

भारत सरकार/Government of India  
खान मंत्रालय/Ministry of Mines  
भारतीय खान ब्यूरो/Inc.-an Bureau of Mines  
हैदराबाद क्षेत्रीय कार्यालय/Hyderabad Regional Office



No. AP/VZNR/MP/Mn-102/HYD

6<sup>th</sup> Floor, CGO Towers,  
Kavadiiguda,  
Secunderabad- 500 080, AP.  
Date: 12.04.2018.

To  
Shri Kishore Mahanta,  
M/s Global Associates,  
925, Dhruva Apartments,  
Plot No. 4, Patradgunj,  
Delhi 110 092

Sub: Submission of Review of Mining Plan in respect of Pedanadipalli manganese mine of M/s Global Associates over an extent of 8.190 ha. located in Pedanadipalli Village, Cheepurupalli Mandal, Vizianagaram Dist. of Andhra Pradesh State submitted under Rule 17(2) of MCR, 2016.

Ref: Your letter no. Nil dated 09.03.2018 received in this office on 22.03.2018.


Sir,

01. With reference to your letter cited above on the subject, the site inspection was carried out on 05.04.2018 by Shri.S.K.Muduli, M/G accompanied by Sri. A Satyanand Prasad, Mine Representative and Shri P.R. Mishra, Qualified Person. The draft Review of Mining Plan has since been examined and found certain deficiencies in the form of Scrutiny Comments as given in Annexure. The scrutiny comments have already been forwarded on your mail id: mail@globalminerals.in and : [earth\\_environment2008@yahoo.com](mailto:earth_environment2008@yahoo.com) Qualified person as submitted in the document

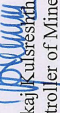
02. You are advised to attend the above deficiencies as per the annexure and resubmit the document complete in all respect in three bound copies along with soft copy in the form of CD (2 Nos.) with in 15 days from the date of issue of this letter. In this regard you are advised to submit the Financial Assurance in the form of Bank Guarantee for the area put on use for Mining and allied activities @ Rs. Three lakhs/hectare for category 'A' mines provided that the minimum amount shall be Rs. Ten lakhs as per the provision of Rule 27 of MCDR, 2017 only at the time of submission of final copies of the document.

03. The para-wise clarification & the manner in which the deficiencies are attended should be given while forwarding modified document.

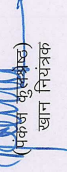
Yours faithfully,

  
(Pankaj Kulshrestha)  
Controller of Mines

Copy to : Shri P R Mishra, QP,

  
(Pankaj Kulshrestha)  
Controller of Mines.

मूल प्रति पर नहीं  
खान नियंत्रक (द), भारतीय खान ब्यूरो, बेंगलुरु।

  
(Pankaj Kulshrestha)  
खान नियंत्रक



Scrutiny comments on the review of mining plan in respect of Pedanandipalli Manganese Ore Mine of M/s. Global Associates over an extent of 8.190 hectares in Pedanadipalli village, Cheepurupalli mandal, Vizianagaram dist., Andhra Pradesh

A) 5 nos core bore hole reported to be drilled in the year 2015-16, but Form-K (Bore hole lithologs) not maintained as per statute duly authenticated by Geologist and further the sampling and chemical analysis of the above bore hole cores has not been carried out. The bore hole lithologs are without any assay values.

During inspection of bore hole cores it was observed that

- i) in case of BH-1 the drill cores are not stored in their respective places, no drill run wise mark was marked in the core box and drill cores have been displaced.
- ii) In case of BH-4 (total depth 21m) the run wise details has not been mentioned in the core box, run details not mentioned i.e. the bore hole lithologs, and there is a total of 4.14m core loss in the drilled depth between 6.00m to 14.14m which also contains pieces of Khondalite in two zones and powdery Manganese ore zone also at two places. Further no extrapolation has not been done run wise and litho wise where there is a core loss in the drilled bore hole. Further daily drill report was not maintained.

In view of the above the standard procedure has not been followed while storing & logging the bore holes, thus BH-1, BH-4 can not be considered for reserves/resources estimation. Further without any assay values and chemical reports i.e. lithologs of the balance 3 bore holes can not be considered for reserves/resources estimation.

B) There is an ongoing civil court case OS No-414/2012 in the honourable court of Senior Civil Judge-Vizianagaram, over the eastern mining block area between the land holders and the lessee.

**1. General**

- a) Name of the mine be mentioned.
- b) Consent letter and undertaking of the lessee has not been signed.
- c) The shape of the precise area shown in the plan is not matching with that of the precise area marked in lease sketch. Further some of the boundary pillar co-ordinates have been mentioned in the lease sketch which area not matching with the BP co-ordinates mentioned in the surface plan. Also BP -31 was not found during the inspection. Thus the lease sketch along with all lease boundary pillar co-ordinates (in WGS-84 format) authenticated by the competent authority of the state government be submitted and all the plans and sections be prepared on the basis of the authenticated lease sketch.
- d) Assumed bench mark needs to be linked to some FRP and be established within the mining lease area such that it will not be disturbed and contours levels be mentioned accordingly. Further the plans should be signed by DGM/S certified surveyor for its correctness and its accuracy.
- e) The individual Survey nos. with its area extent, with nature of land shall be furnished in a table form.
- f) Authorisation in respect of Shri Kishore Mohanta be enclosed.
- g) Date of survey be mentioned in the plans.

**2. Review**

Review has not been furnished correctly. Review of production, waste generation, top soil generation, exploration, plantation, environmental monitoring and reclamation and rehabilitation, status of compliance be furnished from 2013-2017-18.

### 3. Geology, Exploration & Reserve: -

- a) Data source of temperature and rain fall, regional geology be submitted.
- b) In the Geological plan the occurrence of manganese vein within the mining pit be corrected as per the filed. Further the trend and dipping direction of the manganese ore body be shown on plan.
- c) BH-5 is located in the fourth bench in the mining pit whereas in the geological plan the same has been shown near BP-31. Position of Pit-1 and BH-5 be corrected as per field.
- d) During inspection it was observed that the BH-1 and BH-2 have been drilled at the same location of CBH-1 and CBH-2 bore holes drilled earlier, the necessity of doing the same be justified.
- e) Further the the bore hole lithologs (Form-K) with assay values of 13 nos bore holes drilled before the approval of modification to approved mining plan supported with chemical analysis report as per statute should be submitted.
- f) The borehole number with series, collar RL, year of drilling, co-ordinates, drilled depth has not been furnished. Details of pits and trenches dug earlier be submitted. Further the details of working pits like co-ordinates, no of benches, dimension of pits has not been furnished.
- g) BH logs of earlier drilled BHs be submitted.
- h) Lithologs of recently drilled BHs be submitted with assay values.
- i) 10% check sample of each core bore hole have not been analyzed from NABL accredited laboratory. Further the details of Samples analysed by NABL laboratory has not been furnished.
- j) NABL accreditation certificate be submitted for minerals to be analyzed and parameters to be analyzed.
- k) BH hole wise mineralized zone details with average/ wt average grade be submitted.
- l) The recovery of manganese ore from the ore body has been submitted without size wise grade. It is required to conduct recovery tests to know the recovery factor of the ROM along with size and grade as per the standard method and on the basis of past experience of mining.
- m) The lithologs of newly drilled core BHs are not matching as per the core stored in core boxes. During inspection it has been observed that the lithologs of all the bore holes have not been maintained. BH-1, BH-4 and BH-5 are drilled. In case of BH-1 the core has been displaced /interchanged in between them and in case of BH-4 and 5 the run wise details has not been mentioned and there is core loss of 4.14 & 3 mtr in total.
- n) In the Geological sections the BH No, Collar RL has not been shown and the lithology has not been indexed correctly. The lithology of geological section is not matching with the bore hole lithologs. The UNFC category has not been furnished correctly in the geological sections. The ultimate pit limit depth has not been shown in the geological sections. The proved limit shown is not correct. The Geological sections be drawn across strike. The length and thickness of manganese ore body has not been shown correctly. The geological section be made as per the lithology encountered in the bore holes and also taking into consideration of the geological facts. The blocked reserves/resources be shown on geological section and estimated and furnished section wise.
- o) The category of the deposit as per MEMC Rules-2015 has not been justified and mentioned accordingly. Further parameters considered for reserves/resources estimation has not been furnished.
- p) Ultimate pit limit depth proposed is 64.71 mRL at page no-24 which be justified properly. The Ultimate Pit slope should be as per statute.
- q) The generation of subgrade mineral and rejects should be discussed as per the threshold values.

r) Justification for Geological axis has not been dealt properly. In the feasibility axis justification the costing details be submitted as per the format of Annual return and in addition to that the economic viability data and status of environmental clearance and legal issues has not been submitted. As the resource has been explored under G2 level of exploration the reserves as per UNFC codification can not be in I11 category.

### 3. Mining

- a) Furnish the coordinates of four corners of the mining pit and other details like no of benches, height of benches, dimension of the mining pit.
- b) As the cut off grade Mn% is 15% ,SiO2% is 13% which is on higher side in comparison to the threshold value of manganese ore notified by IBM , generation of mineral rejects should be estimated and its stacking, blending should be proposed year wise for easy reference.
- c) The drilling and blasting requirement calculation has not been furnished. In the blasting parameters calculation of powder factor has not been given. Further the details of decking, bottom charge and column charge be submitted.
- d) Mining machinery to be used with its calculation be furnished in tabular form.
- e) The year wise production and development proposal be submitted in a systematic manner. In the year wise production and development plans year wise in ward and out ward road and ramp provision with gradient, level of mining to be attained should be shown in YPD plan. In the lay out of mine working amount of advance to be made length wise, width wise, height, co-ordinates, from -to level(in mRL),Volume has not been furnished.
- f) Production and development section be submitted year wise on 1:1000 scale for easy reference.
- g) The section wise bench wise weighted average grade of proposed mining block for each year needs to be furnished and the mechanism for the grade control for optimum utilization of mineral along with blending techniques needs to be furnished.
- h) The conceptual plan and section is not correct as it contains only the ensuing proposal. Conceptual status of mine at the end of lease period be discussed for exploration, waste and sub grade generation, pit development, land use pattern, afforestation, reclamation and rehabilitation correctly taking in to account of the safety zone area, bench height and width, bench slope and ultimate pit slope as per statute. Conceptual plan and section be prepared and submitted and the conceptual status of mine should be same in the text and with submission in plates.
- i) Max & min depth of water table has not been mentioned in the text with annexing supporting document and level of proposed workings has not been furnished in the plan and that is mentioned in the text is not correct and be furnished with due justification. Year wise sump planning with co-ordinates, dimension and capacity has not been furnished in text and shown in plan. Two nos seasonal mala flowing within the lease towards south, thus the environmental protection measures should be proposed.
- j) Year wise proposal for generation of mineral reject / sub grade and utilization of mineral reject / sub grade for blending should be furnished with quantity and grade. Details of existing mineral reject / sub grade stock like location co-ordinates, dimensions, quantity and grade should be furnished. The site of temporary dumping of mineral reject / sub grade be identified as per MCDR and submitted. Dumping pattern should be proposed.
- k) Processing of ROM and Mineral reject be submitted apart from manual sorting.
- l) OMS output has not been submitted.

### 4. Progressive mine closure

- a. The net area put to use for mining and allied activities is on lower side as the approach roads, waste dumping area, ROM dumping area, Sub-grade/mineral reject dumping area, top soil dump area processing area and mining pit area of the eastern block have not been taken into consideration. Thus head wise area put to use be corrected and be submitted and accordingly the calculation of financial assurance be corrected and the balance Financial assurance be submitted at the time of final submission.

- b. Summary of baseline environmental information should be furnished.
  - c. Environmental protection measures for waste dump and mineral reject dump be discussed and proposed. Proposal be submitted for management of rainfall water run off within the mine. The year wise proposal for development of gairland drain, retention walls, gully checks, retaining bund for top-soil, siltation pit, check dam be discussed in text and shown in the reclamation -rehabilitation plan. Details like location, co-ordinates, and dimensions should be submitted. The year wise plantation be proposed along the 7.5m safety zone giving details like location, co-ordinates, length.
  - d. The environmental monitoring should be proposed year wise for Air, Noise, Water, Soil within the core and buffer zone and should be furnished in tabular format with details like location name, co-ordinates, frequency of sampling in text and locations in key plan, reclamation-rehabilitation plan.
- 5. Plans and Sections**
- a) In the earlier approved mining plan the plans were prepared in assumed co-ordinates. All the plans be prepared in UTM co-ordinates and the earlier approved local co-ordinates be mentioned for each grid.
  - b) The surface plan is not upto date. Thus survey should be done afresh and all the plans and section should be prepared based on this plan.
  - c) Ultimate pit limit be shown in the plans and sections.
  - d) As per rule 34 of MCDR-1988, -
    - (1) All digitally prepared plans, sections and print copies thereof kept at the mine shall be suitably indexed.
    - (2) Every plan, section or part thereof prepared under these rules shall carry thereon a certificate for its correctness and shall be signed by the mining engineer with date: Provided that the geological plans and sections shall be certified and signed by the geologist employed under rule 55.
    - (3) Every copy of a plan and section or part thereof submitted or maintained under these rules shall bear a reference to the original plan or section from which it was copied and shall be certified thereon by the holder of the mining lease to be a true copy of the original plan or section.

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