 tons face OMS, each worker contribute 200 man shifts per annum, it requires  $4,94,737/200/100 = 49+3$  (15%leave/absent) worker. All others required are shown in manpower chart. The break -up of the above employment is given below.

1.	First class/second class manager	01
2.	Permit Managers	02
3.	Excavator & Tipper Operators	12
4.	Driller & Drilling Helper	03
5.	Face workers	52
6.	Watch and ward	03
7.	Supervisors	02
	<b>Total</b>	<b>80</b>

## 8.0 ECONOMIC EVALUATION OF THE REPORT

Key determinants in the decision-making process on economic feasibility are the current and predicted market value of the gneissic granite and the cost of production. Production cost mainly includes expenditures related to mineral production and environmental management during quarrying operations. The cost of reclamation and closure are usually the most significant thought in the project life cycle. Consequently, the cost of environmental management during operations and its closure is considered at an early stage in quarry planning, often during the project feasibility analysis. The details of feasibility report are given below:

- i) **Beneficiation-crushing/manual dressing, sorting, sizing & washing:** The Building stone will be sent to crusher and will be sold as road metal and M-Sand.
- ii) **Marketing type of commodity with use, prospective buyers, present sale price & forecasts:** The Building stone will be sent to crusher and will be sold as road metal M-Sand for construction purposes in local market.
- iii) **Infrastructure-road, power source, labour supply and skill:** All the required infrastructural facilities like office, resting area, canteen, water facilities etc. shall be set up inside applied area. The nearest railway station is at Karwar which is at a distance of 5.60 kms from the area.  
**Workshop:** All major and capital repairs including maintenance and servicing of all quarry equipment and machinery will be carried out at nearby town. Hence, no workshop will be maintained at quarry site.  
**Power Supply:** Electricity is used for power requirement. All mobility machineries are operated by HSD. The electricity will be supplied from the electricity board.  
**Water Supply:** The requirement of water supply, for drinking is been drawn from the bore wells dug nearby applied area, whereas for all other purposes the water stored in the pit is utilized or directly transported from the nearby bore wells.  
**Office:** The office with all amenities shall be located inside the applied area.  
**Canteen:** A canteen shall set up inside the applied area to cater the needs of mining staff and other workers working in allied activities.



- iv) Environmental requirements-EIA & EMP, mine closure and reclamation plan, sustainable development strategy etc.: EIA studies and EMP including socio-economic impact, rehabilitation of project affected persons, waste disposal/reclamation detailed land use data shall be carried out and Environmental Clearance has obtained from SEIAA-Karnataka.
- v) Others like legal factors like tribal issues, national parks etc.: Not applicable
- vi) Economic evaluation-capital cost, production & transportation costs, royalty & other taxes, the availability of financing & profits to indicate that the mine is technically and economically viable under foreseeable operating scenario. Estimated cost of production, working capital & Marketing Analysis is discussed below.
- vii) Cost and Revenue factors:

Budget for proposed Activities related to Quarrying				
Sr. Nos.	Area of Investment	Method of Calculation	Basics	Expenses (in Lakhs)
<b>Capital Investment</b>				<b>600</b>
I	Land			
a	Land cost expenditure			
b	Cost on relief & rehabilitation work		Rehabilitation not required	0
c	Compensation to the land outstees		No land outstees	0
d	Cost of acquiring Surface Rights			0
II	Quarrying			<b>575</b>
a	Cost for infrastructure & equipments		Mechanized Quarrying	575
III	Environmental protection			<b>09</b>
a	Pollution Control			
	Plantation	600 plants	Rs. 500/plant	03
	Settling pond	100 Sq. mts	Rs. 500/sq. mt	0.50
	Trench	200 mts	Rs. 250/ mt	0.50
b	Monitoring			05
IV	Socio-economic development			<b>11</b>

i	Educational facilities	Free scholarship			03
ii	Medical facilities	Villagers Health check up			05
iii	Others				
a	Income Generation activities	Financial support for interest free loans			03
V	Occupational Health & safety				05
<b>Budget for proposed Quarrying</b>					
Sr. Nos.	Area of Investment	Method of Calculation	Basics	Expenses (in Lakh)	Cost/tons (Rs.)
<b>Recurring Expenditure</b>					
i	Quarrying				
a	Expenditure for infrastructure and equipment maintenance		30% of direct investment for infrastructure & maintenance	180.00	38.30
b	Quarrying of Bulding stone and waste	Rs. Per ton	Rs.100/ton	494.74	100.00
c	Salaries & Wages of 80 staff	No. of workers x Wages	Rs. 25000 per Month/ man	240.00	51.10
d	Royalty on Mineral	Rs.130/ton	130	611.00	130.00
ii	Socio-economic development				
a	Crop Compensation				
b	Corporate Social Responsibility			06.00	01.30
c	Community Health checkup			05.00	01.10
iii	Occupational Health & Safety				
a	For routine checkup			05.00	01.10
iv	Environment Management				
a	Maintenance of Pollution Control Facilities			09.00	02.00
<b>Total Recurring Expenditure= Rs.</b>					<b>324.90</b>

Capital investment including other expenses =Rs. 600 lakhs

Consideration of per ton/cu. mt working cost as on date is given below:

Recurring cost (Rs. /ton/cu. mt)

Expenditure on cost of quarrying: 319.40/ton

Expenditure for socioeconomic development: 1.30/ton

Expenditure for occupational Health and Safety: 2.20/ton

Expenditure for Environmental Management: 2.00/ton

Total= Rs. 324.90/ton say Rs. 325/ton

Value of Mineral: Rs.450/ton

**9.0 SUMMARY OF VIABILITY:** Expenditure calculated at working cost Rs. 325/ton and Revenue at Rs.450/ton

The IRR (Internal Rate of Return) is found 94.39%. Risk analysis is done where revenue crash is considered at 30%. Then the Value calculated giving IRR = 62.49% concluding that the project is economically viable.

#### **10.0 RECOMMENDATION**

##### **a) Recommendation of mineral availability & life of quarry with respect to reserve:**

It is a remote area and in buffer zone villages this project will be one of the major economic activities resulting in generation of revenues to the state Government by way of Royalties, DMF, Taxes, Excise, etc., and the living condition of the persons shall improve, thus contributing to the overall up gradation of living standards. The infrastructure development will also improve due to the upcoming quarry. The socio-economic parameters of the area undergo change due to:

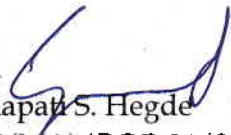
- Changes in the employment pattern of the area.
- Changes in the pattern of facilities available, both in respect of the increase in infrastructure facilities as well as other services.
- Improvements in money supply in the area through better earning capacity of local people.
- Better health care for the locality.
- As facilities available with the quarry can become available to the community including special camps to be arranged.


#### **11) CONCLUSION:**


The preliminary geological report for the applied area in Argha village, Karwar taluk, Uttara district of Karnataka state has shown that the area has a significant potential for building stone. The following are the main findings of the report:

- The applied area is consisting of gneissic granite exposed to the surface.
- The gneissic granites are of good quality and have a variety of uses, including building stone.
- The area has a large reserve of sellable gneissic granite, estimated to be 1,43,42,646 tons
- The life of the quarry is more than 30 years.
- The area is accessible by road.

The results of the study are favorable and quarrying in the area is economically viable and feasible.

  
Ganapati S. Hegde  
DMG/DD(MA)/RQP-04/2022-23

  
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**SENIOR GEOLOGIST**  
Dept. of Mines & Geology  
Uttara Kannada District, Karwar



# Annexure

DGPS SKETCH SHOWING THE AREA FOR ORDINARY BUILDING STONE QUARRY AS PER KMMCR 1994 AMMENDMENT RULE 2023 UNDER RULE 31-ZC IN FAVOUR OF M/S. SHIVAPRASAD INDUSTRIES IN PART OF GOVT.SY.NO.52A1A OVER AN EXTENT OF 07.72852HA (19.09759 Acres). IN ARGHA VILLAGE, KARWAR TALUK, UTTARA KANNADA DISTRICT, KARNATAKA.



Applied Area for sand block  
Over an extent of 19-09759 Acres

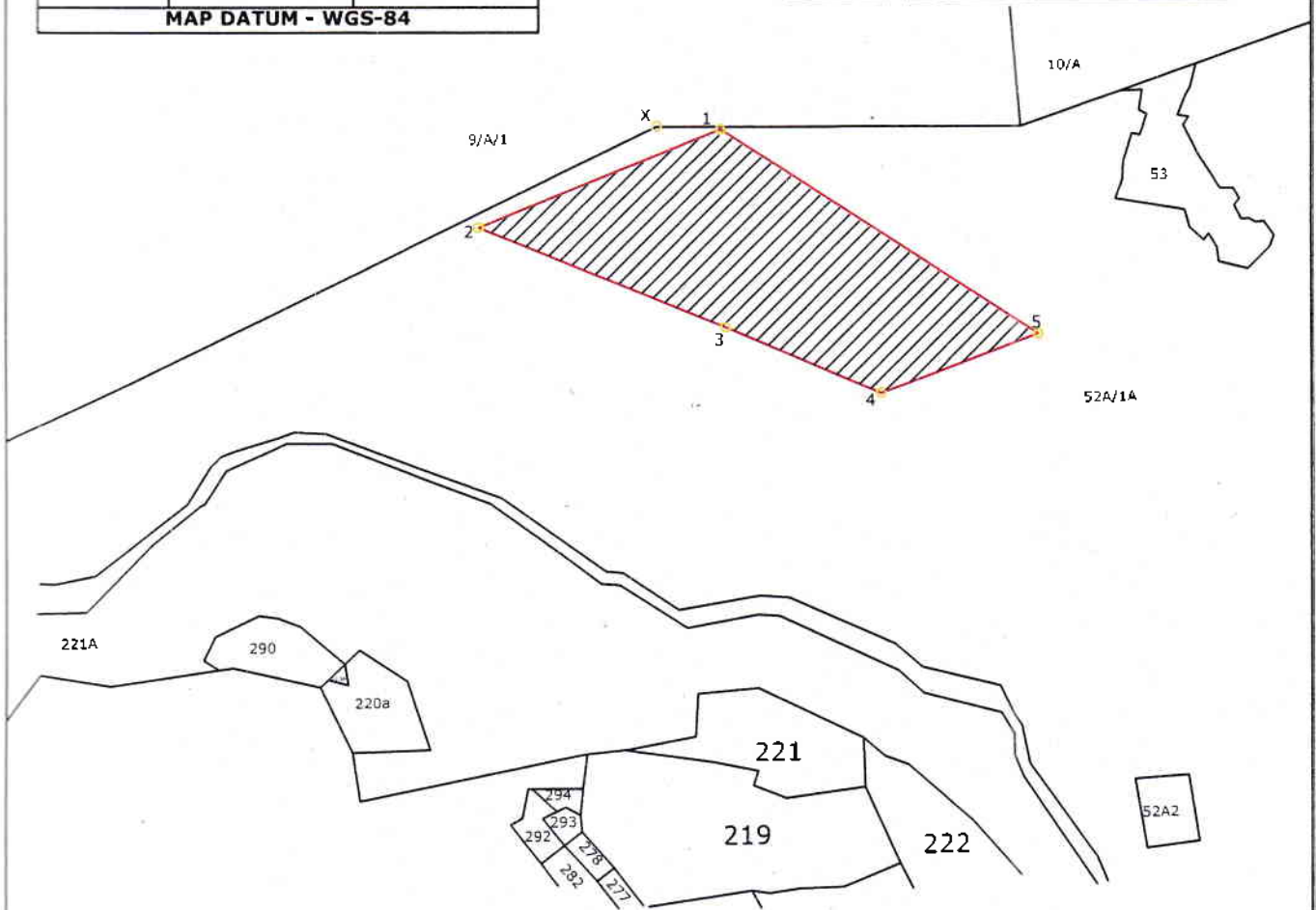


Scale: 1"=20 Chains  
(1":660 ft )

DGPS READING OF CORNER POINTS		
CORNER POINTS	LATITUDE	LONGITUDE
BP-1	14° 47' 10.0123"N	74° 08' 39.8152"E
BP-2	14° 47' 06.4665"N	74° 08' 31.0089"E
BP-3	14° 47' 02.9884"N	74° 08' 40.0122"E
BP-4	14° 47' 00.6662"N	74° 08' 45.7024"E
BP-5	14° 47' 02.8052"N	74° 08' 51.4114"E
BP-X	14° 47' 10.1001"N	74° 08' 37.5021"E
MAP DATUM - WGS-84		

#### BOUNDARIES OF QUARRY

NORTH	REMAINING PART OF SY NO 52A/1A
SOUTH	REMAINING PART OF SY NO 52A/1A
EAST	REMAINING PART OF SY NO 52A/1A
WEST	REMAINING PART OF SY NO 52A/1A



*Shivaprasad*  
**SENIOR GEOLOGIST**  
Dept. of Mines & Geology  
Uttar Kannada District, Karwar

*Shivaprasad*  
**GEOLOGIST**  
Dept. of Mines & Geology,  
Uttar Kannada District, Karwar

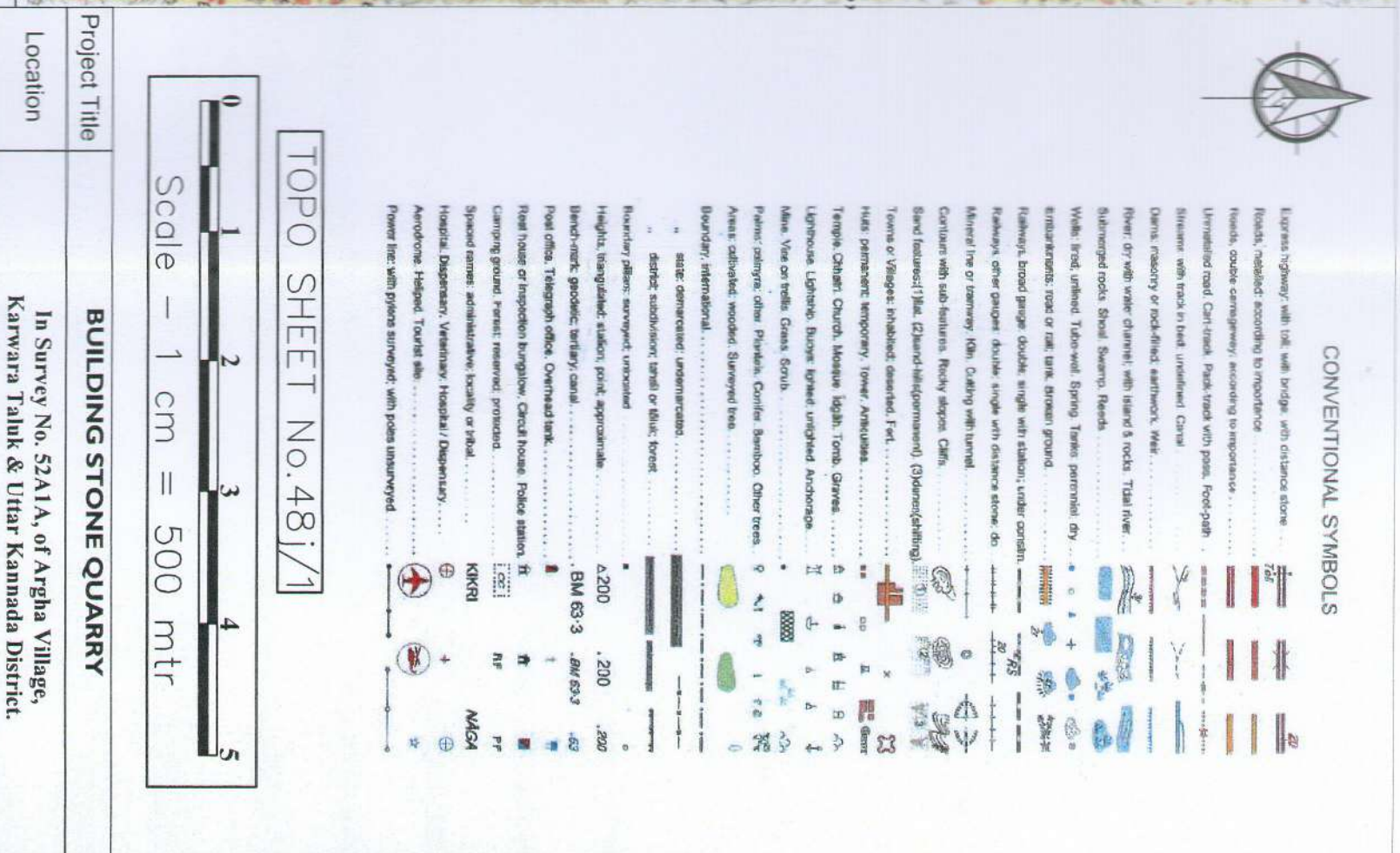
**Shivaprasad Industries**

*Shivaprasad*  
**Proprietor**  
Applicant Signature

# Plates



E 74°10'00"  
Sunkhri  
Korinakong



Dept. of Mines & Geology,  
Karwar

## GENERAL INDEX

**5 K.M. Radius**

## Geologists

## KEY PLAN

Location
In Survey No. 52A1A, of Argha Village, Karwara Taluk & Uttar Kannada District.

## BUILDING STONE QUARRY

In Survey No. 52A1A, of Argha Village,  
Karwara Taluk & Uttar Kannada District.

## KEY PLAN

Scale:- 1 : 50000 R.F. Area:-19.09759 Acres Date of Survey:-04.12.2023

~~Proprietor~~

Ganapati. S. Hegde  
DMG/DD(MA)/RQP-04/2022-23



DGPS SKETCH SHOWING THE AREA FOR ORDINARY BUILDING STONE QUARRY AS PER KMMCR 1994 AMMENDMENT RULE 2023 UNDER RULE 31-ZC IN FAVOUR OF M/S. SHIVAPRASAD INDUSTRIES IN PART OF GOVT.SY.NO.52A1A OVER AN EXTENT OF 07.72852HA (19.09759 Acres). IN ARGHA VILLAGE, KARWAR TALUK, UTTARA KANNADA DISTRICT, KARNATAKA.



Applied Area for sand block  
Over an extent of 19-09759 Acres



Scale: 1"=20 Chains  
(1":660 ft)

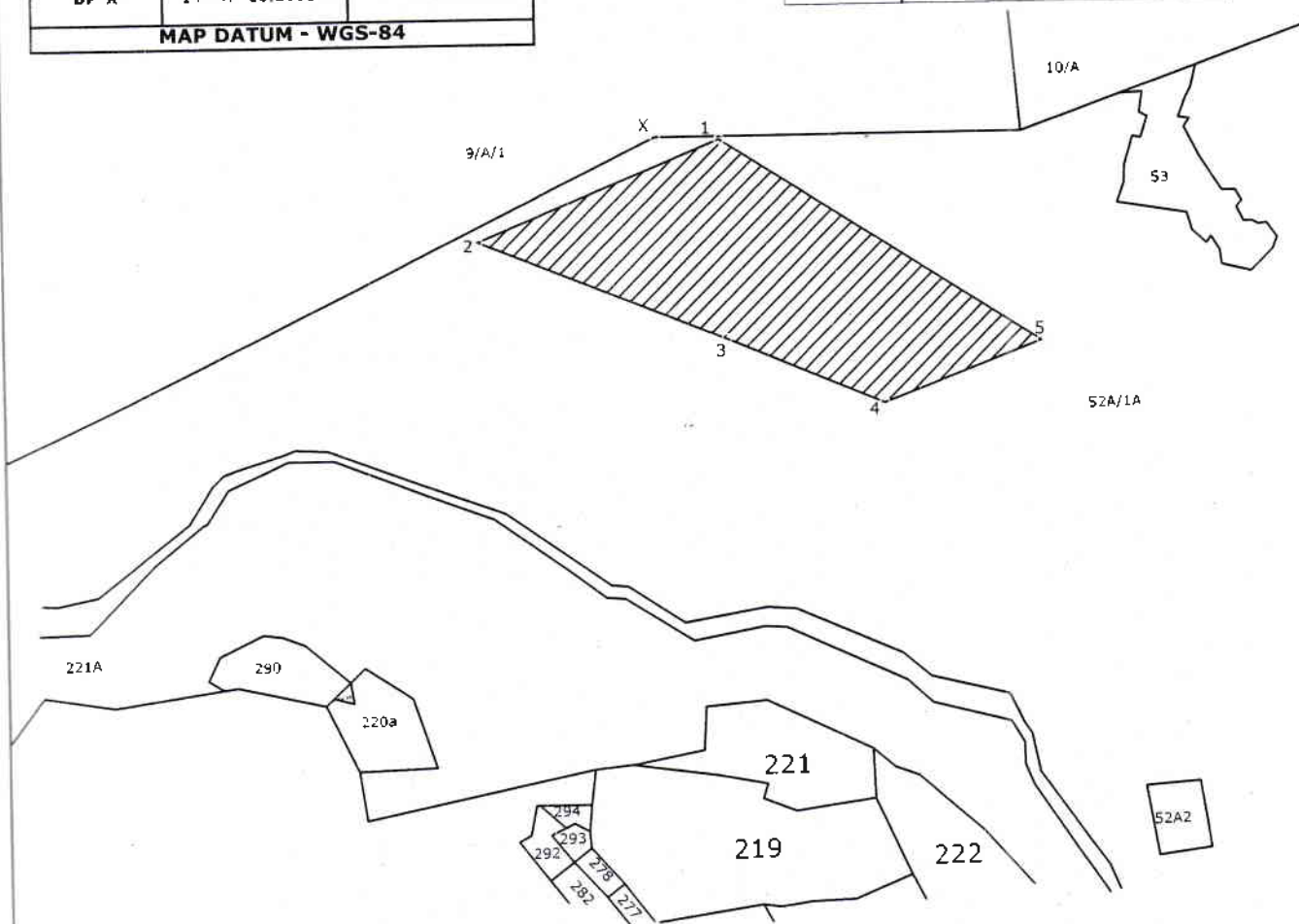
**DGPS READING OF CORNER POINTS**

CORNER POINTS	LATITUDE	LONGITUDE
BP-1	14° 47' 10.0123"N	74° 08' 39.8152"E
BP-2	14° 47' 06.4665"N	74° 08' 31.0089"E
BP-3	14° 47' 02.9884"N	74° 08' 40.0122"E
BP-4	14° 47' 00.6662"N	74° 08' 45.7024"E
BP-5	14° 47' 02.8052"N	74° 08' 51.4114"E
BP-X	14° 47' 10.1001"N	74° 08' 37.5021"E

MAP DATUM - WGS-84

**BOUNDARIES OF QUARRY**

NORTH	REMAINING PART OF SY NO 52A/1A
SOUTH	REMAINING PART OF SY NO 52A/1A
EAST	REMAINING PART OF SY NO 52A/1A
WEST	REMAINING PART OF SY NO 52A/1A

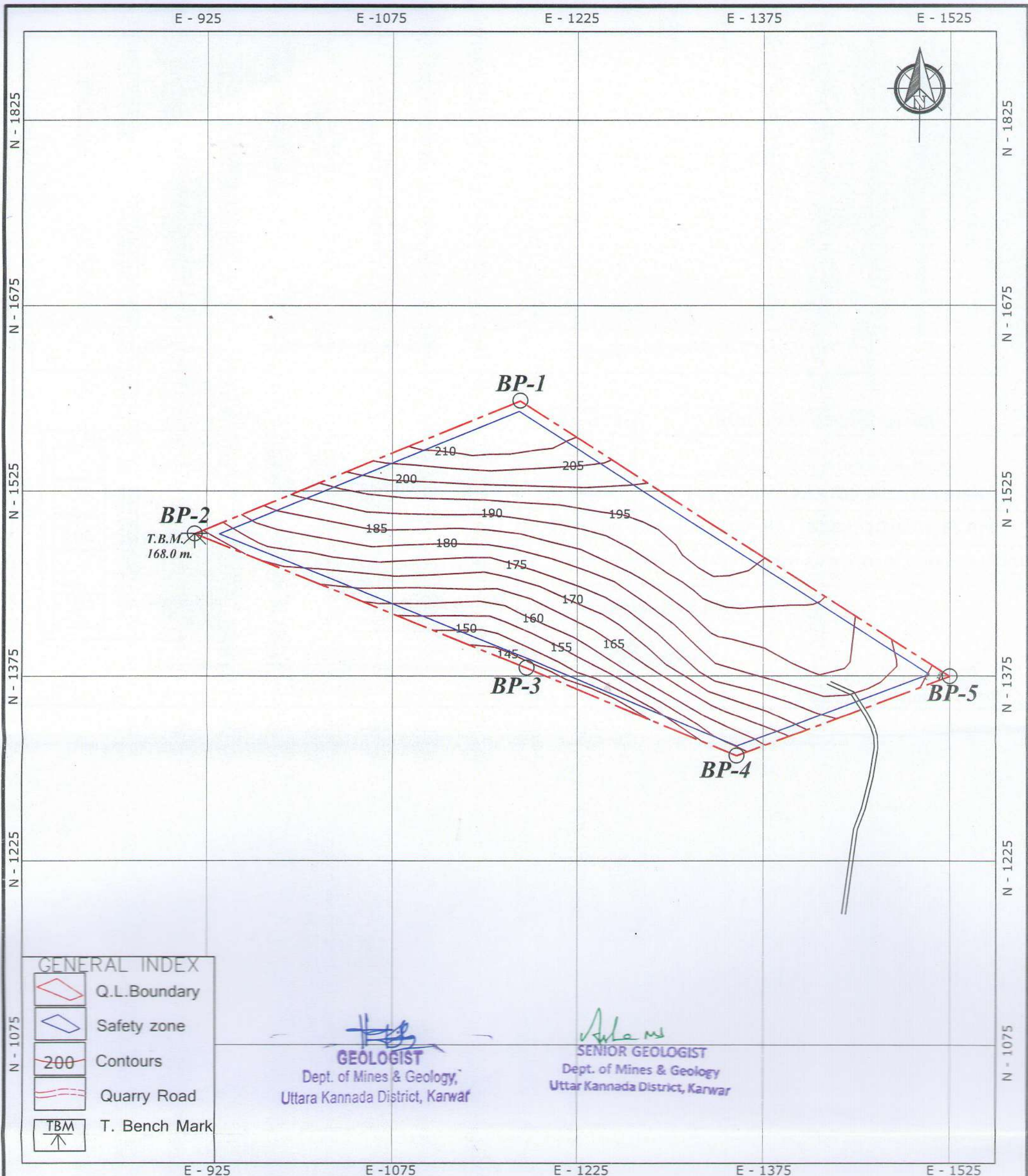


*Adams*  
**SENIOR GEOLOGIST**  
Dept. of Mines & Geology  
Uttara Kannada District, Karwar

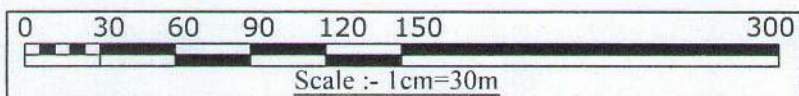
*[Signature]*  
**GEOLOGIST**  
Dept. of Mines & Geology,  
Uttara Kannada District, Karwar

Shivaprasad Industries  
*[Signature]*  
Proprietor  
Applicant Signature





DGPS READINGS OF BOUNDARY POINTS					
Point ID	Easting	Northing	Elevation	Latitude (Global)	Longitude (Global)
1	407922.0811	1634845.0012	210.6401	14° 47' 10.0123"N	74° 08' 39.8152"E
2	407658.3962	1634737.0620	168.0100	14° 47' 06.4665"N	74° 08' 31.0089"E
3	407927.1412	1634629.1601	145.6540	14° 47' 02.9884"N	74° 08' 40.0122"E
4	408096.9925	1634557.1641	155.2574	14° 47' 00.6662"N	74° 08' 45.7024"E
5	408267.9160	1634622.2451	175.8549	14° 47' 02.8052"N	74° 08' 51.4114"E
REF-X	407852.9421	1634847.9652	215.0021	14° 47' 10.1001"N	74° 08' 37.5021"E



Project Title	<b>BUILDING STONE QUARRY</b>		
Location	In Survey No. 52A1A, of Argha Village, Karwara Taluk & Uttara Kannada District.		
Lessee	<b>M/s. SHIVAPASAD INDUSTRIES</b>		
Plate No.	3	Dwg. Title	<b>SURFACE PLAN</b>
Scale :- 1 : 3000 R.F.		Area :- 19.09759 Acres	Date of Survey:-04.12.2023

The Plans & Sections are prepared based on Lease sketch authenticated by the State Government and certified to be correct.

**Shivaprasad Industries**

**Proprietor**

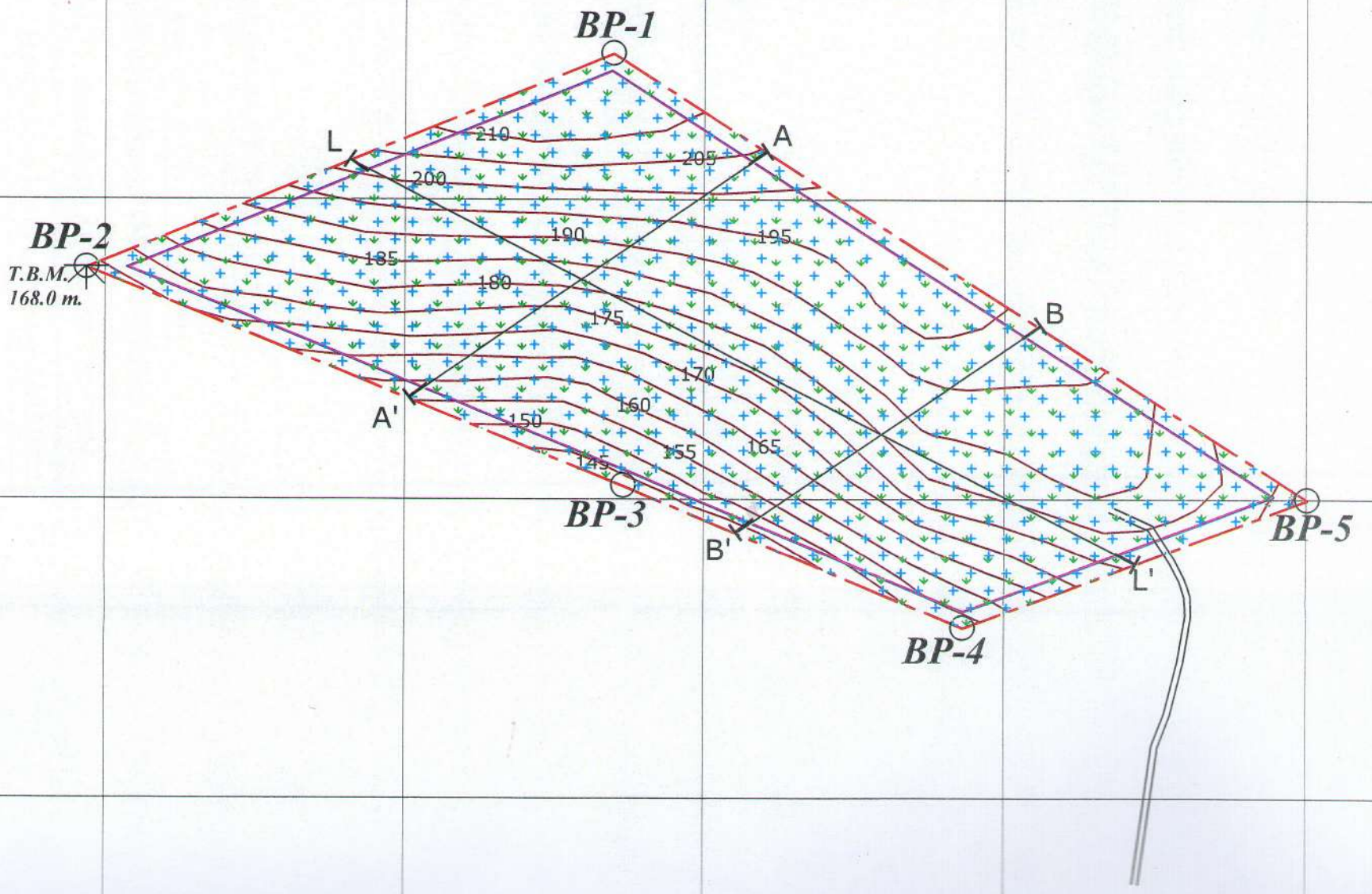
**Ganapati. S. Hegde**  
DMG/DD(MA)/RQP-04/2022-23





*Arbe ms*  
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*[Signature]*  
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Dept. of Mines & Geology,  
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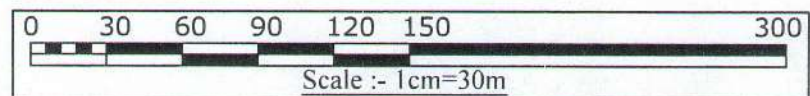


Uttara Kannada District, Karwar

Uttara Kannada District, Karwar

GENERAL INDEX	
	Q.L. Boundary
	Safety zone
	Contours
	Quarry Road
	T. Bench Mark

GEOLOGICAL INDEX	
	Top Soil
	Building stone
	Ultimate pit limit



Project Title	<b>BUILDING STONE QUARRY</b>		
Location	In Survey No. 52A1A, of Argha Village, Karwara Taluk & Uttara Kannada District.		
Lessee	<b>M/s. SHIVAPASAD INDUSTRIES</b>		
Plate No.	4	Dwg. Title	<b>GEOLOGICAL PLAN</b>
Scale :- 1 : 3000 R.F.	Area :- 19.09759 Acres	Date of Survey:-04.12.2023	

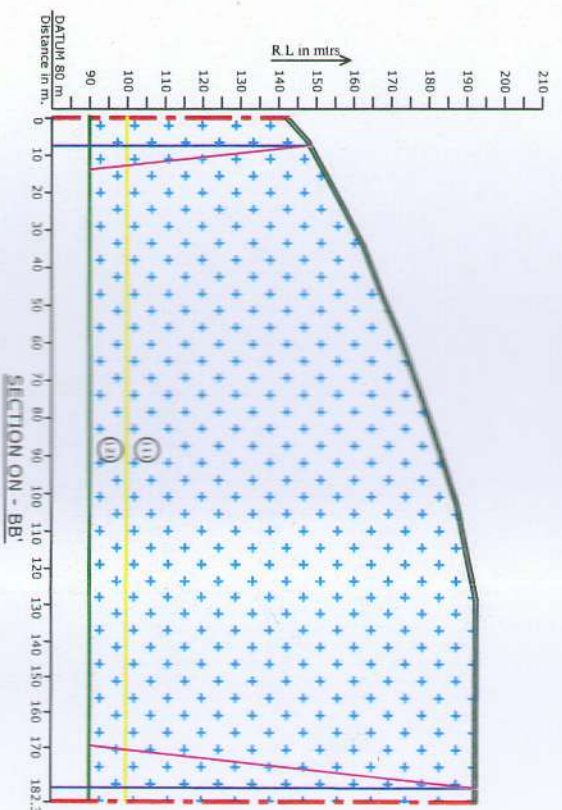
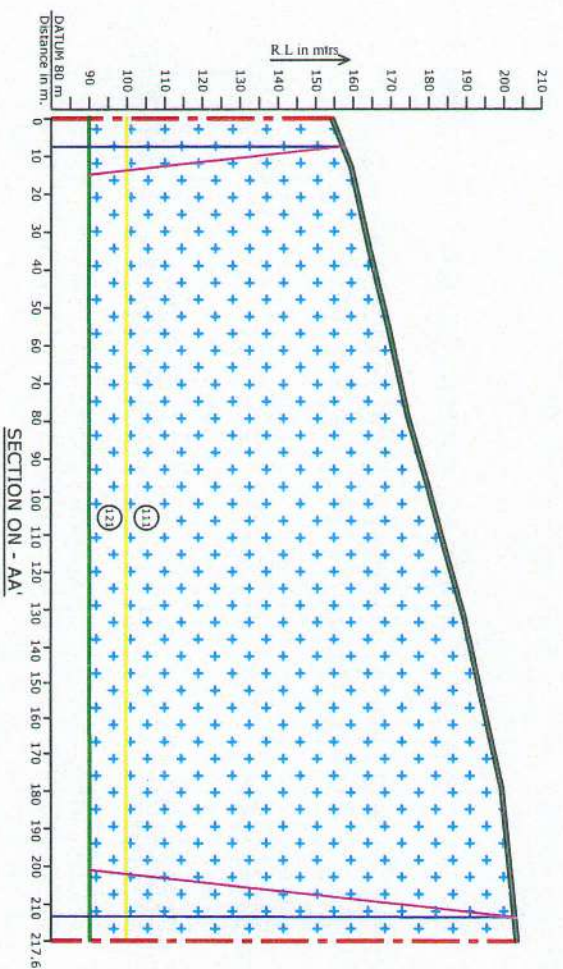
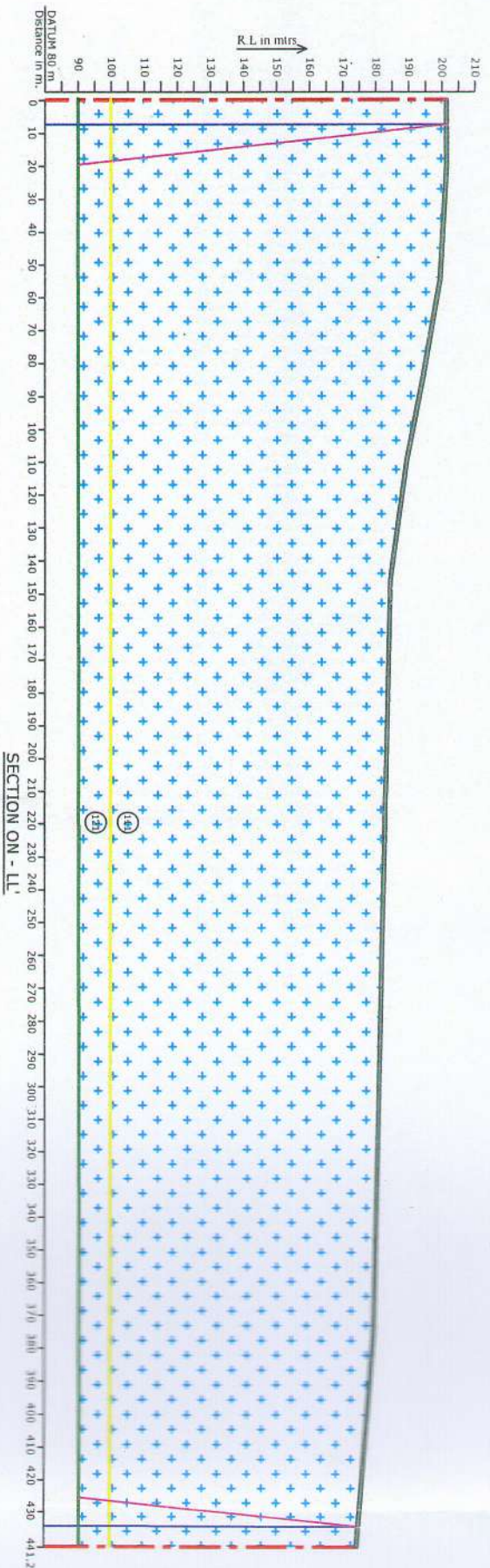
The Plans & Sections are prepared based on Lease sketch authenticated by the State Government and certified to be correct.

**Shivaprasad Industries**

*[Signature]*  
**Proprietor**

*[Signature]*  
**Ganapati. S. Hegde**  
DMO/DDMA/POB 04/12/2023





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Uttara Kannada District, Karwar

**GEOLOGICAL INDEX**

Top Soil

Building stone

**GENERAL INDEX**

Q. L. Boundary

Safety Zone

Ultimate Pit Limit

Proved Reserves

Probable Reserves

**BUILDING STONE QUARRY**

**Location**  
In Survey No. 52A1A, of Argha Village,  
Karwara Taluk & Uttar Kannada District.

**Lessee**  
**M/s. SHIVAPASAD INDUSTRIES**

**Plate No.** 5 **Dwg. Title** **GEOLOGICAL CROSS SECTION**

**Scale :- 1 : 2000 R.F.** **Area :- 19.09759 Acres** **Date of Survey:-04.12.2023**

The Plans & Sections are prepared based on Lease sketch authenticated by the State Government and certified to be correct.

**Shivaprasad Industries**

**Proprietor**

**Ganapati. S. Hegde**

**DMG/DD(MA)/RQP-04/2022-23**



# DGPS SURVEY REPORT



APPLICANT NAME	:	M/S. SHIVAPRASAD INDUSTRIES
MINERAL TYPE	:	BUILDING STONE QUARRY
LOCATION OF QUARRY	:	ARGHA VILLAGE, KARWARA TALUK, UTTAR KANNADA DISTRICT, KARNATAKA
SY No	:	SURVEY NO. 52 A1A
AREA	:	19.09759 ACRES

Prepared by  
**Horizon Ventures**

Accredited by NABET, QCI for EIA studies as 'A' Category Consultant Organization

Address: No. 4, 3rd floor, Anagha, Devasandra, New BEL Road, Opposite

MS Ramaiah Hospital, Bengaluru - 560094

E-Mail: dhanaraj@horizonventures.co.in | Website: [www.horizonventures.co.in](http://www.horizonventures.co.in) | Mobile: +91 9164516629



**HORIZON  
VENTURES**



# INDEX

SL. NO.	DESCRIPTION	PAGE NUMBER
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CHAPTER 2	DGPS SURVEY REPORT	
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2.2	DATE OF SURVEY	6
2.3	LOCATION DETAILS OF THE AREA	6
2.4	CO-ORDINATE AS PER DEPARTMENT	6
2.5	LOCATION INDEX OF AREA	7
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	AUTHORIZED SIGNATORY DETAILS	22-33
	END OF REPORT	34

*Signature*



### DECLARATION BY THE OWNER

I hereby, certify that the DGPS Survey was done by HORIZON VENTURES on 04.12.2023 at our lessee's Building Stone Quarry Area, which is situated in Sy. No 52 A1A of Argha Village, Karwar Taluk and Uttara Kannada District to the extent of 19.09759 acres. I understood its contents and agree to implement the same in accordance with the law.

I hereby undertake that all the recommendations / proposals incorporated in the DGPS Survey Report, be deemed to have been made with my knowledge and shall be acceptable to me and binding on me in all respects.

Shivaprasad Industries

Signature of the Applicant

Date:

Place:

Karwar

Shiv



## DGPS SURVEY





## CHAPTER 1

### Introduction:

M/S. Shivaprasad Industries has applied for quarry lease for extraction of Building stone, Quarry located in Sy. No. 52 A1A of Argha Village, Karwar Taluk, Uttara Kannada District over an extent of 19.09759 acres. The applicant has appointed Horizon Ventures to carry out DGPS survey in their area. Horizon Ventures have conducted the survey on 04.12.2023.

A Differential Global Positioning System (DGPS) is an enhancement to the Global Positioning System (GPS) which provides improved location accuracy, in the range of operations of each system, from the 15-metre (49 ft) nominal GPS accuracy to about 1–3 centimetres (0.39–1.18 in).

GPS signals coming from satellites down to the ground have to travel through layers of the earth's atmosphere, so they are subjected to delays. This affects the time taken for the signal to travel from any given satellite to a GPS receiver, which introduces slight error into the GPS engine, causing an error in the measured position.

A static base station is used to provide correction messages to signal delays. This is done by setting the base station up in a set point on the ground, and then working out its exact position on the earth's surface. This is done by leaving it recording GPS data for as long as possible. Over the time that the base station is capturing data, the ionosphere and troposphere change, causing the delays in the signals to change, randomly. Because the delays are subject to random changes, they can be averaged out.

RTK stands for Real-Time Kinematic and is a technique that uses carrier-based ranging and provides ranges (and therefore positions) that are orders of magnitude more precise than those available through code-based positioning. RTK is used for applications that require higher accuracies, such as centimetre-level positioning, up to 1 cm + 1 ppm accuracy.

At a very basic conceptual level, the range is calculated by determining the number of carrier cycles between the satellite and the rover station, then multiplying this number by the carrier wavelength. The calculated ranges still include errors from such sources as satellite clock and ephemerides, and ionospheric and tropospheric delays. To eliminate these errors and to take advantage of the precision of carrier-based measurements, RTK performance requires measurements to be transmitted from the base station to the rover station.

A complicated process called "ambiguity resolution" is needed to determine the number of whole cycles. Despite being a complex process, high precision GNSS receivers can resolve the ambiguities almost instantaneously.

The underlying premise of differential GPS (DGPS) is that any two receivers that are relatively close together will experience similar atmospheric errors. DGPS requires that a GPS receiver be set up on a precisely known location. This GPS receiver is the base or reference station. The base station receiver calculates its position based on satellite signals and compares this location to the known location. The difference is applied to the GPS data recorded by the second GPS receiver, which is known as the roving receiver. The corrected information can be applied to data from the roving receiver in real time in the field using radio signals or through post processing after data capture using processing software.

Differentially correcting GPS data by post processing uses a base GPS receiver that logs positions at a known location and a rover GPS receiver that collects positions in the field. The files from the base and rover are transferred to the office processing software, which computes corrected positions for the rover's file. This resulting corrected file can be viewed in or exported to a GIS.



## CHAPTER 2

### DGPS SURVEY REPORT

2.1 Name of the Applicant: M/S. SHIVAPRASAD INDUSTRIES

2.2 Date of Survey : 04.12.2023

2.3 Location Details of the Notified Area:

Survey Number	52 A1A
Village	ARGHA
Taluk	KARWAR
District	UTTARA KANNADA
State	KARNATAKA


Note: Details provided above is according to the data provided by the department

2.4 Geo-Graphical Co-ordinates of the Boundary Points (Datum- WGS 1984) is given below:

DGPS Co-ordinate points demarked on the ground as per the boundary pillars in presence of owner.

GPS READING OF CORNER POINTS DATUM (WGS 84 )		
CORNER POINTS	Latitude N	Longitude E
BP-1	14° 47' 10.0123"N	74° 08' 39.8152"E
BP-2	14° 47' 06.4665"N	74° 08' 31.0089"E
BP-3	14° 47' 02.9884"N	74° 08' 40.0122"E
BP-4	14° 47' 00.6662"N	74° 08' 45.7024"E
BP-5	14° 47' 02.8052"N	74° 08' 51.4114"E
REF-X	14° 47' 10.1001"N	74° 08' 37.5021"E

  
**GEOLOGIST**  
Dept. of Mines & Geology,  
Uttara Kannada District, Karwar

  
**SENIOR GEOLOGIST**  
Dept. of Mines & Geology  
Uttara Kannada District, Karwar





## 2.5 LOCATION INDEX OF THE AREA



Project site

*Signature*



## 2.6 DGPS SKETCH

DGPS SKETCH SHOWING THE AREA FOR ORDINARY BUILDING STONE QUARRY AS PER KMMCR 1994 AMMENDMENT RULE 2023 UNDER RULE 31-ZC IN FAVOUR OF M/S. SHIVAPRASAD INDUSTRIES IN PART OF GOVT.SY.NO.52A1A OVER AN EXTENT OF 07.72852HA (19.09759 Acres). IN ARGHA VILLAGE, KARWAR TALUK, UTTARA KANNADA DISTRICT, KARNATAKA.



Applied Area for sand block  
Over an extent of 19-09759 Acres

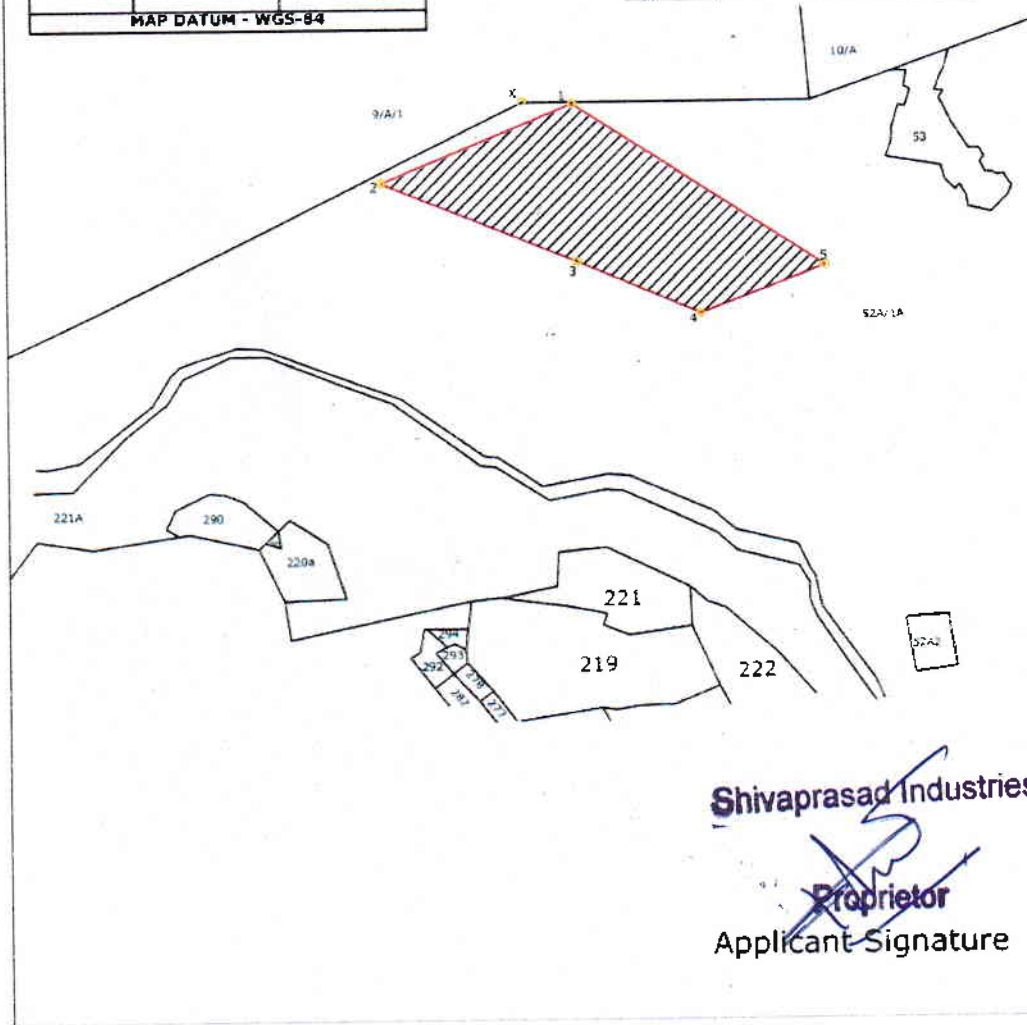


Scale: 1"=20 Chains  
(1":660 ft)

GPS READING OF CORNER POINTS		
CORNER POINTS	LATITUDE	LONGITUDE
BP-1	14° 47' 10.0123"N	74° 08' 39.8152"E
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BP-5	14° 47' 02.8052"N	74° 08' 51.4134"E
BP-X	14° 47' 10.1001"N	74° 08' 37.5021"E
MAP DATUM - WGS-84		

### BOUNDARIES OF QUARRY

NORTH	REMAINING PART OF SY NO 52A/1A
SOUTH	REMAINING PART OF SY NO 52A/1A
EAST	REMAINING PART OF SY NO 52A/1A
WEST	REMAINING PART OF SY NO 52A/1A



Shivaprasad Industries

Proprietor

Applicant Signature

*[Signature]*  
GEOLOGIST

Dept. of Mines & Geology,  
Uttara Kannada District, Karwar

*[Signature]*  
SENIOR GEOLOGIST

Dept. of Mines & Geology  
Uttara Kannada District, Karwar





## CHAPTER 3

### DGPS

A Differential Global Positioning System (DGPS) is an enhancement to the Global Positioning System (GPS) which provides improved location accuracy, in the range of operations of each system, from the 15-meter nominal GPS accuracy to about 1-3 cm in case of the best implementations. It is also used to increase the accuracy in positioning during land surveys. The DGPS has two receivers namely the Reference Receiver and the Rover Receiver. The pseudo ranges received by the reference receiver as in any GPS are corrected by the actual ranges received by the rover receiver.

Each DGPS uses a network of fixed ground-based reference stations to broadcast the difference between the positions indicated by the GPS satellite system and known fixed positions. These stations broadcast the difference between the measured satellite pseudo ranges and actual (internally computed) pseudo ranges, and receiver stations may correct their pseudo ranges by the same amount. The digital correction signal is typically broadcast locally over ground-based transmitters of shorter range.

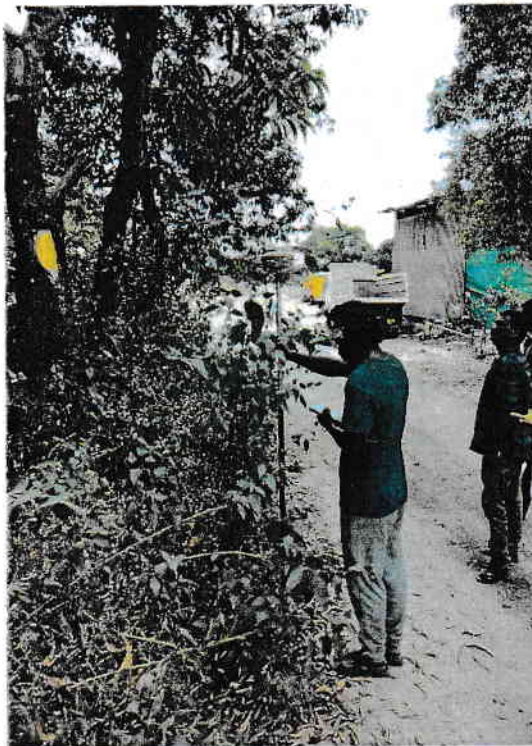


Fig:1 DGPS site photos



**List of members present during the survey**



S.No	Member Name	Designation
1)	Smt.Asha M.S	Senior Geologist Department of Mines and Geology Karwar.
2)	Sri. K. S. Harish	Geologist Department of Mines and Geology Karwar.
3)	Sri. Manjunath Devadiga	Junior Engineer Department of Mines and Geology Karwar.
4)	Sri. Hanumantgowda	Survey Ranger Deputy Conservator of Forest Karwar Division
5)	Sri. Mayur G. Naik	Dy RFO Chendiya Deputy Conservator of Forest Karwar Division
6)	Sri. Prudhvi Raj	Surveyor Horizon Venture Bangalore
7)	Sri. Shivaprasad G. K	Proprietor M/s Shivaprasad Industries Karwar



[illegible][illegible]

ಈ ಕಿವುಟೆಯು ಸದರಿ ಅರ್ಜಿ ಪ್ರದೇಶದ DGPS ಸರ್ವೆ  
ಕಾರ್ಯಕ್ಕೆ ದಿನಾಂಕ: 4-12-2023 ರಂದು ನಗರ ಕಚೇರಿಗೆ, ಅದರಂತೆ DGPS  
ಸರ್ವೆ ಕಾರ್ಯ ನಡೆಸುವ ಸಂಸ್ಥೆಯಾದ HSRVA Ventures ಕಂಪನಿ, ಬೆಂಗಳೂರು  
ರಾಗೂ ಅರ್ಜಿ ಬಾಕಿಯವರಿಂದಾಗಿ ತಾಕಾ ಈ ಕಚೇರಿಯ ಕಛರಿ  
ಅಧಿಕಾರದೊಂದಿಗೆ ಸರ್ವೆ ಕಾರ್ಯವನ್ನು ಶೈ ಸಮಯ ಬೆಳಿಗ್ಗೆ 11:00  
ಉದ ಮಧ್ಯಾಹ್ನ 2:00 ರ ವರೆಗೆ ಕೈಗೊಂಡು ಮುಕ್ತಾಯಗೊಳಿಸಲಾಯಿತು.

~~Mr~~ DXRFO chendiza

Shivaprasad

Geologist DMG

JE, DMG Karna

Prudhvi Raj  
Survey ops Manager. [6366235227]





ಉಪ ಕರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳ ಕಛೇರಿ,  
ಕಾರವಾರ ವಿಭಾಗ, ಕಾರವಾರ,  
ಎಂ.ಜಿ.ರಸ್ತೆ, ಕಾಡುಬಾಗ,  
ಕಾರವಾರ-581 301  
ಕರ್ನಾಟಕ.



ದೂರವಾರ್ತೆ: 08382-226365  
ಇ-ಮೇಲ್: karwardcf@gmail.

ಕ್ರ.ಸಂ:ಖಿ4/ಜಿಎಫ್‌ಎಲ್/ಎಫ್ ಸಿಎ/ಸಿಆರ್-12/2019-20

ದಿನಾಂಕ: 02-12-2023

ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ,  
ಕಾರವಾರ

-ರವರಿಗೆ,

ವಿಷಯ: ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆಯ ಕಾರವಾರ ತಾಲ್ಲೂಕಿನ ಅರ್ಗಾ ಗ್ರಾಮದ ಅರಣ್ಯ ಸಂ: 52A1A ರಲ್ಲಿ 19-0-0 ಎಕರೆ (9.98 ಹೆಕ್ಟೇರ್) ಕ್ಷೇತ್ರದಲ್ಲಿ ಕಲ್ಲು ಗಣಿಗಾರಿಕೆ ನಡೆಸಲು ಸಲ್ಲಿಸಿದ ಅರ್ಜಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಅರ್ಜಿತ ಪ್ರದೇಶದ DGPS ಸರ್ವೆ ನಡೆಸುವ ಕುರಿತು

ಉಲ್ಲೇಖ: ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಉತ್ತರ ಕನ್ನಡ, ಕಾರವಾರ ರವರ ಪತ್ರ ಸಂ:ಗಭೂಇ/ಉಕಜಿ/ಕಗಗು/2023-24/2269 ದಿನಾಂಕ: 02-12-2023

ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಮೆ: ಶಿವಪ್ರಸಾದ ಇಂಡಸ್ಟ್ರೀಸ್, ಪ್ರೊ:ಶಿವಪ್ರಸಾದ ಜಿ.ಕೆ., ಕಾರವಾರ ರವರು ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆಯ ಕಾರವಾರ ತಾಲ್ಲೂಕಿನ ಅರ್ಗಾ ಗ್ರಾಮದ ಅರಣ್ಯ ಸರ್ವೆ ನಂ: 52A1A ರಲ್ಲಿನ 19-0-0 ಎಕರೆ (9.98 ಹೆಕ್ಟೇರ್) ಕ್ಷೇತ್ರದ ಕಲ್ಲು ಗಣಿ ಗುತ್ತಿಗೆ ಮಂಜೂರಾತಿ ಕೋರಿ ಅರ್ಜಿ ಸಲ್ಲಿಸಿದಂತೆ, ಸದರಿ ಅರ್ಜಿತ ಪ್ರದೇಶದ DGPS ಸರ್ವೆ ಹಾಗೂ ಅರ್ಜಿತ ಪ್ರದೇಶದ ಜಂಟಿ ಸರ್ವೆ ನಡೆಸಿ ಗಡಿ ಗುರುತಿಸದೇಕಾಗುವುದರಿಂದ ದಿನಾಂಕ: 04-12-2023 ರಂದು ಬೆಳಿಗ್ಗೆ 11.00 ಗಂಟೆಗೆ ಸರ್ವೆ ಕಾರ್ಯವು ನಿಗದಿಪಡಿಸಲಾಗಿದ್ದು, ಸದರಿ ದಿನದಂದು ಅಧಿಕಾರಿಗಳನ್ನು ನಿಯೋಜಿಸಿ ಸಹಕರಿಸುವಂತೆ ಉಲ್ಲೇಖದ ಪತ್ರದಲ್ಲಿ ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಉತ್ತರ ಕನ್ನಡ, ಕಾರವಾರ ರವರು ಈ ಕಚೇರಿಗೆ ಕೋರಿಕೊಂಡಿರುತ್ತಾರೆ.

ಕಾರಣ ಸದರಿ ದಿನದಂದು ಈ ಮೇಲಿನ ಕ್ಷೇತ್ರಕ್ಕೆ ದಾಖಲೆಗಳೊಂದಿಗೆ DGPS ಸರ್ವೆ ಕಾರ್ಯಕ್ಕೆ ಹಾಜರಾಗಿ ಸಹಕರಿಸಲು ಈ ಮೂಲಕ ತಿಳಿಸಿದೆ.

*Page*  
ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ,  
ಕಾರವಾರ ವಿಭಾಗ, ಕಾರವಾರ

ಪ್ರತಿಯನ್ನು ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ, ಕಾರವಾರ ಉಪ-ವಿಭಾಗ, ಕಾರವಾರ ರವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ ಸೂಕ್ತ ಕ್ರಮಕ್ಕಾಗಿ ಕಳುಹಿಸಿದೆ.

ಪ್ರತಿಯನ್ನು ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಉತ್ತರ ಕನ್ನಡ, ಕಾರವಾರ ಇವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ ಕಳುಹಿಸಿದೆ.

ಪ್ರತಿಯನ್ನು ಮೆ: ಶಿವಪ್ರಸಾದ ಇಂಡಸ್ಟ್ರೀಸ್, ಪ್ರೊ:ಶಿವಪ್ರಸಾದ ಜಿ.ಕೆ., ಕಾರವಾರ ಇವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ ಕಳುಹಿಸಿದೆ.





ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿಯವರ ಕಛೇರಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆ, ಕಾರವಾರ -581 306

OFFICE OF THE SENIOR GEOLOGIST, DEPT. OF MINES & GEOLOGY,UTTARA KANNADA DISTRICT, KARWAR-581 306

Email: dgkar.dmg@gmail.com

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dgkar.dmg-ka@gmail.in

ಸಂಖ್ಯೆ: ಗಭೂಇ/ಉಕಜ/ಕಗನು/2023-24 / 2270

ದಿನಾಂಕ: 02-12-2023  
DEC 2023

ಇವರಿಗೆ,

ಉಪ ಆರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು,

ಕಾರವಾರ ವಿಭಾಗ, ಕಾರವಾರ

ಮಾನ್ಯರೇ,

ವಿಷಯ: ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆಯ ಕಾರವಾರ ತಾಲೂಕಿನ ಆರ್ಗಾ ಗ್ರಾಮದ ಆರಣ್ಯ ಸ.ನಂ.52A1A ರಲ್ಲಿ 19-0-0 ಎಕರೆ (9.98 ಹೆಕ್ಟರ್) ಕ್ಷೇತ್ರದಲ್ಲಿ ಕಲ್ಲು ಗಣಿಗಾರಿಕೆ ನಡೆಸಲು ಸಲ್ಲಿಸಿದ ಅರ್ಜಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಅರ್ಜಿತ ಪ್ರದೇಶದ DGPS ಸರ್ವೆ ನಡೆಸುವ ಕುರಿತು.

ಉಲ್ಲೇಖ: ಕೇಂದ್ರ ಕಛೇರಿಯ ಜ್ಞಾಪನ ಪತ್ರ ಸಂಖ್ಯೆ:ಗಭೂಇ/ಉ.ನಿ(ಖ.ಆ)/ಎಂ-ಸ್ಯಾಂಡ್/ನಿಯಮ 31ZC/2023-24/6429 ದಿನಾಂಕ:30-10-2023.

\*\*\*\*\*

ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಕರ್ನಾಟಕ ಉಪಖನಿಜ ರಿಯಾಯಿತಿ ನಿಯಮಾವಳಿ 1994 ರ ತಿದ್ದುಪಡಿ 2023 ರ ನಿಯಮ 31ZC ರಂತೆ ಎಂ-ಸ್ಯಾಂಡ್ ಉತ್ಪಾದಿಸುವ ಉದ್ದೇಶಕ್ಕಾಗಿ ಕಲ್ಲು ಗಣಿಗಾರಿಕೆಯನ್ನು ಮಂಜೂರು ಮಾಡಲು ಅವಕಾಶ ಕಲ್ಪಿಸಿದ್ದು ಅದರಂತೆ, ಮೆ. ಶಿವಪ್ರಸಾದ ಇಂಡಸ್ಟ್ರೀಸ್, ಪ್ರೈ. ಲಿಮಿಟೆಡ್ ಜಿ. ಕೆ., ಕಾರವಾರ ಇವರು ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆಯ ಕಾರವಾರ ತಾಲೂಕಿನ ಆರ್ಗಾ ಗ್ರಾಮದ ಆರಣ್ಯ ಸ.ನಂ.52A1A ರಲ್ಲಿನ 19-0-0 ಎಕರೆ (9.98 ಹೆಕ್ಟರ್) ಕ್ಷೇತ್ರದ ಕಲ್ಲು ಗಣಿ ಗುತ್ತಿಗೆ ಮಂಜೂರಾತಿ ಕೋರಿ ಅರ್ಜಿ ಸಲ್ಲಿಸಿರುತ್ತಾರೆ. ಸದರಿ ಅರ್ಜಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಅರ್ಜಿತ ಪ್ರದೇಶದ ತಾಂತ್ರಿಕ ವರದಿಯನ್ನು ಹಾಗೂ DGPS ಸರ್ವೆ ವರದಿಯನ್ನು ತಯಾರಿಸಿ ನೀಡುವಂತೆ ಕೇಂದ್ರ ಕಛೇರಿಯಿಂದ ಉಲ್ಲೇಖಿತ ಜ್ಞಾಪನ ಪತ್ರದಲ್ಲಿ ಸೂಚಿಸಲಾಗಿರುತ್ತದೆ.

ಈ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಕಲ್ಲು ಗಣಿ ಗುತ್ತಿಗೆ ಮಂಜೂರಾತಿಗೆ ಕೋರಿರುವ ಹಾಗೂ ಆರಣ್ಯ ಪ್ರದೇಶವಾಗಿರುವುದರಿಂದ ಸದರಿ ಪ್ರದೇಶದ DGPS ಸರ್ವೆಯನ್ನು ಹಾಗೂ ಅರ್ಜಿತ ಪ್ರದೇಶದ ಜಂಟಿ ಸರ್ವೆ ನಡೆಸಿ, ಗಡಿ ಗುರುತಿಸಬೇಕಾಗಿರುತ್ತದೆ. ತತ್ಸಂಬಂಧ, ಸರ್ವೆ ಕಾರ್ಯವನ್ನು ದಿನಾಂಕ:04-12-2023 ರಂದು ಬೆಳಿಗ್ಗೆ 11:00 ಗಂಟೆಗೆ ನಿಗದಿಪಡಿಸಲಾಗಿದ್ದು, ಸದರಿ ದಿನದಂದು ತಮ್ಮ ಕಛೇರಿ ಅಧಿಕಾರಿಗಳನ್ನು ನಿಯೋಜಿಸಿ ಸಹಕರಿಸುವಂತೆ ಈ ಮೂಲಕ ತಮ್ಮನ್ನು ಕೋರಿದೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ,

ಹಿರಿಯ ಭೂವಿಜ್ಞಾನಿ

ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ

ಉತ್ತರ ಕನ್ನಡ ಜಿಲ್ಲೆ, ಕಾರವಾರ.

ಪ್ರತಿಯನ್ನು: ಶಿವಪ್ರಸಾದ ಜಿ. ಕೆ., ಮೆ. ಶಿವಪ್ರಸಾದ ಇಂಡಸ್ಟ್ರೀಸ್, ಕೋಡಿಬಾಗ, ಕಾರವಾರ ರವರ ಮಾಹಿತಿಗಾಗಿ ಹಾಗೂ ಸದರಿ ದಿನದಂದು ಹಾಜರಿರಲು ತಿಳಿಸಿದೆ.



As the site is in no drone zone due to proximity to the Naval Base we could not do the drone survey in the site



Fig: 2 NO DRONE ZONE

NOTE:-

Under Interactive drone airspace map on the DGCA's digital sky platform of DGCA Drone Rules 2021 under Aircraft Act 1934 ( 22 of 1934) subpoint " L " ( Red zone - No Fly zone)

*Signature*





- (j) "Drone acknowledgement number" means the unique number issued by the digital sky platform under the voluntary disclosure scheme for unmanned aircraft systems in India;
- (k) "Geo-fencing" means restricting the movement of unmanned aircraft system within a defined airspace;
- (l) "green zone" means the airspace of defined dimensions above the land areas or territorial waters of India, upto a vertical distance of 400 feet or 120 metre that has not been designated as a red zone or yellow zone in the airspace map for unmanned aircraft system operations and the airspace upto a vertical distance of 200 feet or 60 metre above the area located between a lateral distance of 8 kilometre and 12 kilometre from the perimeter of an operational airport;
- "yellow zone" means the airspace of defined dimensions above the land areas or territorial waters of India within which unmanned aircraft system operations are restricted and shall require permission from the concerned air traffic control authority. The airspace above 400 feet or 120 metre in the designated green zone and the airspace above 200 feet or 60 metre in the area located between the lateral distance of 8 kilometre and 12 kilometre from the perimeter of an operational airport, shall be designated as yellow zone;
- "red zone" means the airspace of defined dimensions, above the land areas or territorial waters of India, or any installation or notified port limits specified by the Central Government beyond the territorial waters of India, within which unmanned aircraft system operations shall be permitted only by the Central Government;
- (m) "hybrid unmanned aircraft" means a heavier-than-air unmanned aircraft capable of vertical take-off and landing which depends principally on power-driven lift devices or engine thrust for the lift during the flight regimes and on non-rotating airfoil for lift during horizontal flight;
- (n) "model remotely piloted aircraft system" means a remotely piloted aircraft system, with all-up weight not exceeding twenty-five kilograms, used for educational, research, design, testing or recreational purpose only and operated within visual line of sight;
- (o) "Operator" means a person engaged in, or offering to engage in, an operation involving an unmanned aircraft system;
- (p) "person" includes an individual, a company, a firm, an association of persons, a body of individuals, a local authority, the Central Government, the State Government and any legal entity, whether incorporated or not;
- (q) "prototype unmanned aircraft system" means an unmanned aircraft system developed for the purpose of research and development or obtaining a type certificate;
- (r) "Quality Council of India" is the autonomous body set up by the Government of India jointly with the Indian Industry in a public private partnership to establish and operate national accreditation structure and promote quality;
- (s) "remote pilot" means an individual charged by the operator with duties essential to the operation of an unmanned aircraft and who manipulates the flight controls, as appropriate, during flight time;
- (t) "remote pilot licence" means the licence issued by Director General to any individual under

Fig: 3 EXTRACT OF DRONE RULES 2021

Extract of page no 15 Of drone rules 2021 issued form ministry of civil aviation vide notification number G.S.R.589(E) Where in they have mentioned about the red zone stating that "red zone" means the airspace of defined dimensions, above the land areas or territorial waters of India, or any installation or notified port limits specified by the Central Government beyond the territorial waters of India, within which unmanned aircraft system operations shall be permitted only by the Central Government.

As our area falls with in the red zone we are unable to fly the drone in the proposed area.

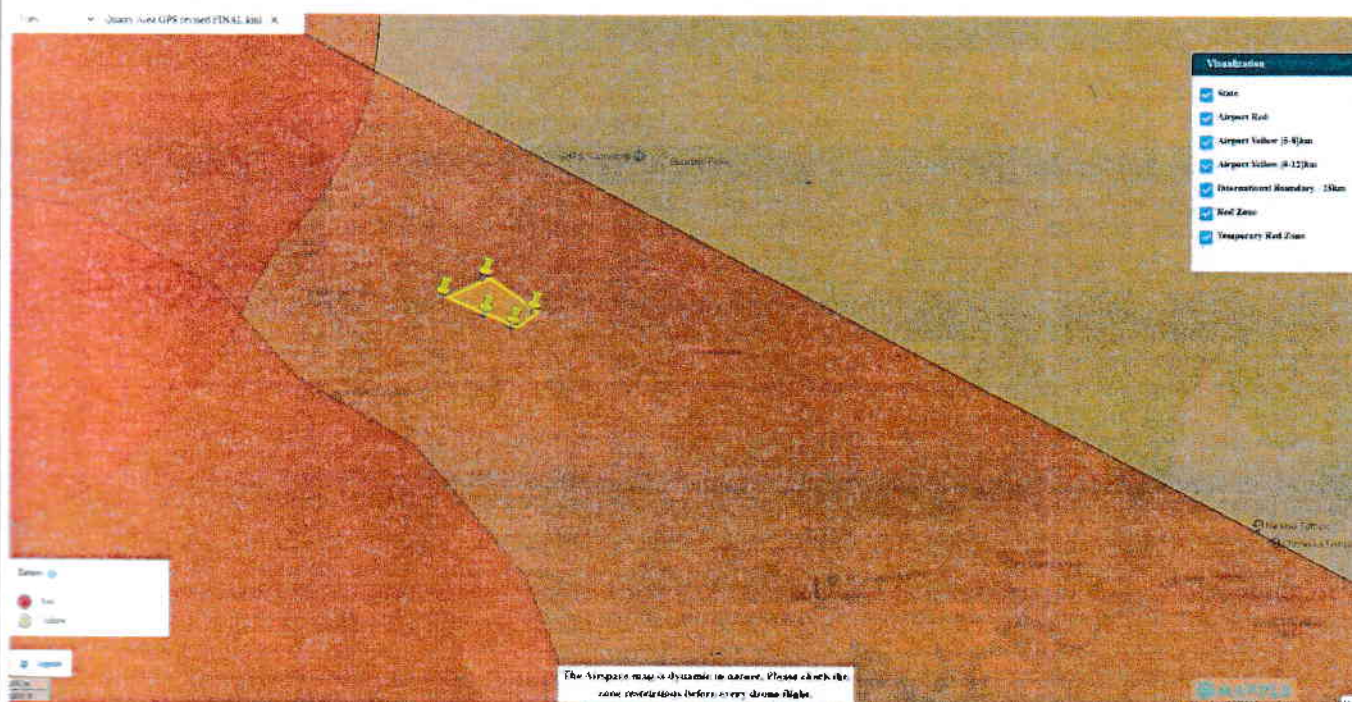


Fig: 4 AIRSPACE MAP

Image showing Airspace map showing the red zone in our proposed project site



## **SURVEY REPORT**

### **3.1 Survey Objective**

- a) Identification and fixing of boundary points.
- b) Acquire aerial imagery using drone based high resolution camera which forms input to Photogrammetry.
- c) Analyze and highlight encroachment, if any
- d) Volumetric calculation - cut volume and fill volume as applicable.
- e) Volume of mineral excavated within and outside the Notified Area.

### **3.2 Methodology adopted**

- a) Establishment of Ground Control:

DGPS process:

There are 2 receivers one will be base and another will rover. We setup base point at any one Boundary Point and rover receiver will be kept at remaining Boundary point and at each Boundary Point receiver will collect reading for about 30min. And after collecting DGPS readings on the rover on all Boundary points the recording is stopped through mobile controller and DAT file and RINEX file will be generated and which will be collected in mobile controller. DAT file and RINEX file of Base point will also be downloaded. These two files of all the B points will be processed in Static data processing software "FOIF

- b) Drone Survey:

Flight planning:

As the area is in no drone zone we could not do the drone survey

### **3.4 Assumption**


- a) Input on boundary points and extent of Notified area provided in notified sketch is as shown by owner.
- b) The volumetric analysis cannot be carried out as we could not conduct the drone survey.




### 3.5 Boundary Survey:

- Boundary coordinates are established.

DGPS READINGS OF BOUNDARY POINTS (DATUM WGS 84)					
Point ID	Easting	Northing	Elevation	Latitude (Global)	Longitude (Global)
1	407922.0811	1634845.0012	210.6401	14° 47' 10.0123"N	74° 08' 39.8152"E
2	407658.3962	1634737.0620	168.0100	14° 47' 06.4665"N	74° 08' 31.0089"E
3	407927.1412	1634629.1601	145.6540	14° 47' 02.9884"N	74° 08' 40.0122"E
4	408096.9925	1634557.1641	155.2574	14° 47' 00.6662"N	74° 08' 45.7024"E
5	408267.9160	1634622.2451	175.8549	14° 47' 02.8052"N	74° 08' 51.4114"E
DGPS READINGS OF REFERENCE POINTS (DATUM WGS 84)					
REF-X	407852.9421	1634847.9652	215.0021	14° 47' 10.1001"N	74° 08' 37.5021"E

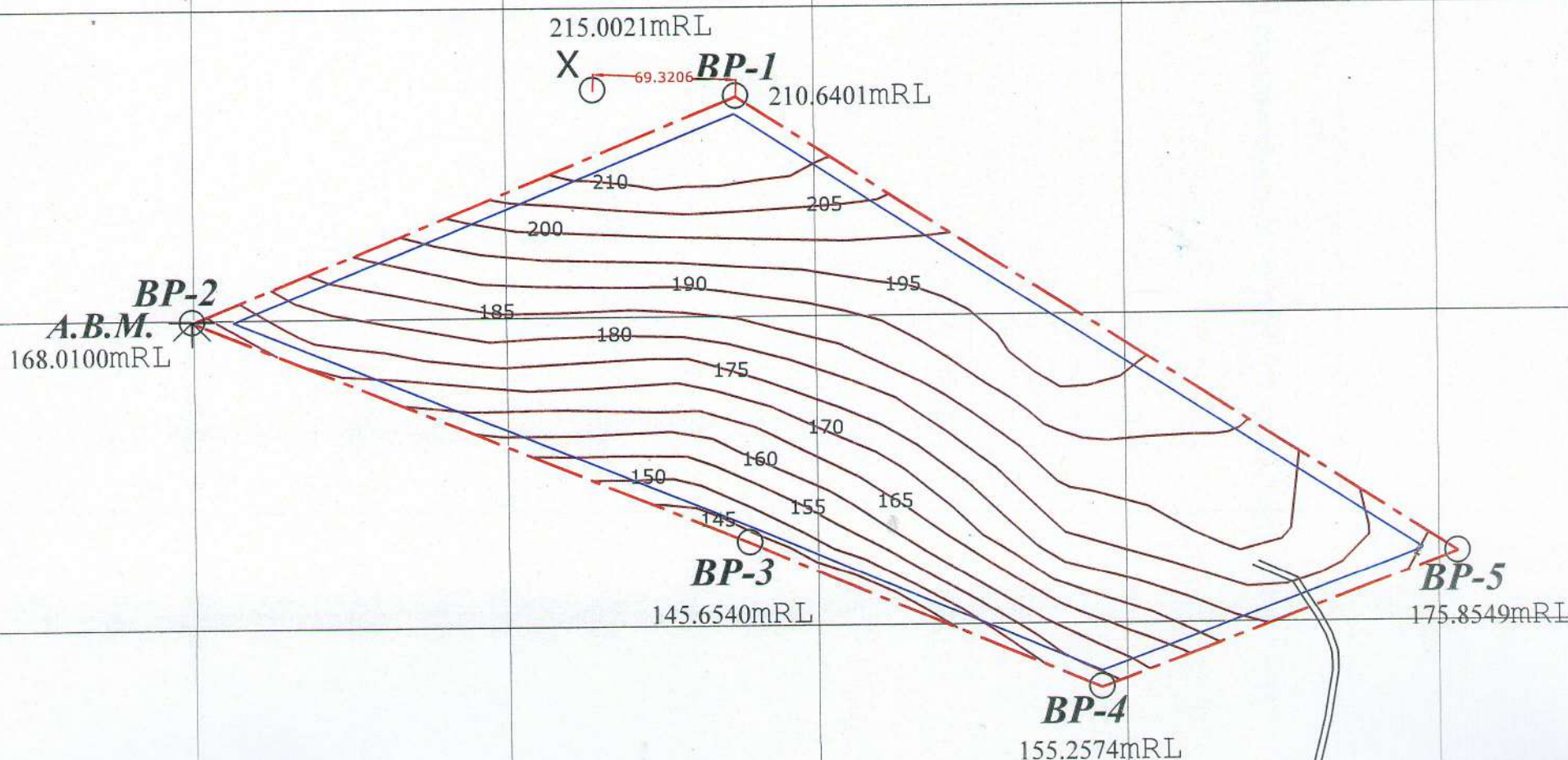
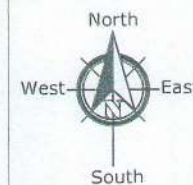
  
**GEOLOGIST**  
Dept. of Mines & Geology,  
Uttara Kannada District, Karwar

  
**SENIOR GEOLOGIST**  
Dept. of Mines & Geology  
Uttara Kannada District, Karwar





# DGPS Sketch



*Anil M*  
**SENIOR GEOLOGIST**  
Dept. of Mines & Geology  
Uttar Kannada District, Karwar

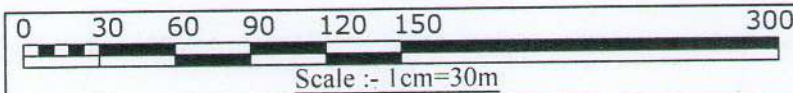
*Hsh*  
**GEOLOGIST**  
Dept. of Mines & Geology,  
Uttara Kannada District, Karwar

## DGPS READINGS OF BOUNDARY POINTS

Point ID	Easting	Northing	Elevation	Latitude (Global)	Longitude (Global)
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REF-X	407852.9421	1634847.9652	215.0021	14° 47' 10.1001"N	74° 08' 37.5021"E

### GENERAL INDEX

- Applied Area
- Safety Zone
- Boundary Point Elevation
- Contours
- ABM



### Ground Statics

Maximum Level	210 m
Minimum Level	145 m
Total Area	77,285.2 Sqm

**Client -M/S. SHIVAPRASAD INDUSTRIES**

### Consultant -

Horizon Ventures

No. 4, 2nd floor, Anaga,  
Devasandra, New BEL Road,  
Opp. M S Ramaiah Hospital,  
Bangalore-560094  
Ph - 9164516629

### Area Report

Surveyed by	In Square Meters	In Square Feet
<i>Sree Kumar</i>	77,285.2 Sqm	831,891 Sqft
<b>SRE KUMAR. G</b>	In Acre/Guntas	Date of Survey
DMG/DD/MA/ROP/3202223	19.09759 Acres	04/12/2023


**Survey Location -**  
In Sy No: 52 AIA of Argha Village, karwara Taluk, Uttar  
Kannada District, Karnataka




### 3.7 Results of Survey

#### DGPS reading:

DGPS READINGS OF BOUNDARY POINTS (DATUM WGS 84)					
Point ID	Easting	Northing	Elevation	Latitude (Global)	Longitude (Global)
1	407922.0811	1634845.0012	210.6401	14° 47' 10.0123"N	74° 08' 39.8152"E
2	407658.3962	1634737.0620	168.0100	14° 47' 06.4665"N	74° 08' 31.0089"E
3	407927.1412	1634629.1601	145.6540	14° 47' 02.9884"N	74° 08' 40.0122"E
4	408096.9925	1634557.1641	155.2574	14° 47' 00.6662"N	74° 08' 45.7024"E
5	408267.9160	1634622.2451	175.8549	14° 47' 02.8052"N	74° 08' 51.4114"E
DGPS READINGS OF REFERENCE POINTS (DATUM WGS 84)					
REF-X	407852.9421	1634847.9652	215.0021	14° 47' 10.1001"N	74° 08' 37.5021"E

  
SENIOR GEOLOGIST  
Dept. of Mines & Geology  
Uttar Kannada District, Karwar

  
GEOLOGIST  
Dept. of Mines & Geology,  
Uttar Kannada District, Karwar





## CHAPTER 4

### Conclusion and Recommendation

The Quarry area is located in Part of the Sy. No. 52A1A, over an extent of 19.09759 acres of Argha Village, Karwar Taluk, Uttara Kannada District, Karnataka.

Conclusion of DGPS survey conducted on 04.12.2023 is as follows.

- The terrain is undulated terrain with highest elevation is 210 mts at north side of the site and lowest elevation is 145.0 mtrs at south side of the area, having an elevation difference of 65 mtrs.
- It may be concluded that the applied area for building stone quarry is fresh land.

  
SENIOR GEOLOGIST  
Dept. of Mines & Geology  
Uttara Kannada District, Karwar

  
GEOLOGIST  
Dept. of Mines & Geology,  
Uttara Kannada District, Karwar





### Authorized signatory details

Authorized signatory	
Signature	 SREEKUMARY. G DMG/DD(MA)/RQP-13/2022-23
Name	<b>SREEKUMARY. G</b>
Designation	<b>RECOGNISED QUALIFIED PERSON</b> DMG/DD(MA)/RQP-13/2022-23
Company	<b>HORIZON VENTURES</b>
Mobile	<b>8792157464</b>
E-mail	<b>sreekumarig.hv@gmail.com</b>



## LIST OF ANNEXURES

<b>ANNEXURE 1</b>	<b>INSTRUMENT DETAILS</b>
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## **ANNEXURE 1**



# **INSTRUMENT DETAILS**



File No.DGCA-27046/94/2019-AED-DGCA

GOVERNMENT OF INDIA  
OFFICE OF THE  
DIRECTOR GENERAL OF CIVIL AVIATION  
OPP. SAFDARJUNG AIRPORT,  
NEW DELHI - 110 003



भारत सरकार  
महानिदेशक नागर विमानन  
का कार्यालय  
सफदरजंग एरपोर्ट के सामने  
नई दिल्ली - ११० ००३

**Aircraft Engineering Directorate**

Telephone/ दूरभाष: 011-2461 1504  
E-mail/ ई-मेल: rajasekar.dgca@nic.in

Reference No./ संख्या: DGCA-27046/94/2019-AED  
Dated/ दिनांक: 17<sup>th</sup> September, 2019

**विमान अभियांत्रिकी निदेशालय**

DGCA-27046/94/2019-AED  
17<sup>th</sup> September, 2019

M/s IdeaForge Technology Pvt. Ltd.  
EL - 146, T.T.C. Industrial Area,  
M.I.D.C. Mahape,  
Navi Mumbai - 400 710  
Maharashtra.

(Kind attn.: Mr. Vipul Joshi, Chief of Operations (COO))

Subject: Provisional acceptance of RPAS model "Ninja" of M/s IdeaForge Technology Pvt. Ltd. -  
reg.

**References:**

- (i) Application dated 17<sup>th</sup> May, 2019
- (ii) Certificate of Compliance dated 26<sup>th</sup> August, 2019
- (iii) Undertakings & statements dated nil, 30<sup>th</sup> May, 2019, 2<sup>nd</sup> July, 2019, 5<sup>th</sup> September, 2019 and 6<sup>th</sup> September, 2019
- (iv) Industrial License vide letter no. DIL: 24 (2015) dated 22<sup>nd</sup> April, 2015

Sir,

Reference is made to the above mentioned letters and subsequent correspondences on the subject matter. Your application for acceptance of Remotely Piloted Aircraft System (RPAS) model "Ninja", your certificate of compliance dated 26<sup>th</sup> August, 2019, and substantiating documents have been examined as per CAR Section 3, Series X, Part I and DGCA RPAS Guidance Manual Chapter 6, 7 and 8.

Based on your certificate of compliance dated 26<sup>th</sup> August, 2019, information / clarifications, substantiating documents, familiarization, undertakings and statements; it is stated that the RPAS model "Ninja" whose specification listed in Annexure-I is found provisionally acceptable for operation in India subject to the limitations & conditions stated in the Annexure-II to this letter.

This issues with the approval of competent authority and shall remain in force until cancelled, superseded or revoked by the DGCA, India.

Yours faithfully

(G Rajasekar)

(Joint Director General)  
for Director General of Civil Aviation







## Remote Pilot Certificate

Certificate No: **PC122300006YF** Active

Date of Initial Issue: **08 December 2023 17:33:54**



Scan the code to verify the current status of certificate



Name of the Pilot:

**VISHAL R**

Gender:

**MALE**

Date of Birth:

**11 Nov 1997**

Address:

**DOOR NO 182, MARIKUPPAM, MARIKUPPAM,  
QUARANTINE BLOCK, Marikuppam , Kolar , KARNATAKA ,  
563119 , INDIA**

### ENDORSEMENT DETAILS

Category of UAS:

**ROTORCRAFT**

Sub-category of UAS:

**RPAS**

Class of UAS:

**SMALL**

VLOS/BVLOS:

**VLOS Only**

Date of Endorsement:

**08 December 2023**

Expiry Date:

**07 December 2033**

Status:

**Active**

Declaration:

Pilot has successfully completed the Remote Pilot Training Classes (both theory and practical) for the above mentioned category. Pilot has successfully passed both theory and practical exam conducted by us.

RPTO Name:

**Defy Aerospace Private Limited**

RPTO Authorisation No.

**RA0823000001R**

\*This Remote Pilot Certificate is issued under the provision of Rule 4 and Rule 5 of Drone (Amendment) Rules 2022

\*\* This is a digitally signed document and hence does not require signature.



www.ideaforge.co.in



Date: 23/07/2021

### Manufacturer's Authorisation Form

Ref:KK/MAF/21-22/01

Dear Sir,

We **IdeaForge Technology Pvt Ltd** who are established and reputable manufacturers of **NINJA UAV/ Drone** having factories or product development center at EL-146 TTC Industrial area MIDC Mahape Navi Mumbai 400710, do hereby authorize **M/s. K K Gossystem** having registered office at **B-14 & 15, Circle-B, Nr. Pakwan-II, S.G. Highway, Bodakdev, Ahmedabad, Gujarat - 380 015** to bid, negotiate and conclude the contract with **M/s. Horizon Ventures**, Shop No. 4, Anaga, 3rd floor, Above Coffee Day, New BEL Rd, Bengaluru, Karnataka 560094 for the above goods manufactured by us.

We hereby extend our warranty/ maintenance support for the goods supplied to the bidder against this invitation for bid by **M/s. Horizon Ventures** as per requirements.

Thanking you,

Yours faithfully,

For and on behalf of: **IdeaForge Technology Pvt Ltd**  
Authorised Signatory  
Name **Vipul Joshi**  
Designation: **Vice President Operations**



# DGPS EQUIPMENT DETAILS





# A90 GNSS Receiver Specifications

A90 GNSS Receiver 2018.02

- Humidity: 100% condensing
- Waterproof: IP68 and full 810C standard
- Shock: 2 in (5.08 ft) pole drop
- Shock: 1.2m (3.94ft) free drop

## Power

- 7.2V, 6800mAh, removable battery
- Optional System Components
- Communication Module

## Internal radio

- UHF Link (410-470MHz) Rx&Tx both

## -1W

- External radio
- FQIF external radio Rx & Tx FQIF 5
- 5/35W selectable
- 4G LTE module
- Fits various networks
- Blue Tooth
- 2.4GDR Class 2
- WIFI
- IEEE 802.11 b/g/n
- Antenna
- Built-in antenna, integrating GNSS, BT/WLAN and network antenna
- Controller
- FSB

## Performance

- 1. Performance values assume minimum of five satellites in view. The receiver is not intended for use in the product manual. High multipath areas, high PDOP values and periods of severe atmospheric conditions may degrade performance.
- 2. Long baselines, long occupations, precise ephemeris used

## FOIF Geomatics CAD

- Main functions include:
- DWG file format, compatible with AutoCAD
- Integrated transformation and grid
- System computations
- All 3D least squares adjustment, bundle adjustment, graphical ellipse display
- DTM contouring, modeling volumes 3D rendering
- Site Design: Ponds, ditches, stockpiles and slopes
- Road Design: horizontal and vertical alignments, cross section templates
- Completely customizable user interface
- Toolbars - can be arranged with "drag and drop" functionality
- Menus - can be organized with our graphical menu editor
- Screen - items can be turned off for more graphics area
- Layout - of command window - top or bottom
- Reporting - exporting and printing

## Data logging

- Recording interval
- 0.1 - 999 seconds

## Physical

- Flat design
- Size: 150mm\*76mm(6"x4")
- Bottom cover: Aluminum magnesium alloy

## Memory

- Internal memory: 8GB standard; Supports extending to 32GB

## I/O Interface

- TNC port: connecting built-in radio antenna
- 5 pin lens port: connecting external power
- Supply and external audio
- 7 pin lens port (USB+serial port): connecting PC and handheld

## Operating system

- Based on Linux; Supports Web UI

## Voice

- Multi-language supported
- Tilt survey sensor
- Automatic correct system by 30degree
- Data format
- RTCM 2.3
- RTCM 3.0, RTCM 3.1, X
- CMR, CMR+
- NovAtel/SCMHs

## Operation

- RTK rover/base; post-processing
- RTK Network rover: VRS, FKP, MAC
- Point-to-Point GPS through Real-time Data Cell phone
- Server Software Internal GPS or external

## Office Software Suite

- Main functions include:
- Network post-processing
- Integrated transformation and grid
- System computations
- Pre-defined datums along with use defined capabilities
- Survey mission planning
- Automatic vector processing
- Least-squares network adjustment
- Data analysis and quality control tools
- Coordinate transformations
- Reporting
- Exporting
- Geoid

## Environmental

- Operating temperature:
- -30°C to +55°C (-22°F to 149°F)
- Storage temperature:
- -40°C to +80°C (-40°F to +176°F)

## GNSS Engine

- 555 channels
- Advanced interface detection and mitigation
- Maximum data rate: 100Hz
- GPS: L1 C/A, L1C, L2C, L2P, L5
- GLONASS: L1 C/A, L2 C/A, L2P, L3, L5
- BeiDou: B1, B2, B3
- Galileo: E1, E5a, E5b, E6
- NavIC (IRNSS): L5
- SBAS: L1, L5
- QZSS: L1 C/A, L1C, L2C, L5, L6
- L-Band: up to 5 channels

## Performance Specifications

- Time to First Fix (TTFF):
- Cold start: <40s (typical)
- Hot start: <15s (typical)
- Signal reacquisition:
- L1: <0.5s (typical)
- L2: <1.0s (typical)
- L5: <1.0s (typical)
- RTK initialization time:
- <10 s
- RTK initialization reliability:
- >99.9%

## Real-time Accuracy (rms)

- SBAS
- Horizontal: 60cm (1.97ft), Vertical: 120cm (3.94ft)
- Real-time DGPS resolution
- Horizontal: 40cm (1.31ft), Vertical: 80cm (2.62ft)
- Real-time Kinematic Position (Fixed mode)
- Horizontal: 8mm (0.03ft) ± 1.0 ppm
- Vertical: 10mm (0.03ft) ± 1.0 ppm

## Post Processing Accuracy (rms)

- Static, Rapid Static
- Horizontal: 2.5 mm (0.008 ft) ± 1.0 ppm
- Vertical: 3 mm (0.010 ft) ± 1.0 ppm
- Long Static
- Horizontal: 3.0 mm (0.010 ft) ± 0.1 ppm
- Vertical: 3.5 mm (0.011 ft) ± 0.4 ppm

## Solutions

- Field Software Suite
- FOIFP (Win/Android) , FOIF FieldGenius or Carlson Survey

## Main functions include:

- A90 GNSS Support: configuration,
- monitoring and control
- Volume computation
- Background raster image
- Network connectivity
- Coordinate System Support: predefined grid systems, predefined datums,
- Projections, Geoids, local grid
- Map view with colored lines
- Geodetic Geometry: intersection, azimuth/distance, offsetting, poly-line,
- curve, area
- Road Construction 3D
- Survey Utilities: calculator, RW5 file viewing
- Data import/export: DME, SHP, RW5



## JANAK POSITIONING & SURVEYING SYSTEMS PVT. LTD.

"RAM GROUP" 304 B, Pal Mohan Plaza, 11/56, D.B. Gupta Road, Karol Bagh, New Delhi-110 005  
Ph: 011-23515400, 23515399, 23617190, 0120-4221820, Fax: 011-23682183, Mob: 9811008317  
E-mail: janak.ji@yahoo.com / janakji@janaksurvey.in Website: www.janaksurvey.com

### Test Certificate

Certificate No.: 15/10/2022/1235

Product: GNSS Receiver A90

S/No.: A90019101077 / A90019101057

Date of Issue: 15<sup>th</sup> October 2022

Valid up to: 14<sup>th</sup> October 2023.

#### Calibration Data

Function Test	Standard Value	Tested Value	Remarks
Hx Accuracy RTK	8mm	6mm	Pass
Vz Accuracy RTK	15mm	13mm	Pass
Hx Accuracy Static	3.0mm	3.0mm	Pass
Vz Accuracy Static	3.5mm	3.5mm	Pass
Initialization Time	<10 Second	7 Second	Pass
Antenna Phase Center	<1mm	0.7mm	Pass

#### Certificate:

We hereby certify that the product described has been tested complies with the specifications and test results as stated above.

The test equipment is used is traceable to ISO17123 Standards. This is established by our Quality Management System, audited to ISO 9001:2015 by OSS Certification services.

Issued by



"Ram Building" B-28, SECTOR-4, NOIDA-201 301, Ph.: 0120-4221820



(An ISO 9001:2015 Approved Company)  
GSTN:- 09AABCJ0148A1Z3

FOIE





**End of report**

