

Scrutiny comments on examination of Modifications in Approved Mining Plan with PMCP in respect of Madiem (Sigao Mine) T.C. No.50 of 1953 over an area of 47.88 Ha. situated in Sigao Village, Dharbandora Taluka, South Goa District of Goa State submitted by V.M.Salgaocar & Bro. Pvt. Ltd., under Rule 17(3) of MCR'2016.

Certificate- It should be discussed about the provision of MCDR,2017 instead of MCDR,88.

Cover Page- Category of Mine, District and State where the mine is located should be indicated.

General- Page-4, The IBM registration number IBM/162/2011, Email ID, Fax number & contact details should be given. Page-5, the qualification of Qualified Person should be indicated.

Details of approved MP/SOM:-

The ROM production, sub-grade, mineral rejects, development and dump recovery in previous plan period should be given as per annual return submitted to IBM.

The quality & quantity of excavated ore laying for auctioning by state Govt.should be discussed in brief if any. The remaining grade wise stock of auctioned ore available in mining lease area as on date should be discussed.

It should be discussed in brief regarding any issues or encroachment or irregularity pointed out by Hon. Justice MB Shah Commission of inquiry to this mining lease/lessee, if any and comments made thereafter should be submitted in further submission along with supporting documents.

Mining:- A small introductory para of existing pit dimension along with no of benches in ore & waste, top & bottom RL should be given as on 01.4.2017. The proposed ROM production capping, EC limit, nearest distance of WLS/NP etc. should be discussed in text.

Page-31, The year wise proposed ROM production quantity should be given with grade of ROM/mineral rejects etc. The above threshold value & below cut-off grade should be given as mineral rejects. The cut-off grade & threshold value of minerals should be discussed as per IBM circular 2009. {Hematitic iron ore-Fe%-45% (Min) & Hematitic Siliceous ore-Fe%-35 % (Min)}. The calculation of section wise & level wise annual proposed production quantity with grade of ore should be given in tabular form. The year wise proposed quantity of siliceous & hematite ore should be given separately.

Page-32, Para-C, Dump re-handling (For purpose of recovery of minerals)- The existing quantity of dumps with in lease area & tentative grade should be given.

It was discussed during inspection that for the future planning & advancement of faces & safety concern for the next five year block, re-handling of dump located between E200 to E400 and N900 to N1100 is essential in this year & accordingly re-handling of dump may be proposed in the year 2017-18. Modify the proposals accordingly. It should be discussed about the proposed working with in 50m of village road & permission from state DMG & copy should also be enclosed in further submission.

The annual handling of waste dump & recovery of ore, if any should be discussed with justified reason. The stripping ratio of insitu excavation & with dump handling should also be discussed. Instead of referring in plate 8A&9 &8B, same should be discussed in text. The year wise dumping & backfilling proposal with quantity & location should be given separately in tabular form.

The proposed mine workings/ dump recovery should be 100m away from existing pit/dump edge as per DGMS guideline if any. The UPL should be modified as per statutes.

The abstract of slope stability study done, if any should be discussed & copy should be enclosed. The optimum/overall pit slope should be discussed & justified.

Page-42, The copy of hydrological study should be enclosed in further submission, if any & abstract should be discussed in text.

Page-46, the quantity of mineral rejects generation & their utilization should be discussed properly. It should be discussed in brief regarding utilization of mineral reject, (-56%Fe ore) because as per buyers specification mineral reject is not desired for use.

Page-54, The organization chart of statutory manpower/employment potential as per MCDR, 2017 & MMR-1961 should be given in details.

Page-55, PMCP- the existing land used details should be given as on 01.4.2017 & proposed plan period should be up to 31.3.2018 & lease period 21.11.2027.

Monitoring schedule of all environmental components should be given with respect to permissible limits & actual parameter in tabular form. The safety & protective measures for waste dump/collapsed area should be discussed.

The organization chart for disaster management plan should be given with name, designation & contact numbers of authorized person, their duties and responsibility.

Para-8.6, Financial assurance-Page-72, Land used pattern should be mentioned as on 01.4.2017 and plan period up to 31.3.2018. The backfilled area on mineral exhausted pit should be given separately. The total amount of financial assurance as per MCDR, 2017 should be calculated & discussed. The copy of original valid bank guarantee as per MCDR 2017 should be submitted in further submission in the form of Annexure.

Plan & sections:

All Plan and sections should bear the certificate from QP that 'The Plans and sections are prepared based on lease map authenticated by the state government'.

DGPS plan- The soft copy of full set of auto generated files of super imposed output or text file etc. should be enclosed in further submission.

Surface Plan: The date of survey is 01.4.2015 which is more than one year old should be updated. The water logged area should be shown with different colour code. The nalla, river, PWD roads, power line & their statutory limit should be shown properly. It should be signed by a certified surveyor with date. The surface features outside the lease area is

not required, it needs correction. The forest & non-forest area should be highlighted.

Production & development plan & section-The plan & section should be updated & modified as discussed in field & text. The year-wise dumping & backfilling proposal should be shown separately by different colour. The UPL should be modified based upon above scrutiny.

Financial Assurance Area Plan- The plan & section should be updated & modified based on above scrutiny. The backfilled area on mineral exhausted pit should be given separately. The land used details should be given specifically as table & text.

Annexure:

1. The latest chemical analysis report of Ore/ Mineral rejects/Waste from an NABL accredited Laboratory of proposed mine workings should be submitted in the form of annexure. The enclosed analysis report is old i.e.05/4/2010 without having location of sample etc.
2. Latest quarterly monitoring report on air, water & noise should be enclosed as per category of the mine for last 2-3 quarters.
3. The copy of original valid BG of extended period as per MCDR, 2017 should be submitted in the form of annexure.

1) Geology and Exploration:-

- i) The highest and lowest elevations given under the topography of the lease are needed to be rechecked and corrected.
- ii) Strike of the formation should be discussed in whole circle bearing in the local geology chapter.
- iii) Under geology of the lease area number of ore bodies present with dimension and structure of the litho units needs to be discussed.
- iv) Details of lumps and fines ratio in the ROM based on sieve test conducted/ screening of ROM for separation of lumps and fines done in the past can be discussed under the local geology.
- v) Under the heading details of exploration already carried out the details of number of boreholes drilled, total meterage and maximum and minimum depth drilled is not matching the approved document. As per the document lessee has not carried out any exploration activities during the last approved plan period and how the data varies need to be justified. Same should be rechecked at page no 20 also.
- vi) Exploration carried out under different level of exploration and remaining area to be explored should be given separately for forest and non-forest land.
- vii) Details of exploration carried out should be given as on 01.04.2017.
- viii) Exploration proposals should be made in the grid pattern suitable to nature of deposit as per the Mineral evidence rule 2015 covering entire mineralized zone. The exploration should be carried out in the present plan period only. The exploration proposals should be given in the table as shown below.

Year	No. of boreholes	Grid	Total
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	(Core/RC/DTH)	interval	meterage

- ix) Contribution towards DMF and NMET need to be discussed in the feasibility report.
- x) At page number 23 resources estimated based on level of exploration should be given separately for forest and non-forest land.
- xi) The reserves which are blocking within 1.0km wild life sanctuary line can be estimated under remaining resources.
- xii) The reserves which are blocking due to public/village road should be re-estimated under remaining resources.
- xiii) Log sheets of all the boreholes considered for estimation of reserves/resources needs to be furnished.
- xiv) Date of reserve estimation should be as on 01.04.2017.

Plates:-

2) Geological plan and cross sections:- i) Lithology shown on geological plan and cross sections are not matching. ii) Geological index is not shown on the surface geological plan. iii) Color codes given for the different litho units should be same both on Geological plan and Geological cross sections. iv) On Geological plan section lines are not marked at 50m interval. v) Forest boundary is not shown on geological plan. vi) The area explored under different level of exploration is not marked on geological plan. vii) UPL is not shown properly on geological plan and cross sections.
