Scrutiny comments on examination of Review of Mining plan with Progressive mine closure plan of Rakka Limestone mine of Sh. Rajendra P Trivedi over an area of 4.0 hect. (Sur. No.160/1P) situated in village Rakka, Taluka Lalpur, District Jamnagar submitted under Rule 17(2) of MCR, 2016 and 23 of MCDR, 2017 for block period 2017-18 to 2021-22 & approval period 2018-19 to 2021-22.

1. Cover Page-Mine code-38GUJ07085 is not given.

## Chapter no.2- Location and Accessibility

- 2. KML file/google image map of instant lease area is not enclosed.
- 3. Lease boundary Pillar coordinate is not matching with the Surface plan/DLR map. Reconcile & furnished.

# Chapter no. 3-Details of approved mining plan/scheme of mining

- 4. The reason for excess production achieved in plan period is not discussed in remark column.
- 5. The dimension of existing trenches, number, location & true depth is not given. No benches were seen in field. Mining operations has been done irregular manner & deviated in Development, exploitation and environment monitoring in previous plan period. Give reason of it in remark column. Area was proposed to be explored by trial pits of 4mx4mx4m instead of trench of 20m was sunk but no intimation was given to this office. No logs pertaining to such exploration is monitored hence this exploration cannot be considered.
- 6. The total ROM production achieved & total excavated area in lease is to be discussed.
- 7. The copy of violation, Show cause letter etc. should be discussed & submitted. The online monthly & annual return to IBM website has not been submitted. The instant lease has been recommended for Suspension to State Govt. for non-submission of periodical return.

#### Part-A

## Chapter no. 1.0 Geology & Exploration

- 8. Page-11, the 10m depth of mineralization without any true exploration is incorrect & not acceptable. The existing exploratory details of trenches/pits & true depth is not given correctly. There were no DTH boreholes shown in field during inspection. Such exploration cannot considered for reserves estimation.
- 9. It was observed during inspection that survey of lease area was not updated & correctly shown pits dimension, mRL of area on Surface Geological plan & section. The area should be re-surveying & submitted. The mRL of the area needs to be corrected.
- 10. The location map of both the adjoining leases of Rakka mine i.e. Gayatri Mineral & RP Trivedi shown on DLR map & lease plan is not matching. Reconcile with lease plan & corrected DLR map should be submitted.
- 11. Page-12, The existing pit dimension is not correctly shown, it should be given the corrected resurvey of lease area & furnished. The broken up area existed seems more as shown on plan & section. It needs correction. The other details/information in tables at page-12,13 is not given properly & correctly. Entire reserve estimation is wrong & misleading. Chapter of Geology, reserves estimation shall be thoroughly revised. It needs major modification.
- 12. Page-15, The Re-estimate the reserves & resources & detail calculation is to be taken only up to true depth of mineral area i.e.4-5m in irregular manner of pit/trench. It needs correction in entire reserves & resources. The Geological section shown is incorrect on DTH borehole. DTH is not acceptable. The section is to be shown up to true depth of mineral only (up to pit/trench depth), imaginary lithology should not be shown & acceptable.
- 13. Page-15,16, Entire calculation & Tables needs correction as per above scrutiny.
- 14. The 05 core bore holes up to depth of 25m each or more is to be proposed in corner of lease area in minimum 400mx400m grid as per provision of MCDR, 2017. It needs

## Chapter no. 2-Mining

- 15. Since Geological description, geological reserves of limestone profile shown in Geological section is incorrect. Hence there is need for thorough revision of mining proposal. Mining is to be proposed only on the basis of exposed thickness of limestone in pits. It was observed during inspection that boundary pillar of lease area were not available in field nor erected as per statutes. The mining operation has been carried out and appears to be with in 7.5m of statutory barrier or outside lease area. It needs clarification.
- 16. The existing pit dimension & correct excavated area as per resurvey needs to be given.
- 17. The mine lease area is hilly terrain & surrounding agriculture field. Therefore no drilling & blasting proposed, only rock breaker/excavator of required capacity with tipper combination should be proposed.
- 18. Proposed scale of production is on higher side. It cannot be accepted for an area of 4.0 hect. with limited thickness based upon trench/pits. In last approved plan period, limestone production target was about 8000 to 9000 tonnes/Annum but in present plan, proposal of limestone target is about 1,25,000T without any true exploration data/reserves is not acceptable.
- 19. Reduce the annual targeted production based upon the true potential area & actual reserves available. It needs correction.
- 20. There is no OB generated, therefore stripping ratio shown 18:1 is incorrect. it needs correction & should be 1:0.0.
- 21. Plantation survival rate is very poor; therefore more plantations (100Plants/year) is to be proposed in present Review of mining plan.
- 22. Page-20, 21 annual planning & reduced optimum annual ROM targets are to be modified & corrected based upon the above scrutiny.
- 23. Page-22,23-The calculation of drilling & blasting is not required. It needs correction. Para no. (f), Conceptual mining: There is no OB/waste generation, therefore conceptual stage of mine may be water reservoir only after mineral exhausted. The instant lease area in hilly terrain & not fully explored till date. No reclamation is required except afforestation/embankment in 7.5m barrier.

## Chapter no. 3 Mine Drainage

24. The water table shown at 95-100mRL without any study is incorrect. Same should be based upon the field observation.

#### Chapter no. 4 Stacking of Mineral Reject

**25.** It was observed during inspection that OB generation in present plan period is almost NIL whereas quantity proposed in yearly table is incorrect.(Page-29) It needs correction.

#### Chapter no.8-PMCP

- 26. The present land used pattern is to be given as on 01.4.2018. The table is to be modified by re-survey the lease area. Excavated area of 0.0269Ha shown is incorrect.
- 27. Page-38, No of plants should be proposed 100 instead of 20 & survival should be about 80%. It needs correction.
- 28. Page-39-44, The plantation proposal should be given in "others" column instead of "Rehabilitation in waste land" column. Other environment protective measure of embankment wall is to be given.
- 29. Page-46, FA-Table & present land used details & area to be utilized in plan period needs to be corrected. Reconcile the table in PMCP & existing pit dimension & furnished. The detail calculation should be modified based upon above scrutiny.

#### Plan & Section:-

30. **Surface Plan:** It was observed during inspection that in surface plan, excavation of lease area is not matching with field & further BP were not available in field. Re-survey the

- area & submitted in further submission. The adjacent lease of Gaytri Minerals & common BP should also be discussed. The surface plan & DLR map co-ordinates is mis-matching.
- 31. **Surface Geological Plan:** The BP co-ordinates reconcile with DLR, the instant lease area is mostly rocky exposure, therefore entire area top soil given is incorrect. Resurvey & furnished correctly. The existing pit, trenches with mRL, proposed core boreholes etc should be submitted. The contour interval & field reality should be given since there was up & down in hillock in east-west direction & whereas contour shown continuously down contouring is not correct. Resurvey the area & submitted. The geological axis of G1/G2 level of area is not marked. The section should be corrected by not showing litho below depth of pit/trench. Geological section is imaginary and arbitrary. Milliolitic limestone can never be such a massive as shown in section.
- 32. **Production & Development Plan**: yearly proposal should be shown in G1/G2 level of area only & environment protective measure should be shown. Litho below depth of pit/trench should not shown.
- 33. **Environment Plan:** plan has not been prepared & submitted. The position(s) of the adjacent leases are not shown on the Environment Plan; Land use in 60m/500m beyond the ML area is to be shown including human settlement etc.
- 34. **Reclamation plan:** The title of plate "Environment Management Plan" should be replaced as reclamation Plan.
- 35. **Conceptual Plan:** Pit configuration at the ultimate stage not marked, benching pattern not indicated in section, ultimate depth of working not marked, approach to faces at conceptual stage not marked.
- 36. **Financial Area Assurance Plan:** Plan should be updated & modified as per above scrutiny.

#### Annexures-

- 1. The corrected copy of DLR map of instant & adjacent lease of RP Trivedi & common BP co-ordinates should be given.
- 2. The copy of field photographs of present mine workings, exploratory pit/trenchs with dimension, location, Boundary Pillars with no; Lat & Longitude, mRL etc. should be submitted.
- 3. Latest few more chemical analyses of pit/trench samples from NABL should be submitted.
- 4. Quarterly monitoring of Air, Water, Noise, land etc. in last quarter has not been enclosed.
- 5. The copy of common boundary working permission in adjacent lease of RP Trivedi with in 7.5m of statutory barrier under MMR 1961 should be submitted.
- 6. The copy of valid BG/Original BG of extended period of lease should be submitted.
- 7. The further submission of document should be properly binding having sufficient strength and the plates are properly folded so that they can be accessed easily.

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Date: Place