

Chapter 1. General oversight & Cover Page: (a)

1. The document should have been submitted as Modified Mining Plan under rule 17(3) of MCR 2016 for the following reasons:
 - i. Extension of lease period for 50 years as per amendment (2015) of MMDR Act 1957.
 - ii. Method of Mining is changed from Manual to Mechanised
2. Name of the mine to be mentioned as Perumalapadu Mica, Quartz, Vermiculite Mine
3. Para 1.3.2: Details is not necessitated as there is no partial surrender of lease.
4. Para 1.3.4: Statutory Compliances like EC, SPCB approvals details to be furnished.

Chapter No. 2.0 Geology and Exploration

5. Details of Highest MRL & Lowest MRL of topography as per the updated Surface plan should be submitted.
6. Para 2.2.1.1: Geological mapping of the mining lease area should be submitted in 1:1000 scale for the detailed exploration as specified in the MEMC Rule, 2015.
7. Basis of increase in quantity of Resources/ Reserves should be justified.
8. Reserves and Resources should have been estimated considering the following:
 - i. Study Report of Bulk density of all minerals i.e. Vermiculite, Quartz (Para 2.2.1.13)
 - ii. Study report of Recovery % of Vermiculite in Vermiculite ore zone and Recovery % of Mica, Quartz and Feldspar in Pegmatite Zone
 - iii. Proved depth of Ore body. The pit no.2 is found waterlogged and ore continuity towards depth could not be ascertained.
 - iv. Reserves of Leased out minerals i.e. Quartz, Feldspar and Mica should be estimated instead of Pegmatite.
9. Para 2.2.1.14: Details of area Covered under G1/G2 level of Exploration to be furnished.
10. Para 2.2.2.5 : details of Trial Pits to be furnished.
11. Para 2.2.3: detail of ore body geometry & grade to be furnished.
12. 2.2.5.5: Cost & Revenue Factors: Sale Prices of minerals should be furnished.
13. Feasibility report prepared is sketchy, the same should be prepared as per the guidelines of ME & MC Rules 2015.
14. Following contradictory statements are furnished
 - i. Vermiculite : Reserves furnished in Para 2.2.5.10 (9330 Tonnes) is different than that of in para 2.2.5.11 (7465 Tonnes). Similarly Reserves of Pegmatite ore also furnished different.
 - ii. In Para 2.2.5.10, UNFC Codes 331 & 333 is assigned for Reserves, which is incorrect.
15. Para 2.2.6: Future Exploration Proposal should have been given to dig Trial pits and drill bore holes in the existing pits, to prove the depth persistence of ore body, and in unexplored portion of lease area.

Chapter 4.0 Mining :

16. Para 4.1.1: Existing Method of Mining : Method of mining has been changed from existing manual method to Mechanised method, the details of the same be furnished.
- Para 4.2: Operational Parameters

17. Para 4.2.1: Inventory of Existing Pits & Dumps: Details of 5 pits and dumps existing in the lease area should be furnished. Further dimension of pit no.2 furnished is on lower side, which needs to be corrected as per actual field condition.

18. Para 4.2.2.2: Year wise Opencast Development: For computation of production, Recovery of Quartz is 60% in Pegmatite zone and Vermiculite is 80 % in Vermiculite zone is considered without any basis. Which needs to be justified

Para 4.2.2: Opencast Mining

19. During inspection it was observed that Pit-2 is found waterlogged and only one bench of about 7 meters is developed, the same should have been furnished in text. Further the year wise development proposal should be modified to maintain bench height with respect to mechanisation to be adopted.

20. Production proposal should be made up to the proved depth of ore body only.

21. In Year wise development; pit is proposed to be extended up to dump area, in this regard details of dump Re-handling proposal should be furnished considering safety of men and machinery working in the pit.

22. Para 4.3.4: Specific Year should be mentioned as 2021-22, 2022-23 instead of year 1, year 2
Waste Management:

23. Para 4.7.1 & 4.7.3 : Details of existing dumps and Stacks in the lease area should be furnished.

24. Para 4.9: Use of Minerals: Details of Chemical Specification should be furnished.

Chapter No. 5.0 Sustainable Mining

25. All the essential information should be given based on the proposed production during plan period as well as proposed CSR activities.

Chapter 6.0 PMCP

26. Para 6.1, 0.996 Ha considered as mined out is without any basis as no area is mined out so far, which should be corrected. Further area furnished under degraded is on lower side, which needs to be modified based on updated survey.

27. Para 6.2.11: Details of Land use at conceptual period should be furnished.

Chapter 7: FINANCIAL ASSURANCE

28. Area considered for computation of Financial assurance is on lower side which needs to recheck and submitted based on updated survey

29. Details of Bank Guarantee for the area put to use should be furnished

Chapter No. 8.0 Review of Previous Proposals

30. 8.1.1: Land Use: It is noted that area degraded due to mining and allied activity is on higher side than the approved proposals, which needs to be justified.

31. Monthly and Annual returns for the review period should be submitted for verification.

32. Review should have been done from the earlier approved plan period from 2010-11 onwards for clarity.

Enclosures:

1. Log sheet in the form of Form J, should be enclosed for the trial pits carried out so far.

2. Consent Letter/ Certificates and Undertakings from Lessee should be submitted on Original Letter head of Lessee.
3. Copy of Pan card of the Qualified Person should be submitted.

Plates:

- 1) **General: (a)** The land use data to be submitted in digital form (Geospatial data). The land use patterns, feature type and file type required are broadly classified and given below:

Sl. No.	Land use information	Format	Remarks
1.	Mining Lease Boundary	.shp or .kml file	Feature type polygon
2.	Pit area	.shp or .kml file	Feature type polygon
3.	Dump area	.shp or .kml file	Feature type polygon
4.	Stack yard	.shp or .kml file	Feature type polygon
5.	Tailing dam (if applicable)	.shp or .kml file	Feature type polygon
6.	Reclaimed and Rehabilitated land	.shp or .kml file	Feature type polygon
7.	Afforestation area	.shp or .kml file	Feature type polygon
8.	Others – Road, railway, Infrastructure, processing plant etc	.shp or .kml file	Feature type polygon
9.	Boundary pillar co-ordinates in serial order (Latitude and Longitude in Deg Min Sec)	Excel	In WGS-84 datum

The Shape file should contain the Land use information as attribute data.

- 2) **Plate IV; Surface Plan:** Surface plan is not matching with the actual field condition, pits dumps are missing which needs to be incorporated. Surveyor who carried out the survey should put his signature with certificate no. and Mining Engineer/ Lessee should put his signature as per statute.
- 3) **Plate V (B); Geological Cross Sections:** (a) Different Litho units should be depicted like Top Soil, OB, Ore for clarity. UPL should be marked up to depth of pit only. (b) 7.5 m barrier zone has not been marked in any of the sections.
- 4) In year wise development sections, details of top soil, Overburden, mineral benches to be depicted in different colour for clarity.

In view of the above, relevant para, plans and sections should be modified.