SCRUTINY COMMENTS ON DRAFT REVIEW AND UPDATION OF MINING PLAN OF HUTTI UNDERGROUND GOLD MINES OF M/S. HUTTI GOLD MINES COMPANY LIMITED, OVER AN EXTENT OF 528. 35 HA, M. L. NO. 2671 SITUATED IN HUTTI VILLAGE, LINGASUGUR TALUK, RAICHUR DISTRICT, KARNATAKA STATE – A GOVT. OF KARNATAKA ENTERPRISES /UNDERGROUND/ MECHANISED 'A' CATEGORY/ NON-FOREST(PATTA LAND), FOR THE PERIOD FROM 2018-19 TO 2022-23.

# **COVER PAGE:**

1. The period of proposal should be given as 2018-19 to 2022-23. Besides, the copy of the letter received from the state Govt. for the extension of the lease period up to 31/3/2030, if any may be indicated and enclosed.

### INTRODUCTION:

2. It is given that, the mining operation will be undertaken through A-fully mechanized underground mining method, but in the cover page it is given A(Mechanized), this may be attended appropriately. (ii). Besides, the present submission of document for five years proposals period, wherein nothing is specified, what are the new things that are incorporated in exploration, developments and production, if any should have been highlighted for clarity and easy reference.

## GENERAL:

- 3. Para 1(a), the address of the applicant needs to be replaced with lessee. Similarly the para 1(b) should be attended. In the light of the above remarks, the whole text para need to attend appropriately. (ii). It is given public sector company, but in cover page, it is given, A govt. of Karnataka enterprises. Care should be taken to furnish the information correctly, at all places of the documents, without any variation.
- 4. Para 1(e), the lessee intends to mine gold and the associated minerals, this associated minerals must be indicated specifically with names of the minerals.
- 5. Para 1 (f): The recognised person should be replaced with qualified person. The names of qualified persons who prepared the mining plan and in whose name the consent letter is issued from the lessee may be given under this para. (ii). The present document is Review and Updation of Mining Plan, which must be given instead of Modified Mining Plan.
- 6. Para 2(a): The Ground Control Points have not been shown in the plate no.15 (Not to scale). The same may also be shown in the Surface Plan. (ii). The date of grant of ML is given as 19/12/2008, but when is the 1<sup>st</sup> grant may also be given, if it is exist.
- 7. Para 2(b): The type of land of mining lease area in the table has not been specified as whether it is patta land or Govt. land.
- 8. The details of the approved mining plan, / scheme of mining etc., to be given in tabular form from the beginning, as per the standard universal format, instead of paragraphs.
- 9. Para 3.2, this para also need to be furnished in table format, with reasons for modification has been given in generalised way, instead of specific developments and the stopes which are considered for change in the modification with numbers and identification for reference.
- 10. Para 3.3.1(a): The year-wise no .of boreholes location of proposed and achieved details with depth and meterage may be given in a tabular form. The trench proposals may be avoided. (ii). The table 3.3.1(a) & table 3.3.1(b) must be added together in a single table for easy reference. (iii). The mRL of the surface drill holes and the underground drill holes must be given and also in which levels and in which shaft the particular drills undertaken (iv). The description given for surface, underground diamond drilling is a general statement/ narration; it is expected to give specific description in brief about the levels, direction and the angles of the holes etc.

- 11. The table 3.1(c), reveals proposals without giving specific details of the developments, sublevels & the stopes included in the production during that period, without which it is not appropriate and correct. Hence, it is expected to give complete details, in the case of table-no. 3.1©, 3.3.1(d), 3.3.1(e) & 3.3.1(f). (v). the details of black rock, meterage indicated against the shaft deepening, development and haulage etc., in table no. 3.3.1(f), but what is the quantity of ores comes under the quantity indicated may be given.
- 12. Table no. 3.3.1(g), & table no. 3.3.1(h) production & the development furnished must be given with the details of the stopes and the developments for reference. (ii). While verifying the datas furnished for the year 2013-14 onwards, reveals that, the reasons furnished for the deviation is not appropriate and correct. (iii). The development achieved/ carried is more than the proposed one, similarly, the production achieved from the stopes/ development less than the proposed quantity. (iv). The afforestation proposals and the achieved must be presented in the table format.

### PART-A

- 13. Para 1©, under summary of the reefs geometry, the details of the main reef, prospect reef and new east reef are not furnished, which ought to have been. The main reef is given as presently under exploration, in which location is not indicated. The depth of workings is indicated as 1056 abandoned, what is the reason for abandoned is not given.
- 14. Para 1(d), the name of the prospecting agency is given as GSI, Bangalore, without giving the further contact details of the company like email/ telephone etc., which ought to have been.
- 15. Para 1(e): The year-wise phase-wise exploration carried out may be furnished. (ii). Para 1(e) (iii): Analysis reports of samples have not been enclosed. (iii). Para 1(e)(iv): Year-wise expenditure incurred for exploration may be given in a tabular form.
- 16. Para 1(f), 1(g) and 1(h) have not been furnished as per the universal format.
- 17. Para 1(i): The Future Exploration Programme: The year-wise, location-wise exploration programme may be given so that the entire lease area can be explored within the period of proposals. The same may be shown in the Geological Plan and Sections in a distinct colour. The proposed borehole details like number, depth, diameter, location, vertical/inclined etc. may be given in a tabular form.
- 18. Summary of drill resources given in table in page-no.35, without table number and the date for which it is referred. Besides, the reefs indicated in the 1<sup>st</sup> column, may be further added with the particular/ levels.which it is located may be given.
- 19. In page no.39, wherein the main reef in 3<sup>rd</sup> level is referred to which shaft and RL may be given, similarly in the next para referred for the 4<sup>th</sup> level also need to be attended with clarity. (ii). Better to present in table format. (iii). In page no.40, the 09 nos., of drill holes referred to, what is the diameter of the holes and the direction may be given and recovery of the core.
- 20. In page no.41, it is proposed to make surface trenching, to confirm the reefs at depth are not appropriate proposals. Better to propose bore holes/diamond drill holes for meaningful achievements. (ii).the reserves calculated as on 1.4.2017 is 10.46 Million Tonnes, but the details of the reserves calculation must be brought out, giving the details of the different stopes blocks/ levels taken for calculation may be given for reference. (iii). The five years exploration proposals should be given in the table format with year wise for clarity for both surface and underground diamond drilling. (iv). In the light of the above remarks, the related paras in the text and the plan/ sections may be attended.
- 21. Para (j): The extent of mineralised area and non-mineralised area of total lease area may be furnished. The reserves/resources position as per the last approved document of 14.2.2017 may be furnished. If any changes in the reserves/resources and depletion from the previous to the present submission may be justified.
- 22. Para (k): The detailed calculations of reserves/resources may be furnished level-wise, stope-wise and block wise. Besides, the reefs indicated may be given with which levels and shafts it belongs may be given.

- 23. Para 1(1): under mineral reserves/ resources, the table, given without number for reference, category of ore reserves/resources the units of grade and under note, "the stoping permission obtained from DGMS only is referred, without indicating the permission obtained from IBM".
- 24. Para 2B, under underground mining, the existing shafts, levels, stopes, haulage, raise, winzes etc., should be indicated with method of working and in the same manner, for the proposed workings in the ensuing five years period may be furnished in brief with clarity for easy reference and understanding. (ii). Besides, the brief description may be added with ore production from the shafts, developments, stopes etc., and black rock developments, shaft deepenings, ramps etc., may be given separately. (iii). The year wise development proposals like drives, cross cuts, sub levels, incidental ores and stopes indicated without giving the details of their respective levels, shafts etc., of their locations.(iv). In the light of the above remarks, the tables, IIa, IIb, IIC, and the details of the production given without indicating the which are the levels, stopes etc., for reference.
- 25. In page no.51, Under blast hole stopping (with filling), it is given, totally mined out area (stopes), will be filled with de-slimed mill tailings and all conditions of filling as recommended by DGMS in the stopping permission letter are followed.( ii). Besides, the conditions of DGMS & IBM, any other scientific studies under taken/ under progress to guard against the rock blast/ air blast or wall collapse may be explained. If not, same may be undertaken from the NIRM, Bangalore for the future safety of the stopes/ mine.
- 26. Further, in the same para, the details of the stopes which are yet to be filled up, stopes which are planned for future filling, stopes which are going to be left open without filling may be furnished separately in the table format as on date.
- 27. In page no.57, under circular shaft, the progress of the shaft deepening is given with the black rock generated in tonnes, during the course of deepening, any ores encountered and taken for processing if any may be indicated.
- 28. Under the details of the decline and the schedule of decline development, what is the development already carried out may be brought out in this tables and for the future proposals, it is given only linear developments, what are the other developments in parallel to be undertaken like bay, cross cuts/ man holes etc., are not indicated, which is required for the LHD & LPDT operations. (ii). The color photographs of the existing ramp/ decline may be brought out in the document and the future decline diagram may be given for reference.
- 29. Para 4(a), the off lode development given from 2013-14 to 2017-18, without giving the details of the shafts, levels, haulage etc., for easy understanding.
- 30. Para 6, under gold ore mill tailings, details on old dump/ new dumps up to 2016 is given, without indicating the further details from 2016 onwards for information and for reference.
- 31. Para 7, the information on employment details should be furnished as per the standard universal format.
- 32. Para 8, the afforestation undertaken from the years from 2013 to as on July, 2017, without indicating the locations and how much in within and outside of the ML area for reference.
- 33. Para 8.3.1, under mined out land/ stopes, the number of stopes filled during the period from 2013-14 to till date, which may be given stopes identification and the levels and the shaft, separately, through the sections. Similarly the stopes proposed for filling during the current proposals may be detailed with names/ identification etc.
- 34. Para 8.6, under financial assurance, the information furnished in the table need to be modified, by shifting the 8<sup>th</sup> & 9<sup>th</sup> row from the last column and the totallying of 181.49 ha instead of 260.38 ha. The financial assurance should be obtained for 5, 44, 47,000/-(Rupees Five Crores, forty four lakhs and forty seven thousands only). (ii). The name of the QP should be given along with the signature and the resolution from the board of directors for authorising the officer to sign the document may be enclosed.

35. The certificate enclosed by the GM (Co-ord), should be changed as consent letter from the lessee or the nominated owner. Besides, the RQP should be replaced with QP. The modified scheme of mining should be changed to Review & Updation of Mining Plan. Further, the applicant should be replaced with lessee. (ii). The certificate from the QP, instead of MCDR, 1988 need to be replaced with MCDR, 2017.

#### PLATES:

- 36. Plate no.1: Key Plan: Wind rose diagram has not been shown.
- 37. In title box of plates, "Review and Updation of Mining Plan for the period 2018-19 to 2022-23" may be corrected in all plates.
- 38. In all plates, the index should be correlated with all features shown in the plan.
- 39. Surface Plan: 1) the plan has not been signed by the surveyor. 2) Three Ground Control points may be shown in the plan. 3) Date of survey is not mentioned in the title box.
- 40. Plate No.3 (Surface Geological Plan): On the plate, it is expected to write Hutti Underground Gold Mines, and also in all the other plates. (ii). Already, drilled bore holes either by GSI or by M/s Hutti Gold Mines Ltd., should be brought out on the plan with red color notations. The proposed drill bore holes must be shown in other than red colour. (iii). The proposed five years bore holes must be differentiated with different colors, other than red color.(iv). The proposed tailings area ear marked is given with color notations, but for the existing tailings dump is not marked in the index. (v). There is no difference between the smaller diameter/ bigger diameter bore holes notations indicated on the plan, which ought to have been. The trench notations used in the index is not clear for understanding. (vi). For underground bore holes not indicated in the indexing part. (vii). Notations for incline shaft and the vertical shaft is not given for easy reference. (viii). The area explored under different G1, G2, G3 level of exploration may be marked in the plan. All geological section lines may be marked in the plan.
- 41. Plate No.4A (Geological Section through Mallappa shaft): the indexing part is not given for the geological features/ for shaft, levels and other developments, drilled bore holes and the grade of the ore encountered during the development stages. (ii). UNFC codes for the area considered for different categories of reserves/ resource estimation may be marked on geological sections and Index may be given in the sections. In the light of the above remarks, the other sections may be attended.
- 42. Plate No.4B (Geological Section through central shaft): The lodes encountered in the different strike line is not given. Any drill bore holes undertaken in these sections may be brought out. The ore body delineated in the underground through the development and through underground DD holes may be indicated with G1 scale of explorations.
- 43. Plate No.4C (Geological Section through Village shaft): the lodes and the levels where the ore body has been proved in the underground/ surface also through the bore holes need to be\_bring under G1 scale under 111 category for reserve calculation in this sections and also in other sections.
- 44. Plate No. 5A( L-V section showing year wise primary development, stoping blocks & sand stowing blocks (Strike reef foot wall): In addition to the one given in index of varying activities, the details of stopes blocks under preparations & stoping under progress need to be given with names as per the approval obtained from IBM/ DGMS for reference and clarity. (ii). similarly, the other plates 5B, 5C, 5D & 5E may be attended and given with details.
- 45. Plate No.6A( Underground level plan, showing u/g developments, bore holes drilled with conceptual plan( SR H/ wall): The notations used for the five years developments proposals with conceptual plan through colors lines in indexing, but in the plan, demarcation is given for one year development only, if it is so, why the five years marking is given taking conceptual plan. What is the reason for taking conceptual plan may be explained. However, drilled bore holes is demarcated. This needs to be presented in a way for easy understanding. In the light of the above remarks, the other plate's no. 6B, 6C, & 6D need to be attended and modified.

- 46. Plate No.8A (Decline proposal of 3<sup>rd</sup> level, 5<sup>th</sup> level & 7<sup>th</sup> level): why the proposal is not given in composite in a single plan and sections together from surface. Besides, the ramp/ decline developments, other accessories development like bay/ man holes etc., for LHD & LPDT combination workings need to be brought out.
- 47. Plate No. 7A (L-V section showing ore reserves (strike reef foot wall): the ore reserves calculated in this section, showing the different lodes with varies grades from 2g/t to 15 & above, under which the number of stopes/ blocks taken for calculation, may be mentioned in the plate, also in the text part for reference. similarly in other sections in plate no.7B, to 7E should be attended with details. Besides, the rib pillars, crown pillars & sill pillars left for the support, which will be left as permanent support may be given with details.
- 48. Plate No. 9 (Environment Plan): Environment Plan is not submitted for the mine depicting the other ML area of other lessees if any present within the buffer zone, the name of the mine or the village for reference.
- 49. Plate No. 11( Environment management Plan): The protective measures provided around the tailing dumps must be given additional settling tanks with water over flowing arrangements, instead of allowing water to go out of the MI area.

#### ANNEXURES:

- 1. From the list of annexures, it is expected to give the date and the letter numbers in each annexure and against each annexure, number of pages in each annexure may be indicated by adding another column in the list of annexures.
- 2. The photographs enclosed for shafts and the machinery must be given in colors. Besides, some more latest machineries like LPDT, Grab mucking in shaft sinking, Double and single jumbo drill machines for faster drilling in the development faces, ramp / decline photographs, ore drawl from the stopes, stope filling through the sand stowing, other shaft head gear, etc., may be enclosed.
- 3. The violation compliance given must be presented in A-4 size paper in the normal portrait print system, instead of landscape. Besides, the other violation and compliance annexure-XIII must be kept next to this violation compliance.
- 4. Annexure-VII pertains to the list of stopes to be operated for the present period, wherein non-proposed stopes in the list may be deleted.(ii). List of primary & stope development points given for the 1<sup>st</sup> two years only and not for the remaining three years. Besides, the umber indicated against the serial numbers and the years, remaining working points to be deleted from the list to avoid confusions.
- 5. Annexure-VIIIA pertains to the list of u/g machineries, but in the list even surface machineries also found. Therefore, the surface and underground machineries may be segregated.
- 6. Annexure-IX pertains to the reserve calculation, which must be brought out as on 1/10/2017. (ii). Depletion from which period to which period must be given. (iii). Addition considered from which period to which period may be indicated. (iv). what is meant by written off may be given from which period to which period.
- 7. Annexure-XII, notice of form-J referred under rule 47 of MCDR, 1988 & 1960 is not correct, this should be of MCDR, 2017.
- 8. Annexure-XIII, violation compliance should be brought out together with annexure-IV.
- 9. Annexure-XIV, wherein it is given analysis report from NABL, but in the document, no information except covering letter, this should be enclosed.
- 10. Annexure-XVII pertains to the Hydro-geological report, but the enclosed report is a copy of the pages from the draft document, which is not authentic report.
- 11. Annexure XVIII: The complete copy of E.C letter may be enclosed.
- 12. Annexure-XX, pertains to the financial assurance, which is not correct, the copy of the original bank guarantee must be enclosed as per the scrutiny comments given in the para 8.6.

- 13. Annexure-XXII pertains to the qualification & experience certificate of the QP's, but not enclosed.
- 14. Annexure-XXIII, authorization from the nominated owner, is not appropriate, only the authorized owner/lessee is authorized to sign the document. Dr. P. Sangurmath is not authorised nominated owner. This should be replaced with Shri. T.H.M. Kumar, MD of the company.
- 15. The legible copies of annexures may be enclosed.
- 16. The consent letter from the nominated owner / the lessee as per the prescribed format may be enclosed.
- 17. The Analysis report of the samples from NABL accredited laboratory has not been enclosed.
- 18. The feasibility report may be completed on economic evaluation, instead of referring to the plate no.12 and the same need to be signed by the lessee/the qualified persons.
- 19. A copy of financial assurance in the form of Bank Guarantee may be enclosed.
- 20. Photos of Boundary Pillars may be enclosed.
- 21. A copy of the requisite educational and experience certificates of the qualified persons who prepared the mining plan may be enclosed.
- 22. Photographs of the drilled boreholes in the surface and underground of the lease area may be enclosed.