

30/11/2023

To,
The Director (IA),
Ministry of Environment, Forests and Climate Change
Indira Paryavaran Bhavan,
Jorbagh Road
New Delhi - 110 003

Subject: Submission of half yearly 'Compliance Report' as stipulated in the Environmental Clearance, J-11015/1045/2007-IA. II (M) dated 22.04.2010, Govt. of India, MOEF, New Delhi for the period from April 2023 to September 2023 in respect of our 'Redi Iron Ore Mine', lease area 94.7060Ha., located at Village Redi, Taluka Vengurla, District Sindhudurg, State Maharashtra.

Reference: 'Environmental Clearance' vide letter vide letter No. I-11015/1045/2007-IA,II(M) dated 22.04.2010, issued by the Ministry of Environment and Forests, Government of India.

Dear Sir,

With reference to the above-mentioned Environmental Clearance, we are submitting herewith point-wise half yearly Compliance Report for the period from April 2023 to September 2023 with respect to our 'Redi Iron Ore Mine', lease area 94.7060 Ha., located at village Redi, Taluka Vengurla, District Sindhudurg, State Maharashtra, along with the necessary supporting documents.

The soft copy of the said EC compliance report has been sent electronically to the following email ids: -

1. Director, IA Division, MoEFCC, 'ms.mining2-mef@nic.in' and Monitoring cell – 'monitoring-ec@nic.in'.

2. Regional office of the MoEFCC, Nagpur, 'apccfcentral-ngp-mef@gov.in'
3. Chairman, Maharashtra State Pollution Control Board, chairman@mpcb.gov.in and Sub-Regional Office, MPCB, Ratnagiri- sroratnagiri@mpcb.gov.in.
4. Chairman, Central Pollution Control Board ccb.cpcb@nic.in.

Thanking you,

Yours Faithfully,

For M/s Gogte Minerals



P. Sreenivasarao

Mines Manager

Encl : As above

CC:

1. Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur-440001.
2. Member Secretary, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-office complex, East Arjun Nagar, New Delhi 110 032.
3. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 2nd 3rd & 4th floor, Opp. Cine Planet, Near Sion Circle, Sion (E), Mumbai 400 022.
4. Sub-Regional Office, Central Administrative Building No. 2, 2nd Floor, Collectors Office Compound, Ratnagiri – 415612.

**HALF-YEARLY COMPLIANCE REPORT OF THE CONDITIONS STIPULATED IN THE
ENVIRONMENTAL CLEARANCE**

(For the period from April 2023 to September 2023)

1.	Denomination of the Mine	Redi Iron Ore Mine(Block I)
2.	Lessee	M/s. Gogte Minerals
3.	Lease area	94.7060 Ha.
4.	Location	Village : Redi, Taluka: Vengurla, District: Sindhudurg, State: Maharashtra
5.	E. C. Approval no. & Date	J-11015/1045/2007-IA. II(M) dated 22.04.2010, Ministry of Environment & Forests, New Delhi
6.	Production Capacity	0.368 Million tonnes/ year, Iron Ore
7.	Production during the period from: (April 2023 to September 2023)	322877.06 Tonnes
8.	Overburden generated during the period from : (April 2023 to September 2023)	66105 Tonnes

SPECIFIC CONDITION: -5 (A)

i. Topsoil shall be stacked properly with adequate protection measures at earmarked sites and used for reclamation and rehabilitation of the mined-out area.

❖ The lease area is already broken up and had more rock formation. As such there has been no topsoil generated post the grant of EC in the year 2010. Hence, there is no generation and no separate stacking of the Topsoil.

ii. The company shall comply with all the conditions stipulated vide communication no. MCZMA 2009/CR73/TC-3 dated 6.1.2010 from the Maharashtra Coastal Zone Management Authority.

❖ The clearance is obtained from the Maharashtra Coastal Zone Management Authority (MCZMA) vide its letter no. MCZMA 2009/CR73/TC-3, dated 06/01/2010 to carry out the mining activities in non-CRZ areas.

We have complied with all the stipulated conditions in the said MCZMA clearance and submitted the compliance report to the MCZMA vide our letter dated 10.05.2010.

iii. Fugitive Dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Ministry.

❖ The likely sources of fugitive dust generations are Loading-Unloading, Screening, and Crushing and Transportation of Mineral Ore and waste. However, the presence of high moisture content in ore and waste maintains strong adhesion and holds the particle together and controls the fugitive dust generation.

Adequate measures for the control of fugitive emissions being undertaken are as given below: -

1. Drilling and blasting are replaced with ripper and dozer.
2. Fugitive dust emissions are controlled by regular water sprinkling on haul roads, loading, unloading points & on the road being used for mineral transportation. Daily about 200 m³ of water is used for dust suppression.
3. We have introduced new sprinkler system – ‘NEVIS Dust Suppression Systems’, developed by NEVIS , based in Italy, for the air borne dust control, and which is used at

mineral stacks, dumps, and haulage roads. The system is based on Water Mist Technology (WMT) – where it produces atomic water droplets which combine with airborne dust to help it settle. The system finds wide applications at places like mineral stacks, dumps and haulage roads.

4. State of Art of Machinery is used for the Mining operations and machinery is regularly maintained.
5. The water sprinkling arrangements along the haulage road are in place.
6. The black topped metalled roads are made wherever feasible.
7. The haulage and transport roads are regularly maintained.
8. The ore stacks are covered with Silpaulin to control the wind erosion.
9. Overloading of ore transport trucks is avoided to control the spillage of ore. The ore transportation trucks are covered with tarpaulin.
10. Inactive dumps are stabilized with plantation.

The photographs showing all the Protective Measures are attached as **Annexure 1**.

- ❖ Comprehensive Air Quality Monitoring program has been adopted for the Regular monitoring of fugitive dust emissions as well the Ambient Air Quality. The monitoring stations within the Core Zone are selected for the fugitive dust emissions considering the sources of emissions, e.g., excavation, screening, hauling, loading and dumping activities. The monitoring stations within the buffer zone are placed at the human habitations and at the nearest Primary school. The environmental monitoring is carried out by the external agency which is also a MoEFCC recognized and NABL accredited laboratory. These monitoring reports are regularly submitted to the MPCB, CPCB and MoEFCC.
- ❖ The details of the monitoring stations are as below :-
- ❖ **Core zone**
 1. A – I Dumping site
 2. A – II, Haulage or Transport Road
 3. A – III, Near Mine Pit Edge Dumping point.
 4. A-IV Core Zone Mine Office and Screening plant
- ❖ **Buffer Zone (4 locations)**. - Ambient Air Quality Monitoring (representing Habitations and School)

1. A-V Redi Village.
 2. A-VI Shiroda Village.
 3. A-VII Gaontala Village.
 4. A-VIII Kanyal (Kanyalwadi) Village.
- ❖ **Buffer Zone** : Along the transportation road
5. A-IX Kanyal village - Near NIMCO gate
 6. A-X Kanyal Village - Near Primary School

The latest results of the Air Quality Monitoring for the period from **April 2023 to September 2023** are enclosed under **Annexure 2**. The results of the fugitive emissions are within the permissible limits as per the prescribed standards as per the GSR 809(E) dated 04/10/2010, Environment Protection Rules 1986. The results of the Ambient Air Quality Monitoring show that all the parameters are well within the limits prescribed for NAAQ Standards 2009.

- iv. **Primary survey of flora and fauna shall be carried out and data shall be submitted to the Regional Office of the Ministry within six months.**
- ❖ The Primary survey of flora and fauna was carried out and the report was submitted to the Ministry, as part of the Half Yearly Compliance Report submitted vide our letter dated 25.06.2011.
- v. **Conservation Plan for wildlife shall be prepared in consultation with the Chief Wild Life Warden and implemented. The plan shall consist of in build monitoring and evaluation mechanism. Necessary fund for implementation of the same shall be separately allocated and shall not be diverted for any other activity.**
- ❖ The Conservation Plan for wildlife (Flora and Fauna) has been prepared in consultation with the Chief Wildlife Warden, Deputy Conservator of Forests (Dy.CF) (Wildlife) and has been implemented. The copy of the said Management Plan was submitted to the office of the DCF, Sawantwadi Division, District Sindhudurg, Maharashtra vide letter dated 04/08/2010 and was also submitted to the MoEF as part of the Half Yearly Compliance Report submitted vide our letter dated 25.06.2011.

The Conservation plan consists of creation of green belt, raising of plantation over

rejection dumps and avenue plantation in and around the 'Redi Iron Ore Mine'. The said Management Plan also consists of Eco development activities, organic farming, raising of medicinal plantation and awareness generation. The mechanism for in built monitoring of flora and fauna for the proper survival and establishment forms the part of the said Conservation Plan. The Management plan is being implemented in consultation with the Forest Department and the experts in biodiversity. The necessary funds are allocated for implementation of the Conservation Plan is separately allocated and not diverted for any other activity.

As stated in the management plan for conservation of wildlife (flora and fauna) duly submitted to the DFO, Sawantwadi, the plan is implemented by consulting the local forest and agriculture departments. The officials of the forest and agricultural departments visited the Mines regularly, to check the plantation and guide us on aftercare and survival of the plants.

vi. No two Pits shall be simultaneously worked. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as to ensure that reclamation, forest cover and vegetation are visible during the first year of mining operations in the next pit. This process shall be followed till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any new ore body is worked.

❖ There are no two working pits within the Mining Lease. Pursuant to the grant of EC dated 22/04/2010, the Lessee has worked and continued to work only one pit, namely pit no. 203. As the mineral in the present working pit is not exhausted, the backfilling and reclamation of the pit cannot be done.

There is an old pit (Mauli Pit over 3.5 ha.) within the Mining Lease area which was worked prior to 1990. There are no operations in this old pit as this pit falls under the CRZ area and is located at around 1 km away from the working pit. The said Mauli pit is reclaimed and currently it is a water reservoir and water from this reservoir is used for irrigation by the villagers. Plantation has been undertaken on the periphery of the pit as well as on the benches to stabilize the said pit. At present, there are trees with an

average age span of 18 to 20 years which itself reflects that mining has been suspended in the said pit for a long time.

Photograph of the working pit and reclaimed non-working pit is attached as **Annexure 3**.

vii. The ground water quality shall be monitored regularly to check ingress of sea water by having observation wells around the ML area along the seacoast.

- ❖ The Lessee has established 6 nos. of ground water quality monitoring stations. Out of these 6 wells, 3 wells are along the seacoast. The monitoring is being carried out as per the MoEFCC /CPCB guidelines and through the external MoEFCC recognized and NABL accredited laboratory, Mineral Engineering Services, Bellari.

The copies of the latest Ground water and Surface Water Quality monitoring conducted during the month **April 2023 to September 2023** is enclosed as **Annexure 4**.

There is no ground water contamination or ingress of sea water is observed.

The hydrogeological studies are conducted through the National Institute of Hydrology (NIH, under the Ministry of Jalshakti) and also through the CGWA accredited consultant. The recommendations laid in these studies are complied. As per the findings of the hydrogeological studies: -

- i. There is no sea water intrusion as observed through water quality parameters.
- ii. From the preliminary investigation it is found that there is no direct impact on water levels and groundwater quality due to mining.
- iii. The estimation of seawater intrusion using Ghyben-Herzberg formula indicated that there is no intrusion of seawater in the study area upto 400m to 500m.
- iv. From the conceptual modeling. It is understood that there is no threat of contamination under defined hydrological conditions.

Thus, with all these technical studies and regular well water quality analysis reports, is concluded that there is no impact of mining activities on the ambient groundwater regime.

viii. **Monitoring of surface and ground water quality within 5.0 KM of the lease shall be regularly conducted and records maintained, and data submitted to the regional office of the Ministry regularly. Further, monitoring point shall be located between the mine and drainage in the direction of flow of ground water and record maintained.**

❖ Regular monitoring of surface and ground water within 5 Km of lease area is conducted. The Lessee has established the 6 nos. of ground water quality and 4 nos. of surface water quality monitoring stations. The selection of the monitoring station is done considering the mine and drainage in the direction of flow of ground water. Out of these 6 wells and 4 surface locations, 2 wells and 3 surface water sources are located between mine and drainage in the direction of the flow of ground water. Ground water and Surface Water Quality Monitoring reports conducted during **April-2023 to September-2023**.

The reports are regularly submitted to the MoEFCC, its Regional Office, Maharashtra Pollution Control Board and Central Pollution Control Board. The copies of the latest Surface and Ground water Quality monitoring conducted from **April-2023 to September-2023** is enclosed as **Annexure 4**. As per the analysis reports the parameters are within the prescribed permissible limits.

In addition to this, to comply with the conditions stipulated in NOC granted by CGWB , the Lessee has identified and established network of 34 Open Wells located in and around of 'Redi Iron Ore mine' (10 km radius area as buffer zone) and are being monitored for quality as well as water level regularly.

ix. **Data on ambient air quality (PM10, SO2, NOx) should be regularly submitted to the ministry including its Regional office located at Bangalore and the State Pollution Control Board /central pollution Control Board once in six months. The critical parameters such as PM10/PM2.5, NOx in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored for water quality (TDS, DO, pH) and total suspended solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main**

gate of the company in public domain. The circular no.J-20012/1/2006-IA.II(M) dated 2.5.2009 issued by the Ministry shall also be referred in this regard for its compliance.

- ❖ Ambient air quality data is monitored regularly by recognized environmental laboratory. The environmental monitoring reports are submitted to state pollution control board, Central pollution control board and regional office of MoEF&CC in every six months as part of EC compliance reports.

The monitoring stations are selected for the fugitive dust emissions considering the sources of emissions, e.g., excavation, dumping, hauling, loading, unloading and screening activities. The locations for Ambient Air Quality monitoring are selected considering the topography, meteorology and human settlements. The environmental monitoring is carried out by the external agency which is also a MoEFCC accredited laboratory. Environmental Monitoring data is displayed on a display board at mines site so as to be available for public view. Circular No. J-20012/1/2006-IA. II(M) dated 02.05.2009 issued by MoEF&CC is also complied. Also, the monitored data is displayed on the website of the Company.

- x. **Trenches/garland drains shall be constructed at foot of dumps and coco filters installed at regular intervals to arrest silt from being carried to water bodies. Adequate number of check dams and gully plugs shall be constructed across seasonal/perennial nallah (if any) flowing through the ML area and silts arrested. De-silting at regular intervals shall be carried out.**

- ❖ Well-developed drainage & silt retention system is developed. Garland Drains / trenches are constructed at the toe of the dumps, which are channelized to the Settling ponds. The coco filters are placed at places to trap the fine particles/silt. All the runoff from dumps as well as surface is channelized to the open pit through these drains & trenches. The mine is not worked in the monsoon period. Thus, pit acts as rain water harvesting structure during the monsoon. The accumulation of runoff water also provides adequate retention time to settle the silt material.

Series of silt retention ponds are constructed wherein discharged water is treated by lime and flocculants-Magnasol to accelerate the silt settling rate. These silt retention

ponds are desilted before onset of the monsoon. Drainages are also cleaned & maintained properly. The record of the construction of such protective measures is maintained. The Photographs on Environmental Protective measures enclosed as, **Annexure 1.**

Adequate number of check dams and gully plugs are constructed; the details are given in the compliance of **condition no. xii.**

There are no seasonal/perennial nallah within the mining lease area.

- xi. The company shall ensure that no silt originating due to mining activity is transported in the surface water course (if any) flowing in the area. Proper drainage of the waste dump shall be provided to prevent siltation of downstream water bodies. The dumps per se shall be drained and surface of the dump should be properly vegetated.**
- ❖ There is no surface water body within the Mining Lease area. Mitigation measures for prevention and control of soil erosion and management of silt from the runoff water is taken up by providing trenches/garland drains of appropriate size, gradient, and length at foot of dumps. Series of silt retention ponds are constructed wherein discharged water is treated by lime and flocculants-Magnasol to accelerate the silt settling rate, further to control the wash-off retention walls, embankments are provided with the coco filters to trap the fine particles/silt. Desilting of drains and settling ponds is done before the monsoon and at regular intervals. The matured dumps are appropriately vegetated to control the surface runoff. The dumps are initially covered with geotextiles and leguminous grass seeds are broadcasted over these dumps as to increase the soil fertility and to control the soil erosion. Thus, stabilized dumps are further brought under plantation with local species. During the year **April-2023 to September-2023**, the total number of plantations were done as 8850. The Photographs on Environmental Protective measures enclosed as **Annexure-1.**
- xii. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable material, and thick plantations of native trees and shrubs**

shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.

- ❖ Mitigation measures for prevention and control of soil erosion and management of silt from the runoff water is taken up by providing trenches/garland drains of appropriate size, gradient, and length at foot of dumps. Series of silt retention ponds are constructed wherein discharged water is treated by lime and flocculants-Magna floc to accelerate the silt settling rate further, to control the wash-off retention walls, embankments are provided with the coco-filters to trap the fine particles/silt. Desilting of drains and settling ponds is done before the monsoon and at regular intervals. The matured dumps are appropriately vegetated to control the surface runoff. The dumps are initially covered with geotextiles and leguminous grass seeds are broadcasted over these dumps as to increase the soil fertility and to control the soil erosion. Grass seeds of *Styranthus hamata* are spread over these dead dumps covered with geotextile. At some places embankments of the dead dumps are planted with vetiver grass slips.
- a. **Afforestation:** -
 - i. The Lessee has done plantation of 1,24,502 no. of saplings (till 2022-23) over the dump slopes and old mining pits. There is well-grown thick plantation of mixed varieties of species on dump slopes covering the Fruit bearing species which includes Cashew, Mango, Tamarind, Jamun, Cocum, Guava, Awla, Badam and forestry species includes Terminalia, Arjuna, Sawar, Moringa , Bamboo etc. During the period from **April-2023 to September-2023** period about 8850 saplings have been planted covering the dumps and gap filling. The seeds of *Styranthus hamata* have been used over the geotextile for the well stabilisation as well soil amendment.
 - ii. The old and non-working pit (Mauli Pit) which falls under CRZ, which is well rehabilitated and stabilized with thickly grown plantation. The vegetation grown up here is approximately of 18-20 years of age as on today. The plants like *Casuarina* (Suru, Australian Acasia) though have established well with a good binding capacity and help to control soil erosion as well as improve the dump stability.
 - iii. The aftercare including watering and manuring is regularly done for the survival of the plants.

b. Application of Geotextile: -

- i. Application of Geotextile is practiced typically prior to the monsoon in this area as to stabilize the dead dumps and control the soil erosion due to rain water.
- ii. The dump slopes were covered with the Geotextile at five different places. The approximate area covered under Geotextile is 7200 Sq. Meter during the year 2023-24. The year wise display boards are placed on such sites, which were covered with Geotextile.
- iii. The leguminous grass seeds are broadcasted on geotextile cover for the stabilization.
- iv. At appropriate locations, the dump slopes within the Mining Lease are temporarily covered with silpaulin to control the soil erosion.
- v. The Mineral stacks are temporarily covered with Silpaulin to control the soil erosion.
- vi. Top benches in the eastern side of the Mining Pit is covered with Silpaulin to control the wash-off.

C. Retaining Wall: -

- i. The well-built retaining wall of size 1m height and 1.5m width is constructed at the toe of the dump. The total length of retaining wall is 2.2Km.
- ii. The laterite bund/embankment is constructed at the toe of the dumps of a total length 265.55 m(**April-2023 to September-2023**)

D. Garland drains:

- i. The garland drains are provided at the toe of the dumps and along the benches and haul roads.
- ii. Garland drains at appropriate places are covered with silpaulin to protect the soil erosion.
- iii. The length of the garland drains constructed at various locations within the Mine lease, put together is approximately 4438 m(**April-2023 to September-2023**)

E. Check Dams: -

- i. The 3 no of check dams along the trenches constructed at the toe of the dumps.

F. Settling Ponds and Silt Arrestors: -

- i. 8 nos. of settling ponds with the total capacity of 13244, m³ constructed at mines. Some of the settling ponds have been protected with stone pitching with concrete. The series of silt arrestors are constructed next to the settling ponds. The coco filters are placed all along the silt arrestors to trap the fine particles.
- ii. The photographs showing the plantation and other protective measures undertaken by the Lessee is enclosed as **Annexure 1.**

xiii. Rain water harvesting shall be undertaken to recharge the ground water source.

Status of implementation shall be submitted to the Ministry within six month

- ❖ Rain water harvesting has been undertaken to recharge the ground water source. Majority of the surface runoffs and dump runoffs are diverted to the open pit through drainages and trenches. The Pit itself acts as a big rain water harvesting structure. The accumulated water is used during the fair season by the villagers for the agriculture and other domestic purpose. As a part of continual improvement and as per recommendations in the hydrogeological report, we have planned and executed the Rain Water Harvesting considering the catchment area and in addition to this we have also undertaken the rooftop rain water harvesting. We have submitted the status of implementation on rain water harvesting to the Ministry within six months of grant of EC as a part of Half yearly EC compliance report dated 26.12.2010. The detailed report on Rain Water Harvesting structures implemented is enclosed as **Annexure 5.**

xiv. Land use pattern of the nearby villages shall be studied, including identification of common property resources available for conservation into productive land. Action plan for abatement and compensation for damage to agriculture land / common property land (if any) in the nearby villages, due to mining activity shall be submitted to the Regional office of the ministry within six months before start of mining. Annual status of implementation of the plan and expenditure thereon shall be reported to the regional office of the ministry.

- ❖ The study on the land use pattern of the nearby villages was conducted and the Action

Plan for abatement and compensation for damage to agriculture land/common property land due to mining activity to the Ministry is prepared and submitted vide letter dated 15.06.2011.

As per the study, the nearest village is Redi Village, located at a distance of 500m from the Mining Lease. The crops generally grown in this village are cashew, coconut, mango, jack fruit and paddy. The crops here are seasonal and entirely depends on monsoon. Also, the horticulture plantations of cashew, coconut, mango in and around the Mining Lease depend on the irrigation provided by the Lessee.

The rainwater harvested in the working pit and old Non-working pit during the monsoon is supplied to the farmers as per the requirement. The supply, repair and maintenance of the pipeline is entirely borne by the Lessee. The Lessee supply the water for irrigation purpose to the Redi Village covering Mhartalewadi, Nagaolewadi, Bombdojichiwadi Kanyalwadi, Tiwarewadi, Hudawadi etc. As on today, approximately, 350 Acre area is under irrigation provided by the Lessee.

Lessee has provided the sprinklers system to the farmers in the Kanyal village on their request. The Annual status of implementation of the plan and expenditure for the Financial year 2022-23 is be reported to the regional office of the ministry vide our letter dated 27/11/2022.

- xv. **Need based assessment for the nearby villages shall be conducted to study economic measures which can help in upliftment of poor sections of the area. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self- employment and jobs.**
- ❖ Need based assessment of nearest two villages is conducted to study economic measures which can help in upliftment of poor section of society was undertaken. The copy of the said report was submitted as part of Half Yearly EC compliance report dated

25.06.2011.

Computer Literacy being the need of the hour and to educate the village youth (unemployed, the school dropouts and the housewives), the Computer Training Centers is being run at Redi Village by the Company and 760 villagers got benefit and have been trained in MS-CIT program. The teacher appointed here to train the students is native of the Redi Village. Besides, we have hired the place for the Training center in Redi Village, thereby generating earnings to the villager.

Assistance given to school students by providing uniforms, school bags, notebooks etc. The Lessee extended financial support to construct and establish infrastructure to a local college in the village Shiroda. Like, Computer Training Institute, we have also started the Music school to boost the interest of the youths in Indian Music. Tabla and Harmonium playing is being taught to the students here free of cost. Till date 60 villagers got benefitted with our training classes. The Music teacher appointed is also the resident of the Redi Village. On understanding the need of the students in the village a teacher is engaged who gives the lessons to the needy students in the subjects like Maths and Science and more than 300 students get benefit with this training.

The dedicated doctor is appointed in the Redi Village and free medicines are given. The ambulance is in service of the villagers 24*7.

Water as a lifeline and understanding the need of the hour we have completed one 'Water Supply Project' dedicated to the village of Redi with the construction of a Reverse Osmosis water treatment plant; with the delivery capacity of 12,00,000 litres of water per day. The plant in the "Shree Devi Mauli Water Supply Scheme", named after the local goddess. The scheme supply water to 1350 houses in the village of Redi. The entire cost of the water treatment is borne by the lessee.

We supply the water to the villagers for agriculture purpose and we cover about 350-acre land under irrigation including the nearby villages like Mhartalewadi, Kanyalwadi and Gavtalewadi. Paddy, Chilies and Coconut, Areca nut, Mango plantation survive with

our water supply. Many villagers are farming the fallow land with the availability of water made by the Company.

The details on CSR activities undertaken and expenditure incurred towards it is enclosed under **Annexure 6**.

- xvi. Maintenance of village roads through which transportation of ore are undertaken shall be carried out by the company regularly at its own expenses. The roads shall be black topped**

The village roads through which transportation of ore are maintained regularly by the company.

- xvii. Occupational health and safety measures for the workers including identification of work-related health hazards, training on malaria eradication, HIV and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full-time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable minerals dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipment etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required.**

- ❖ A well implemented Risk Management Plan to identify possible sources of dangers that may affect the Health and Safety of persons employed in the mine, and also to take precautions against the dangers in a proactive manner.

Vocational training on malaria eradication, HIV and training with respect to safety precautions against Health Hazards are provided at VTC constituted under Mines Vocational Training Rules 1966.

The Company has established a dispensary close to the Mine site. The Qualified doctor attends this dispensary, and he is available for treatment all the time. Regular health

check-ups for mine workers are being undertaken at this dispensary by the doctor appointed. Apart from this, health camps are conducted in the nearby villages. During this health camps,

Periodic monitoring for exposure to respirable mineral dust on the workers is conducted by sending them for Initial Medical Examinations & Periodical Medical Examinations according to rule 29 (B) Mines Rule 1955 and records are maintained which includes health records of the workers.

The review of impact of health measures undertaken is conducted at interval of five years for below 45 years & every 3 years for above 45 years and it is followed by follow up action by the trained doctors in Occupational Health Surveillance Training and Awareness programme are conducted for the workers on topics such as Impact of mining on their health and precautionary measures to be undertaken by them while at work, First aid , use of personal protective equipment's (such as ear plugs, dust mask, goggles) is carried out periodically. Personal Protective Equipments are also issued to the mine workers.

xviii. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of ores and others shall have valid permissions under Central Motor Vehicle Rules, 1989 and its amendment. The number of shift of mine operations could be as prescribed in the approved mining plan. However, the number of shifts or hours permissible for external vehicular traffic shall not exceed the limit in vogue for the area under consideration or in the event of passage through forest roads or public places, as may be applicable in this case. The limits prescribed by the local authorities shall not be exceeded. If no such guidelines for time restrictions are applicable, then external transport shall be preferably confined to two shifts.

❖ The vehicular emission is kept under control by regular maintenance of the vehicles. and is regularly monitored. Vehicles used for transportation of ores and others have valid PUC certificate as prescribed under Central Motor Vehicle Rules,1989 and its amendment. Mine operation is as per the approved mining plan of Indian Bureau of Mines. The transportation of ore is done only during day time. The suitably covered

trucks are only used for transportation so that no dust/fine particles escape during the transportation. No overloading of transportation of trucks is allowed. Speed limits are adhered for these vehicles and the transport roads are maintained properly. The trucks transporting ore do not pass through any wild life sanctuary or forest.

xix. Green belt development and selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Ministry within six months.

❖ Plantation is carried out as per CPCB guidelines. All plantation activities are taken during monsoon period only. The local species including fruit bearing species are given more preference in plantation program. Sustained scientific post plantation care such as regular manuring & other improvised practices will be adopted for maximum survival of the plant.

i. The Lessee has done 1,24,502 no. of saplings (till 2022-23) over the dump slopes and old mining pits. There is well-grown thick plantation of mixed varieties of species on dump slopes covering the Fruit bearing species which includes Cashew, Mango, Tamarind, Jamun, Cocum, Guava, Awla, Badam and forestry species includes Terminalia, Arjuna, Sawar, Moringa, Bamboo etc. During the **April-2023 to September-2023** period about **8850** saplings have been planted covering the dumps and gap filling. The seeds of *Styranthus hamata* have been used over the geotextile for the well stabilisation as well soil amendment.

ii. The old mine pit (Mauli Pit) which falls under CRZ is covered with well grown and thick plantation along its periphery composed of Terminalia, Casurina, Bhenidi, Tamrind and Acacia and has been kept as water reservoir. Considering the overall growth and the maximum height attained by the trees of 25-30m, it is understood that the tree cover is of the age of almost 18 to 20 yrs old.

The details on plantation are regularly submitted to MOEFCC, its regional office and also to the Maharashtra State Pollution Control Board as a part of EC compliance, enclosed under **Annexure 7**.

xx. Provision shall be made for housing the labourers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche, etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

❖ Most of the employees are from local village only and hence no need for accommodation facilities. However, we have provided few bachelors accommodation (infrastructure) within the Mining Lease with canteen facility, toilets, safe drinking water and medical health care.

5.B. GENERAL CONDITIONS

i. No change in mining technology and scope of working shall be made without prior approval of the MOEF.

❖ No change in Mining technology and scope of working will be made without prior approval of MOEF.

ii. No change in the calendar Plan including excavation, quantum of mineral and waste shall be made.

❖ No change in calendar plan including excavation, quantum of mineral and waste will be made. The Mining activities are carried out as per the approved Modified Mining Plan.

iii. Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided & properly maintained.

❖ Fugitive dust emissions are controlled by regular water sprinkling on haul roads, loading, unloading points & transportation of minerals, etc. For the dust suppression three water tankers having 8KL capacity are engaged and such provision are provided and properly maintained on regular basis.

We also use 'NEVIS Dust Suppression Systems', developed by Nevis, based in Italy, for the air borne dust control, and which is used at mineral stacks, dumps, and haulage roads. The system is based on Water Mist Technology (WMT) – where it produces atomic water drops which combine with airborne dust to help it settle.

Overloading of ore transport trucks is avoided to prevent spillage of ore on the roads.

Fugitive dust emissions are regularly monitored.

- iv. **Four Ambient air quality stations shall be established in the core zone as well as in the buffer zone for PM10, SO2, NOX monitoring. Locations of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the state Pollution Control Board.**

- ❖ Ambient air quality monitoring is carried out as per the MoEF&CC/CPCB guidelines & results are compared with the NAAQ Standards. Total 8 no. of ambient air quality monitoring stations-4 numbers of stations in core & 4 numbers of stations in buffer zone (10 KM radius area taking mining lease as center) are selected in consultation with State Pollution Control Board considering the meteorological data, topographical features and environmental and ecological sensitive targets like nearest human habitations and primary school located near to the Mining Lease.

Parameters selected for monitoring are as per the NAAQ standards.

All the locations of these monitoring stations are based on meteorological data and topographical features of the area. The frequency of monitoring undertaken is in consultation with the State Pollution Control Board.

- v. **Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc. shall be provided with ear plugs/muffs.**

- ❖ To check the noise level during operations of heavy earth moving machinery, noise level monitoring is carried out in both idle and working conditions of the machinery.

All the measures are taken to keep the noise level below 85 dBA in the work environment. Workers & Operators engaged in operations of Heavy Earth Moving Machinery are provided with ear plugs / muffs.

- vi. **Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st Dec, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent.**

- ❖ There is no waste water generation in lease area.

The monsoon water from the dumps & other areas is channelized into the pit. This accumulated water is discharged out & made to pass through series of settling ponds & drainage channels. Lime is added to increase the silt-settling rate. Also, the walls of the retaining walls are lined with coco filter which traps the fine particles from the water. This results into a clear water discharge. Water quality monitoring is carried out as per the MoEF / CPCB guidelines. It is ensured that the Discharged pit water meets the standard as per GSR 422(E) dated 19th May, 1993 & 31st December 1993 or as amended from time to time.

The Oil and Grease trap, also termed as 'Eco-tank' is constructed wherein the wash water from the washing ramp of the machinery is treated and recycled for the washing purpose. The Photograph of the 'Eco-tank' in operation are enclosed as **Annexure 8**. Used oil is collected and stored separately and is sold to registered / authorized recycler. The recent disposal of used oil is done through authorized recycler on date 15/02/2023.

vii. Personnel working in dusty area shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects

- ❖ All necessary Personal Protective Equipment (PPE) such as safety shoes, safety helmets, dust masks, ear plugs, fluorescent jackets, lifeguards, safety goggles, safety gloves, etc. are provided to the workers employed in the Mine as per the Mines Act, 1952.

Personal Dust Sample Survey as per the Directorate General of Mines Safety (DGMS) guidelines is carried out and the results are found well within the limits as per the DGMS standards. The recent reports of the Personal Dust Survey conducted for the month of May-2023 have been enclosed as **Annexure-9**.

It should be considered that in the said area humidity is high being the coastal proximity. Therefore, there is no as such dust generated during the Mining activities as

the working is carried out below the water table and high moisture content of the ore as well as rejection.

We have provided training on CPR and its importance for employees and staff. CPR stands for cardiopulmonary resuscitation. It is an emergency life-saving procedure that is done when someone's breathing or heartbeat has stopped. This may happen after a medical emergency, such as an electric shock, heart attack, or drowning. CPR combines rescue breathing and chest compressions. Through this CPR training, employees will retain the knowledge to help if employees were to stop breathing or go into cardiac arrest. In addition, CPR-trained employees will be able to react and perform CPR immediately, increasing their chance of survival.

The photographs of the trainings and programs organized as mentioned above are enclosed as **Annexure 10**.

viii. A separate Environmental Management Cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the head of the organisation.

- ❖ A separate Environment Management Cell, with qualified environment persons is formed under the control of head of the organization. Meetings are conducted periodically in which the environmental issues are discussed, reviewed and addressed. The detailed environmental cell chart detailing the qualifications of the executives is laid down and enclosed under the **Annexure 11**.

ix. The project authorities shall inform to the Regional Office of the ministry located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

- ❖ Mining operation commenced from July 2010 and the same has been intimated to the then regional office located at Bhopal. The Progressive Mine Closure Plan is prepared, approved and is being implemented. The Final Mine Closure Plan will be prepared well in advance of the Mine Closure and will be intimated to the Ministry. Funds for the project were utilized from internal sources only.

- x. **The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the ministry and its regional office located at Bhopal.**
- ❖ The funds earmarked for environmental protection measures kept in separate account and not diverted for other purposes. The year wise Expenditure incurred towards the protection of environment is reported to the MoEF&CC and its regional office as a part of Half Yearly EC Compliance report time to time. The copy of the statement on expenditure towards the environmental protection for the present compliance period, i.e., from **01st April 2023 to 30th September 2023** is enclosed under **Annexure 12**.
- xi. **The project authorities shall inform to the regional Office of the ministry located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.**
- ❖ Mining operation commenced from July 2010 and the same has been intimated to the then regional office of MoEF&CC, located at Bhopal. The Progressive Mine Closure Plan is prepared approved and is being implemented. The Final Mine Closure Plan will be prepared well in advance of the Mine Closure and will be intimated to the Ministry. Funds for the project were utilized from internal sources only.
- xii. **The regional office of the ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the officers of the regional office by furnishing the requisite data / information / monitoring reports.**
- ❖ The said mine is being monitored by the Regional Office, Bhopal (**now it is Nagpur**). We extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information / monitoring reports. The Mine was inspected in the recent past by the Scientist 'D', Regional Office, MoEF&CC, Nagpur, on 18/02/2020. We have provided all the relevant data/information and monitoring reports to the Authority during their visits.
- xiii. **The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the MOEF, its regional**

office Bhopal, CPCB and State Pollution Control Board. The project proponent shall upload the status of compliance of the Environment clearance condition on their website and upload the same periodically and simultaneously send by e-mail to the regional office of MoEF Bhopal.

- ❖ The Project Proponent submit six monthly report on the status of the implementation of the stipulated environmental safeguards as a part of the Half yearly EC compliance Report to the MOEF, its regional office Bhopal (now it is Nagpur), CPCB and Maharashtra State Pollution Control Board time to time. The soft copy of the said report is sent to the regional office of MoEF&CC Bhopal (now it is Nagpur) by e mail.

The last half yearly Compliance report was submitted to the MoEF&CC, New Delhi and its Regional Office, Nagpur, vide our letter dated 31/05/2023 for the period from October 2022 to March 2023.

- xiv. **The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality/office of the Municipal Corporation/Gram Panchayat concerned and on the company's website within seven days from the date of this clearance letter, informed that the project has been accorded environmental clearance and copies of clearance letter are available with the state pollution Control Board/committee and may also be seen at website of the MOEF at <http://envfor.nic.in>**

- ❖ The Project Authorities have advertised in two widely circulated local newspaper, in vernacular language (Marathi)-"Sindhudurg Samachar" on 11th May, 2010 and in daily "Tarun Bharat" on 11th May,2010 informing that the Project is been granted the environmental clearance within seven days from the date of grant of clearance. Copies of the advertisement are already submitted to the Ministry as a part of the Half Yearly Compliance report. Copy of the Environmental Clearance letter is also available with the Maharashtra State Pollution Control Board and also on the website of the MoEF, i.e., www.envfor.nic.in.

- xv. **A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal. The clearance letter shall also be put on the website of the company.**
- ❖ A copy of clearance letter is marked to Redi Village Panchayat.
- xvi. **State pollution control board shall display a copy of the clearance letter at the Regional office, District Industrial center and collector's office / Tahsildar office for 30 days.**
- ❖ This is under the jurisdiction of the Maharashtra State Pollution Control Board and action is taken by the Maharashtra State Pollution Control Board.
- xvii. **The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the state pollution control board as prescribed under the Environmental (Protection) Rules, 1986 as amended subsequently and shall also be put on the website of the company along with the status of compliance of environmental clearance conditions. The same shall also be sent to the Regional Office of the Ministry by e-mail.**
- ❖ Environmental Statement in Form-V for the financial year is regularly submitted to the Maharashtra State Pollution Control Board and the copy of the same is submitted to the MoEF time to time. The copy of the recent Environmental Statement for the financial year 2022-23 is submitted online to the Maharashtra State Pollution Control Board and the copy is enclosed under **Annexure-13**. Copy of the Environmental Statement is forwarded to Regional Office MoEFCC , Nagpur as a part of half yearly EC Compliance Report by e-mail.