

# Executive Summary

The project has been proposed for Mining of Boulder Stone from *Nongthymmai Village, Raid Marwet, Myllem Syiemship, District- Ri-Bhoi, Meghalaya Mine Area 2.16 Ha* The proposed production is 3,03,320 MT/annum by open cast semi- mechanized method of mining. Mining will be confined to the allotted lease area.

Pillar Coordinates					
		Pillar	Latitude (N)	Longitude (E)	
		A	26°06’16.30’’ N	91°49’7.90’’ E	
		B	26°06’15.60’’ N	91°49’11.70’’ E	
		C	26°06’9.83’’ N	91°49’9.98’’ E	
		D	26°06’10.88’’ N	91°49’5.54’’ E	
Name of the Project	“Shri Andreas Nathaniel War's Boulderstone Mine”				
Village	Nongthymmai Village, Raid Marwet, Myllem Syiemship,				
Tehsil	-				
District	Ri-Bhoi				
State	Meghalaya				
Name & Address of Applicant	Shri Andreas Nathaniel War Kenches Trace Laban, Shillong District- East Khasi Hills, Meghalaya				
Nearest Railway	New Guwahati Railway Station, 8.94 Km, towards North direction				
Nearest Airport	LBG International Airport Guwahati, 22.93 Km, towards West direction				
Nearest Major Road	NH-27, 1.93 km, towards East direction NH-6, 6.79 km, towards South-East direction				
Mineral	Boulder Stone				
Area (Ha) as per LoI	2.16 Ha				
Life of Mine	5.27 years				

Status of Mine	New
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The proposed project is an opencast semi-mechanized mining project, where mining of Boulder Stone will be done. Excavators will be deployed for the removal of overburden & inter burden. Methods of mining will be open cast semi-mechanized with drilling and blasting. Mining will be confined to the allotted lease area located in Nongthymmai Village, Raid Marwet, Myllem Syiemship, District- Ri-Bhoi, Meghalaya from which a maximum of 3,03,320 TPA of Boulder Stone will be excavated eve. Drilling and Blasting is proposed in this mining activity. Terms of Reference (ToR) for the proposed project has been granted by the Directorate of Environment, Meghalaya vide its letter no. ML/SEIAA/MIN/RB/P- 54/2020/1534 dated, 27 August, 2020

### **Salient features of the project**

1.	Name of Proponent & Address	Shri Andreas Nathaniel War KENCHES TRACE LABAN, Shillong District- East khasi hills Meghalaya
2.	Name of Project	“Shri Andreas Nathaniel War's Boulderstone Mine”
3.	Location of Project	
	Name of Village	Nongthymmai Village, Raid Marwet, Myllem Syiemship,
	Tehsil	-
	District	Ri-Bhoi
	State	Meghalaya
4.	Name of Minor Mineral	Boulder Stone
5.	Sanctioned Lease Area In Ha	2.16 Ha
6.	Mineable Area In Ha	1.944 Ha
7.	Max. & Min mRL Within Lease Area	172 mRL to 70 mRL
8.	Pillar Coordinates	
9.	Total Mineable Reserve	15'98'810 Tones
10.	Proposed Production	3,03,320 TPA

11.	Required Period of Mine Lease	10 years
12.	Production of Mine/Day	1011.06 tones
13.	Method of Mining	Open Cast Semi Mechanized with Drilling and Blasting
14.	No. of Working Days	300
15.	Working Hours/Day	08 hrs max, Day Time
16.	No. of Workers	59
17.	No. of Vehicles Movement/Day	202 Truck (to and fro)
18.	Type Of Land	Private Land
19.	Max Depth of Mining	70 mRL to the probable category
20.	Nearest Metalled Road From Site	NH-27, 1.93 km, towards East direction NH-6, 6.79 km, towards South-East direction
21.	Water Requirement	WATER REQUIREMENT 1- Drinking & Domestic: 3.2 KLD 2-Dust Suppression: 0.90 KLD 3-Plantation 0.90 KLD Total water requirement is about: 5.00 KLD
22.	Name of the QCI Accredited Consultant With QCI No. And Period Of Validity	GEOGREEN ENVIRO HOUSE PVT LTD, LUCKNOW NABET/EIA/2124/RA0215 dated Upto Feb 24, 2024
23.	Any Litigation Pending Against	No
	The Project Or Land In Any Court.	
24.	Proposed CER Cost	Rs. 90,000/-
25.	Propose EMP Cost	Rs. 3,77,250/-
26.	No. of trees to be planted	225 Saplings

The baseline data was collected for the winter season i.e. December 2020 to February 2021 in the 10 km study area.

The maximum value for **PM10** was observed as  $87.3 \mu\text{g}/\text{m}^3$  while 24 hours applicable limit is  $100 \mu\text{g}/\text{m}^3$  for industrial and mixed-use areas. The area observes average PM10 concentration in the range of  $40 \mu\text{g}/\text{m}^3 - 87.30 \mu\text{g}/\text{m}^3$ .

The maximum value for **PM2.5** was observed,  $36 \mu\text{g}/\text{m}^3$  while 24 hours applicable limit is  $60 \mu\text{g}/\text{m}^3$  for industrial and mixed-use areas. The area observes average PM2.5 concentration in the range of  $16.0 - 36.0 \mu\text{g}/\text{m}^3$ .

The maximum value for **SO2** was observed, as  $6.9 \mu\text{g}/\text{m}^3$  while 24 hours applicable limit is  $80 \mu\text{g}/\text{m}^3$  for industrial and mixed use areas. The average **SO2** concentration lies in between 3.1-

$6.9 \mu\text{g}/\text{m}^3$ .

The maximum value for **NO2** was observed, as  $10.0 \mu\text{g}/\text{m}^3$  while 24 hours applicable limit is  $80 \mu\text{g}/\text{m}^3$  for industrial and mixed use areas. The area observes average **NO2** concentration in the range of  $6.0 - 10.0 \mu\text{g}/\text{m}^3$ . All the villages have observed value well under the prescribed limit.

Ambient noise levels were measured at 08 locations around the proposed project site. Minimum and maximum noise levels recorded during the day time were from 42.6 Leq dB and 58 Leq dB respectively and minimum and maximum level of noise during night time were 10.8 Leq dB and 31.3 Leq dB respectively

#### **Environmental Management Plan (EMP):**

Proper environmental management plan is proposed for “Boulder Stone” mining project to mitigate the impact during the mining operation

- No labour camps will be established on site.
- No cooking, or burning of woods will be allowed in the nearby area.
- Prior to commencement of mining, a short awareness program will be conducted for labours to make them aware of way of working and various precautions to be taken while at work. Such program will be repeated occasionally.
- In the event of any some causality or injury to any animal occurs, proper treatment will be given.

- No tree cutting, chopping, lumbering, uprooting of shrubs and herbs will be allowed.
- Corridor movement of wild animals, if exists mining operations will be avoided in the area.
- It will be ensured that noise produced due to vehicles movement while carrying stone is within the permissible noise level.
- No piling of Stone will be done in adjoining area.
- If wild animals are noticed crossing the area, they will not be disturbed or chased away, instead the labors will move away from their path.

### Environment Monitoring Program

S. No.	Activity	Schedule
<b>Air Pollution Monitoring</b>		
1.	Ambient air monitoring of parameters specified by MoEF (PM10, SO <sub>2</sub> & NO <sub>2</sub> ).	Twice in a Year except monsoon
<b>Water Quality Monitoring</b>		
2.	Monitoring water quality surface water from the river	Twice in a Year except monsoon
3.	Monitoring of one sample of tube well and open well at mine / nearby location. Parameters are essential parameters as per IS: 10500:1991.	Twice in a Year except monsoon
4.	Monitoring of water spray requirements	Log-sheet of water spray will be maintained on daily basis
<b>Noise Quality Monitoring</b>		
5.	Noise in the ambient atmosphere in	Twice in a Year except monsoon
S. No.	Activity	Schedule
	mining lease	
<b>Greenbelt Maintenance</b>		

6.	Monitoring schedule for Greenbelt development as per mining plan	Yearly
<b>Soil Quality Monitoring</b>		
7.	Soil at six locations	Twice in a Year except monsoon

The proposed project is expected to provide employment to local people in different activities such as mining, sizing (sieving) transportation and plantation activities. The revenue generated from the production and sale of mineral will also add to the exchequer of government, which in turn will help in the growth of state economy. Excavated material will cater the huge increasing demand of mineral in the fast-growing construction industry of Meghalaya and nearby states etc. The project is not expected to have any major adverse impact on the environment and whatever impacts are anticipated during the EIA study will be minimized with the help of suitable mitigation measures.