

PARASAKTI LIMESTONE MINE
Jettipalem (Village & Post), Rentachintala (Mandal)
Palnadu (Dist.) – A.P.522 421

**ENVIRONMENTAL STATEMENT (AUDIT)
FOR THE FINANCIAL YEAR 2024-2025**

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ACKNOWLEDGEMENT

M/s. B.S ENVI-TECH PVT.LTD express since debt of gratitude to **Parasakti Limestone Mine (M/s. Parasakti Cement Industries Limited)** for the opportunity given by assigning the preparation of Environmental Statement (Audit) for their Mines located near Jettipalem (V) Rentachintala (M), Palnadu (Dist) of Andhra Pradesh. The Environmental Statement (Audit) is prepared for the financial year from April 2024 to March 2025. Special mention needs to be made of executives of Parasakti Limestone Mine of M/s. Parasakti Cement Industries Limited for their co-operation and assistance during the preparation of Environmental Statement. We also wish to acknowledge our gratitude to all of them who helped during the data collection and report preparation.

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FORM - V
(See rule 14)

**ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL
YEAR ENDING THE 31ST MARCH 2025.**

ii) Raw material & chemicals consumption

PART - A

| | | |
|---|--|---|
| 1 | Name and address of the owner/ occupier of the industry operation or process. | M/s. Parasakti Cement Industries Ltd., Myscape WEAVE,5 th Floor, Financial District, Gachibowli, Hyderabad – 500 032. Factory: Jettipalem, Rentachintala Mandal, Palnadu District, Andhra Pradesh.522421 |
| 2 | Date of last environmental audit Report submitted | September, 2024 |
| 3 | Production Capacity (units) | 1.8 Million tons/annum. |
| 4 | Year of establishment | 2005 |

PART - B

Water and Raw Material Consumption (2024-2025)

a) Water consumption

| | | |
|---|------------|--------------|
| 1. Water spraying, Gardening & Dust consumption | KLD | 72.53 |
| 2. Workshop (vehicle washing) | KLD | |
| 3. Domestic | KLD | |
| Total water consumption | KLD | 72.53 |

LIME STONE PRODUCTION

| | | |
|--|-----------------------|---------|
| 1. Lime stone production | MT | 1021000 |
| 2. Water consumptions | KL | 26474 |
| 3. Water consumption per unit of product (Limestone) | (KL/MT of lime stone) | 0.0259 |

| Name of raw materials | Name of product | Unit | Consumption of raw material per unit of output |
|-----------------------|-----------------|-------|--|
| | | | During the current financial year (2024-2025) |
| | Limestone | MT | 1021000 |
| | chemical | Kg | 97400 |
| | Explosives | Kg/MT | 0.09539 |

PART – C
POLLUTION GENERATED
(Parameter as Specified in the consent issued)

| Pollutants | Quantity of Pollutants Discharged (Kg/day) 2024-2025 | Concentrations Of Pollutants in Discharges (mg/L) 2024-2025 | Percentage of variation from prescribed standards with reasons |
|---|--|---|--|
| a) Waste Water: (There is no waste water during process) | | | |
| b) Air: There are no source emissions; only dust generation during mining operation is monitored by establishment ambient air quality sampling stations at various places in mine premises and surrounding areas. The generated data is shown in table 3. Analyzed data shows all the values are within the prescribed standards of APPCB. | | | |

**PART - D
HAZARDOUS WASTE**

(As specified under Hazardous wastes / Management and handling Rules, 2003)

| Hazardous wastes From Process | Total Quantity per year |
|--|--|
| | During the current financial year (2024-2025) |
| Waste Lube Oil generated | 7978 Liters |
| Waste Grease | NIL |
| Batteries scrap- used Batteries | NIL |
| From Pollution Control facility | NIL |
| Waste Lube Oil Re-utilized by self | 7578 Liters |
| Quantity sold to Sravanthi Lubricants | 400 Liters |

Note: Waste Oil, Grease and Batteries scrap- used Batteries generated from HEMM

**PART - E
SOLID WASTES**

| Solid Wastes | Total Quantity |
|--|--|
| From Process | During the current financial year (2024-2025) |
| From Process Black cotton soil generating In mining operation | NIL |
| From Pollution Control Facilities | NA |
| Quantity recycled or reutilized within the unit | |
| For Plantation Purpose | NIL |

PART - F

Please specify the characteristics (in terms of concentration and quantum) of Hazardous as well as solid wastes and indicates disposal particles adopted for both these categories of wastes.

About 7978 Liters Used Lube oil have been generated from the Mines.

Used Lube oil 7578 Liters is internally used for self consumption.

Used Lube oil 400 Liters sold to Sravanthi Lubricants

Solid waste as black cotton soil, negligible in quantity, generated during mining operation It is used in greenbelt developments.

PART - G

Impact of the pollution control measures on conservation of natural resources and consequently on the cost of production.

Evaluation on this aspect is being carried. Reclamation of mined out area as development of water storage reservoirs will be done to facilitate increase in water regime after completion of mining in lease hold area.

PART - H

Additional investment proposal for environmental protection including abatement of pollution.

1. An amount of Rs. 1,80,000/- per annum is being spent on monitoring for Mines.
2. Total Expenditure on the greenbelt development for the year 2024-2025 is Rs.800000/-

PART - I

Any other particulars in respect of environment protection and abatement of pollution.

The Management objective is to achieve the production without affecting the physical, chemical and biological environments of the nearby vicinity.

Development of deep sump in mines has been taken up, so that rain water can be stored for use during summer. The same sump also helps in recharging of the underlying aquifer.

Rain harvesting is practiced and same water is being used for dust suppression. For noise pollution control, down the hole initiation system are used. Over and above greenbelt is developed along the boundary of mine area for reducing the impact of noise due to mining activity on the surrounding Environment. Regular water sprinkling is done at mine face and haulage roads to suppress dust. Conservation of resources is done following approved mining plan.

1. INTRODUCTION

| | |
|---------------------|---|
| Name of the Mine | : Parasakti Limestone Mine |
| Name of the Owner | : Mr. P. Yashwanth Krishna |
| Location | : M/s Parasakti Cement Industries Limited |
| Post | : Jettipalem – 522 421. |
| Mandal | : Rentachintala, |
| District | : Palnadu. A.P. |
| Production Capacity | : 1.8 million tons/Annum. |

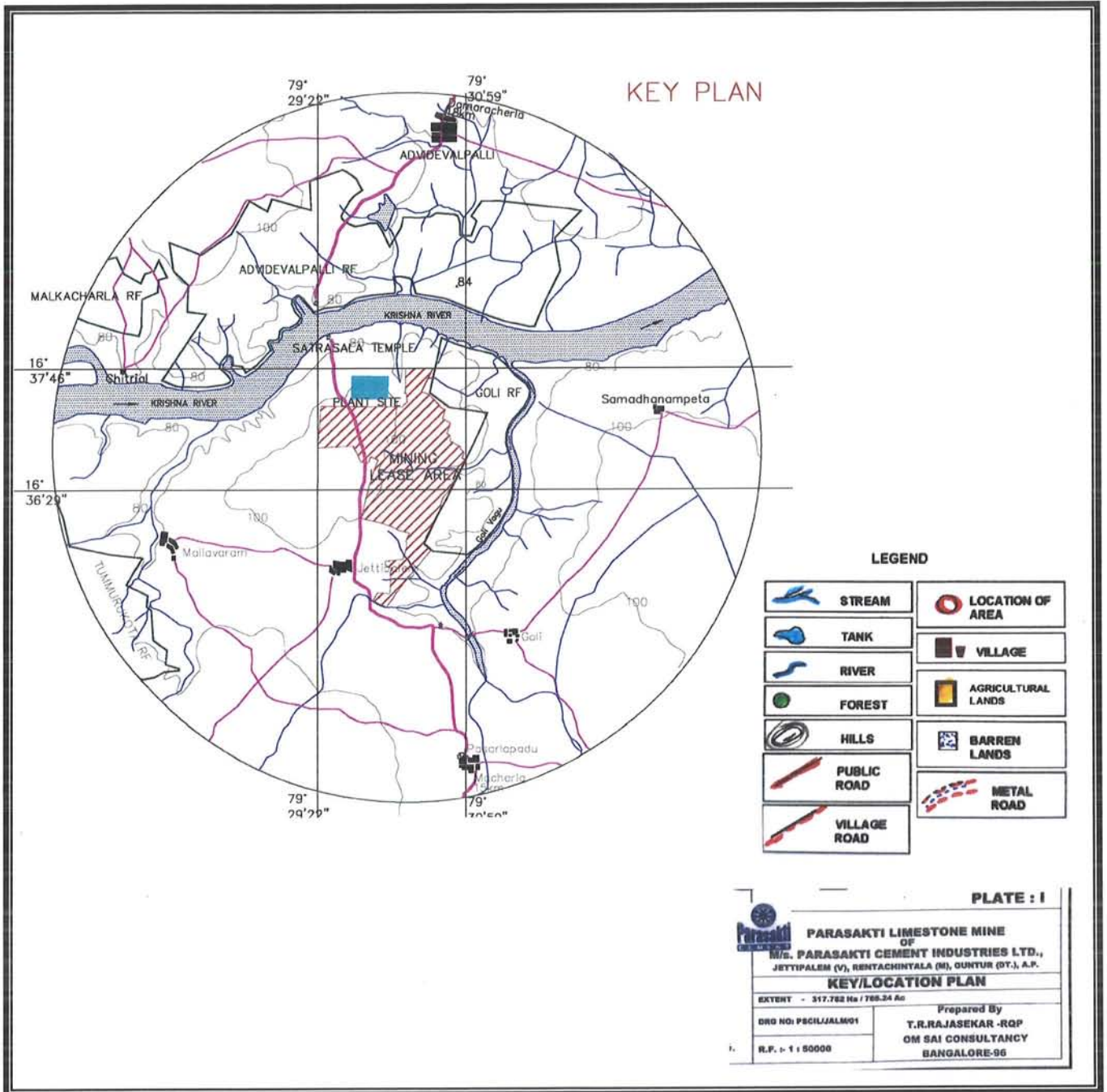
2. OBJECTIVE OF THE STUDY:

The objective of the present study is to review the performance of pollution control systems installed by the industry so as to identify efficient pollution prevention and control systems, which could be beneficial to both environment and its components. And also **Inserted by rule 2 of the Environment (Protection) second Amendment & Rules, 1992 vide G.S.R. 329 (E), dated: 13-3-1992.** Every person carrying on an Industry, operation or process requiring consent under section 25 of the water (prevention and control of pollution) Act 1974 (6 of 1974) or under section 21 of the Air (Prevention and Control of Pollution), Act 1981 (14 of 1981) or both or authorization under the Hazardous wastes (Management and Handling) Rules, 1989 issued under the Environmental (Protection) Act 1986 (29 of 1986) shall submit an environmental audit report for the financial year ending 31st March in Form – V to the concerned state pollution control board on or before the 30th day of September every year.

3. BENEFITS OF ENVIRONMENTAL AUDIT

Environmental audit creates awareness in the conservation of natural resources and helps to improve production safety and health. The benefits of audits are:

1. It helps in reduction of raw material consumption by way of waste minimization and adoption of recovery of waste and recycles the same.
2. Determined the performance of process systems and helps to improve the systems.
3. Efficiency of pollution control systems can be calculated.
4. This gives the awareness of environmental organization in the industry.
5. Data available will help the management for use in the plant modification and adopting pollution control for different types of technology.
6. It helps to identify pollution creating systems and exposure to it by the employees for taking remedial measures.
7. The management will be assisted in complying with local, regional and national laws regulations by adopting standards.
8. It helps to identify hazardous wastes, handling measures taken and exposure to litigation can be reduced.
9. To determine the impact on the surrounding environment due the disposal of its pollutants and identify suitable preventive measures.
10. Energy saving systems can be adopted by considering fuel consumption data.



Parasakti Limestone Mine of M/s. Parasakti Cement Industries Limited has entrusted the task of preparation of Environmental Statement (Audit) to M/s. BS Envi Tech Associates (UEA), Hyderabad. An in-depth study was conducted by UEA, to review the process efficiency, waste water generated and the present treatment systems, emissions generated and air pollution control equipment provided mode of solid waste collection and disposal and the other associated problems leading to the pollution and impact on environment.

4. LOCATION:

The Parasakti Limestone Mine of M/s. Parasakti Cement Industries Limited is situated in Jettipalm Village, Rentachintala Mandal, Guntur district of Andhra Pradesh. The area is located between Latitude 16°35'24" - 16°37'46" N and Longitude 79°29'22" - 79° 30'48" E. The mine is covered in Survey of India Topo sheet no. 56 P/6 & 56 P/10, Krishna River, which is perennial river, is flowing in the Northern direction at a distance of 2.0 Km from the mines area. Salient features of the mine are given in **Table 1.1**.

5. MINING PROCESS:

Parasakti Cement Industries Limited mine is operated by the method of mechanized open cast mining. The operations are conducted as per the mining plan approved by IBM. The operations involved are:

- i) Drilling of deep blast holes of 115 mm dia using DTH drill machines with matching capacity air compressors. The spacing and burden is around 5m and 3m respectively.
- ii) Blasting the holes using slurry explosives and ammonium nitrate-fuel oil mixture.
- iii) The blasted material is loaded into dumpers using excavators.
- iv) The dumpers shall be hauled to the crushing plant located near the plant. After crushing, the material shall be conveyed to the stockpile in the factory using a belt conveyor.

B.C soil that covers the limestone deposit is dozed off and separately stacked for afforestation purposes in the worked out top bench around ultimate pit limit and mine avenue roads. This soil is occurring at some places only. Over burden is proposed to be handled during the plan period. A list of mining machinery that are being used at Parasakti Limestone Mine of M/s. Parasakti Cement Industries Limited is given in table 1. The process flow of mining is given in Fig.2.

Fig.1 MINING PROCESS

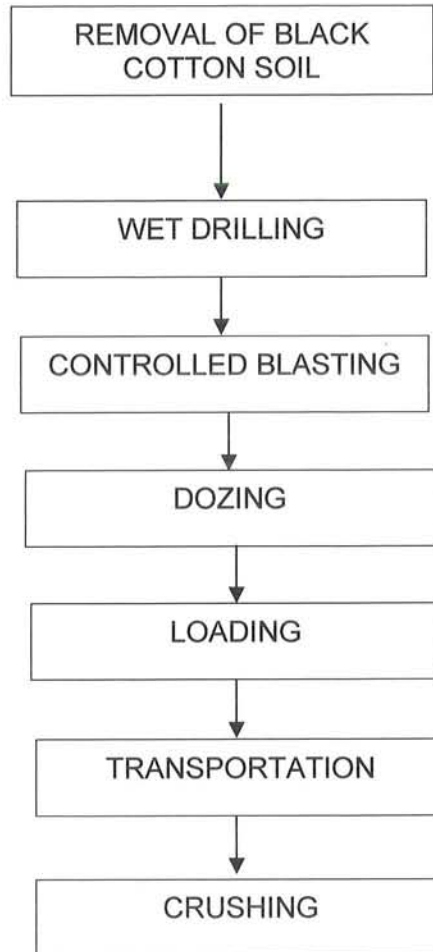


Table 1. List of Mining Machinery

| Equipment | No. of Units | Capacity | HP |
|-------------------------------|---------------------|-----------------|-----------|
| EXCAVATER | 02 | 3.3 cum | 395 |
| EXCAVATER | 01 | 0.8 cum | 138 |
| DUMPER | 05 | 35.0Tons | 399 |
| DOZER | 01 | 30.0Tons | 212 |
| Air Compressor (Non Electric) | 01 | 450 cfm | 121 |
| Compressor (Electric) | 01 | 450 cfm | 121 |
| Rock Drill | 02 | 115 mm | --- |
| Water Tanker | 01 | 10000 Lts. | 139 |
| Explosive Van | 01 | 5.0 Tons | 92 |
| Service Van | 01 | ----- | 139 |
| Drill machine | 01 | 450 cfm | 169 |

6. WATER ENVIRONMENT

Atmospheric precipitation in the form of rain is the only source for both surface water and ground water in the mining area. As the mining activity is carried out deep into the ground and depending on the ground water table prevailing in the area, ground water flows into mine and will be drained out for continuing the mining activity. The mine drainage water is to be characterized to have an idea of the water quality in the mine area. The mining activity is carried out at elevated area and so far, water table was not touched and hence there is no mine drainage, except rain water accumulation during rainy season. Samples were collected from various locations in and around mining area and analyzed. The

water quality data is presented in Tables 2.

The generated data for water quality shows that all the samples meet the standards prescribed by statutory authorities.

Water table level with reference to existing ground level is 48 – 50 m. Mining operation has not intersected water table.

Table 2
AVERAGE VALUES OF WATER ANALYSIS

| S No. | Parameters | LOCATIONS | | | | |
|-------|-------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | 1 | 2 | 3 | 4 | 5 |
| 1. | Odour | Unobjectionable | Unobjectionable | Unobjectionable | Unobjectionable | Unobjectionable |
| 2. | Taste | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3. | Colour (Hazen units) | 2.71 | 3.1 | 3.4 | 5.5 | 3.9 |
| 4. | pH | 7.80 | 7.4 | 7.6 | 7.6 | 7.3 |
| 5. | Turbidity (NTU) | 2.75 | 1.4 | 1.4 | 3.7 | 1.4 |
| 6.. | Total hardness as CaCO ₃ | 202 | 286 | 318 | 191 | 289.0 |
| 7. | Iron as Fe | 0.17 | 0.1 | 0.2 | 0.1 | 0.1 |
| 8. | Mineral Oil | BDL | BDL | BDL | BDL | BDL |
| 9 | Chlorides as Cl | 85.7 | 104 | 116 | 90.6 | 86.4 |
| 10 | TDS | 449 | 531 | 743 | 389 | 524 |
| 11 | Calcium as Ca | 53.1 | 76.2 | 83.7 | 49.4 | 73.9 |
| 12 | Magnesium as Mg | 20.95 | 21.8 | 24.1 | 20.1 | 21.1 |
| 13. | Copper as Cu | BDL | BDL | BDL | BDL | BDL |
| 14. | Manganese as Mn | BDL | BDL | BDL | BDL | BDL |
| 15. | Sulphates as SO ₄ | 42.3 | 75.4 | 95.7 | 70.8 | 63.1 |
| 16. | Nitrates as NO ₃ | 4.6 | 5.5 | 5.4 | 5.0 | 5.8 |
| 17. | Fluoride as F | 0.68 | 0.7 | 0.9 | 0.8 | 0.7 |
| 18. | Mercury as Hg | BDL | BDL | BDL | BDL | BDL |
| 19 | Cadmium as Cd | BDL | BDL | BDL | BDL | BDL |
| 20. | Selenium as Se | BDL | BDL | BDL | BDL | BDL |
| 21. | Arsenic as As | BDL | BDL | BDL | BDL | BDL |
| 22. | Cynide as Cn | BDL | BDL | BDL | BDL | BDL |
| 23. | Lead as Pb | BDL | BDL | BDL | BDL | BDL |
| 24. | Zinc as Zn | BDL | BDL | BDL | BDL | BDL |
| 25. | Chromium as Cr ⁺⁶ | BDL | BDL | BDL | BDL | BDL |
| 26. | Pesticides | Absent | Absent | Absent | Absent | Absent |
| 27. | Alkalinity as CaCO ₃ | 132 | 178 | 304 | 175 | 193 |
| 28. | Boran as B | 0.06 | 0.1 | 0.1 | 0.1 | 0.1 |
| 29. | MPN of Coliform Count/100 ml | Nil | Nil | Nil | Nil | Nil |

Note: All the values except pH, Taste, Odour, Colour & Turbidity are expressed in mg/L.

1. River Krishna 2. Jettipalem Village 3. Goli Vagu 4. Goli village 5. Samadhanampeta

7. POLLUTION CONTROL IN THE MINE

7.1 Pollution control measures

The Management has given top priority of pollution prevention and control. Adopting various pollution control measures stage wise operation controls the Air pollutants emitted into atmosphere.

7.2 Ambient Air Quality

Ambient air quality monitoring is carried out regularly at mines to know the status of the ambient air quality.

Ambient air quality is monitored for 24 hours at following locations Near Mines Office, Near Haulage Road, Crusher site, Drilling point, Jettipalem Village, for the estimation of PM₁₀, PM_{2.5}, SO₂, NO_x and CO. Estimated average values for the parameters monitored is represented in the Table 4 the analyzed values for PM₁₀, PM_{2.5}, SO₂, NO_x and CO are within limits prescribed by APPCB for industrial and mixed use.

Table 3
AVERAGE VALUES OF AMBIENT AIR QUALITY DATA FOR 2024-2025

| Parameter → Location ↓ | Particulate Matter (PM ₁₀) (µg/m ³) | Particulate Matter (PM _{2.5}) (µg/m ³) | Sulphur dioxide (µg/m ³) | Oxides of Nitrogen (µg/m ³) |
|---------------------------------|--|--|--------------------------------------|---|
| Near Mines Office | 62.50 | 25.16 | 12.18 | 13.34 |
| Near Haulage Road | 65.33 | 26.91 | 12.70 | 13.95 |
| Near Drilling Point | 61.50 | 28.16 | 12.35 | 13.36 |
| Near Security gate | 59.25 | 26.41 | 12.26 | 13.19 |
| Near crushing area | 63.16 | 28.16 | 12.71 | 13.56 |

7.3 Waste water Sources and Monitoring

Wastewater from toilets is sent to septic tank followed by soak pit. Water used only dust suppression and wet drilling, no waste water is generated.

7.4 Noise Pollution

Noise pollution control measures are adopted at various stages of operation. Noise Levels are measured at various places in the mines by using a sound level meter the results are given in the table. 4

Table 4
Ambient Noise Levels for 2024-2025

| S No. | Location | Noise Levels in dB(A) | Noise Levels in dB(A) |
|-------|--------------------|-----------------------|-----------------------|
| | | Day Time | Night Time |
| 1 | Near Mines Office | 60.87 | 53.67 |
| 2 | Near Drilling area | 70.07 | 60.86 |
| 3 | Near Haulage Road | 66.68 | 56.35 |
| 4 | Jettipalem village | 51.77 | 42.44 |
| 5 | Satrashala | 49.24 | 40.51 |

Table - 5
GREENBELT DEVELOPMENT

| DETAILS OF SPECIES FOR GREEN BELT DEVELOPMENT FOR THE YEAR 2024-2025 | |
|--|--------------------------------|
| MINES LEASE AREA | |
| AREA IN ACRES | 0.25 |
| NO. OF PLANTS | 1150 |
| NAME OF THE SPECIES | Felto form, Saptaparani, sugar |
| SURVIVAL RATE (%) | 85% |
| WATER SUPPLY | Drip system and Water Tanker |
| GRAND TOTAL | 2024-2025 |
| AREA IN ACRES | 2.12 |
| NO. OF PLANTS | 1150 |

9. HOUSEKEEPING:

Proper cleaning of the different sections is required to maintain healthy environment, to avoid unnecessary loss of product in the form of dust emission and polluting surrounding environment. Water spraying is done inside the mine and premises to control dust emissions from haul road and dump yard. Work shop maintaining properly. Mine premises are clean and green to have good housekeeping. PARASAKTI LIMESTONE MINE is keeping their workings and premises neat tidy. Housekeeping has been found to be well.

10. CONCLUSIONS

There are no effluents like mine drainage etc. from the mine area. The water samples collected in and around mine area are meeting the standards as per IS: 10500 – 1991.

Ambient air quality data generated in core zone i.e., mining area and immediate surroundings are observed to be varying between the limits with mining operations. SO₂ and NO_x concentrations are consistent during the whole day hence the SO₂ and NO_x emissions due to mining operations are negligible in the area.

Ambient air quality data generated in buffer zone i.e., nearby areas with habitations around the mining area showed consistently very less concentrations for all the parameters analyzed hence there is no impact in the buffer zone due to the mining operations carried out. The mine operations are meeting the overall standards of the statutory authorities.

ANNEXURE – I (MINES)
MONTH WISE WATER CONSUMPTION FOR THE YEAR 2024-25

| MONTH | Mines & Domestic (KL) | Total (KLD) |
|---------------|----------------------------------|--------------------|
| Apr-24 | 2100 | 70.00 |
| May-24 | 1721 | 55.52 |
| Jun-24 | 2208 | 73.60 |
| Jul-24 | 2252 | 72.65 |
| Aug-24 | 2129 | 68.68 |
| Sep-24 | 2071 | 69.03 |
| Oct-24 | 2287 | 73.77 |
| Nov-24 | 2266 | 75.53 |
| Dec-24 | 2359 | 76.10 |
| Jan-25 | 2465 | 79.52 |
| Feb-25 | 2121 | 75.75 |
| Mar-25 | 2495 | 80.48 |
| TOTAL | 26474 | 72.53 |

ANNEXURE – II (MINES)
LIMESTONE PRODUCTION AND CONSUMPTION FOR THE YEAR 2024-25

| MONTH | PRODUCTION in MT | Dispatch MT |
|---------------|-------------------------|--------------------|
| Apr-24 | 115631 | 108160 |
| May-24 | 51849 | 49077 |
| Jun-24 | 76758 | 82991 |
| Jul-24 | 78009 | 76764 |
| Aug-24 | 96735 | 85752 |
| Sep-24 | 44827 | 60471 |
| Oct-24 | 99978 | 91614 |
| Nov-24 | 47078 | 38608 |
| Dec-24 | 120359 | 120834 |
| Jan-25 | 71220 | 58558 |
| Feb-25 | 107255 | 102562 |
| Mar-25 | 111301 | 112963 |
| TOTAL | 1021000 | 988354 |

| Blasting material consumption for 2024-2025 | | |
|--|--------------------|-------------------------------|
| Month | Boost (Kg.) | Ammonium Nitrate (Kg.) |
| Apr-24 | 1360 | 8150 |
| May-24 | 932 | 6950 |
| Jun-24 | 1468 | 7250 |
| Jul-24 | 1375 | 6800 |
| Aug-24 | 1815 | 6200 |
| Sep-24 | 1275 | 3650 |
| Oct-24 | 1575 | 5800 |
| Nov-24 | 1775 | 5950 |
| Dec-24 | 1875 | 7300 |
| Jan-25 | 1250 | 4300 |
| Feb-25 | 2200 | 7450 |
| Mar-25 | 2300 | 8400 |
| TOTAL | 19200 | 78200 |

EXPENDITURE ON POLLUTION CONTROL EQUIPMENT & MONITORING 2024-25

| MINES-EXPENDITURE ON POLLUTION CONTROL EQUIPMENT & MONITORING 2024-2025 | |
|--|---------------|
| | TOTAL |
| YEARLY MONITORING CHARGES | 1,80,000 |
| GREEN BELT | 800000 |
| GRAND TOTAL | 980000 |