

**SCRUNITY COMMENTS ON REVIEW AND UPDATATION OF MINING PLAN OF KALLAHALLI IRON ORE MINE (ML NO. 2538) OF SHRI H.N. PREMKUMAR, OVER AN AREA OF 19.29 HA.(AS PER CEC SKETCH)/ AS PER ML DEED IS 19.15 HA, IN KALLAHALLI VILLAGE, NEB RANGE, HOSPET TALUK, BALLARI DISTRICT OF KARNATAKA STATE. CATEGORY-A(FULLY MECHANIZED MINE), FOR THE YEAR 2017-18 TO 2021-22. COMPLETE FOREST AREA. NON-CAPTIVE MINE. SUBMITTED UNDER RULE, 17(1) OF MCR, 2016.**

**COVER PAGE**

1. Name of the document may be corrected as 'Review and Updatation of Mining Plan' only.
2. Mining lease period as per new MMDR, Act, 2015 amended may be indicated and IBM registration no. may be mentioned.
3. Prepared by the qualified person may be indicated below the two names. Besides, address of the qualified persons may be removed from the cover page.

**INTRODUCTION**

4. Before mentioning the present submission on review & up-dation of mining plan, previous approved document details may be expected to be furnished for easy reference.
5. All the boundary pillars and the GCP's should be brought out through photographs, including the R & R works.

**GENERAL**

6. Para 1.0 (f): As per Rule 15(1) of MCR, 2016 a qualified person should have a degree in mining engineering or a post graduate degree in Geology with professional experience of minimum five years of working in a supervisory capacity in the field of mining after obtaining the degree. Accordingly copies of relevant educational qualification and professional experience certificates may be enclosed.

**LOCATION AND ACCESSIBILITY**

7. Para 2.0 (a): Expiry date of the ML may be corrected in accordance with MM (D&R) Amendment Act, 2015.
8. Para 2.0 (b): Existence of public road, railway line with distance is not discussed.

**DETAILS OF APPROVED MINING PLAN**

9. Para 3.3: Reviews of earlier approved proposals should be furnished up to Dec. 2016 for F.Y. 2016-17. Reason for deviation in Exploration in F.Y. 2015-16 is not given, deviation % for Production and Development is not mentioned correctly.
10. 'Status of R & R implementation' in accordance with approved R&R plan should be furnished as on date. Reason for deviation in toe wall construction for ID-1 w.r.t. approved R&R plan should be mentioned, proposals for implementing the same should be deliberated here.
11. Para 3(iii), under reclamation & Rehabilitation measures, the information furnished in table-No. nil, for OB dump is 0.91ha, others 2.23 ha, what is others means may be clarified, without which it is incomplete. In the light of the above remarks, the text and the plates may be attended, wherever applicable. Besides, al the tables in the text must be numbered for easy reference.
12. Para 3.4: Violations pointed out by IBM and compliance letter from Lessee should be furnished here for last approved Scheme of Mining period (2012-13 to 2016-17). Copies of violation letter and subsequent reply from the lessee may be enclosed in the document as annexure.

**PART-A**

13. Para 1.0(c): Occurrence and thickness of float iron ore within the ML area is not discussed in local geology. Length, average width and depth of the iron ore reef and BHQ reef are also not discussed.

14. Para 1.0 (i): As evident from the geological plan that entire mineralised area is not explored under G1 stage of exploration, hence nil future exploration is not acceptable. Also, proposed 6 nos. of core boreholes during F.Y 2015-16 have not been drilled by the lessee. Accordingly, future exploration programme should be planned in such a manner that mineralised area is explored under G1 stage.
15. Para 1.0 (j): In economic evaluation of feasibility report, provisions of paying royalty against District Mineral Foundation (DMF) and National Mineral Exploration Trust (NEMT) are not considered.
16. Para 1.0 (k):
  - a) As per the approved Scheme of Mining dated 13.02.2015, proved reserve (UNFC Cat. 111) of iron ore reef was 0.903 million tonnes, no exploration is carried out by the lessee afterward. In this submission, proved reserve of iron ore reef is furnished as 1.00576 million tonnes, please clarify the reason of such enhancement.
  - b) Section-wise detailed calculation of reserve and resources are not conclusive since only stages of exploration is mentioned, estimation of reserve and resources should be carried out w.r.t. the UNFC codes as mentioned in the Geological Sections.
  - c) Calculation of ore reserve under UNFC Cat. 111, as demarcated in section nos. A-A' and B-B' are not correct, because blocked ore in overlapping areas should be classified either under UNFC Cat. 211 or 222, depending on stages of exploration.
  - d) Similarly, ore blocked in '100m radius of microwave tower' should be classified either under UNFC Cat. 211 or 222, in section nos. D-D' and E-E'.
  - e) For G3 stage of exploration, resources should be classified under UNFC Cat. 333 only, irrespective of overlapping area or rest of the available ML area.
  - f) As per the Evidence of Mineral content Rules, 2015, maximum up to "50% of the grid spacing of the probe pointes" can be considered for resource assessment.

In view of above comments, section-wise detailed estimation of Reserve and Resources should be corrected. In resources estimation tables for blocked iron ore, "calculation of blocked reserve" may be corrected as "calculation of blocked ore resources".

17. Para 1.0 (l): Justification of considering recovery of float iron ore as 60% may be deliberated.
18. Para 2.0 (A) (a): it is expected to describe the existing and the proposed method of operations in the mine, however, the existing method of operation given, but the proposed operations is not described. **Further, existing geometry of benches, slope of faces, layout of faces, approach roads specifications, dumps need to be described.** Besides, as per field inspection, that the mobile screening is under use, but the crusher erection is in the process, not yet completed/ nor under usage, but mentioned in the text as if in operation. Hence, the text may be attended suitably as per the field conditions. Also, it is given, proposed method of mining will be open cast mechanized method category-A, but in the cover page, it is mentioned for A (FM-fully mechanized). Hence, the text may be attended carefully without any ambiguity. The bench height proposal is for 6m & width not less than 6m, but in the 1<sup>st</sup> para of 2A(a), it is given 7m height & width minimum 8m. care should be taken give correct proposals, wherever applicable.
19. Para 2.0 (A) (b): The proposed workings for the 1<sup>st</sup> year 2017-18, reveals, that from sections B-B' to D-D'', but indicated as C-C' to D-D'. But during the site inspection of the mine, it was suggested to start to work from the top mRL to bottom mRL, instead of the location selected for mining. The proposed location may be changed to bore hole No.4, the mRL indicated is not clear. The work may be undertaken by slicing, due to the existing topography condition, so that the height wall benches problem will not arise. Therefore, the next four year developments & production may be undertaken following the top slicing from top to bottom, including any float workings, if desired to manage the production and the quality requirements. **Besides, year wise/ bench wise/ RL wise, opening reserves, exploitation, & closing reserves for five years need to be tabulated.** The development & the production calculation may be attended and modified, based on the changes in the locations. (

- pl refer to page-55 & 56 and related tables. In 'year-wise excavation details of iron ore reef and float iron ore' table, proposed ROM quantity for F.Y. 2017-18 is found to be exceeded than CEC approved quantity. Also, ROM and total waste calculation for F.Y. 2017-18 is not tallying with the table (ref. detailed calculation as mentioned in page no. 55). Also, volume of mineral reject as mentioned in column no. 8 should be corrected.
20. Para 2©(II), under dump rehandling, the dump for ROM/ Subgrade indicated in the plan, for the quantity as 228000 cum is found to be very much higher side and not accepted, this should be resurveyed for quantity assessment.
  21. Para 2 (e), need to be attend in line with the scrutiny comments offered in para 2A(a) & (b).
  22. Para 2(f), need to be attend in line with the scrutiny comments offered in para 2A(a) & (b). Besides, the reclamation & rehabilitation proposals drawn in this para, but the land use brought out up to 3<sup>rd</sup> block period, including the conceptual period, but nowhere reclamation & rehabilitation part is not shown. Whatever, mentioned in the text must be brought out accordingly in the related tables, wherever applicable in support of the proposal and the achievements.
  23. Para 4.0(a): No mineral reject generation is proposed during next 5 years proposals, the table may be corrected accordingly, unit of proposed dumping area may be written as 'in Ha'.
  24. Para 4.0(c): Since temporary dumping is proposed during next 5 years, future dump re- handling method and identified area for permanent dumping/ backfilling should be clarified. Sequence of year wise build up of temporary waste dump also to be furnished.
  25. Para 7.0 (b): Employment potential may be corrected in accordance with Annual Return of 2015-16.
  26. Para 8.1: Details of existing land use may be updated as per latest surface plan. In page 75, name, distance and population of the villages present in the buffer zone may be furnished in a tabular format.
  27. Para 8.2: Mitigate measures to control air quality, water and noise pollution may be furnished here. The land sue pattern mentioned is not reflecting the complete extent of the area( ML).
  28. Para 8.3.1: Proposed year-wise afforestation proposal is not furnished. The proposal drawn for reclamation & rehabilitation is not brought out suitably in the financial assurance table for the clarity.
  29. Para 8.3.5: Item wise 'Actual position as on date' and proposals for next 5 years should be mentioned the table.
  30. Para 8.4: Name, designation & contact no. of the person to be communicated in case of any emergency situation should be furnished in this para.
  31. Para 8.6: Net area considered for Financial Assurance calculation is not found correct. Overlapped area with other MLs should be mentioned under '*others (to specify)*' item head. Total '*area put on use at start of the plan*' should be updated as per the latest surface plan, copy of valid Bank Guarantee (as per the Performa) may be enclosed as annexure, valid up to 31.03.2022.
  32. Signature of Qualified Persons are not found at the end of the Part-A of the document.

#### **PART-B**

33. Para 9: Signature of the nominated owner in 'certificates /undertakings' should be in original.
34. **Para 10, Plates:** Key plan, Surface plan, Geological Plan and Environment Plan should be prepared as per the provisions stipulated in Rule 28 of MCDR, 1988.
  - a) Surface Plan (Plate no.3): Name and signature of the surveyor is not mentioned in the plan; surface plan also should be duly signed by the mines manager/ mining engineer. R & R activities and stack positions may be updated. RL of the working mine pit and stacks are not legible. This plan should be prepared as per rule 28(1)(a) of MCDR,1988.
  - b) Geological Plan (Plate no.4): Stages of exploration and borehole IDs are not legible in the plan, backfilling areas are not demarcated in the main index. Trial pit locations are not demarcated in the plan. This plan should be prepared as per rule 28(1)(b) of MCDR,1988.

- c) Geological Cross Sections (Plate no. 5): Ore blocked by 'overlapping areas' and by 100m microwave tower radius should be classified either under UNFC Cat. 211 or 222. Hence, demarcated UNFC classification in section nos. A-A', B-B' and E-E' may be corrected. Geological sections nos. E-E', F-F' & G-G' are not matching w.r.t. Geological Plan; depth and extent of soil cover are not indicated. Section-wise Reserve / Resources estimation should be carried out as per the demarcated UNFC codes.
- d) Development & Production Plan for the year 2017-18, (Plate no. 6A): Updated surface geological plan should be used for year wise development plan. The proposal for the year 2017-18 drawn must be specified as workings brought out at the end of 31/03.2018, in 1<sup>st</sup> year workings, similarly for remaining four years, up to the 5<sup>th</sup> year as 31/03.2022. Besides, the proposals drawn for 1<sup>st</sup> year must be changed to the top mRL, as indicated in the para 2A(a) & (b) scrutiny comments and worked through slicing to avoid over bench heights. Similarly, for the remaining four years should be followed from top to bottom. IN the light of the above remarks, the changes happens due to which may be attended appropriately in the plan and sections, and the related plans and sections.
- e) Environment Plan (plate No.10): This plan should be prepared as rule 28(5) (b) of MCDR, 1988.
- f) Conceptual Plan and Sections (Plate nos. 8 & 9): These plates are not prepared correctly. Tentative layout of mine pit, dumps, reclamation position etc. at the end of the mine life period should be shown in the plan. The present position of workings brought out in the conceptual plan is not correct. There will not be any present workings at the conceptual stage. Therefore, the proposals drawn in the text for the three block period must be taken in to account, during that period, what would your position workings, dumps, stacks, infrastructure, reclamation & rehabilitation, roads, plantations etc., may be brought out.
- g) Financial Area Assurance Plan (Plate no. 12): Outlines of the proposed working, dumps, stacks, etc. covering all the items under the financial assurance table and *at the end of F.Y. 2021-22* may be shown. Updated FA table should be pasted on this plan.
- h) A Reclamation Plan also should be enclosed with the document.

35. **Para 11, Annexure:** List of annexure is not matching with actually enclosed annexures. At each annexure, number of pages enclosed may be indicated in the column on the right side, of the page, by adding a column. Avoid any type of stamping in the annexure. Following items are required to be annexed with the document:

- a) Copy of ID and address proof of the mine-owner, enclosed one is not legible.
- b) Copy of Qualification & Experience certificates of the qualified person.
- c) Section-wise corrected reserve and resource calculation, as per UNFC.
- d) Corrected feasibility report of the deposit.
- e) All the text reports are pertains to the old and two years passed, hence new test reports should be enclosed after carrying out the same.
- f) Copy of valid Bank Guarantee as per the prescribed format, valid till 31.03.2022.
- g) Few photographs of mine pit, waste dumps, mineral stacks and R&R activities.