

**SCRUTINY COMMENTS ON EXAMINATION OF MINING PLAN OF CHIRODIH BAUXITE MINE OF SHRIVIVEK GARG OVER AN EXTENT OF 16.59 HECTARES, LOCATED IN VILLAGE CHIRODIH, UNDER BISHNUPUR P.S OF GUMLA DISTRICT OF JHARKHAND STATE, SUBMITTED UNDER RULE 17(2) OF MCR, 2016.**

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1. Any documental evidence of extension of Mining Lease period is to be attached.
2. As per office records submission of document for approval was due 02/12/2012 containing the proposals from 2013-14 to 2017-2018 and the period from 2013-14 to 2015-2016 has already lapsed now the document for approval must contain actual work done of the lapsed period and proposal for the remaining period i.e., 2016-17 to 2017-18.
3. 13.37 Ha. of land is Rayati Land (Private land of the Local People) which has to be transferred from the local people (land owners) before the mining activity is started. Any documental evidence for the transfer of land is to be attached for the land within the lease area in which the proposals for mining are proposed.
4. In the introduction part and as per point 3.5 of pg 11. It is mentioned that mining operation is now postponed in Chirodih Lease by the State govt. but as per Annexure - 29 attached the letter from Mines & Geology Dept., Govt. of Jharkhand clearly mentions to stop any mining activity within the lease area.
5. In the introduction part it is mentioned that approval of scheme of mining is due pending for approval in Indian Bureau of Mines since 15/05/2014 but as per office records and Annexure – 30 attached the Scheme of Mining was returned for fresh submission under 22(6) of MCR 1960 for the extended lease period if applicable.
6. In the review part it is mentioned that mining activity could not be done due to pendency of EC & consent to operate any documental evidence is to be attached.
7. As per office records and on Inspection it was found that point (xi), (xiv), (xv), of last approved Mining Plan letter No. RAN/GML/BX/MP-08/2011-12 dated 04/04/2012 has not been complied.

**Contd--2/-**

8. Reserves and Resources for Bauxite –(Quantity in MT)

		<b>As per Annual Return as on 01/04/2014</b>	<b>Production of 2014-15 as per annual returns</b>	<b>On depletion of reserves of 2014-15 from Reserves present as per 1/4/2014</b>	<b>As per pg. 24 reserves of Bauxite as on 01/04/2016</b>
		<b>(A)</b>	<b>(B)</b>	<b>(C)</b>	<b>(D)</b>
<b>Classification</b>	<b>Code</b>				
Proved Mineral Reserve	111	1086998	22980	1064018	502848
Probable Mineral Reserve	121	0			--
	122	91630			89856
Feasibility Mineral Resources	211	493272			--
Prefeasibility Mineral Resources	221	0			457286
	222	107395			18624

Under Proved mineral resources (111) there is a difference of reserve as per column (c) and (D).

9. Feasibility Mineral Resources (211) does not show any reserves which cannot be NIL as it is that part of Measured Mineral Resources, which after feasibility study has found to be economically not mineable. Till 01/04/2014 there has been resources reported as per office records.
10. The ambient air quality, flue gas, effluent, soil, surface water, noise level monitoring reports in respect of Chirodih Bauxite mine has not been enclosed, which should be submitted.
11. Complete chemical analysis for entire strata for all radicals maybe undertaken for selected samples from a NABL accredited Laboratory or Government laboratory or equivalent. Entire mineralized area may be analyzed meter wise with 10% of check samples. (At least for 10% of total samples may be analyzed in accordance to BIS and reports from NABL accredited/other government laboratory).This has not been placed in the document.

12. Basis on which 80% recovery of Bauxite from mines is taken is to be explained.
13. In pg. 16 under details of prospecting/exploration already carried out the details of Quarry no. 1 as mentioned in which mining of Bauxite is already in progress should come under Mining Chapter.
14. Copy of Form "J" is to be attached and the lithologs of boreholes drilled along with the grade of Bauxite is to be attached. At least for 10% of total samples may be analyzed in accordance to BIS and reports from NABL accredited/other government laboratory.
15. In the front cover of the mining plan, it is found that, the document has been submitted, over an extent of 16.59ha, whereas in the lease deed, the extent of area is mentioned to be for 16.58ha. Therefore, the extent of lease area should be reconciled in the front cover and other places of the document.
16. The photo copy of WILL is enclosed as annexure-IB but signature of Late P.S Garg is missing in the WILL, thereby not acceptable, instead a legal heir certificate in favor of ShriVivekGarg should be submitted.
17. The photo copy of the ID proof of the applicant has been enclosed as annexure-1C but address proof has not been enclosed, which should be submitted.
18. The production details for the period from 1990-91 to 2013-14 has been enclosed as annexure-6, instead the same upto the year 2015-16 should be furnished. Besides, the overburden, waste materials and topsoil generated upto the end of 2015-16 should also be furnished by adding more columns right to the table given in the annexure under reference.
19. Litho logs for the already drilled boreholes are enclosed as annexure-7 but the holes are coring or non-coring type has not been mentioned. Moreover, no photograph of the borehole logs has been submitted, which should be enclosed. Besides, no Form J for drilling the boreholes has been submitted.
20. The borehole analysis report has been enclosed as annexure-8 but the date of analysis is missing in the report. Besides, the NABL accreditation certificate issued in favour of TCRC has already lapsed on 17.03.2013, thereby the authenticity of such accreditation is invalid.
21. The excavation planning for the years 2016-17 to 2019-20 has been computed in annexure-10 but the length, width and number of benches proposed in topsoil, morrum & bauxite has not been furnished. Accordingly, necessary corrections/modifications may also be made in connected paras in the text and PMCP & relevant plates.
22. Few photographs showing the status of existing quarries, dump(s) & few boundary pillars has been enclosed as annexure-13 but no photographs in support of existing status of exploration, reclamation & rehabilitation and afforestation etc. have been enclosed.
23. An agreement for carrying out blasting operations in the mine has been enclosed as annexure-14 but the photo copy of the explosive procurement license issued in favour of 2<sup>nd</sup> party has already expired on 31.03.2008, thereby not acceptable. Therefore, a valid explosive procurement license issued in favour of M/s Hiralal Agencies should be submitted.

24. As indicated in the annexure-18, an extent of 7.97 acres has been applied for surrender to the Deputy Commissioner, Gumla but the same has not been mentioned in the front cover of the mining plan.
25. The violation letters, show cause notices and their compliance enclosed as annexure-19 are up to the year 2011 and the same by end of the year 2015-16 if any should also be submitted.
26. The ambient air quality analysis report, noise analysis report, ground water analysis report, soil analysis report and surface water analysis report enclosed as annexure-22 are very old, analysed during the year 2014, which is not acceptable, instead, the same should be replaced by a fresh report.
27. The consent to operate the mine from JSPCB has been enclosed as annexure-23 but the same has already been lapsed, thereby a valid consent to operate should be submitted.
28. The chemical analysis report of bauxite samples from Sun-Tech has been enclosed as annexure-28 but the report is old one analysed on 10.07.2014, which is not acceptable, thereby a fresh report to that effect should be submitted. Besides, the valid NABL accreditation certificate issued in favour of Sun-Tech may also be submitted for its authenticity.
29. In case of individual or partner, a declaration/affidavit should be submitted to know whether he is working in other firms/company/organization etc.
30. In the 1<sup>st</sup> para of the introduction chapter, there is a mention that, the lease was granted & executed over an extent of 16.59ha but in the lease deed enclosed as annexure-1, the extent of area is mentioned to be for 16.58ha. Therefore, the data may be reconciled.
31. The information furnished in the 6<sup>th</sup> para of the introduction chapter is uncalled for and must be erased.
32. The achievements on account of exploration, development, production, reclamation, rehabilitation and afforestation during the lapsed period 2013-14 to 2015-16 has not been given, which should be furnished and the para may be revised accordingly. (Para 3.3)
33. The topography, drainage, vegetation & climatic condition of the unspecified area has been furnished, which is not proper, instead the name of the lease area indicating the location of the bauxite plateau should be clearly indicated. Accordingly, the same may also be furnished in connected paras in the text for more informative. [Para 1.0(a)]
34. Under the heading of the para, **local geology** of the unspecified area has been furnished; instead, the name of the area should be specified. [Para 1.0(c)]
35. Details of the existing quarries available in the lease area have been furnished but the location co-ordinates of such quarries is missing, which should be furnished for more informative. (Page No.16 & 17)
36. The cut-off grade of the bauxite is missing in the page under reference and the same should be furnished. (Page No.17)
37. The reserves have been depleted as on 31.03.2015, instead the same should be updated as on 01.04.2016 and the para may be revised accordingly. [Para 1.0(k)]

38. Under the heading **Method of Mining**, a mention has been made that, the percentage of recovery of ore is difficult by naked eye but the losses are estimated to be of the order of 20%, which is not proper, instead the basis of recovery should be full proof and the recovery test for the same should be conducted and report to that effect should be enclosed and the para may be revised accordingly. (Page No.26)
39. Under the heading **Insitu Tentative Excavation**, the proposed quantities of Soil/OB/SB/IB/ROM ore has been furnished in tabular form 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 table. Besides, the recovery percentage of bauxite is missing, which may also be furnished by adding one more column in the table. [Para 2.0(b)(I)]
40. So many dumps are proposed to be re-handled during the ensuing mining plan period but the location co-ordinates of such dumps are not given. Besides, the very purpose of such re-handling also not furnished, which should be furnished by adding two more columns in the table given in the para under reference. [Para 2.0(b)(II)]
41. 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, morrum & bauxite ore zone may also be specified. In the light of the above, the information furnished in para 2.0(e) may also be revised. [Para 2.0(c)]
42. The para is meant for conceptual mine planning, whereas, no information regarding the same has been furnished. Therefore, the excavation planning beyond the ensuing mining plan period should be furnished on account of development, production, dumping, reclamation, rehabilitation & afforestation up to the end of the lease period. It is also found that, the occurrence of bauxite is found below the lairs of topsoil, morrum but the same has not been discussed in the refer para. Therefore, the factual information about the topsoil & morrum is required to be furnished indicating, the quantities of topsoil & morrum proposed to be generated by end of the conceptual period supported by calculations for more informative. [Para 2.0(f)]
43. The proposed plantation schedule for each year of the ensuing mining plan period has been furnished in tabular form and the plantation has been proposed on the periphery of the reclaimed area as well as over the reclaimed area, instead the same should be proposed in the backfilled area only and location co-ordinates of such plantation may also be furnished by adding more columns in the table. (Page No. 43)
44. The minimum & maximum depth of water table in the **plateau area** has not been given and the same should be furnished and the para may be revised accordingly. [Para 3.0(a)]
45. The quality of water encountered in the area is required to be furnished and the para may be revised accordingly. [Para 3.0(b)]
46. The quantities of OB/SB/IB proposed to be generated in each year of the ensuing mining plan period has been furnished in the 1st table given in the para under reference but the location co-ordinates /cross sections considered for the purpose is missing, which should be furnished by adding more columns in the table. [Para 4.0(a)]

47. Concrete proposal for each year of the ensuing mining plan period on account of dump re-handling & backfilling thereof should be furnished and the para may be revised accordingly. [Para 4.0(b)]
48. (34) Under the heading **Sub-Grade Minerals**, it is mention that, whatever sub-grade materials generated from the mine will be blended with high grade bauxite ore but the quantities of bendable sub-grade bauxite proposed to be generated in each year of the ensuing mining plan period should be computed & furnished. Accordingly, the information/data furnished in other places of the document may also be revised. [Para 4.0(c)]
49. Under the heading **Employment Potential**, a full time Mining Engineer holding degree in mining engineering as required under Rule 42 of MCDR, 1988 has not been proposed, which should be done and the para may be revised accordingly. (Page No. 50)
50. Quarry wise extent of area proposed to be degraded in each year of the ensuing mining plan period should be furnished. Besides, quarry wise reclamation, rehabilitation, restoration & afforestation etc. for each year may also be furnished. All should be furnished in tabular form and rest of the things should be erased. (Para 8.3.1)
51. Dimension (L x B x D) of the void available for backfilling for quarry-4 has not been furnished in 3<sup>rd</sup> row of the table given, which should be furnished. (Para 8.3.5)

#### **PLANS& SECTIONS**

52. Plate No. 3 (Surface Plan): The boundary pillars has been considered as the ground control points, which is not acceptable, instead at least three permanent ground control points situated outside the lease area should be selected and latitude & longitude of these ground control points may also be furnished. Besides, these ground control stations need to be linked with the boundary pillars. Moreover, Surveyors signature is missing on the plate, which should be signed by a competent surveyor. In the light of the above, all other relevant plates may also be revised.
53. Plate No.5A (Development Section 2016-17): Different litho units depicted on the sections are not matching with that of the plan, thereby necessary modifications may be made in all other development plan & sections submitted along with the document.
54. Plate No.9 (Environment Plan): The index reference for certain features depicted on this plan portion of the plate is missing, which should be furnished and the plate may be revised accordingly.
55. UNFC code is to be mentioned in Geological Plan & Sections.
56. In the lease area map certified by State Govt. the lease area has not been demarcated / outlined.
57. In Geological plan all the geological features, DIP, Strike lithologies with different color coding should be shown.
58. A section in Quarry no. 1 in between 1500N to 1600N is to be drawn so as to show the area proposed for mining.
59. A section along BP 6 to BP 39 should also be drawn so as to cover the Backfilled area in the yearly development plans & section so as to monitor the yearly activity.

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