

SCRUTINY COMMENTS ON EXAMINATION OF MINING PLAN OF AMTIPANI CHIRODIH BAUXITE DEPOSIT (EXCLUDING THE GEOLOGY PORTION OF THE DOCUMENT) OF M/S MINERAL & MINERALS LTD., OVER AN EXTENT OF 130.29 HECTARES, LOCATED IN MOUZA AMTIPANI, CHIRODIH & BAHAGARA P.S BISUNPUR OF GUMLA DISTRICT, JHARKHAND STATE, SUBMITTED UNDER RULE 16 OF MINERAL (OTHER THAN ATOMIC AND HYDROCARBON ENERGY MINERALS) CONCESSION RULES, 2016.

(1)The area applied for ML as stated in the land schedule and the area depicted on the authenticated lease map are at variance as some 3 forest patches of Jungle Jhari have been shown and not excluded.

(2) The DGPS surveyed report &map/plan has not been submitted in compliance to CCOMs circular No.2/2010.

(3) In the front cover, it is found that, the mining plan has been submitted under Rule 16 of MCR, 2016 but the exact sub-rule of the provision is missing, which should be furnished. Besides, a mention has been made that, the applied ML area is located in Mouza Amtipani, Chirodih & Bahagara but the name of the villages in which the applied area is located has not been mentioned, which should be furnished for clarity. Moreover, the land classification of different types of land available in the applied ML area also not given in the front cover and the same should be furnished in tabular form.

(4) In the photocopy of the Ministry of Mines letter dated 10.10.2007 enclosed as annexure-I, it is found that, the applied area is located in Gumla & Simdega districts of Jharkhand, whereas in front cover of the mining, a mention has been made only about the Gumla district of Jharkhand. Please clarify for not mentioning anything about the Simdega district.

(5) The plot wise land schedule enclosed along with annexure-3 has been signed by Agent of Mines for Minerals & Minerals Ltd., instead the same should be certified by the competent authority of State Govt. for its authenticity.

(6) The copy of the list of Board of Directors indicating the names & addresses of five Directors has been enclosed as annexure-6 but the Phone/Fax and E-mail ID of none of the Directors has been given in the above referred annexure. Therefore, a list of the board of directors in fresh should be submitted, incorporating the above information for ease in monitoring.

(7) The ID proof of the applicant has been submitted as annexure-7 and on examination of the same, it is found that, the photo pasted in the PAN card is not legible and the same should be replaced by a legible copy for clarity.

(8)The NABL accreditation certificate issued in favour of Earth &Environment Laboratory expired 04.11.2016 and the analysis report of Bauxite samples submitted by the aforesaid Laboratory enclosed as annexure-9 is not acceptable unless the NABL accreditation is validated as on date.

(9)The excavation planning for the period from 1st year to 5th year has been computed & enclosed as annexure-12 but the location co-ordinates & the cross sections considered for the purpose is missing, which should also be furnished by adding more columns in the tabular annexure. Moreover, the recovery of bauxite is considered as 70% but the basis on which such recovery is considered has not been indicated. So, also the grade of the recoverable bauxite may be furnished supported by authenticated chemical analysis report. Likewise, the waste generation is indicated to be 30% & the basis for such generation may also be furnished indicating the grade of such waste material. Accordingly, necessary corrections / modifications may also be made in connected paras in the text relevant plates.

(10) Few photographs of the old workings has been enclosed as annexure-14 but the location co-ordinates of such quarries has not been furnished, which should be marked as caption below the relevant photographs for ease in monitoring.

(11) In the consent letter from applicant and in all the certificate, undertaking & declaration from the applicant enclosed along with the mining plan, a mention has been made about the **Amtipani-Chirodih Bauxite mine**, which is not correct, since the lease has not been granted & executed so far, instead in all the certificates, undertaking & declaration from the applicant, it should be mentioned as **Amtipani-Chirodih Bauxite Deposit**. Accordingly, necessary corrections/modifications may be made in relevant places of the mining plan.

(12) In the introduction chapter, a mention has been made that, the applied ML **area is featured in Survey of India Toposheet No. 73A/7 (Plate-1)** but on examination of the enclosed Plate No.1, it is found that, the plate has been prepared based on the Toposheet No. 73 A/3 & A/7, thereby necessary corrections/modifications may be made accordingly. (Page No.1)

(13) In 4th para of the introduction chapter, no specific proposal regarding supply of Bauxite produced from the applied ML area to which Alumina Refinery of M/s Minerals & Minerals Ltd., and the same should be clearly indicated & the para may be revised. (Page No.1)

(14) The present working & non-working status of all the existing leases granted to M/s Minerals & Minerals Ltd., has not been furnished in the table given in the page under reference, which should be furnished by adding one more column in the table for more informative. (Page No. 2)

(15) The full postal address of the nominated owner is missing in the para under reference and the same should be furnished indicating the phone/fax & mail ID for ease in monitoring. (Para (a) of Chapter-I)

(16) In 1st sub-para of the para under reference, the status of old workings available in the applied ML area is missing, which should be furnished indicating their dimension & location co-ordinates for more informative. All should be presented in tabular form. [Para 2.0(A)]

(17) In 5th sub-para of the para under reference, the location co-ordinates of the proposed dumping site & the period of dumping in such location have not been given. Besides, the dimension of the proposed retaining wall & garland drain may also be furnished & the para may be revised accordingly. [Para 2.0(A)]

(18) Under the heading **Bench Design and Formation**, it is mentioned that, the height & width of the benches will be restricted to 6m including soil, which appears to be not correct; thereby the average height & width of the benches proposed to be made in soil, laterite, overburden and in Bauxite ore zone should be furnished. (Page No. 22)

(19) Under the heading **Insitu Tentative Excavation**, the proposed quantities of Soil, OB/SB/IB& ROM ore has been furnished in 1st table but the bench/RL of the excavation planning for each year has not been given, which should also be furnished by adding one more column in the referred table. Besides, quantities of Laterite proposed to be generated in each year is missing in the table, which also be furnished. Moreover, the recovery percentage of Bauxite also not given in the table and the same may also be furnished in the table. [Para 2.0(B)(I)]

(20) Under the heading **Bench Development over the First Five Years**, no reference for bench formation status in Laterite & overburden zone has been given and the same should be discussed & the para may be revised accordingly. Besides, necessary corrections/ incorporations may also be made in other relevant places of the document. [Para 2.0(C)]

(21) The name of the quarry(s)/location co-ordinates of the proposed workings should be furnished indicating the direction of advancement of quarry faces. Besides, the tentative dimension of the benches proposed to be made in topsoil, laterite, overburden & bauxite ore zone may also be specified. All should be presented in tabular form. In the light of the above, the information furnished in para 2.0(e) may also be revised. [Para 2.0(d)]

(22) The height of the overburden bench is proposed for 4.75m & the same for Bauxite ore zone is for 3m, whereas, in page No. 22, the height of the benches both in overburden & in ore zone are restricted to 6m, thereby the mismatch in height of the benches should be reconciled at all the places in the mining plan. Moreover, the bench formation status in soil zone is missing, which should be incorporated. Besides, OMS & powder factor of the explosives may also be computed & furnished in the para under reference. [Para 2.0(e)(1)]

(23) The para is meant for conceptual mine planning, whereas, no information regarding the same has been furnished. Therefore, the excavation planning beyond the proposed plan period should be furnished on account of development, production, dumping, reclamation, rehabilitation & afforestation up to the end of the lease period. Besides, it is also found that, the occurrence of bauxite is found below the lairs of topsoil & laterite but the same has not been discussed in the refer para. Therefore, the factual information about the topsoil & laterite is required to be furnished indicating, the quantities of topsoil, laterite proposed to be generated by end of the conceptual period supported by calculations for more informative. [Para 2.0(f)]

(24) The proposed plantation schedule for each year of the mining plan period has been furnished in tabular form and the plantation has been proposed along 7.5m barrier zone as well as over the reclaimed area but the location co-ordinates of such plantation & its survival rate has not been furnished and the same may be given by adding more columns in the table. (Page No. 40)

(25) The quantities of Topsoil, OB/SB/IB & Quarry waste proposed to be generated in each year of the proposed mining plan period has been furnished in the 1st table given in the para under reference but the cross sections considered for the purpose is missing, which should be furnished by adding more columns in the table. [Para 4.0(A)]

(26) One soil dump & one waste dump has been proposed during the 1st year of mining plan period in the table furnished in the para under reference but the location co-ordinates of such dumps are missing, which should be furnished with proper plate reference. [Para 4.0(C)]

(27) The extent of area proposed to be degraded after each year of the proposed mining plan period has been furnished 2nd table but quarry wise status for the same is missing. Besides, quarry wise reclamation, rehabilitation, restoration & afforestation etc. for each year may also be furnished and the table may be revised accordingly. (Para 8.3.1)

(28) Plate No.1 (Key Plan): The details of the deficiencies found on the plate are as follows: (i) The index reference given for metalled road & un-metalled road are not matching with that of plan portion of the plate. (ii) The index reference given for Nalla is not to be seen on the plan, which should be marked indicating the direction of flow of such nalla. (iii) The population of the villages falling within 5km radius of the lease area has also not been clearly marked. (iv) Besides, index reference given for forest land with density is not matching with that of the plan.

(29) Plate No. 3 (Surface Plan): (i) The land classification for different types of land available in the applied ML area has not been marked with different colour codes, which should be done. (ii) The excluded area marked in the index as well as on the plan portion of the plate is not to be seen in the authenticated lease map enclosed as Plate No. 15. As such no excluded area has been marked in the authenticated lease map. Therefore, either the excluded area should be marked in the authenticated lease map or the excluded area marked in the surface plan as well as in other plans should be erased matching to the extent of applied ML area of 130.29ha. (iii) A road is passing from north-south direction of the applied ML area almost in central portion but to which important places both end of the roads leads to have not been marked. (iv) A 440 volt electric line is passing through the applied ML area in north south direction in western side of the existing road but the same has not been marked on this plate.

(30) Plate No. 5 (Development Plan 1st Year): The proposed boreholes only need be depicted on the plates for geological plan & sections but the same have been depicted on the plates development plan & sections, which is uncalled for and must be erased.

(31) Plate No.10 (Environment Plan): A 440 volt electric line is passing in north-south direction in western side of the existing road but the same is missing on this plate, which should be marked and the plate may be revised accordingly.

(32) Plate No. 11 (Environment Management plan): The plantation proposed from 2nd year to 5th year has been depicted over the reclaimed area of 2nd year and no plantation has been proposed over the reclaimed area of 3rd year & 4th year. Therefore, the proposed reclaimed area for 3rd & 4th year should be rehabilitated by plantation. Accordingly, necessary incorporations/modifications may also be made in connected paras in the text and also on the relevant plates.

(33) Plate No. 12 (Conceptual Plan): By end of conceptual period, certain patches of mineralised area has been remained untouched, which is not proper, thereby the conceptual planning should be revised in such a way that, no untouched portion is left out.

GEOLOGY PART

(34) Period of Lease as mentioned in pg. 5 is 20 years but as per Section 8 A (2) of MMDR Amendment Act 2015 – *“On and from the date of the commencement of the Mines and Minerals (Development and Regulation) Amendment Act, 2015, all mining leases shall be granted for the period of fifty years.”* Necessary changes if applicable is to be made accordingly.

(35) In details of applied area Forest land is mentioned as NIL but in the applied Lease area map as provided by the Directorate, Geology & Mining, Jharkhand there exists some portion of forest area within the Lease Boundary, necessary corrections and changes is to be done wherever necessary.

(36)As mentioned in pg. 6 – Latitude and Longitude of all corner Boundary Pillars is enclosed as annexure 16 but during the field verification no boundary pillars were found , explanation was given that boundary pillars will be erected after the grant of mining lease, only the outline boundary was marked for calculation of the area applied for by using DGPS Survey but in annexure 16 Name of the agency using DGPS Survey is not mentioned along with the methodology adopted by the agency also the Agency should be authorized/approved by the State Govt.

(37)As mentioned in pg. 13, 11 nos. of pit are within the lease area but only 10 pits are shown in surface plan and all the respective plans, Pit no. 23 E/3 falls outside the proposed lease boundary.

(38)As per the color coding of Surface plan and attached Geological Report of GSI, out of 10 pits only 08 pits shows occurrence of Bauxite ore and in 02 pits bauxite ore was not encountered i.e., Pit no. 25 E/1 and 43 within the applied lease boundary. Details of positive and negative pits for Resource/Reserve calculation is to be mentioned in the text portion.

(39) As mentioned in pg. 13 within the lease area 25 nos. of borehole are fallen within which 5 boreholes are negative but according to surface plan and attached Geological report of GSI, 13 Boreholes are present which shows occurrence of bauxite and 4 boreholes in which bauxite is absent and in 1 borehole 25 W/3 in which bauxite is absent falls in the excluded forest land as mentioned in surface plan. Details are to be given for Resource / Reserve estimation in the Text portion also.

(40)Category wise breakup of Reserve Estimation as per UNFC coding is to be mentioned in text portion. UNFC Coding is to be mentioned in respective Geological Plans, sections and Development Sections also.
