

5.0 MINING

5.1 OPENCAST MINING

A. Briefly describe the existing and proposed method for excavation:

Existing Mining:

Presently the mining is closed. Previous mining was manual with simple hand tools. Hydraulic machineries were used for construction of roads and for removal of overburden time to time. The site office, rest shelters etc are available near the lease area towards NE side, outside the lease common for all leases at around 2 kms away.

Proposed Mining:

The opencast semi mechanized method of mining is proposed for excavation of mineral and waste and for loading the same. The bench height is proposed 6 metres and width will be 6 metres or more as required for transportation of machineries. Approach roads are available and will be provided as required. Blasting will be done as and when required. Excavation of mineral and waste will be manual.

B. Indicate Year-wise tentative excavation in cubic metres

The development is proposed for next five years.

1. Insitu Tentative Excavation

The lease period is up to 31.03.2020 thus this mining plan is prepared and submitted for the lease period.

Year	Bench mRL	Excavation Area	Depth	ROM in Cu. Meter	Waste Cu. Meter	China Clay in Cu. Meter	Recovery of mineral from bench
2016-17	Passed						
2017-18	546 540 534	4050 9100 12500	3 3 4	12150 27300 50000	12150 19110 25000	- 8190 25000	00 % 30% 50%
2018-19	528	7480	6	44880	13480	31400	69.96%
2019-20	528 522	2420 7000	6	14520 42000	4360 12600	10160 29400	69.97% 70%



Year wise production in tones is as follows:

Year	Total ROM in tonnes	Waste in tonnes	Total Minerals in tonnes
2016-17	Passed		
2017-18	232570	146280	86290
2018-19	116690	35050	81640
2019-20	146960	44100	102860
Total	496220	225430	270790

In the above production the quarts is expected 10% of production.

a) II Dump rehandling (for the purpose of recovery of mineral)

The waste is of quartzite, scree and Kanti. The waste will be dumped in the lease area. Some waste will be used for construction and maintenance of 2 kms long approach road.

C. Enclose Individual year-wise development plans and sections

It will be a 'A' class mine other than fully mechanized. The development plan and year wise sections are enclosed as Plate-5 in scale 1 cm = 20 metres showing all requisite details.

D. Describe briefly giving salient features of the proposed method of workings indicating Category of Mine

The mining in this lease will be carried out by semi mechanized method by using hydraulic machineries. This method is adopted considering the nature of mineral and nature of deposit and production of mineral and generation of waste.

Considering the national, state and local holidays, around 300 working days are proposed in a year. The bench height is proposed 6 meters with 6 to 8 metres wide benches. Haul roads are available up to the faces and will be maintained in future up to the proposed workings for movements of labourers and vehicles. Face slope will be maintained 85° , whereas ultimate pit slope is proposed 45° .

Controlled Blasting is proposed for easy excavation of rocks as per approved mining plan. The overall layout of workings and other mining activities has been illustrated on plate 6.

