

13.3.0 REVIEW OF IMPLEMENTATION OF MINING PLAN/SCHEME OF MINING INCLUDING FIVE YEARS PROGRESSIVE MINE CLOSURE PLAN UPTO FINAL CLOSURE OF MINE :-

The review of implementation of mining plan including 5 years PMCP will be reviewed at the end of MPLN period.

13.4.0 CLOSURE PLAN :-

13.4.1 MINED OUT LAND :-

(a) Proposal and manner of reclamation and rehabilitation of mined out land :-

Mining effect environment in various ways including depletion of land cover, vegetation, removal of soil, change of landscape & deposition of the solid waste product thus causing imbalance in the landscape and increasing air, water and soil pollution. Land use in mining areas consists of mainly forestry, pasture and agriculture. The proposal and manner of reclamation and rehabilitation of mined out land will be decided after detailed exploration of the area in next PMCP.

13.4.2 WATER QUALITY MANAGEMENT :-

(a) Surface and ground water body :-

There is no perennial source of surface water such as river or nalla in the applied area. There is only seasonal water courses/nalla in the buffer zone. This drains the surface run off. Garland drain will be made towards sloping north western side to prevent erosion, sedimentation, and siltation. Water treatment is not expected. Garland drain (1.0m x 0.50m) along with settling tank of 3.0m x 3.0m x 2.0m will be prepared around the periphery of the ML area. This will avoid siltation of the nearby seasonal water courses. Since there is no river or any perennial water course in the applied area, diversion will not be required. There is no toxic element in and around the applied area or in OB or ore. Hence contamination of any nature is not expected for surface or any ground water source. Mining operations are not envisaged to adversely affect the water table of the area.

(b) Hydrological study:-

The ground water table in the applied area varies from 15m to 20m. below general ground level. Mining will be done above ground water table. Hence ground water table will not be affected. The behaviour of ground water table has been noticed to be uniform.

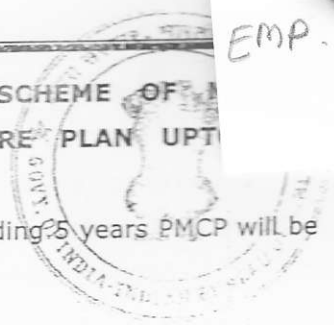
(c) Acid mine drainage :-

There is no sulphide in the country rock, hence problems of acid mine drainage is irrelevant in this mine.

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13.4.3 Air quality management :- The air quality in the applied area as well as in the nearby buffer zone is well below the permissible limits.

Mitigative measures suggested for air pollution control are based on the ambient air quality data. As per the results of ambient air quality monitoring data, the back ground concentrations of PM 10 , SO₂ and No_x are within the stipulated CPCB standards Following measures will be taken for air quality management for abetting in anticipated danger to air quality at mine life end.

S.No	Dust Source	Control measure
1	Haul Road	Regular water spraying.
2	Truck Movement	No overloading of trucks. Trucks to be covered while transporting ore. Enforcing speed limit. Regular monitoring of the exhaust Proper maintenance of trucks
3	Waste dumps	No dumping has been proposed in future.
4	Mine workings	Regular water spraying in working areas. Green belt surrounding ML Wet drilling Personnel protective equipments like dust mask, ear muffs/plugs and goggles will be provided to workers..

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Controlling of SO₂ & No_x Levels

The source of SO₂ & NO_x would be due to vehicular emissions. This can be controlled by proper maintenance and servicing of vehicles. There is no anticipated danger to air quality at the mine life end with no hazardous or toxic contamination. Ambient air quality monitoring will be carried out as per CPCB norms except monsoon season.

13.4.3 Waste management :-

The OB/mine waste will be inform of lateritic soil and quartzite etc. During the ensuing Mining Plan period 8266 tonne of OB/waste will be generated. This will correspond to 9258 tonne after ultimate 12% of swelling. This will be utilised for preparation and maintenance of approach road as well as making the protective bund all around the ML area. Dumping will be carried in 720 sqm area up to 2.5m height.

13.4.5 TOP SOIL MANAGEMENT :-

There is no top soil in the applied area.

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13.4.6 TAILING DAM MANAGEMENT :-

No Chemical/wet mineral processing will be carried out in the applied area.
Hence no tailing will be created.

13.4.7 INFRASTRUCTURE :-

(a) Existence and utilisation :-

No infrastructural facility such as aerial rope way, conveyor belt, Railway, Building & structures, water treatment plant, transport and water supply water source is present in the applied area. No action is proposed during the plan/PMCP period for the disposal of the infrastructure created for the mining operation during the life of the mine.

13.4.8 DISPOSAL OF MINING MACHINERY :-

No static machinery will be deployed in the applied area. Dumpers, Compressor, Drill machine and tractors will only utilised which will be shifted to other mines at FMCP stage. No disposal/shifting will be needed in the PMCP period.

13.4.9 Safety and security :-

In order to avert any danger to the mine site at the end of the ^{अनुमोदित} following measures will be taken during the PMCP period. **APPROVED**

- (i) The non-active sides of the working quarry will be suitably fenced.
- (ii) The mine will be suitably guarded and any approach to mine will be restricted and prohibited.
- (iii) Protective safety boots, goggles, hand glove and helmets will be provided to the person working in the opencast works.
- (iv) Employee will be adequately trained and educated for involvement and commitment in to the implementation of health and safety guidelines.
- (v) Provision of all necessary resources for safety and health of employees and contractors engaged in mining.
- (vi) Proper ear plugs and muffs will be provided to mine workers in high noise area to protect them from noise hazards.
- (vii) Blasting time will be fixed between 12 to 1 noon and displayed. People will be cautioned 30 minutes before the blasting so that, they can go into the blasting shelter or far away from the blasting zone/danger zone.
- (viii) For minimizing the adverse impact of dust, the mine workers working in the dust area will be provided dust masks for their occupational safety.

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