

**GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(IMPACT ASSESSMENT DIVISION)  
NON-COAL MINING SECTOR**

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**SUMMARY RECORD OF 15<sup>TH</sup> MEETING OF THE COMMITTEE OF THE RE-CONSTITUTION OF EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.**

The 15<sup>th</sup> meeting of the Re-constitution of Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 30-31 May, 2023 through video conference. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC, discussion on each of the Agenda Items was taken up ad-seriatim.

**(1.0) Addendum of Minutes of 14<sup>th</sup> EAC (Non-Coal Mining) meeting held during 3-4 May, 2023:**

<b>S. No</b>	<b>Reference as per minutes of 14<sup>th</sup> EAC meeting held during 3-4 May, 2023</b>	<b>Recommendation of EAC in addition to the earlier recommendation of 14<sup>th</sup> EAC meeting held during 3-4 May, 2023</b>
1	Additional Agenda, 1.6, Pg. No: 48	The EAC opined that the Ministry may take action against the Project Proponent under the provisions of section 15 read with section 19 of the Environment (Protection) Act, 1986 and compliance of judgment of Hon'ble Supreme Court dated the 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

**(1.1) Corrigendum of Minutes of 32<sup>nd</sup> EAC (Non-Coal Mining) meeting held during April 29-30, 2015:**

<b>S. No</b>	<b>Reference as per minutes of 32<sup>nd</sup> EAC (Non-Coal Mining) meeting held during April 29-30, 2015</b>	<b>Recommendation of EAC in its meeting held during April 29-30, 2015</b>	<b>Corrigendum in Recommendation of EAC in its meeting held during April 29-30, 2015</b>	<b>Justification</b>
1	Subject, Line 4, Pg. No: 28	Mining of Mineral Bajri (Minor Mineral) (Banas River) with	Mining of Mineral Bajri (Minor Mineral) (Banas River) with	EAC noted that Govt. of Rajasthan, Mines and

	proposed production capacity of 5.60 million TPA (ROM) by Shri Somprakash Sethi, located at Village(s) – Bashirpura and others, Tehsil – Piplu, District-Tonk, Rajasthan <b>(MLA:3,342.10 ha)</b>	proposed production capacity of 5.60 million TPA (ROM) by Shri Somprakash Sethi, located at Village(s) – Bashirpura and others, Tehsil – Piplu, District-Tonk, Rajasthan <b>(MLA:846.32 ha)</b>	Geology Department, Jaipur vide letter dated 23.05.2023 has informed that the area earlier mentioned in Lol 3342.01 Ha, was by clerical mistake, actually the area was 3342.01 Bigha (846.32 Ha) which was corrected and 3342.01 Bigha is converted in to hectare and that is equal to 846.32 ha. So there is no change in the area but the unit was wrongly mentioned as hect. and now the area has been converted from bigha to hectare, which is same 846.32 ha.
Para 1, Line 4, Pg. No: 28	The proposal of Shri Somprakash Sethi, Piplu, Tonk, Rajasthan is for mining of Bajri (Minor Mineral) with proposed production capacity of 5.60 million TPA (ROM). The mine lease area is located at Village(s) – Bashirpura and others, Tehsil – Piplu, District –Tonk in the mine lease area of <b>3,342.10 ha.</b>	The proposal of Shri Somprakash Sethi, Piplu, Tonk, Rajasthan is for mining of Bajri (Minor Mineral) with proposed production capacity of 5.60 million TPA (ROM). The mine lease area is located at Village(s) – Bashirpura and others, Tehsil – Piplu, District – Tonk in the mine lease area of <b>846.32 ha.</b>	
Para 3, Line 1, Pg. No: 28	The mine lease area is <b>3,342.10 ha</b> which is Banas River.	The mine lease area is <b>846.32 ha</b> which is Banas River.	Thus, lease area in Lol and in executed lease is same; only difference was by mistake Bigha was written as hectares.
Para 11, Line 4, Pg. No: 30	The Committee deliberated at length on the information submitted by PP and recommended	The Committee deliberated at length on the information submitted by PP and recommended	

		the Proposal for environmental clearance for Mining of Mineral Bajri (Minor Mineral) with proposed production capacity of 5.60 million TPA (ROM) in the MLA of <b>3342.10ha.</b>	the Proposal for environmental clearance for Mining of Mineral Bajri (Minor Mineral) with proposed production capacity of 5.60 million TPA (ROM) in the MLA of <b>846.32 ha.</b>	
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**Day 1: 30<sup>th</sup> May, 2023 (Tuesday)**

**1.1 Pottangi Bauxite Mine of M/s National Aluminium Company Limited (NALCO) with Production Capacity of 3.5 Million TPA (ROM), Top Soil - 0.047 Million TPA, Over Burden - 0.346 Million TPA, (Total Excavation - 3.893 Million TPA) along with crusher of 900 TPH in the mine lease area of 697.979 ha, located at Pottangi Village, Pottangi Tehsil, Koraput District, Odisha - [F.No: IA-J-11015/8/2018-IA-II(M), Proposal no: IA/OR/MIN/416699/2023; Consultant: M/s Re Sustainability Solutions Private Limited (Formerly known as Ramky Enviro Service Private Limited)] - Reconsideration of Environmental Clearance (EC)**

The instant proposal is for mining of Bauxite in Pottangi Bauxite Mine of M/s National Aluminium Company Limited (NALCO) with Production Capacity of 3.5 Million TPA (ROM), Top Soil - 0.047 Million TPA, Over Burden - 0.346 Million TPA, (Total Excavation - 3.893 Million TPA) along with crusher of 900 TPH in the mine lease area of 697.979 ha, located at Pottangi Village, Pottangi Tehsil, Koraput District, Odisha.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude 18°34'31.130"N to 18°37'06.481" N and Longitude 82°57'08.053"E to 82°59'49.967"E. The mine lease area falls under the Survey of India Toposheet No E44 K/14, E44K/15, E44L/2, and E44 L/3 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals under Category "A" of the schedule of the EIA Notification, 2006 as the mining lease area is greater than 250 ha and appraised at the Central level.
- iii. The proposal was initially considered in the EAC (Non-Coal Mining) meeting held during 23-25 Sep, 2020 wherein the EAC after detailed deliberations deferred the proposal. Then, the Project Proponent submitted the information on 07.04.2021 and accordingly the proposal was again considered in the EAC meeting held during 28th June and 1st July 2021. During the EAC meeting, the

EAC noted that the total lease area of 697.979 ha is a forest land and Project Proponent has not obtained the Stage-I Forest Clearance yet. Hence, the Committee was of the view that the proposal cannot be considered and PP shall approach the Ministry after obtaining Stage-I Forest Clearance. Therefore, the Committee returned the proposal in present form. Now, the Project Proponent has submitted a fresh proposal for Environmental Clearance (EC) along with the 'in principle' approval granted by the MoEF&CC vide F.No: 8-17/2022-FC dated 10.01.2023 under Section - 2 of the Forest (Conservation) Act, 1980 for non-forestry use of 697.979 ha of forest land for Pottangi Bauxite Mining Lease in village Pottangi of Koraput Forest Division under Pottangi Tahasil of Koraput District, Odisha by M/s NALCO Ltd. Accordingly, the proposal was reconsidered in the 11<sup>th</sup> EAC (Non-Coal Mining) meeting held during 1-2 March, 2023 wherein the EAC after detailed deliberations deferred the proposal for want of requisite information. The Project Proponent submitted the information on 28.04.2023 in Parivesh portal. Accordingly, the proposal was considered in the 15<sup>th</sup> EAC (Non-Coal Mining) meeting held during 30-31 May, 2023.

Based on observation of EAC, compliance of observation of EAC in its meeting held during 1-2 March, 2023 made by Project Proponent are detailed below:

S. No	Observation of EAC in its meeting held during 1-2 March, 2023	Reply by Project Proponent
1	The Project Proponent needs to submit the copy of Ground vibration study nearby mine operating by PP with similar geo mining conditions	<p>The Project Proponent has submitted that the nearest running mine of Proposed Pottangi mining lease is Panchpatmali Bauxite Mine by NALCO. PP has submitted the copy of final report on Scientific Study to measure the blast induced ground vibration and its impacts on nearby structures of Panchpatmali Bauxite Mine conducted by Department of Mining Engineering, ISM, Dhanbad during March-2020. During investigation period 8 rounds of blasts comprising of 23 events were analysed.</p> <p>The dominant frequencies of ground vibration in Panchpatmali Bauxite Mine in the 8 rounds of blasts recorded varied from 2.5 Hz to 127 Hz. However, all events (80%) recorded dominant frequency is below 25 Hz. The dominant frequencies of the ground vibration was 8 Hz (54%), 8 Hz to 25 Hz (26%) while 20% was above 25 Hz. With present blasting system with Non electric</p>

		<p>initiation system, the fly rock of blasting can be restricted within limit. However, this can be further reduced by adopting further study on different blasting parameters including modern system of blasting technique. During trial blasts the maximum distance of flying fragments was ranging from 25-30 m. Also the ground vibration monitoring instrument was kept at hill slope side village Badnerka which exist at distance of 1.5 km but the vibration level was below the minimum recording level (0.5mm/sec) of instrument hence, no blast event was recorded. The delay interval between the holes in a row should be 17/25ms and between rows should be 42ms keeping in hole delay of 475/500ms or in such a design so that the maximum charge per delay should not increases the suggested charge per delay.</p>
<p>2</p>	<p>The Project Proponent needs to submit the action plan to monitor the movement of wildlife in the vicinity of the mine lease area and the Project Proponent needs to ensure the tiger corridors passing in the study area from Digital Support System (DSS) available in NTCA website.</p>	<p>The Project Proponent has submitted that to identify the effect of wildlife movement the following steps will be taken to meet the objective of action plan to monitor the movement of wildlife</p> <ol style="list-style-type: none"> <li>i. Development of the wildlife movement track for monitoring the wildlife movement around the mine lease area.</li> <li>ii. Engagement and incorporation of traditional knowledge</li> <li>iii. Document and mitigate potential effects of mine activities on wildlife.</li> <li>iv. Implementation of operational practices that mitigate disturbance to wildlife and wildlife habitat.</li> </ol> <p>PP proposed the belowmeasures to avoid effect of mine to wildlife during their movement at Pottangi mine lease area.</p> <ol style="list-style-type: none"> <li>i. Non-Vehicle Wildlife Incidents and Mortalities</li> <li>ii. Vehicle-Wildlife Collisions</li> <li>iii. Waste Management</li> </ol>

		<p>iv. Open Pits</p> <p>PP submitted that they will implement below mitigation practices to minimize potential interactions between mine related traffic and wildlife:</p> <ul style="list-style-type: none"><li>i. Providing right-of-way for wildlife;</li><li>ii. Speed limits to be posted and enforced, speed limits are 60 kilometers per hour (km/h) along haul roads, and 20 km/h and 40 km/h along other roads;</li><li>iii. Vehicles encountering wildlife on roads are required to stop and communicate the presence of wildlife on the road(s) to the Environment Department.</li><li>iv. Roads will be closed temporarily, and these closures are communicated site-wide when wildlife are in the vicinity of the road;</li><li>v. Wildlife crossing signs to be erected at sections of road where wildlife crossings are frequent, or in areas where animals reside near roads; o</li><li>vi. A barrier fence is maintained around the road.</li><li>vii. A fence is maintained around Misery Camp to prevent wildlife from entering.</li></ul> <p>In addition to the education and awareness programs for new and current employees the following measures will be included:</p> <ul style="list-style-type: none"><li>i. More frequent burning of camp waste in order to reduce chance of wildlife encounters;</li><li>ii. Juice boxes are no longer to be used;</li><li>iii. Signs have been added in lunchrooms and additional labels have been added to waste bins to indicate proper waste disposal;</li></ul>
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		<p>iv. Removal of bear proof outdoor waste bins.</p> <p>Solar electric Fencing will be installed around the immediate open pit area. At high risk areas, heavy weight orange barrier fencing to be initiated to mitigate hazards to other heavy wildlife.</p> <p>Further, PP submitted that a rescue team consisting of 10 persons will be deployed for rescue of animals abandoned and strayed wild animals found inside the project area, with one hired vehicle and two rescue cages. Anti-poaching and Anti-depredation squad consisting of 10 persons will be deployed who will assist the regular forest staff for protection of wildlife, with one hired vehicle and recharging mobile sets. Around 10 nos of Fire watchers one in each of the villages within the impact area will be engaged for 5 months every year, from the month of February to June for a period of 5 years. These fire watchers will be equipped with firefighting equipment's such as fire extinguishers/blowers, fire resistant dress, water bottle, axe, shoes, etc. A team for tranquilization of animals will be formed at division level, will be adequately trained and required equipment's will be procured. To improve and standardize wildlife monitoring at pottangi mines a series of workshops to be organized. Where NALCO officials, governments, monitoring agencies, and communities will attend the workshop. The workshop focuses will be on results from the monitoring existing programs, and if require additional measure will be proposed towards sustainable growth.</p> <p>PP also submitted that as per NTCA website there is no tiger corridor passing in the study area and nearest tiger corridor is around 215</p>
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		<p>km in west direction and nearest National Park(NP) is KangerGhat NP which is 84 km far from the mining lease.</p> <p>Further, PP submitted the map superimposed on google image showing the distance of Tiger corridor, National Park and Wildlife Sanctuary from the mining lease area.</p>
3	<p>The Project Proponent needs to submit the letter from the Forest Dept. regarding the presence of National parks, Sanctuaries, Biosphere Reserves, Wildlife Corridor, Tiger/ Elephant reserve in the study area of 10 km radius along with the authenticated map.</p>	<p>The Project Proponent has submitted the letter from the Office of the Principal CCF (Wildlife) &amp; Chief Wildlife Warden vide Lr no. No.5090/7WL-FD &amp; WLC-61/2022 dated 26.04.2023 stating that there is no National Parks, Biosphere Reserve, Wildlife Corridor, Tiger/ Elephant Reserve in the study area of 10km radius of mining lease area. PP also submitted the 10 km radius map authenticated by Principal CCF (Wildlife) &amp; Chief Wildlife Warden.</p>
4	<p>The Project Proponent needs to submit the action plan and timeline for installation and commission of crusher of 900 TPH.</p>	<p>The Project Proponent has submitted that after obtaining EC, Stage-II FC and CTE, activities for Lease deed agreement will be completed by Dec-2023. Then, the handover of the entire Mining Lease area (Total Forest Land) will be completed with issuance of surface right by Collector. All these activities will be completed by Feb-2024.</p> <p>Then the mine development activities along Installation &amp; commissioning of crusher will be taken up. After completion of establishment of required machinery (Over Land Conveyor, HEMM Machines, Crusher etc) by mid of the year 2025, Project activities will be completed. After obtaining the mines opening permission from DDM Mines, mining activity will commence by obtaining CTO.</p>
5	<p>The Project Proponent needs to revise the timeline of action plan to address the concerns</p>	<p>The Project Proponent has submitted the revised timeline from 5 years to 3 years with a budget of Rs 7.2 Cr to address the concerns of the public hearing. PP</p>



	of the public hearing from 5 years to 3 years.	earmarked a budget for 1 <sup>st</sup> year as Rs. 215 L, 2 <sup>nd</sup> year as Rs. 248 L and 3 <sup>rd</sup> year as RS. 257 L, totalling to Rs. 720 lakhs.
6	The Project Proponent needs to upload the revised Wildlife Conservation Plan in Parivesh portal.	The Project Proponent has submitted the Wildlife Conservation Plan approved by the Principal Chief Conservator of Forests (Wildlife) & Chief Wildlife Warden with a revised cost of Rs 14.35 Cr.
7	The Project Proponent needs to upload the FRA certificate issued by the District Collector in Parivesh.	<p>The Project Proponent has submitted the letter from the Office of the District collector vide no. 3122/21 dated 11-11-2021 certifying that 697.979 ha of forest land proposed to be diverted in favour of NALCO for Pottangi Bauxite Mines in Koraput District falls within jurisdiction of Malkarbandha, Sipaiput, Erasantaguda, Katraguda, Pottangi, Sisaguda, Medamgandhi, Thuria and Karanjaguda villages in Pottangi Tahasil. It is further certified that,</p> <ol style="list-style-type: none"> <li>1. The complete process for identification and settlement of rights under the FRA has been carried out for the entire 697.979 hectares of forest area proposed for diversion.</li> <li>2. The proposal for such diversion (with full details of the project and its implications, in vernacular/local language) have been placed before each concerned Grama Sabha of forest-dwellers, who are eligible under the FRA.</li> <li>3. That each of concerned Gram Sabhas, has certified that all formalities / processes under the FRA have been carried out, and that they have given their consent to the proposed diversion and the compensation and ameliorative measures, if any, having understood the purpose and details of proposed diversion.</li> <li>4. The discussion and decisions on such proposals had taken place only when there was a quorum of minimum 50% of the members of Gram Sabha present.</li> </ol>

		<p>5. The diversion of forest land for facilities managed by the Government as required under section 3(2) of the FRA have been completed that the Gram Sabhas have given their consent to it.</p> <p>6. The rights of Primitive Tribal Groups and Pre-Agricultural Communities, where applicable have been specifically safeguarded as per section 3(1)(e) of the FRA.</p>
8	The Project Proponent needs to submit the undertaking regarding court case.	The Project Proponent has submitted an undertaking stating that "No Litigation in any court of law" related to the proposal of Pottangi Bauxite Mine, at Pottangi Village & Tehsil, Koraput District, Odisha.
9	The Project Proponent needs to submit action plan for promotion of solar energy in the mine lease area.	The Project Proponent has submitted that the solar energy of about 100 kW is proposed to be generated on Roof Top area available on the built-up area (Admin building, Canteen, Vehicle shed etc.). Project Proponent earmarked a budget of Rs 3.5 Cr under EMP budget with a timeline of 2 years.
10	The Project Proponent needs to submit skill development plan for the work force.	<p>The Project Proponent has submitted that they will focus on the below mentioned areas towards upgradation of the technologies and skills to enhance the work efficiency as well as quality of the output.</p> <ol style="list-style-type: none"> <li>i. Enhancement of Training Capacities &amp; Technologies</li> <li>ii. Identification of job roles related to mining sector along with definite supply management</li> <li>iii. Engagement of Private players</li> <li>iv. Engagement of States Initiatives</li> <li>v. Quality Training</li> <li>vi. Coordination among skill providing centres</li> <li>vii. Proper designs of Policies</li> <li>viii. CSR approaches.</li> </ol>

		PP also submitted the Skill Development Plan for the Workforce at Pottangi Bauxite Mines, Koraput District, Odisha.
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iv. The Project Proponent obtained the Terms of Reference (ToR) vide ToR Lr. No: J-11015/08/2018-IA.II(M) dated 28.06.2018 and ToR was valid upto 27.06.2021.

v. Lease Details:

- a) The State Govt. vide letter No.5734/SM, dated 12.7.2016 have issued terms & conditions for grant of mine lease in favour of M/s NALCO for Bauxite over an area of 1738.04 ha in Pottangi Tahasil of Koraput District reserved in its favour under section 17A(1A) of MMDR Act,1957 vide Notification No. GSR 314(E), dated 27.04.2007 and No. GSR 411(E), dated 27.04.2017, both issued by the Ministry of Mines. The said terms and conditions have been duly accepted by PP vide its letter No. NBC/ED(R&T)/1556/2016 dated 27.12.2016.
- b) Then, the PP has requested for reduction of the area from 1738.04 Ha to 697.979 Ha vide its letter No.CMD/269 dated 30.10.2017.
- c) Thereafter, the Ministry of Mines vide Notification No. GSR 255(E), dated 21.03.2018, in supersession of its earlier notifications has reserved an area of 697.979 ha under section 17 A (1A) of MMDR Act,1957 for undertaking prospecting or mining operation through M/s NALCO till 6.04.2022.
- d) Therefore, the State Government, in supersession of this letter No.5734/SM dated 12.07.2016 have issued fresh LOI over the reduced area of 697.979 Ha for grant of ML vide Letter No. 3794/SM, Bhubaneswar dated 14.05.2018. The issued Lol was accepted by the PP on 14.05.2018.
- e) Further, PP submitted that the State Govt. vide Order no: 2391/SM, dated 15.03.2022 have extended the reservation period by one year i.e. upto 25.04.2023 u/s 17A of the MMDR (Amendment) Act, 2021 in respect of this mines with the recommendation of Central Govt. vide letter dated 04.03.2022.
- f) Then, the Govt. of Odisha, Dept. of Steel and Mines vide Order No: 1029/SM-MC2-MC-0055-2020/SM, Bhubaneswar dated 02.02.2023 have granted the mining lease for a period of 50 years.

vi. Land Use/Land Cover of the Mine Lease Area:

Forest land	697.979 ha
Total Mining lease area (MLA)	697.979 ha

vii. Mining Plan details:

Mining Plan approved by Indian Bureau of Mines	Letter No.	MP/FM/13-ORI/BHU/2018-19
	Date	27.07.2018
	Mineral	Bauxite
	ML area	697.979 ha
	Validity	5 years

Mining Parameters	Quantitative Description
Method of Mining	Open cast mechanized mining
Bench Height	8m
Bench Width	15-200m
Geological Reserves	111.794 MT
Mineable Reserves	110.400 MT
Life of mine	32 years
Overall pit slope	45°
ROM Output size	-150 mm
Transportation details	The mined out bauxite will be transported through dumpers to crushers unit (900tph) for crushing to 150mm size and this crushed ore will be sent by conveyor mode of transportation to NALCO's Aluminium refinery located at Damanjodi.
Dumper's capacity	50 and 55 Ton
Topsoil	Topsoil dumping will be in stages of 8m over an area of 1.40 ha during first year with a designed capacity of 1.38 lakh tons. During second year dumping will be over an area of 1.37 ha with a designed capacity of 1.35 lakh tons. During third year it will be over an area of 2.11 ha from with a designed capacity of 6.41 lakh tons.
Waste generation	Waste dumping will be in stages of 08 m over an area of 2.44 ha. In first year with a designed capacity of 1.60 lakh tons. During second year dumping will be over an area of 2.41 ha with a designed capacity of 2.46 lakh tons. During third year it will be over an area of 2.02 ha from with a designed capacity of 2.12 lakh tons.
Ground water level	140-150m bgl (Min. 1226 mRL & Max. 1216 mRL)
Depth of mining	40m bgl
Ground water intersection	No

viii. Water requirement:

Total water requirement	700KLD	Mines road sprinkling	525.0 KLD
		Industrial (mining activity) use	75.0 KLD
		Green belt	60.0 KLD
		Drinking and Sanitation	40.0 KLD
Source	Bore wells in the banks of the Kunduli Nala or other nalas in the periphery of Pottangi Mines		
Permission	<p>Application vide 21-4/2509/OR/MIN/2020; date: 05.07.2020 submitted to CGWA for obtaining NOC/Permission for abstraction of ground water.</p> <p>After detailed hydrological survey, it was found that required 700 KLD surface water available near project site (Totajhola Nallah located at 1.4 km aerial distance), necessary approval from Industrial Promotion and Investment Corporation of Odisha Limited</p>		

	<p>(IPICOL), Government of Odisha has been obtained. Single window permission for 0.286 cu.sec (700 KLD) surface water withdrawal received from IPICOL, Govt. of Odisha.</p> <p>Further, PP submitted that the proposal of NALCO to make application for 0.286 cu.sec water for Pottangi Bauxite mines was discussed in 220<sup>th</sup> SLFC meeting held on 26<sup>th</sup> April, 2022 and SLFC has recommended 0.286 cu.sec of water as sought by the NALCO. Hence NOC from CGWA is not applicable.</p>
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ix. Nearest village / town/ highway/railway station / water bodies/Forest:

Particulars	Distance	Direction
Pottangi Village	1.2 km	SE
Damanjodi Town	18 km	NNW
Koraput District Head quarter	40 km	NW
Damanjodi Railway Station	18 km	NNW
National Highway NH-43	1.5 km	S
Water bodies		
Totajhola Nala	0.5 km	SE
Pottangi Nala	2.0 km	S
Kunduli Nala	3.5 km	N
Reserve Forest		
Rallagedda RF	9.1 km	S
Tangini RF	9.7 km	SE

x. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/ letter/ Remarks
Forest Land	Yes	The Project Proponent has submitted the copy of the 'in principle' approval granted by the MoEF&CC vide F.No: 8-17/2022-FC dated 10.01.2023 under Section - 2 of the Forest (Conservation) Act, 1980 for non-forestry use of 697.979 ha of forest land for Pottangi Bauxite Mining Lease in village Pottangi of Koraput Forest Division under Pottangi Tahasil of Koraput District, Odisha by M/s NALCO Ltd.
National park	No	The Project Proponent submitted that there are no National parks, Sanctuaries, Biosphere Reserves, Wildlife Corridor, Tiger/Elephant reserve in the study area of 10 Km radius surrounding the mine lease area.
Wildlife Sanctuary	No	
Biosphere Reserves/Tiger Reserves	No	
Wildlife Corridors	No	
Schedule-I species	Yes	Peafowl ( <i>Pavo cristatus</i> ) and Sloth Bear ( <i>Melursus ursinus</i> )

		PP submitted the list of Flora and Fauna duly authenticated by Divisional Forest Officer, Koraput Division from Office of The Divisional Forest Officer-Cum-Wildlife Warden, Koraput Forest Division vide letter no 186 dated 07.01.2021.
Wildlife Conservation Plan	Yes	PP submitted that as per the authenticated list of flora fauna duly signed by the DFO Koraput, Peafowl ( <i>Pavo cristatus</i> ) and Sloth Bear ( <i>Melursus ursinus</i> ) have been identified as Schedule – 1 species in Koraput area. Accordingly, a conservation plan for the protection and conservation of Peafowl and Sloth bear in Koraput area is prepared and submitted to Divisional Forest Officer, Koraput Division on 17.02.2021 for approval. Then, Power point presentation made on 30.12.2022 to PCCF, Wildlife, Odisha. Revised SSWLCP has been submitted to PCCF, Bhubaneswar by the Office of the Regional Chief Conservator of Forest, Koraput Circle on 15.02.2023, with revised cost of Rs. 14.35 Cr.

xi. Green belt/plantation details:

Particulars for Green belt/plantation	Area covered (in Ha)
Proposed area for green belt/plantation	284.11 ha
Total no. of plants	101750 no.s
Budget for green plant & plantation till the end of life of mine	Rs. 30 Cr (Capital) and Rs 3 Cr (Recurring)

xii. Baseline details:

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)	
Period of baseline data collection	03.09.2018 to 30.11.2018
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Post-monsoon
Predominant wind direction	E and NE (from)
Ambient Air Quality (8 locations)	The Project Proponent reported that the air quality concentrations of PM2.5 and PM10 for all the 8 AAQM stations were found between 21.1 to 38.2µg/m <sup>3</sup> and 35.8 to 55.4 µg/m <sup>3</sup> respectively. The concentrations of NO <sub>2</sub> and SO <sub>2</sub> were found to be in range of 14.3 to 23.2 µg/m <sup>3</sup> and 4.8 to 14.2 µg/m <sup>3</sup> respectively.

<p>Air Quality modeling</p>	<p>The transport of the bauxite/OB within the lease area will be carried out by dumper truck. The maximum incremental Ground Level Concentration due to mining are superimposed on the 98th percentile baseline PM10 and PM2.5 concentrations to calculate the likely resultant concentrations after implementation of the proposed mining. The values of resultant GLC at different locations are given below:</p>																																																																																								
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	Fluoride as F, mg/l	0.5	0.5-1.82
Soil quality (9 locations)	Parameters		Observed Values
	pH		6.4 – 7.1
	Electrical Conductivity (µS/cm)		117-163
	Organic Carbon (%)		0.07-0.47
	Available Nitrogen as N (Kg/Ha)		157-345
	Available Phosphorus (Kg/Ha)		12.1-35.8
	Available Potassium (K)	22-376	
Traffic Study	PP reported that the traffic study was carried out on NH-26 near Pottangi village (connecting Raipur - Balangir - Vizianagaram) which is the main road connecting to proposed project area. As per traffic survey, the no. of PCU's during peak hour is 470 numbers and the Level of service is found to be very good i.e., the V/C ratio is 0.31.		

xiii. Public Hearing (PH) Details:

Advertisement for PH with date	05.11.2019
Date of PH	17.12.2019
Venue	Mini Stadium, Pottangi
Chaired by	i. Sri Deben Kumar Pradhan, OAS (S.A.G), Additional District Magistrate, Koraput ii. Er P Kar, Regional Officer, State Pollution Control Board, Rayagada
Issues raised during PH	Infrastructure development, Employment Opportunities to surrounding local people CSR implementation, and peripheral development.
Budget proposed for addressing issues raised during PH	Rs 7.2 Crores

xiv. Rehabilitation and Resettlement (R&R)

Particulars	Details
R & R Plan	The Project Proponent has submitted that no human settlements exist in the mine lease area; hence no displacement of any human habitat or any personal property is envisaged.

xv. Court case details:

Court Case	The Project Proponent has submitted that there is no litigation pending against the project and/or land in which the project is proposed to be set up.
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xvi. Affidavit/Undertaking details:

Project Proponent submitted an Undertaking	The Project Proponent has submitted an Undertaking stating that they hereby certified that the data and information presented in the EIA report is factually correct and they own the contents (information and date) of the EIA report.
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Consultant submitted an Undertaking	The EIA/EMP report based on prescribed Terms of Reference issued by MoEF&CC vide Memo No. IA/OR/MIN/69870/2017 dated 28.06.2018 for the proposed Pottangi bauxite mine in Pottangi Village & Tehsil, Koraput Dist., Odisha. In this regard they hereby certified that the EIA/EMP reports prepared by them and data provided by laboratories including thier status of approvals presented in the report is factually correct. The laboratory used for analysis of samples is approved by NABL. MoEF&CC under EPA 1986 and rules made there under.
Affidavit as per Ministry's OM dated 30.05.2018	PP submitted the Affidavit in a non-judical stamp paper of Rs 10 bearing no: 62 AA 720924 dated 17.02.2023 stating that the NALCO hereby undertake to comply with all the statutory requirements and judgement of Hon'ble Supreme Court dated 02.08.2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India and Others.

## xvii. Details of the EMP:

Activities	Capital Cost (Rs.In Crores)	Recurring (Rs. In Crores)
Air pollution control	10	1
Water pollution control	30	3
Noise pollution control	5	0.5
Pollution monitoring	20	2
Safety & health	15	1.5
Greenbelt development & Soil conservation measures etc...	30	3
Miscellaneous & Contingency expenses	10	
<b>Total</b>	<b>120</b>	<b>12</b>
EMP budget considered as 8.3% of the Total Project Cost and recurring cost considered 10% of EMP capital cost		

## xviii. Details of project cost and employment:

Particulars	Budget (Rs. In Crores)
Budget for addressing the Public Hearing issues	Rs 7.2
EMP Cost	Rs 120
Recurring cost for EMP	Rs 12
Project Cost	Rs 1436.9
Employment	229 persons

**3. Observation and Recommendation of the EAC:**

The Project Proponent/Consultant presented the KML file to indicate the salient surface features in the study area. The Project Proponent informed the EAC that no Villages are located within 1km radius of the mine lease area. Nearest Village is located at a distance of 1.4 km from the mine lease area. The entire mine lease area is a forest land. Stage-I Forest Clearance obtained on 10.01.2023 and compliance of

Stage-I FC is under progress and Stage-II FC will be obtained in a short time. The EAC asked the Project Proponent that how the mineral Bauxite will be evacuated. The Project Proponent informed the EAC that the Bauxite mineral is proposed to use in the upcoming Alumina refinery plant which is located at a distance of ~18 km from the mine lease area. The mineral will be transported from the mine to Alumina refinery plant through Conveyor Belt. There will be no road transportation.

The EAC asked the Project Proponent whether the proposed transportation through conveyor belt passes through the forest land or not. The Project Proponent informed the EAC that the transportation through conveyor belt passes through the forest land and necessary clearance will be obtained before transportation and is under process. The Project Proponent has also shown the alternate transportation route through road adjacent to the mine lease area. The EAC opined that the transportation shall take place only through conveyor belt and the Project Proponent shall ensure that the no transportation shall take place through road.

Then, the EAC deliberated on the additional details submitted by the Project Proponent and the Consultant. The Project Proponent informed the EAC that the mine lease deed will be executed after obtaining Environmental Clearance. The nearest operating mine owned by NALCO is Panchpatmali Bauxite Mine. Scientific Study to measure the blast induced ground vibration and its impacts on nearby structures of Panchpatmali Bauxite Mine were conducted by Department of Mining Engineering, ISM, Dhanbad. The Project Proponent informed the EAC that the similar study will be conducted at the instant mine when the mine becomes operational. The Project Proponent also informed the EAC that as per DSS available in NTCA website, no Tiger corridor is passing through the study area. FRA Certificate was issued by the District collector vide dated 11.11.2021. The EAC asked the Project Proponent to submit the annual compliance of the effectiveness of the Wildlife Conservation Plan to the Chief Wildlife Warden. The Project Proponent informed the EAC that budget of Rs 3.5 Cr has been earmarked towards promotion of solar energy. The EAC asked the Project Proponent to explore the possibility of increasing the budget towards promotion of solar energy.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 30-31 May, 2023 under the provisions of EIA Notification 2006 and its subsequent amendments, **recommended** the proposal for grant of Environmental Clearance to Pottangi Bauxite Mine of M/s National Aluminium Company Limited (NALCO) with Production Capacity of 3.5 Million TPA (ROM), Top Soil - 0.047 Million TPA, Over Burden - 0.346 Million TPA, (Total Excavation - 3.893 Million TPA) along with crusher of 900 TPH in the mine lease area of 697.979 ha, located at Pottangi Village, Pottangi Tehsil, Koraput District, Odisha subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects: -

- i. The Project Proponent shall commence the mining operation only after obtaining Stage-II FC.

- ii. The Project Proponent shall ensure that the production, despatch/ transportation of Bauxite should begin only after the installation and commission of conveyor belt and the same shall be intimated to the Ministry's Integrated Regional Office and the same agreed by project proponent during EAC meeting. Accordingly, SPCB shall not grant Consent to Operate (CTO) till the commission of conveyor belt.
- iii. The transportation of bauxite from the mine to the Alumina refinery plant shall take place through only Conveyor Belt. No transportation through road is allowed.
- iv. The Project Proponent shall conduct the ground vibration study through authorized agencies and the results shall be compared with limiting values prescribed by Directorate General of Mines Safety (DGMS). The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- v. The Project Proponent shall monitor the ground induced blasting vibrations for every blast and the results are to be compared with the limiting values prescribed by Director General of Mine Safety (DGMS). PP shall ensure that the values of "peak particle velocity" and "Air Over Pressure" shall be maintained below the permissible values prescribed by the DGMS, from time to time. The data needs to be maintained and submitted along with the six monthly compliance report.
- vi. The Project Proponent shall strictly adhere to the action plan to monitor the movement of wildlife in the vicinity of the mine lease area.
- vii. The Project Proponent needs to use modern equipment's such as Camera Traps for ensuring presence and movement of wild animals in the study area in consultation with Wildlife Wing of Forest Department. Appropriate interventions shall be taken to minimise stress conditions for wild animals and to avoid Man-Animal conflict.
- viii. The Project Proponent needs to submit the annual compliance of the effectiveness of the Wildlife Conservation Plan to the Chief Wildlife Warden.
- ix. The Project Proponent needs to take adequate measures for protection of seasonal nallahs in the vicinity of the mine lease area. The natural water bodies and or streams which are flowing in and around the mine lease area should not be disturbed.

- x. Regular monitoring on surface water flow, turbidity & water quality shall be carried out and report shall be submitted quarterly to the Ministry's Integrated Regional Office.
- xi. The Project Proponent should install the continuous ambient air quality monitoring stations (CAAQMS) as per the scientific study and in consultation with CPCB/SPCB. The real time data so generated should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB.
- xii. The Project Proponent shall monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village, crusher and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Integrated Regional Office.
- xiii. The Project Proponent shall explore the possibility of increasing the budget towards promotion of solar energy.
- xiv. The Project Proponent needs to install the permanent water sprinklers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of at least 40 m throw shall be installed at various locations in the mine area.
- xv. The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, and other areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions. The dense plantation shall be carried out in the vicinity of the crusher. The Stack emission monitoring of the Crusher/DG set shall be carried out at periodic intervals. Continuous noise monitoring meters shall be established inside and outside of the crusher.
- xvi. The Project Proponent needs to complete the entire 7.5 m peripheral plantation and safety barrier plantation within three years from the start of mining operations. The Project Proponent should plant quality sapling of appropriate height of native and fruit bearing species. In case of tall transplants (seedlings) the seedlings should have proper trained root stock with root biomass commensurate with seedling height to ensure good growth after out planting. Plantation shall be undertaken in consultation with the State Forest Department. The Project Proponent shall make the actual count on the saplings planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Integrated Regional Office.

- xvii. The budget of Rs 7.2 Cr to address the concerns raised by the public in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.
- xviii. The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.
- xix. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 120.0 Cr. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- xx. The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.
- xxi. The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.
- xxii. The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years.
- xxiii. NoC from the Central Ground Water Authority (CGWA)/ Concerned Local authority, as the case may be, shall be obtained before drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- xxiv. The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly. The preference shall be given to the local people for the purpose of employment and PP shall strictly adhere to the skill development plan for the work force.
- xxv. The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on occupational health shall be carried out every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.
- xxvi. The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Integrated Regional Office.

**1.2 Expansion in Environmental Clearance (EC) of M/s. NU Vista Limited for increase in Production Capacity from 5.5 Million TPA ROM (Limestone 5.00 Million TPA & Screen Reject: 0.50 Million TPA) to 9.00 Million TPA ROM (Limestone - 8.10 Million TPA & Screen Reject: 0.90 Million TPA) and Maximum Topsoil/Soil: 0.91 Million TPA, OB: 0.40 Million TPA (Maximum Total Excavation 10.31 Million TPA) along with existing crusher and Wobbler with capacity of 1200 TPH & 300 TPH and new installation of additional crusher and Wobbler with capacity of 1200 TPH & 300 TPH & Limestone Recovery System (Washery) plant 450 TPHx2=900 TPH (ML Area- 395.05 ha) at Villages: Kukurdih & Risda, Tehsil: BalodaBazar, District: BalodaBazar-Bhatapara, Chhattisgarh - [File. No: J-11015/135/2015-IA.II(M), Proposal No: IA/CG/MIN/405232/2022, Consultant: M/s JM EnviroNetPvt. Ltd] – Environmental Clearance (Expansion)**

The instant proposal of EC of M/s. NU Vista Limited is for expansion in Production Capacity from 5.5 Million TPA ROM (Limestone 5.00 Million TPA & Screen Reject: 0.50 Million TPA) to 9.00 Million TPA ROM (Limestone - 8.10 Million TPA & Screen Reject: 0.90 Million TPA) and Maximum Topsoil/Soil: 0.91 Million TPA, OB: 0.40 Million TPA (Maximum Total Excavation 10.31 Million TPA) along with existing crusher and Wobbler with capacity of 1200 TPH & 300 TPH and new installation of additional crusher and Wobbler with capacity of 1200 TPH & 300 TPH & Limestone Recovery System (Washery) plant 450 TPHx2=900 TPH in the mine lease area of

395.05 ha, located at Villages: Kukurdih&Risda, Tehsil: BalodaBazar, District: BalodaBazar-Bhatapara, Chhattisgarh.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude 21°38'0.072"N to 21°39' 48.105"N and Longitude: 82°06'12.855" E to 82°07'30.230"E. The mine lease area falls under the Survey of India Toposheet No: F44 Q2 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2(b) Mineral Beneficiation and falls under Category "A" as the mining lease area is greater than 250ha and appraised at the Central level.
- iii. The proposal was earlier considered in the 9<sup>th</sup> EAC (Non-Coal Mining) meeting held during 17-18 January, 2023 wherein the EAC after detailed deliberations deferred the proposal for want of requisite information. Then, the Project Proponent submitted the information on 23.04.2023 in Parivesh portal. Accordingly, the proposal was considered in the 15<sup>th</sup> EAC (Non-Coal Mining) meeting held during 30-31 May, 2023.

Based on observation of EAC, compliance of observation of EAC in its meeting held during 17-18 January, 2023 made by Project Proponent are detailed below:

S. No	Observation of EAC in its meeting held during 17-18 January, 2023	Reply by Project Proponent				
1	The Project Proponent needs to submit the real time generated for every blast at the nearest habitations and schools. Accordingly, the Project Proponent needs to submit the design of controlled blasting and the measures to be taken to prevent the impact from the blasting to the	The Project Proponent has submitted that the study on Ground vibration monitoring and establishment of Ground vibration predictor equation for Risda-Kukurdih Limestone mine was carried out by Dept. of Mining Engineering, NIT, Raipur during 17.03.2023 to 22.03.2023. The real time data was generated for every blast at the nearest habitations and schools. The distance of Schools & Habitation in the proximity of mine are given as below: -				
		Sr. No.	Structure	Distance from Lease Boundary, (In m)	Distance from Ultimate Pit Limit, (In m)	Remarks
		1	Risada Village	943	950	The working faces are presently about 1900 m from the Village
		2	Government Higher Secondary School, Risda	945	950	The working faces are presently about 1450 m from the School

nearest habitations and schools.	3	Parsbhadar Village	610	660	The working faces are presently about 1138 m from the Village								
	4	Kukurdih Village	80	555	The working faces are presently about 690 m from the Village								
	5	Primary Health Centre, Kukurdih Village	475	480	The working faces are presently about 815 m from the PHC								
	6	Government Primary School , Kukurdih	293	393	The school is about 1250 m from the present working faces								
<p>PP also submitted that the total 15 blasts were monitored for ground vibration, air overpressure and fly rock with varying max. charge/delay and at different distances to assess the environmental impact of blasting on the surroundings. The depth of the holes varied from 3.0 to 11.0 m, and the average burden and average spacing varied from 3.0 to 3.5 m and 3.0 to 5.0 m respectively. The maximum charge/delay was kept at 8.3 kg to 85.7 kg. In three blasts conducted on 19.03.23, cartridge explosive was used and in the rest of the blasts, bulk emulsion explosive was used. The hole-to-hole delay was kept at 17 m and the row-to-row delay at 25 m with down the hole delay of 450 m. Each blast was monitored at two to three different locations. The ground vibration and air overpressure were recorded at 45 m to 270 m from the faces. The seismographs were kept at geo-trigger mode with a trigger level of 2 mm/s. Monitoring was also done at the Government Primary School, Kukurdih and the Government Higher Secondary School, Risda.</p> <p>Based on the study conducted and blast practice being followed at the Risada-Kukurdih mine it is recommended that</p> <ol style="list-style-type: none"> <li>It is suggested to use the following blast parameters for a bench height of 10.0 m</li> </ol> <table border="1"> <thead> <tr> <th>Parameters</th> <th>Recommended Values</th> <th>Parameters</th> <th>Recommended Values</th> </tr> </thead> <tbody> <tr> <td>Blast hole diameter</td> <td>100/110 mm</td> <td>Max. Charge/delay</td> <td>Should be determined using the</td> </tr> </tbody> </table>						Parameters	Recommended Values	Parameters	Recommended Values	Blast hole diameter	100/110 mm	Max. Charge/delay	Should be determined using the
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				predictor equation
Drilling Pattern	Inline/ Staggered	Row-to-row-delay		42 ms
Burden	3.0 to 3.5 m	Hole-to-hole-delay		17 ms/25 ms
Spacing	4.0 to 5.0 m	Down the delay		Should be more than the blast duration
Depth of hole	Up to 10.0 m	Firing Pattern		Inline
Charge/hole	50 to 60 Kg (SME)	Primer (Cast booster)		200 g per hole
Charge length	5.5 to 6.5 m	Max duration of the blast		1.5 s
Stemming column	3.5 to 4.5 m	-		-

2. Blasting in the working faces at the present status of the pit will not cause any damage/disturbance to the schools, dwellings in the villages and other structures located around the mine. The Government Higher Secondary School, Risda and Government Primary School, Kukurdih are located at 1450m and 1250m respectively from the present working faces.

3. When the working will reach near ultimate pit boundary, the dwellings in village Kukurdih village (555 m), Kukurdih school (390 m), PHC (480 m) and dwellings in Kukurdih village (480 m) will fall within 555 m from the working faces. Blasting within 500 m of these structures (dwellings in the villages, school buildings, PHC building etc.,) should be carried out carefully. The following precaution should be observed:

- a) Max. safe charge/delay should be determined using the derived vibration predictor equations:
- b) Each blast should be monitored for ground vibration and air overpressure near the structure. If the vibration level reaches the maximum permissible limit prescribed in the DGMS circular No DGMS (Tech) (S&T) Circular No .7 of 1997, dated 29.08.1997, maximum charge/delay should be reduced in the subsequent blasts

		<p>c) If required, the benches should be divided into two/three sub-benches to reduce the maximum charge delay.</p> <p>d) Secondary blasting and toe blasting should be avoided to control air overpressure(noise). Rock breakers should be used for secondary breakage</p> <p>e) Faces should be cleaned of all loose boulders and stones which may get ejected easily if gases vent through the collar of the blast holes.</p> <p>f) Muffle blasting with heavy energy-absorbing blasting mats to arrest the fly rock should be practiced while blasting within 500 m of any public road, habitant etc.</p> <p>4. Kukurdih water reservoir has an earthen embankment and hence blasting in the mine will not cause any damage to it</p> <p>5. The canal that passes through the lease area is a very small unlined canal. The proposed safety barrier of 50 m is sufficient to protect it from the adverse effect of blasting.</p> <p>6. For other industrial structures located within and around the lease boundary, like H T lines, Magazine buildings, crusher plants, cement plant etc, the maximum charge delay should be determined using the derived predictor equation to keep the vibration level within the limits prescribed in DGMS circular No DGMS (Tech) (S&amp;T) Circular No .7 of 1997, dated 29 .08.1997.</p> <p>7. The square root ground vibration predictor equation for derived empirical equation M/s Nu Vista Limited Limestone Mine. Risda. Balodabazar is <math>V=863*(D/\sqrt{W})^{-1.39}</math>. This equation should be used to determine the maximum safe charge per delay.</p>
2	<p>The Project Proponent needs to revisit the safety zone of 300m w.r.t blasting in consultation with</p>	<p>The Project Proponent has submitted that currently mining operations are far away from safety zone. As per the current mining plan and proposed mining plan for next 5 years, PP will not be entering any safety zone. No structure (not belonging to owner) falls within the 500m danger zone of blasting. However, when mining</p>

	<p>DGMS and obtain necessary permission and also needs to demarcate the area of the blasting falling within the danger zone w.r.t surface features existing within 500m radius.</p>	<p>will reach near the such structure falls within the danger zone necessary permission from DGMS will be obtained and will perform blasting as per the directives of DGMS and Regulation 164 (1-B) (a) of MMR 1961.</p>																																				
<p>3</p>	<p>The Project Proponent needs to highlight the recommendations of the National Institute of Technology (NIT), Raipur w.r.t. charge per delay and total charge per round and other design parameters suggested for controlled blasting.</p>	<p>The Project Proponent has submitted that based on the study conducted and blast practice being followed at the Risada-Kukurdihi mine it is recommended that</p> <ol style="list-style-type: none"> <li>It is suggested to use the following blast parameters for a bench height of 10.0 m</li> </ol> <table border="1" data-bbox="592 824 1382 1532"> <thead> <tr> <th>Parameters</th> <th>Recommended Values</th> <th>Parameters</th> <th>Recommended Values</th> </tr> </thead> <tbody> <tr> <td>Blast hole diameter</td> <td>100/110 mm</td> <td>Max. Charge/delay</td> <td>Should be determined using the predictor equation</td> </tr> <tr> <td>Drilling Pattern</td> <td>Inline/Staggered</td> <td>Row-to-row-delay</td> <td>42 ms</td> </tr> <tr> <td>Burden</td> <td>3.0 to 3.5 m</td> <td>Hole-to-hole-delay</td> <td>17 ms/25 ms</td> </tr> <tr> <td>Spacing</td> <td>4.0 to 5.0 m</td> <td>Down the delay</td> <td>Should be more than the blast duration</td> </tr> <tr> <td>Depth of hole</td> <td>Up to 10.0 m</td> <td>Firing Pattern</td> <td>Inline</td> </tr> <tr> <td>Charge/hole</td> <td>50 to 60 Kg (SME)</td> <td>Primer (Cast booster)</td> <td>200 g per hole</td> </tr> <tr> <td>Charge length</td> <td>5.5 to 6.5 m</td> <td>Max duration of the blast</td> <td>1.5 s</td> </tr> <tr> <td>Stemming column</td> <td>3.5 to 4.5 m</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <ol style="list-style-type: none"> <li>Blasting in the working faces at the present status of the pit will not cause any damage/disturbance to the schools, dwellings in the villages and other structures located around the mine. The Government Higher Secondary School, Risda and Government Primary School, Kukurdihi are located at 1450m and 1250m respectively from the present working faces.</li> <li>When the working will reach near ultimate pit boundary, the dwellings in village Kukurdihi village (555 m), Kukurdihi school (390 m), PHC (480 m) and dwellings in Kukurdihi village (480 m) will fall</li> </ol>	Parameters	Recommended Values	Parameters	Recommended Values	Blast hole diameter	100/110 mm	Max. Charge/delay	Should be determined using the predictor equation	Drilling Pattern	Inline/Staggered	Row-to-row-delay	42 ms	Burden	3.0 to 3.5 m	Hole-to-hole-delay	17 ms/25 ms	Spacing	4.0 to 5.0 m	Down the delay	Should be more than the blast duration	Depth of hole	Up to 10.0 m	Firing Pattern	Inline	Charge/hole	50 to 60 Kg (SME)	Primer (Cast booster)	200 g per hole	Charge length	5.5 to 6.5 m	Max duration of the blast	1.5 s	Stemming column	3.5 to 4.5 m	-	-
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4	<p>The Project Proponent needs to submit the strength of the two schools nearby, distance from the mine lease area and mine pit, school timings, time and frequency of blasting and the measures taken to protect the school from the blasting activity.</p>	<p>The Project Proponent has submitted the details of the strength of the nearby schools, distance from the mine lease area and mine pit, school timings, time and frequency of blasting in tabular form as given below:</p> <table border="1"> <thead> <tr> <th>Name of Schools</th> <th>Strength</th> <th>Distance from mine lease area</th> <th>Distance from present Mine Pit (In Meter)</th> <th>Distance from UPL (In Meter)</th> <th>School Timing</th> <th>Time and Frequency of blasting</th> </tr> </thead> <tbody> <tr> <td>Govt. Primary School, Kukurdih</td> <td>133</td> <td>70</td> <td>1250</td> <td>393</td> <td>7:30 to 11:30 AM</td> <td rowspan="2">1:30 PM to 3:30 PM /Day</td> </tr> <tr> <td>Govt. Higher Sec. School, Risda</td> <td>286</td> <td>365</td> <td>1450</td> <td>950</td> <td>7:30 to 11:30 AM</td> </tr> </tbody> </table> <p>Blasting in the working faces at the present status of the pit will not cause any damage/disturbance to the schools, dwellings in the Villages and other structures located around the mine. Measures taken to protect the school from the blasting activity already covered in ADS reply of Point No. 1.</p>	Name of Schools	Strength	Distance from mine lease area	Distance from present Mine Pit (In Meter)	Distance from UPL (In Meter)	School Timing	Time and Frequency of blasting	Govt. Primary School, Kukurdih	133	70	1250	393	7:30 to 11:30 AM	1:30 PM to 3:30 PM /Day	Govt. Higher Sec. School, Risda	286	365	1450	950	7:30 to 11:30 AM						
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5	<p>The Project Proponent needs to modify the water balance and also to submit a detailed note on how the zero discharge will be achieved. The project proponent should submit water recovery plan from tailings.</p>	<p>The Project Proponent has submitted that the as per EIA/EMP report, water requirement was 1840 KLD. Now, water requirement is reduced from 1840 to 1550 KLD. Modified water requirement is given in table below:</p> <table border="1"> <thead> <tr> <th rowspan="2">S. No.</th> <th rowspan="2">Particulars</th> <th colspan="2">Water Requirement (KLD)</th> </tr> <tr> <th>Existing</th> <th>Modified</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Dust suppression</td> <td>147</td> <td>145</td> </tr> <tr> <td>2.</td> <td>Workshop</td> <td>15</td> <td>15</td> </tr> <tr> <td>3.</td> <td>Green belt Development &amp; Plantation</td> <td>100</td> <td>100</td> </tr> <tr> <td>4.</td> <td>Drinking/Domestic</td> <td>8</td> <td>10</td> </tr> <tr> <td>5.</td> <td>Limestone recovery system</td> <td>1570</td> <td>1280</td> </tr> </tbody> </table>	S. No.	Particulars	Water Requirement (KLD)		Existing	Modified	1.	Dust suppression	147	145	2.	Workshop	15	15	3.	Green belt Development & Plantation	100	100	4.	Drinking/Domestic	8	10	5.	Limestone recovery system	1570	1280
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		Total	1840	1550
		<p>PP also submitted the chart for modified water balance. Further, PP submitted that the closed circuit facilities will be provided for limestone washery, domestic and vehicle workshop area to achieve zero discharge condition details of the same are as follows: -</p> <ol style="list-style-type: none"> <li>i. Installation of thickener units along-with settling chamber proposed for recovery of water from the limestone washery system which will give more than 85% water recovery from the system.</li> <li>ii. 10 KLD STP already installed for treatment of domestic wastewater and treated water used for green belt development.</li> <li>iii. Oil &amp; Grease Separation system along with settling pond already installed at vehicle workshop area for collection, treatment, and further utilization of water. Treated water utilized for dust suppression.</li> </ol>		
6	<p>The project proponent should submit the measures to control dust and reduce noise during operation of mobile screening plant.</p>	<p>The Project Proponent has submitted that the following measures will be taken to dust control and reduce noise during operation of mobile screening plant.</p> <p>Measures to control dust:</p> <ol style="list-style-type: none"> <li>i. To control the dust, it is proposed to install the hood on top of mobile screening unit along with dry mist fogging machine.</li> <li>ii. Avoiding the migration of dust into the walkway.</li> <li>iii. Dust extraction and ventilation systems for mining and processing operations.</li> <li>iv. Dust control surfactants and other products for mine haul roads.</li> </ol> <p>Measures to reduce noise:</p> <ol style="list-style-type: none"> <li>i. PU material screen will be used in place of MS screen to reduce noise during operation.</li> <li>ii. PPE's will also be provided to the workers to eliminate the noise exposure.</li> <li>iii. Proper maintenance, oiling &amp; greasing of machines at regular intervals is being/will be done to reduce noise generation.</li> <li>iv. Greenbelt/plantation is being done along the haul roads, mine office &amp; on undisturbed area for minimizing the propagation of noise.</li> <li>v. Regular monitoring of noise is being/will be carried out.</li> </ol>		

7	The Project Proponent needs to submit the final closure report for the partially complied condition to be issued by the Integrated Regional Office.	The Project Proponent has submitted that they deposited Rs. 67.0 Lakh towards the wildlife conservation Plan to DFO-Balodabazar on 20.01.2023. Integrated Regional Office(IRO) forwarded action taken report to MS-EAC (Non-coal Mining) on 10.03.2023. PP also submitted the copy of email dated 10.03.2023.
8	The Project Proponent needs to submit the action plan for undertaking plantation to achieve the survival rate of 95%.	The Project Proponent has submitted that at conceptual stage, Greenbelt/Plantation will be developed on 131.14 ha (99.12 ha area on backfilled, 16 ha proposed plantation, 12 ha covered under greenbelt and 4.02 ha area on waste dump). To achieve the survival rate of 95%, the following action plan is proposed to undertake. <ul style="list-style-type: none"> <li>i. Preferred to plant fast growing native species.</li> <li>ii. Installation of Drip Irrigation system.</li> <li>iii. Gap plantation will be done.</li> <li>iv. Proper Manuring and Planting large trees.</li> <li>v. Install tree guard to protect from damage.</li> <li>vi. Deployment of manpower for maintenance of plants.</li> </ul>
9	The Project Proponent needs to allocate a separate budget for provision of toilet in schools and also to revise the budget of the public hearing.	The Project Proponent has submitted that total 8 Nos. of toilets will be developed in in schools of Risda, Kukurdih and Dhandhani Village. Separate budget for the same i.e., Rs. 8.0 lakhs have been allocated and additional amount of Rs1 lakh has been allotted towards solar lights. The budget of the Public Hearing has been revised fromRs160 Lakhs to Rs.169 Lakhs.
10	The Project Proponent needs to approach the Forest Dept to deposit the approved amount of Rs 67.0 Lakhs and the Project Proponent needs to submit the payment of proof made to the Forest Dept for the same to the Ministry.	The Project Proponent has submitted that they deposited Rs. 67.0 Lakhs towards the Wildlife Conservation Plan to DFO-Balodabazar on 20.01.2023, In continuation of the same confirmation letter was obtained from DFO-Baodabazar letter dated 07.03.2023.

11	The Project Proponent needs to obtain the permission from the Irrigation Department.	The Project Proponent has submitted that the permission for mining at a distance 50 m from Canal, water reservoir and Nalla's has been obtained from water Resource and Ground water Survey Board, vide letter dated 20.04.2023.
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iv. Details of previous Environmental Clearance (EC):

- a) Initially, the Project Proponent obtained Integrated Environmental Clearance (EC) vide EC Lr No: J-11011/372/2007-IA.II(M) dated 31.10.2011 for Cement Plant (2.5 MTPA) & Captive Power Plant (40 MW) at Risda and Dhandhani Villages along with Limestone Mine (3.17 MTPA, 395.05 Ha) at Risda and Kukurdih villages of Tehsil Baloda Bazar, District Raipur, Chhattisgarh in favour of M/s Emami Cement Limited.
- b) Then, the Project Proponent obtained Environmental Clearance (EC) vide EC Lr No: J-11015/135/2015-IA.II(M) dated 06.04.2018 for enhancement of production from 3.17 million TPA to 5.50 million TPA(ROM) over an area of 395.05 Ha in favour of M/s Emami Cement Limited.
- c) Thereafter, the Project Proponent on 29.06.2021 obtained name change in EC from M/s Emami Cement Limited to M/s. NU Vista Limited.

v. Details of Terms of Reference (ToR):

- a) The Project Proponent obtained Terms of Reference (ToR) vide ToR Lr No: J-11015/135/2015-IA.II(M) dated 29.08.2019 for expansion in Production Capacity from 5.5 Million TPA ROM (Limestone 5.00 Million TPA & Screen Reject: 0.50 Million TPA) to 9.00 Million TPA ROM (Limestone - 8.10 Million TPA & Screen Reject: 0.90 Million TPA) and Maximum Topsoil/Soil: 0.91 Million TPA, OB: 0.40 Million TPA (Maximum Total Excavation 10.31 Million TPA) along with existing crusher and Wobbler with capacity of 1200 TPH & 300 TPH and new installation of additional crusher and Wobbler with capacity of 1200 TPH & 300 TPH & Limestone Recovery System (Washery) plant 450 TPHx2=900 TPH in the mine lease area of 395.05 ha in favour of M/s Emami Cement Limited.
- b) Then, the Project Proponent on 18.12.2020 obtained change of name in ToR from M/s Emami Cement Limited to M/s. NU Vista Limited.

vi. Details of Mine lease:

- a) The Project Proponent has submitted that initially mining lease was granted by the Department of Mineral Resources, Govt. of Chhattisgarh vide letter no. F-2-3/2007/12 dated 09.09.2008 over an area of 395.05 ha for a period of 30 years in favor of M/s. Emami Cement Ltd. Mining Lease was executed on 08.09.2009 for the period upto 07.09.2039. PP also submitted that another agreement made on 11.01.2017 for extending the mining lease period for further period of 20 years w.e.f. 08.09.2039 to 07.09.2059.



- b) Then, the Board of Directors of Emami Cement Ltd. has approved a resolution for change of the Company's name from Emami Cement Ltd. to NU Vista Limited on 28.03.2020. The name of the Company has been changed from Emami Cement Limited to NU Vista Limited based on the fresh certificate of incorporation dated 04.06.2020 issued by the Registrar of Companies (RoC), Kolkata.
- c) Thereafter, the Mineral Resource Department, Govt. of Chhattisgarh granted an order Ref. No. F- 7-25/2020/12 dated 03.09.2020 approved the name from Emami Cement Ltd. to NU Vista Ltd. PP also submitted the addendum to mining lease agreement dated 20.10.2020 made between the Governor of Chhattisgarh and the NU Vista Limited (Formerly Emami Cement Limited) for change of name from Emami Cement Limited to NU Vista Limited appearing in the mining lease agreement dated 08.09.2009 and 11.01.2017.

vii. Land Use/Land Cover of the Mine Lease Area:

Private land	359.649 ha
Government land	35.401 ha
Total Mining lease area (MLA)	395.05 ha
Private land for crusher, workshop & other infrastructure outside the MLA	No infrastructure is proposed outside the ML area

viii. Mining plan details:

Modifications in Review of Mining Plan with Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM), Raipur	Letter No.	Balodaba/chup/khayo-1226/2019-Raipur/627
	Date	10.01.2020
	Mine lease area	395.05 ha
	Mineral	Limestone
	Validity	2020-21 to 2023-24
Additional information (if any)	Change of company name from Emami Cement Ltd. to Nu Vista Ltd. in Mining Plan Approval Letter has been obtained vide letter no. RPR-1309/02/2017-MINING PLAN-Voll-II/834, dated 28.10.2020.	
Mining Parameters	Description	
Method of Mining	Fully Mechanized Opencast Mining Method	
Total Geological Reserves	346.826 Million Tonnes	
Total Mineable Reserves	227.199 Million Tonnes	
Life of mine	28 years	
Bench Height	10 m	
Bench Width	25 m	
Working Depth	Present: 31m bgl (220m AMSL) Ultimate Working Depth: North Block: 70 m (183 AMSL) South Block: 50 m (203 AMSL)	
Water Level	Pre-Monsoon: 10 to 12m bgl Post-Monsoon: 8 to 10m bgl	

	Project Proponent has reported that there will be ground water intersection.																		
Individual bench slope	80°																		
Overall pit slope	45°																		
Drilling/Blasting	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Particular</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Drill hole dia</td> <td>100 mm</td> </tr> <tr> <td>2</td> <td>Depth of hole</td> <td>10 Mts</td> </tr> <tr> <td>3</td> <td>Burden</td> <td>4.0 m</td> </tr> <tr> <td>4</td> <td>Spacing</td> <td>6.0 m</td> </tr> <tr> <td>5</td> <td>Powder Factor</td> <td>6.5 Kg/ Tonne</td> </tr> </tbody> </table>	S. No.	Particular	Details	1	Drill hole dia	100 mm	2	Depth of hole	10 Mts	3	Burden	4.0 m	4	Spacing	6.0 m	5	Powder Factor	6.5 Kg/ Tonne
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Transportation details	Transportation of limestone from mine face to crusher by dumpers and from crusher to cement plant via covered belt conveyor is being/will be carried out.																		
Dumpers capacity	55/60 Tonnes																		
Crusher	Existing crusher and Wobbler with capacity of 1200 TPH & 300 TPH has been established in the southern part of south block and new installation of additional crusher and Wobbler with capacity of 1200 TPH & 300 TPH will be established in North block of the Mining lease area.																		
Limestone recovery system	900 TPH (450 TPH x 2)																		
RoM output size	Less than 1200 mm																		
Topsoil	The Project Proponent has reported that at present 2.058 Million CuM (3.087 Million Tonnes, of Top Soil has been generated. Out of which 1.5 Million Tonnes of Top soil has been used for Green belt development along the Lease boundary & in Safety zone along Nallhas, pond and road. Balance quantity of top soil has been stacked separately over an area of 3.27 ha area which will be used for greenbelt/plantation along the nallah, road and power line. During the plan period about 1.87 Million tonnes of top soil will be generated. At conceptual stage about 12.12 Million Tonnes of soil will be generated. Topsoil will be stacked aside temporarily in 6.82 ha area as this will be used for plantation purposes.																		
Waste	The Project Proponent has reported that at present 2.188 Million CuM (3.282 Million Tonnes) of waste has been generated. At conceptual stage about 21.60 Million Tonnes of waste will be generated. Waste will be disposed of in the 6.15 ha area earmarked for dumping in the south block Slopesof dumps will be less than 28°.The dumping will be in one place only and others will be re-handled.10% of ROM will be separated as rejects from the Crushing/screening plant which will be of -34% CaO. The clayey waste generated after crushing will be																		

	disposed-off over an area of 1.95 ha earmarked for dumping in the south block. In next plan periods, backfilling of the waste will be planned in mined out pits.
Conceptual Plan	The Project Proponent has reported that at conceptual stage, an area of 283.46 ha will be excavated, out of which 99.12 ha area will be backfilled & rehabilitated by plantation & regressing, remaining 184.34 ha area will be developed as water reservoir. At conceptual stage, greenbelt/plantation will be developed over an area of 131.14 ha (99.12 ha area on backfilled, 16 ha proposed plantation, 12 ha covered under greenbelt and 4.02 ha area on waste dump).

ix. Water requirement:

Total water requirement	1840 KLD (Existing: 240 KLD& Additional: 1600 KLD)
Source	Mine pit & Ground water
Permission	NOC from CGWA has been obtained <i>vide</i> letter no. CGWA/NOC/MIN/REN/1/2020/5670 on 16.03.2020 for ground water abstraction of fresh water of 1090 KLD and 5381 KLD through dewatering and is valid from 16.03.2020 to 14.03.2023 in favor of M/s. Emami Cement Limited. Name change in NOC from M/s. Emami Cement Limited to M/s. NU Vista Ltd. has been obtained from CGWA <i>vide</i> letter no.21-4/358/CT/MIN/2016-271, dated 04.08.2020.

x. Nearest village / town/ highway/railway station / water bodies:

Particular	Particular's Name	Distance & Direction
Nearest village	Habitation of Village Kukurdih	~ 50 m, West
Nearest Town / City	Balodabazar	~ 2.0 km, NE
Nearest State/National Highway	SH – 10	~0.8 km, North
Nearest Railway Station	Bhatapara	~19.0 km, NW
Nearest Water Bodies	Kukurdihi Talav	Adjacent to Mine site in West Direction
	Mahanadi Canal	~ 2.0 km, NW
	Khosri Nala	~ 3.5 km, South
	Banjari Nala	~ 8.5 km, NW
	Jamuniya River	~ 9.0 km, NNW

xi. Presence of Environmentally Sensitive areas in the study area:

Forest Land / Protected Area / Environmental Sensitivity Zone	Yes/ No	Details of Certificate/letter/Remarks

Forest Land	No	No forest land falls within the mine lease. A Letter regarding the same has been obtained from PCCF & APCCF (Wildlife), Naya Raipur, CG, vide letter No. S. No./W.L./Management-496/3276 dated 18.09.2020.  PP also submitted that the following Reserve Forest such as Dhabadih RF (~ 0.5 km, SSW), Sonbarsa & Latwa RF (~ 4.5 km, NE) and Mohtara RF (~ 7.5 km, NE) are found in the study area of 10 km radius.
National Park	No	No National Park, Wild Life Sanctuaries, Eco Sensitive Zone (ESZ)/ Eco-Sensitive Area (ESA) etc. within 10 km radius study area. Authenticated location map has been obtained from PCCF & APCCF (Wildlife), Naya Raipur, CG, vide letter No. S. No./W.L./Management-496/3276 dated 18.09.2020.
Wildlife Sanctuary	No	
Eco Sensitive Zone (ESZ)/ Eco-Sensitive Area (ESA)	No	
Schedule-I species	Yes	PP submitted the list of flora and fauna vetted by Divisional Forest Officer, Baloda Bazar Division. PP also reported that two schedule-I such as [Indian Python ( <i>Python Molurus</i> )& Indian Monitor Lizard ( <i>Varanus bengalensis</i> )] are found in the study area.
Status of Wildlife Conservation Plan	Yes	Wildlife Conservation Plan has been approved from PCCF & APCCF vide letter no. W.L./Management-496/3276, Naya Raipur, dated 18.09.2020 with a budget of Rs. 67 Lakh for a period of 5 years (2020-21 to 2024-25).

xii. Green belt/plantation details:

Proposed area for green belt/plantation	At conceptual stage, Greenbelt/plantation will be developed over an area of 131.14 ha (12 ha as greenbelt along the lease periphery, 99.12 ha area on backfilled, 16 ha on un-worked area and 4.02 ha area on waste dump).
Budget for green plant & plantation till the end of life of mine.	Rs. 5.25 crore
Budget for nursery	-
Additional information (if any)	Local and fruit bearing species is being/will be planted in consultation with local forest officer. Plantation density is around 2500 trees/ ha and survival rate is being maintained at 90%.
Particulars for Green belt/plantation	Area covered (in Ha)

7.5 m barrier & non-mineralized zone	9.0 Ha
50 m safety zone of nallah, roads, electric lines	13.0 Ha
500 m safety zones of nearest habitation villages	-
Additional information (if any)	2.5 Ha on waste dump

xiii. Baseline details:

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)			
Period of baseline data collection	March to May, 2022		
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer Season		
Ambient Air Quality (10 locations)	PP reported that the concentrations of PM <sub>10</sub> ranged from 46.2-91.2 µg/m <sup>3</sup> , PM <sub>2.5</sub> : 24.2-54.1 µg/m <sup>3</sup> , SO <sub>2</sub> : 7.1-19.6 µg/m <sup>3</sup> and NO <sub>x</sub> : 11.5-32.3 µg/m <sup>3</sup> .		
Noise level (9 locations)	Day Time: 50.6-65.8 dB (A) Night Time: 42.3 - 57.1 dB (A)		
Water Quality	Parameters	Surface water (4 locations)	Ground water (9 locations)
	pH at 25°C	7.16-7.39	7.08-7.52
	Total Dissolved Solids, mg/l	15.6-305	438-694
	Chloride as Cl <sup>-</sup> , mg/l	27.4-54.9	69.9-147.40
	Total Hardness, mg/l	103.9-198	212.80-400.90
	TSS, mg/l	5.0-21.0	-
	DO, mg/l	6-6.9	-
	BOD, mg/l	3.9-7.2	-
	COD, mg/l	16-28	-
	Fluoride as F, mg/l	-	0.42-0.75
Soil quality (9 locations)	Parameters	Observed Value	
	pH	7.08 – 7.34	
	Electrical Conductivity (mS/cm)	0.19-0.35	
	Organic Carbon (%)	0.42-0.65	
	Available Nitrogen as N (Kg/Ha)	112.54 to 290.80	
	Available Phosphorus (Kg/Ha)	16.25 to 38.36	
	Sodium (mg/kg)	46.60-114.25	
Potassium (Kg/Ha)	154.74 to 370.40		
Traffic Study	PP reported that no traffic study has been conducted. No transportation is being/will occur		

	through public transport road. Transportation is being/will be done by using internal roads therefore; Traffic Study over public roads is not made.
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xiv. Public Hearing (PH) Details:

Advertisement for PH with date	National Level/Local Level: Nav Bharat & Amrit India on 14.01.2022
Date of PH	16.02.2022 at 11:00 AM
Venue	Government Land in Front of Government Middle School Gram Dhandhani, Tehsil-Balodabazar, District-Balodabazar (Chhattisgarh)
Chaired by	Mr. Rajendra Gupta: Additional District Magistrate, Balodabazar-Bhatapara (Chhattisgarh) Mr. Manish Kashyap, Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, (Chhattisgarh)
Main issues raised during PH	Issues raised during public hearing were about employment, health care facilities, education, infrastructure development, drinking water facilities, skill development, plantation in nearby areas etc.
Budget proposed for addressing issues raised during PH	Capital Cost- Rs. 1.60 crores

xv. Details of CTE/CTO, Certified Compliance Report, Past production:

Consent to Establish	Chhattisgarh Environment Conservation Board vide Order No. 3760/TS/CECB/2018 Naya Raipur, dated 31.07.2018 granted the Permission to establish for expansion in existing Limestone Mine from 3.17 Million Tonnes /Annum to 5.5 Million Tonnes /Annum (ROM) in lease area 395.05 ha.
Consent to Operate	Chhattisgarh Environment Conservation Board vide Order No. 4411 /TS/CECB/ 2022 Nava Raipur Atal Nagar, dated 26/09/2022 granted the renewal of the consent to operate for production capacity of 5.5 MTPA for the period from 16/10/2022 to 30/09/2023.
Certified Compliance Report	Certified Compliance Report issued by the Integrated Regional Office, Chhattisgarh vide F.No.5-62/2011(ENV)-Pt/884 dated 22.08.2022. Site inspection was carried out on 26/7/2022. IRO noted that the Details are not made available regarding implementation of wildlife conservation plan and copy of action plan submitted, if any, to the MoEF&CC after the grant of EC letter dated 06/4/2018.

	PP submitted the action taken report for the clarification of partially complied condition to the Ministry vide letter dated 29.08.2022.			
Past production	<p>i. Lr. No. 844/Khali 2/Kha. Pa./2017 Balodabazar dated 01.09.2017 from the period 2013-14 to July, 2017</p> <p>ii. Lr. No. 368/Teen-6/Khanipatta Number/2019 Balodabazar dated 12.06.2019 for the period 2017-18 to 2018-19</p> <p>iii. Lr. No. 140/Teen-6/Khanipatta Number/2019 Balodabazar dated 05.06.2021 for the period 2019-20 to 2020-21 (31<sup>st</sup> Dec., 2020)</p> <p>iv. Lr. No. 392/khali/Teen-1/2022 Balodabazar dated 07.07.2022 for the period 2020-21 and 2021-22.</p>			
	S.No	Year	Production (In MTPA)	EC Capacity (In MTPA)
	1	2013-14	0.0	3.17
	2	2014-15	0.0	3.17
	3	2015-16	0.0	3.17
	4	2016-17	0.985	3.17
	5	2017-18	3.169	3.17
	6	2018-19	4.790	5.50
	7	2019-20	4.627	5.50
	8	2020-21	4.789	5.50
	9	2021-22	4.480	5.50
	Source: Office Collector, (Mine Branch), Balodabazar-Bhatapara, CG			

xvi. Rehabilitation & Resettlement:

R & R details	Rehabilitation & Resettlement (R&R) is not applicable.
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xvii. Court case details:

Court Case	The Project Proponent submitted an undertaking vide letter dated 17.10.2022 stating that there is no litigation pending against the project and/or any direction / order passed by any Court of law against the proposed project and that for any such litigation whatsoever, the sole responsibilities will be borne by company.
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xviii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	PP submitted the Affidavit in a non-judicial stamp paper of Rs 100 bearing no. P 237963 dated 02.11.2022 stating that the company will comply with all the statutory requirement & judgment of Hon'ble
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	Supreme Court dated 2 <sup>nd</sup> August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
Project Proponent submitted an Undertaking vide Letter dated 17.10.2022	This to confirm, that JM EnviroNet Pvt. Ltd. has been appointed by the M/s. NU Vista Limited to conduct the EIA for Expansion in Production Capacity from 5.5 Million TPA ROM (Limestone 5.00 Million TPA & Screen Reject: 0.50 Million TPA) to 9.00 Million TPA ROM (Limestone - 8.10 Million TPA & Screen Reject: 0.90 Million TPA) and Maximum Top soil/Soil: 0.91 Million TPA, OB: 0.40 Million TPA (Maximum Total Excavation 10.31 Million TPA) along with Existing Crusher and Wobbler with Capacity of 1200 TPH & 300 TPH and New Installation of Additional Crusher and Wobbler with Capacity of 1200 TPH & 300 TPH & Limestone Recovery System (Washery) Plant 450 TPHx2=900 TPH (ML Area- 395.05 ha) at Villages: Kukurdih & Risda, Tehsil: BalodaBazar, District: BalodaBazar-Bhatapara, Chhattisgarh. We further certify that we have reviewed the EIA report and take full responsibility and ownership of the contents presented in the EIA report by J.M. EnviroNet Pvt. Ltd. Instructions as per MoEF&CC vide O.M. No. J-11013/411/2006-IA.II(I) dated 4 <sup>th</sup> August, 2009 has been followed in the preparation of this EIA Report.
Consultant submitted an Undertaking dated 16.10.2022	The Consultant submitted an undertaking to the effect that the conditions laid down in Terms of Reference prescribed by MoEF&CC, New Delhi vide Lr no. J-11015/135/2015-IA.II(M), dated 18.12.2020 have been complied as per data/details provided by Project Proponent & as per Approved Modified Review of Mining Plan approved by IBM and the data submitted are factually correct.
Plagiarism Certificate checked on 11.10.2022	The Head of the Accredited Consultant Organization/ Authorized person certified that this EIA Report has been evaluated by using online software viz. Plagiarism Checker X. The report produced has been analyzed by the system and based on it, I certify that the EIA Report produce in accordance with good scientific practice.

xix. Details of the Environmental Management Plan (EMP):

S.No.	Activities	Existing		Additional		Total	
		Capital Cost	Recurring (Rs. In Lakh)	Capital Cost	Recurring (Rs. In Lakh)	Capital Cost	Recurring (Rs. In Lakh)



		(Rs. In Lakh)		(Rs. In Lakh)		(Rs. In Lakh)	
I	EMP for Pollution Control & Monitoring						
A.	Air Quality monitoring and Protection						
Mitigative Measures							
1	Permanent water sprinkling arrangements for main haulage road (Length 1- km Existing & 2 Km Proposed)	18	1.5	30	4	48	5.5
2	Four water tanker (8 KL) for water sprinkling in other roads and mining areas/activities. (2 Existing & 2 Proposed)	30	18	20	5	50	23
3	Bag Filter at Existing Crusher and Wobbler (1200 TPH & 300TPH Capacity)	100	10	0	0	100	10
	Bag Filter at Proposed Crusher and Wobbler (1200 TPH & 300TPH Capacity)	0	0	130	10	130	10
	Pollution Control Device (Bag filter at Crusher) Equipment and its installation Cost, Operation & Maintenance	0	10	0	10	0	20
4	Sprinkling system at crusher hopper and Wobbler (Existing 1200 TPH & 300 TPH Capacity)	2	0.5	0	0	2	0.5
	Sprinkling system at crusher hopper and Wobbler (Proposed 1200 TPH & 300 TPH Capacity)	0	0	10	0.5	10	0.5
5	Plantation done on waste Dump 2.50 ha (saplings: 6250, Rs. 10.0 Lakhs)	10	0	6	0.5	16	0.5
	Plantation to be done on waste Dump 1.52 ha (saplings: 3800, Rs. 6.0 Lakhs)						
6	Plantation on Backfilled Area 99.12 ha (Saplings: 247800, Rs. 397 Lakhs)	0	0	0	17.26	0	17.26
7	Plantation/Greenbelt has been done on 22.0 ha (Saplings: 55000, Rs. 88.0 lakhs)	88	0	0	0	88	0

8	Greenbelt/Plantation on 6.0 ha (Saplings: 15000 Rs. 24.0 lakhs)	0	0	24	6	24	6
Monitoring							
9	4 Ambient Air Quality Monitoring Stations at Mine Site	200	3.5	145	14.3	345	17.8
Sub-Total		448	43.5	365	67.56	813	111.06
Mitigative Measures							
10	Construction of Garland Drain [width 2m x height 1 m]	30	5	15	0.5	45	5.5
11	Construction of Toe bund (width 2m x height 1m)	20	2	6	1.5	26	3.5
12	Construction of 1 Check Dam (10m x 2m x1m)	10	2	8	1.25	18	3.25
Sub-Total		60	9	29	3.25	89	12.25
Monitoring							
13	Ground water quality analysis (4 locations * 4 times in a year)	0	1	0	1	0	2
14	Surface Water Quality Analysis * half yearly	0	0.2	0.3	0	0.3	0.2
15	Workshop Waste Water Quality Analysis (monthly) as well as maintenance of oil-water separators	0	0.2	0.1	0	0.1	0.2
16	Occupational Health Check-up of Mines Employees	0	0	0	1	0	1
Sub-Total		0	1.4	0.4	2	0.4	3.4
II Estimated Budget for Addressing the Public Hearing Issues (Within 3 years)		0	0	160	0	160	0
Total		508	53.9	554.4	72.81	1062.4	126.71

xx. Details of project cost and employment:

Particular	Budget
Total cost of EMP (Capital Cost of EMP + Capital cost of Public Hearing + Conservation plan)	Rs 10.6 crores
Project Cost	Rs 100.65 crores
Employment	134 persons

### 3. Observation and Recommendation of the EAC:

The Project Proponent/Consultant presented the KML file to indicate the salient surface features in the study area. The Project Proponent has shown the boundary of the mine lease area and the cement plant located on the southern side adjacent to the mine lease area. A canal is passing through the mine lease area and NOC has been

obtained from the Irrigation Dept. The Project Proponent also informed the EAC that the Govt. Primary School, Kukurdih is located at a distance of 393 m from the Ultimate Pit Limit (UPL) and Govt. Higher Sec. School, Risda is located at a distance of 950 m from the UPL. As per the recommendation of NIT, Raipur, muffle blasting with heavy energy-absorbing blasting mats to arrest the fly rock will be practiced while blasting within 500 m radius.

The EAC deliberated on the additional details submitted by the Project Proponent and the Consultant. The Project Proponent informed the EAC that the study on Ground vibration monitoring and establishment of Ground vibration predictor equation for Risda-KukurdiH Limestone mine was carried out by Dept. of Mining Engineering, NIT, Raipur during 17.03.2023 to 22.03.2023. The real time data was generated for every blast at the nearest habitations and schools. The distance of the school/village varied from 80m to 945 m from the mine lease area and 393 m to 950 m from the UPL. The EAC asked the Project Proponent that how the blasting practice will be carried out at the project site for implementation of recommendation of NIT, Raipur. The Project Proponent informed the EAC that the blasting will be carried out by the certified statutory persons as per the mines act and rules and the recommendations of the NIT, Raipur will be made available to the certified statutory persons. The EAC opined that the blasting time shall be between 1:30 PM to 2:30 PM once in a day and the blasting time shall be informed prior to the local people. The EAC also opined every blast needs to be monitored and data such as charge per delay, charge per round, distance of the fragmentation travelled, whether it is muffled and Peak Particle Velocity (PPV) needs to be recorded.

The Project Proponent informed the EAC that the water requirement has been reduced from 1840 to 1550 KLD. The EAC opined that the Project Proponent shall ensure that the zero discharge system shall be achieved and the same shall be monitored. The EAC also asked the Project Proponent to ensure the survival rate of 95% by maintaining the records of the activities performed w.r.t action plan provided for the successful of greenbelt/plantation including manpower and budget and the same needs to be verified during compliance.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 30-31 May, 2023 under the provisions of EIA Notification 2006 and its subsequent amendments, **recommended** the proposal for grant of Environmental Clearance to M/s. NU Vista Limited for increase in Production Capacity from 5.5 Million TPA ROM (Limestone 5.00 Million TPA & Screen Reject: 0.50 Million TPA) to 9.00 Million TPA ROM (Limestone - 8.10 Million TPA & Screen Reject: 0.90 Million TPA) and Maximum Topsoil/Soil: 0.91 Million TPA, OB: 0.40 Million TPA (Maximum Total Excavation 10.31 Million TPA) along with existing crusher and Wobbler with capacity of 1200 TPH & 300 TPH and new installation of additional crusher and Wobbler with capacity of 1200 TPH & 300 TPH & Limestone Recovery System (Washery) plant 450 TPHx2=900 TPH (ML Area- 395.05 ha) at Villages: Kukurdih & Risda, Tehsil: BalodaBazar, District: BalodaBazar-Bhatapara,

Chhattisgarh subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects: -

- i. This Environmental Clearance will be valid upto 28 years as the life of the mine is 28 years.
- ii. The Project Proponent shall implement the recommendations of the Ground vibration monitoring and establishment of Ground vibration predictor equation for Risda-Kukurdi Limestone mine carried out by Dept. of Mining Engineering, NIT, Raipur. The Standard Operating Procedure (SOP) for blasting shall be in line with the recommendations of NIT and the same shall be implemented. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- iii. The Project Proponent shall monitor the ground induced blasting vibrations for every blast and data such as charge per delay, charge per round, distance of the fragmentation travelled, whether it is muffled and Peak Particle Velocity (PPV) needs to be recorded and maintained.
- iv. The blasting time shall be between 1:30 PM to 2:30 PM once in a day and the blasting time shall be informed prior to the local people.
- v. The Project Proponent shall ensure that the transportation shall not occur through village road or any other public road.
- vi. The natural water bodies and or streams which are flowing in and around the mine lease area should not be disturbed.
- vii. The Project Proponent shall monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village, crusher and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Integrated Regional Office.
- viii. The Project Proponent shall ensure that the zero discharge system shall be achieved and the same shall be monitored.
- ix. The Project Proponent needs to ensure the survival rate of 95% by maintaining the records of the activities performed w.r.t action plan provided for the successful of greenbelt/plantation including manpower and budget and the same needs to be verified during compliance.
- x. The Project Proponent shall adopt the mitigation measures proposed to control dust and reduce noise during operation of mobile screening plant.

- xi. The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, and other areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions. The dense plantation shall be carried out in the vicinity of the crusher. The Stack emission monitoring of the Crusher/DG set shall be carried out at periodic intervals.
- xii. The Project Proponent needs to install the permanent water sprinklers instead of water tankers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine area. Effective dust suppression system shall also be adopted at other parts of the mining lease to arrest the fugitive dust emission.
- xiii. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 10.6 Cr. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- xiv. The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.
- xv. The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.
- xvi. The budget of Rs 1.60 Cr to address the concerns raised by the public in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.
- xvii. The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by

MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.

- xviii. The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years.
- xix. The Project Proponent needs to provide the RO drinking water supply and also by laying network of pipelines to the nearby villages at free of cost.
- xx. NoC from the Central Ground Water Authority (CGWA)/ Concerned Local authority, as the case may be, shall be obtained before drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- xxi. The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly. The preference shall be given to the local people for the purpose of employment.
- xxii. The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.
- xxiii. The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Integrated Regional Office.

**1.3 Bathiya Limestone Mine of M/s AAA Resources Private Limited forming of Limestone with production capacity of 4.0 MTPA, Topsoil: 0.41 MTPA, Waste/reject: 4.43 MTPA (Total excavation: 8.84 MTPA) along with the crusher of 1400 TPH in the mine lease area of 266.302 ha, located at Bathiya, Barahiya, Karaundi, Chapna and Tamoria Villages, Tehsil: Maihar, District: Satna, Madhya Pradesh – [F.No: J-11015/44/2020-IA-II(M), Proposal No: IA/MP/MIN/405276/2022,**

**Consultant: M/s Pragathi Labs & Consultants Pvt Limited] - Environmental Clearance (EC)**

The instant proposal is for grant of Environmental Clearance of M/s AAA Resources Private Limited for mining of Limestone in Bathiya Limestone Mine with production capacity of 4.0 MTPA, Topsoil: 0.41 MTPA, Waste/reject: 4.43 MTPA (Total excavation: 8.84 MTPA) along with the crusher of 1400 TPH in the mine lease area of 266.302 ha, located at Bathiya, Barahiya, Karaundi, Chapna and Tamoria Villages, Tehsil: Maihar, District: Satna, Madhya Pradesh.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area located between Latitude 24°16'19.675" N - 24°18'46.795" N and Longitude 80°52'42.166" E - 80°55'18.769" E. The mine lease area falls under the Survey of India Toposheet No: 63D/15 and falls in Seismic zone-III.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category 'A' as the mine lease area is greater than 250 ha and appraised at the Central level.
- iv. The proposal was earlier considered in the 11<sup>th</sup> EAC (Non-Coal Mining) meeting held during 1-2 March, 2023 wherein the EAC after detailed deliberations deferred the proposal for want of requisite information. Then, the Project Proponent submitted the information on 20.04.2023 in Parivesh portal. Accordingly, the proposal was considered in the 15<sup>th</sup> EAC (Non-Coal Mining) meeting held during 30-31 May, 2023.

Based on observation of EAC, compliance of observation of EAC in its meeting held during 1-2 March, 2023 made by Project Proponent are detailed below:

S. No	Observation of EAC in its meeting held during 1-2 March, 2023	Reply by Project Proponent
1	The Project Proponent needs to submit the action plan to monitor the movement of tigers in the vicinity of the mine lease area and the Project Proponent needs to ensure the tiger corridors passing in the study area from Digital Support System (DSS) available in NTCA website	The Project Proponent has submitted that the Tiger Corridor is not passing through the study area as verified from DSS available in NTCA website. PP also submitted the map showing the depiction of mining lease and its 10 km zone of influence along with the Protected area, Tiger Corridors and Beat boundary of the Territorial Division.  The action plan to monitor the movement of tigers with participation of mine staff, workers, JFMC members, students and Forest Department was prepared by Sh. Ravikant

		<p>Mishra IFS, CCF(Rtd), Bhopal, which is detailed below:</p> <ol style="list-style-type: none"> <li>i. The field data collection and analysis of the same will be done by field experts;</li> <li>ii. Equipment like camera trap, its accessories, binoculars, handheld GPS, mobile phones etc. will be procured and provided;</li> <li>iii. The awareness on wildlife importance and their conservation will be created amongst locals with the help of time-tested means such as Pamphlets distribution and Education Camps etc;</li> <li>iv. Poster presentations, talk show etc. will be organized at school and Gram Panchayat level in the vicinity. Winners &amp; participants will be suitably rewarded for encouragement and</li> <li>v. Action Plan will be implemented through Satna Forest Division.</li> </ol> <p>In addition, project proponent will also communicate with local populace and project employees to gather intelligence inputs on presence and or tracking incidental observations of tiger, if any. Information so collected will be shared with forest department. An amount of Rs. 16.50 Lakhs is allotted towards contribution to Forest Dept. for monitoring the movement of Tigers.</p>
2	<p>The Project Proponent needs to submit the plan to avoid the shifting the proposal for diversion of canal.</p>	<p>The Project Proponent has submitted that two small portions of the canal passing through the lease area will not be diverted. A safety barrier of 50 meters on either side of the canal will be left and plantation will be done on the safety barrier. Accordingly, the modified conceptual land use plan has been updated.</p>
3	<p>The Project Proponent needs to collect one-month fresh baseline data by new EIA consultant to ascertain the ground reality and for</p>	<p>The Project Proponent has submitted that one-month fresh baseline data has been collected during 09<sup>th</sup> March 2023 to 09<sup>th</sup> April, 2023 for the purpose of revalidation. PP also submitted that the ambient air quality has carried out in 10 locations, soil sampling in 10 locations, Surface</p>



revalidation of earlier baseline data.	water in 02 locations, Ground water in 09 locations and Noise survey in 10 stations within the study area.					
	<b>Ambient Air Quality</b>					
	S.No	Parameters	Winter 2021	Summer 2023	Standards ( $\mu\text{g}/\text{m}^3$ )	
	1	PM <sub>10</sub>	55.1-61.7 $\mu\text{g}/\text{m}^3$	64.7-72.6 $\mu\text{g}/\text{m}^3$	100	
	2	PM <sub>2.5</sub>	25.9-36.9 $\mu\text{g}/\text{m}^3$	34.7-46.3 $\mu\text{g}/\text{m}^3$	60	
	3	SO <sub>2</sub>	12.1-18.1 $\mu\text{g}/\text{m}^3$	15.9-21.3 $\mu\text{g}/\text{m}^3$	80	
	4	NO <sub>2</sub>	17.8-24.8 $\mu\text{g}/\text{m}^3$	21.6-28.3 $\mu\text{g}/\text{m}^3$	80	
	Location code		Winter 2021		Summer 2023	
			L <sub>day</sub>	L <sub>Night</sub>	L <sub>day</sub>	L <sub>Night</sub>
	N1		47.6	43.8	52	40
N2		46.9	42.9	52	39	
N3		50.3	47.1	56	42	
N4		47.7	44.8	53	40	
N5		45.3	41.9	50	38	
N6		42.8	39.7	48	36	
N7		55.6	52.8	61	49	
N8		41.8	38.4	47	34	
N9		47.2	44.1	53	39	
N10		44.9	41.8	49	37	
Standards Day Time dB (A):		Industrial: 75, Commercial: 65 Residential: 55, Silence: 50				
Standards Night Time dB (A):		Industrial: 70, Commercial: 55 Residential: 45, Silence: 40				
<b>Surface Water quality</b>						
S.No	Parameters	Winter 2021	Summer 2023			
1	pH	6.86-6.94	7.10			
2	EC	586.8-659.7	1310			
3	DO, mg/l	5.6-6.1	4.9			
4	Total Hardness, mg/l	154.2-168.5	380			
5	Fluoride (mg/l)	0.4-0.5	0.9			
6	Sulphate (mg/l)	31.8-32.6	74			
<b>Ground Water quality</b>						
S. No	Parameters	Winter 2021	Summer 2023	Standards		
1	pH	7.01-7.62	7.0-7.6	6.5 to 8.5		
2	Fluoride (mg/l)	0.6-1.1	1.0-1.1	1-1.5		
3	Sulphate (mg/l)	34.6-112.5	45-107	200-400		

		4	EC	590-1560	656-1480	-	
		5	Total Hardness, mg/l	186.21-440.35	176-420	200 – 600	
		6	Chlorides, mg/l	86.5-282.6	105-225	250-1000	
		7	Nitrates, mg/l	3.9-22.5	11-28	45	
		8	Iron, mg/l	0.06-0.13	0.5-1.3	0.3	
		Soil quality					
		S.No	Parameters	Winter 2021	Summer 2023		
		1	pH	6.76-7.96	6.7-7.8		
		2	Electrical Conductivity (µmhos/cm)	82.4-302.4	119-318		
		3	Organic Carbon	0.19-0.46	0.14-1.0		
4	Nitrogen (kg/ha)	38.5-56.4	36.85-62.74				
5	Phosphorus (kg/ha)	38.6-66.9	45.5-72.9				
6	Potassium (kg/ha)	126.9-246.6	132.16-252.0				
		<p>PP also submitted the test report for analysis of ambient air quality, noise level, water quality and soil analysis done by Pragathi Labs &amp; Consultants Pvt. Ltd (Lab recognized by Ministry of Environment, Forests, Govt. of India).</p>					
4	The Project Proponent needs to revisit the safety distance of 300m to be left for habitation in consultation with DGMS.	<p>Mining operations will commence beyond 500 m from the habitation. The Project Proponent submitted they will ensure that</p> <ol style="list-style-type: none"> <li>i. No mining activity to be carried out within 100 m from habitation</li> <li>ii. Beyond 100 m and within 300 m from habitation, controlled blasting will be conducted as per the conditions prescribed by DGMS under regulation 164 of MMR 1961.</li> </ol> <p>Moreover, following measures will also be taken to safeguard nearby habitations from blasting:</p> <ol style="list-style-type: none"> <li>a) Mining will commence beyond 500m from the habitation.</li> <li>b) After opening of the mine, the management will initially carry out ground vibration study through reputed institute to determine maximum charge per hole and</li> </ol>					

		<p>charge to be blasted per delay so that vibrations are minimized and kept within permissible safe limits fixed by DGMS.</p> <ul style="list-style-type: none"><li>c) Necessary permission will be obtained from DGMS under Regulation no. 164 of MMR'1961 for conducting controlled blasting within 300m but beyond 100m from Habitation.</li><li>d) Preparation of charge and charging and stemming of holes will be done by a qualified blaster. Proper stemming of holes will be always carried out.</li><li>e) Muffle blasting and pre-splitting will be practiced to control fly rock and vibration propagation.</li><li>f) Before a shot is charged, stemmed or fired, sufficient warnings by signal will be given over the entire area falling within the danger zone and ensure that all persons within such area have taken proper shelter.</li><li>g) Delay detonators will be used between holes as per the face configuration and advance planning. Short delay in blasting of successive blast holes effectively reduce the vibration problem and prevent flying fragments</li><li>h) Proper inspection after shot firing will be done by the blaster</li><li>i) All necessary precautions as enumerated under Metalliferous Mines Regulations will be taken</li><li>j) Free face will be sufficiently cleared from any loose material before blasting</li><li>k) Number of holes to be blasted at a time will be kept minimum to control the vibration and noise</li><li>l) Holes will be fired towards the free face. Blasting will be avoided during foggy weather and high wind velocity</li><li>m) Over charging will be avoided. The maximum charge per delay will be kept within limit to minimize ground vibration.</li></ul>
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		PP also submitted the Surface Plan showing the safety distances of 100m, 300m and 500m from nearest habitation, roads, etc.
5	The Project Proponent needs to submit the action plan for promotion of solar energy in the mine lease area and to the local people and also the action plan to reduce the diesel consumption by deploying CNG/Electric vehicles.	<p>The Project Proponent has submitted the action plan for promotion of Solar Energy in the mining lease area and to the local people as given below:</p> <ol style="list-style-type: none"> <li>1. Solar panels shall be installed on roof-top of infrastructure buildings like Mine office, Workshop etc. It would cover an area of around 300 sq. mt. to generate 15 KW of green energy.</li> <li>2. Solar street lighting will be provided in the village roads, and</li> <li>3. Solar lantern will be provided to local people.</li> </ol> <p>PP earmarked a budget of Rs 26.50 Lakhs towards promotion of solar energy.</p> <p>PP also submitted the action plan to reduce the diesel consumption by deploying CNG/ Electric vehicles as given below:</p> <ol style="list-style-type: none"> <li>i. Presently CNG filling station is not available in the area, as and when such facility is available, company will explore the possibility of deploying CNG vehicles.</li> <li>ii. Electric trucks are not common in mining at present. Possibility will be explored after techno-commercial assessment.</li> </ol>
6	The Project Proponent needs to submit an action plan for the purpose of local employment in such a way that atleast one person in PAF's shall get employment.	The Project Proponent has submitted that when mine is in operation, it will generate employment to about 132 nos. in various categories. PAFs will be given preference in employment as per their qualification and skill set. Bathiya mine is expected to generate direct and indirect employment opportunities of about 1450 nos. and PAFs (639) will get priority.

		<p>Indirect employment opportunities are likely to be generated in service related activities like transportation of limestone; ancillary services like repair workshops; trading services for consumer goods, spare parts, sundry items; green belt and horticultural works in the project; etc. Apart from direct and indirect employment opportunities to PAFs, Company proposes following activities for youths, women, farmers etc. for upgrading their skill set to make them employable, self-employed and / or increase their income level.</p> <ol style="list-style-type: none"> <li>1. Organizing skill development trainings to identified youth in the trades like computer literacy, accounting, driving, fitters, welders, electricians, security, masons, plumbers, carpenters, hospitality, house-keeping, horticulture, gardening etc.</li> <li>2. Support and facilitation for income generation activities to women by formation of self-help groups for self-sustaining activities, training on computer literacy, beautician course, accounting, hospitality, dairy farming, poultry farming, kitchen gardening etc.</li> <li>3. Increase the income level of farmers through following programs/activities:             <ol style="list-style-type: none"> <li>i. Capacity building program / skill development to the farmers and exposure visits to enhance yield from the agriculture.</li> <li>ii. Awareness program on better agriculture practices, increasing yield, availability of improved &amp; new variety of seeds, fertilizer, better irrigation practices, mechanized farming, farm-yard manure, organic farming etc. in consultation with experts from agriculture deptt, agriculture university, KrishiVigyan Kendra (KVK) etc</li> <li>iii. Facilitating in checking of soil quality and measures for increasing the fertility.</li> </ol> </li> </ol>
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		<ul style="list-style-type: none"> <li>iv. Facilitating in development of horticultural produce to create tree-based farming system, kitchen garden activities.</li> <li>v. Facilitating in creation of Farmers Producer Organisation (FPO).</li> <li>vi. Livestock development through artificial insemination, poultry</li> <li>vii. Animal husbandry program like breed development, vaccination, green fodder cultivation &amp; training etc.</li> </ul>
7	The Project Proponent needs to submit the timeline for land acquisition for an area of 258.230 ha.	The Project Proponent has submitted that the land will be purchased for mining in phased manner. It is planned to obtain surface rights of the land required for first five year mining operations within two years of start of operation. The balance land will be purchased in phases.
8	The Project Proponent needs to submit time line for installation of crusher plant of 1400 TPH.	The Project Proponent has submitted that the installation of crusher plant of 1400 TPH will start immediately after obtaining CTE and the installation work will be completed within 1 year.
9	The Project Proponent needs to carry out hydrogeology study and indicate location of garland drains, retaining walls and silt check dam.	<p>The Project Proponent has submitted that the detailed hydrogeology study was carried out during 27-30 November 2020 and 22-24 April 2021.</p> <p>PP also submitted that the Garland drains will be made around the mining pits to channelize surface water from higher elevation areas to nearby areas outside mining lease. The Garland drains will have silt check dams at regular interval. Finally, the Garland drains will be terminated into settling ponds where the sediments will get settled. Retaining walls will be erected around the temporary waste dumps, which will eventually be backfilled into the mined out pits. Further, PP has submitted the surface plan showing the locations of garland drain, settling ponds and silt check dams.</p>
10	The Project Proponent needs to obtain permission from CGWA for drawing ground water.	The Project Proponent has submitted that the application has been submitted to CGWA vide reference no. 21-4/1658/MP/MIN/2022 dated 15 <sup>th</sup> November 2022 to obtain NOC. Water

		abstraction charges are paid and application is in advance stage of processing at CGWA, HQ. Presentation before CGWA committee made on 02 <sup>nd</sup> May 2023. PP also submitted the status of application submitted to CGWA.
11	The Project Proponent needs to submit the present status of the court case no: 484 of 2017 pending at Hon'ble High Court of Madhya Pradesh.	The Project Proponent has submitted that the petitioner SNS Minerals has filed a WP no 484 of 2017 before the HC of MP at Jabalpur Bench. The matter is pending for admission hearing. The matter came for hearing on 31 <sup>st</sup> March 2023. But Petitioner sought time from the court and made oral averments before the court that they want to bring subsequent orders of centre/state on record. Next date of hearing is awaited. PP also submitted the current status of the case downloaded from the website of High Court of Madhya Pradesh.

### 3. Observation and Recommendation of the EAC:

The Project Proponent/Consultant presented the KML file to indicate the salient surface features in the study area. No nallah is present within the mine lease area. National Highway is located adjacent to the mine lease area at a distance of 0.1 km, N. Few operating mines exist in the vicinity of the mine lease area. No National Park, Wildlife Sanctuary, Elephant/Tiger Reserve, Eco-Sensitive Zone (ESZ) within 10 km radius of the mine lease area.

The EAC deliberated on the additional details submitted by the Project Proponent and the Consultant. The EAC asked the Project Proponent whether the instant mine lease area falls under the Greater Panna Landscape or not. The Project Proponent informed the EAC that the Panna Tiger Reserve Buffer boundary is located at a distance of ~84.6 km from the mine lease, area. The EAC was of the view that Tiger corridors are not identified in the Panna Tiger Reserve. The EAC asked the Project Proponent to verify with Greater Panna Landscape delineated by the Wildlife Institute of India (WII). The EAC asked the Project Proponent about the movement of tigers in the study area. The Project Proponent informed the EAC that the tiger movement is observed between Panna and Bandhavgarh area. The EAC asked the Project Proponent to authenticate from the Chief Wildlife Warden regarding movement of tigers in the study area.

The Project Proponent informed the EAC that the shifting of canal is avoided and a safety barrier of 50m on either side of the canal will be maintained. A one-month fresh baseline data was collected during 09<sup>th</sup> March 2023 to 09<sup>th</sup> April, 2023 for the purpose of revalidation. The ambient air quality monitoring was carried out in 10 locations, soil sampling in 10 locations, Surface water in 02 locations, Ground water

in 09 locations and Noise level were monitored in 10 stations within the study area. Project Proponent also presented the comparison of both baseline data's i.e., Winter 2021 and Summer 2023. Mining will commence beyond 500m from the habitation. After commencement of mining operations, ground vibration study through reputed institute will be carried out to determine maximum charge per hole and charge per delay. Necessary permission will be obtained from DGMS to conduct blasting.

The Project Proponent also informed the EAC that about 15 kW of solar power will be generated from solar roof top within premises from the 1<sup>st</sup> year of mining operation with a budget of Rs 15.0 Lakhs. The EAC was of the view that the proposed capacity of 15 kW is very small. The Project Proponent informed the EAC that based on the generation of solar energy, the capacity will be increased upto 2-3 MW within a period of 2 years. The EAC asked the Project Proponent to submit revised action plan for adopting solar energy with timeline as committed. Further, the Project Proponent informed the EAC that when mine is in operation, it will generate employment to about 132 nos in various categories. The EAC was of the view that the employment scheme needs to be more specific by mentioning the skills to be imparted, physical and financial targets and timelines.

The Project Proponent informed the EAC that the petitioner SNS Minerals Limited has filed an application on 09.05.2023 for withdrawal of Writ Petition No: 484 of 2017 before the Hon'ble High Court of Madhya Pradesh at Jabalpur Bench. Application is pending for hearing and final disposal. As on date, as per the records from the website of Hon'ble High Court is shown as IANo.6358/2023-Withdrawal of Petition and for final hearing (RULE NISI).

After detailed deliberations made by the Project Proponent and the Consultant, the EAC opined that the action plan to monitor the movement of tigers in the vicinity of the mine lease area needs to be vetted by the Chief Wildlife Warden. The EAC not convinced with the action plan submitted for the purpose of local employment and asked the Project Proponent to revisit the same with more specific manner. The EAC also observed that the petition is not yet withdrawn and pending for hearing. The EAC asked the Project Proponent to submit the copy of withdrawal petition filed on 09.05.2023 before the Hon'ble High Court of Madhya Pradesh at Jabalpur Bench. Based on the above discussions held, the EAC **deferred** the proposal for want of following additional information: -

- i. The Project Proponent needs to submit the certificate from the Chief Wildlife Warden regarding movement of tigers in the study area.
- ii. The Project Proponent needs to verify whether the instant mine lease area falls in the Greater Panna Landscape delineated by the Wildlife Institute of India (WII).



- iii. The Project Proponent needs to submit the approved action plan to monitor the movement of tigers in the vicinity of the mine lease area from the Chief Wildlife Warden.
- iv. The Project Proponent needs to revisit the action plan for the purpose of local employment in a more specific manner by mentioning the skills to be imparted, physical and financial targets and timelines.
- v. The Project Proponent needs to submit the map demarcating the land to be purchased and already purchased land. PP also needs to submit the phase wise plan for land acquisition.
- vi. The Project Proponent needs to submit the copy of withdrawal petition filed on 09.05.2023 before the Hon'ble High Court of Madhya Pradesh at Jabalpur Bench.
- vii. The Project Proponent needs to submit the undertaking as committed before the EAC towards promotion of solar energy.

**1.4 Amendment in ToR dated 06.02.2023 of M/s NMDC Ltd for Majhgawan Diamond Mine with total excavation of 13.90 LTPA [ROM Kimberlite ore @ 8 LTPA and Overburden removal @ 5.90 LTPA for production of 1.00 lakh carats of Diamonds per annum] with the mine lease area of 113.332 Ha (Main Lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh - [File No. IA-J-11015/120/2018-IA-II(M), Proposal no: IA/MP/MIN/297928/2023] - Amendment in ToR**

The instant proposal is for amendment in ToR dated 06.02.2023 of M/s NMDC Ltd for Majhgawan Diamond Mine with total excavation of 13.90 LTPA [ROM Kimberlite ore @ 8 LTPA and Overburden removal @ 5.90 LTPA for production of 1.00 lakh carats of Diamonds per annum] with the mine lease area of 113.332 Ha (Main Lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals. The instant mine lease area is located within the Panna (Gangau) Wildlife Sanctuary and attracts the general conditions and falls under Category A and appraised at the central level.
- ii. The Project Proponent obtained Terms of Reference (ToR) vide ToR letter dated 06.02.2023 for mining of Diamond in Majhgawan Diamond Mine of M/s NMDC Ltd with total excavation of 13.90 LTPA [ROM Kimberlite ore @ 8 LTPA and Overburden removal @ 5.90 LTPA for production of 1.00 lakh carats of

- Diamonds per annum] in the mine lease area of 113.332 Ha (Main Lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh.
- iii. Now, the Project Proponent requested for amendment in specific condition (x) *“As per the observation of the subcommittee, the Project Proponent needs to submit the approved modify mining plan by IBM at the time of appraisal of EC”*.
  - iv. The Project Proponent has submitted that the observation of the Subcommittee is to change the current working height of the Bench to 6m from 10m by maintaining bench width 8 to 10 m. With this scenario, almost 78.97 lakh tons of Kimberlite ore is likely to be blocked which is around 89% of the material as per the approved UPL and hence not feasible. Considering the mine's economic viability and overall pit slope stability by maintaining bench width of 8 to 10m and bench height of 10m, the same bench parameters shall be retained as per already approved Mining Plan by IBM.
  - v. The Project Proponent has submitted that the scientific study was also conducted by engaging Department of Mining Engg, AKS University, Satna on optimum bench height evaluation and slope stability analysis at Main Mining Lease, DMP, Panna. As per the study, switching over to any new bench configuration (from the existing height of 10m to 6m or less) will have serious impact of the overall pit slope stability, enhancement of broken area by blasting thereby leading to damaging effect on the bench slope. Any additional blasting due to reduction of height also leads to unstable highwall, post blast impact and blocking of over 80% of the kimberlite ore. In addition to above, reducing the bench height to 6m will lead to blocking of more than 80% of the Kimberlite ore resulting into mineral conservation issues and other economic challenges. Considering the above, it is proposed to keep the present bench layout as already approved in Mining Plan.

### **3. Observation and Recommendation of the EAC: -**

The Project Proponent informed the EAC that the instant proposal is for amendment in ToR dated 06.02.2023 w.r.t change in mine bench height from 6m to 10m. The Project Proponent reiterated the specific condition (x) stipulated in ToR letter dated 06.02.2023 that *“As per the observation of the subcommittee, the Project Proponent needs to submit the approved modify mining plan by IBM at the time of appraisal of EC”*. The Project Proponent informed the EAC that during the site visit on 30.10.2021, the subcommittee has recommended to change the current working height of the Bench to 6m from 10m by maintaining bench width 8 to 10 m. In view of the above, amendment in ToR dated 06.02.2023 has been sought to change in mine bench height from 6m to 10m.

The Project Proponent also informed the EAC that the scientific study was also conducted by engaging Department of Mining Engg, AKS University, Satna on optimum bench height evaluation and slope stability analysis at Main Mining Lease, DMP, Panna. The soil mix shale and sandstone and kimberlite samples were tested for Direct Shear test. For further validation, the same was tested in RKCT-Jabalpur,

an NABL accredited laboratory. The same data interpreted with the help of FLAC Software for the calculation of Factor of Safety (F-O-S). The Factor of Safety calculated as 1.62. Bench configuration with 10m height, 10m width with 70 degree slope angle (except the topsoil bench of 6m (average) height and 9m width) resulted a satisfactory FOS value of more than 1.5. As per DGMS guidelines, a minimum of 1.3 FoS in case of temporary slopes and 1.5 FoS in case of permanent slopes is required. with the deepening of the existing pit the top benches will remain stable by following controlled blasting techniques. Further, the Project Proponent informed the EAC that the bench height of 10m has been already approved by Indian Bureau of Mines (IBM) in the Mining Plan dated 28.02.2020. As per the approved mining plan, the highwall overall slope angle is 40 degrees, with 10m height and 10m width. Thus, the bench configuration has given almost similar overall slope angle (+ 40 degrees) and gave a satisfactory FOS value of more than 1.25.

The Project Proponent informed the EAC that switching over to any new bench configurations (from the existing height of 10 M to 6 M or less and 10M width of the benches) will have serious impact on the overall pit slope stability, enhancement of broken area being created by blasting thereby leading to damaging effect on the bench slope. Any additional blasting due to reduction of height also leads to unstable highwall, post-blast impact (like blast vibration, air blast, frequency etc.) their influence on the in-situ rock and environment, etc. In addition to above, reducing the bench height to 6 meter will lead to blocking of over 80% of the Kimberlite Ore resulting into mineral conservation issues, which are also violating MMDR Act 1957 and MCR 2016 & MCDR 2017 provisions and attracting other economic challenges.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC agreed to the amendment sought by the Project Proponent w.r.t change in mine bench height from 6m to 10m. Thus, the EAC **recommended** the proposal for amendment in ToR dated 06.02.2023 w.r.t change in mine bench height from 6m to 10m to M/s NMDC Ltd for Majhgawan Diamond Mine with total excavation of 13.90 LTPA [ROM Kimberlite ore @ 8 LTPA and Overburden removal @ 5.90 LTPA for production of 1.00 lakh carats of Diamonds per annum] with the mine lease area of 113.332 Ha (Main Lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh.

**1.5 Amendment in ToR dated 06.02.2023 of M/s NMDC Ltd for Majhgawan Diamond Mine for 0.72 LTPA of over burden removal and Processing of Kimberley ore (8 LTPA) for production of 1.00 lakh carats of Diamond per annum with the mine lease area of 162.631 Ha (Supplementary Mine lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh - [F.No. IA-J-11015/121/2018-IA-II(M), Proposal no: IA/MP/MIN/297941/2023] - Amendment in ToR**

The instant proposal is for amendment in ToR dated 06.02.2023 of M/s NMDC Ltd for Majhgawan Diamond Mine, Panna for 0.72 LTPA of over burden removal and Processing of Kimberley ore (8 LTPA) for production of 1.00 lakh carats of Diamond

per annum with the mine lease area of 162.631 Ha (Supplementary Mine lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals 2(b) Mineral beneficiation. The instant mine lease area is located within the Panna (Gangau) Wildlife Sanctuary and attracts the general conditions and falls under Category A and appraised at the central level.
- ii. The Project Proponent obtained Terms of Reference (ToR) vide ToR letter dated 06.02.2023 for mining of Diamond in Majhgawan Diamond Mine M/s NMDC Ltd for 0.72 LTPA over burden removal and processing of Kimberlite ore of 8.0 LTPA for production of 1.00 lakh carats of Diamond per annum in the mine lease area of 162.631 Ha (Supplementary mine lease), located at Village Majhgawan, District Panna, Madhya Pradesh.
- iii. Now the Project Proponent requested for amendment in ToR as mentioned below in table: -

S. No	Reference as per ToR dated 06.02.2023	Clause as per ToR dated 06.02.2023	Amendment sought by Project Proponent
1	Subject, Line 2, Pg. No: 1	Majhgawan Diamond Mine, Panna of M/s NMDC Ltd. for 0.72 LTPA of over burden removal and Processing of Kimberley ore ( <b>8 MTPA</b> ) for production of 1.00 lakh carats of Diamond per annum with the mine lease area of 162.631 Ha (Supplementary Mine lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh	Majhgawan Diamond Mine, Panna of M/s NMDC Ltd. for 0.72 LTPA of over burden removal and Processing of Kimberley ore ( <b>8 LTPA</b> ) for production of 1.00 lakh carats of Diamond per annum with the mine lease area of 162.631 Ha (Supplementary Mine lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh

### 3. Observation and Recommendation of the EAC: -

The Project Proponent informed the EAC that the instant proposal is for amendment in ToRw.r.t typographical error in ToR letter dated 06.02.2023. The Project Proponent informed that in subject of ToR letter dated 06.02.2023 it was inadvertently mentioned that processing of Kimberley ore as 8 MTPA instead of 8 LTPA. The EAC observed that it was inadvertent typographical error in ToR letter dated 06.02.2023 and agreed to the amendment sought by the Project Proponent. Thus, the EAC **recommended** the proposal for amendment in ToR letter dated

06.02.2023 as per table under 2(iii) for Majhgawan Diamond Mine M/s NMDC Ltd for 0.72 LTPA of over burden removal and Processing of Kimberley ore (8 LTPA) for production of 1.00 lakh carats of Diamond per annum with the mine lease area of 162.631 Ha (Supplementary Mine lease), located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh.

**1.6 Sijimali Bauxite Mine (Auctioned Block) of M/s Vedanta Limited for mining of Bauxite with proposed Production Capacity: 9.0 Million TPA of Bauxite, Top Soil: 0.18 Million TPA, Waste: 7.40 Million TPA & Subgrade: 1.42 Million TPA; (Total Excavation: 18.0 Million TPA) along with installation of 2 Crushers (2 x 1200 TPH) in the mine lease area of 1549.022 ha, located at Villages Aliguna, Ambajhola, Bundel, Chulbari, etc., Tehsils: Thuamul Rampur & Kashipur, Districts: Kalahandi & Rayagada, State: Odisha - [F.No: IA-J-11015/6/2023-IA-II(NCM), Proposal No: IA/OR/MIN/423359/2023, Consultant: M/s JM EnviroNetPvt. Ltd.] -Terms of Reference (ToR)**

The instant proposal is for mining of Bauxite in Sijimali Bauxite Mine (Auctioned Block) of M/s Vedanta Limited with proposed Production Capacity: 9.0 Million TPA of Bauxite, Top Soil: 0.18 Million TPA, Waste: 7.40 Million TPA & Subgrade: 1.42 Million TPA; (Total Excavation: 18.0 Million TPA) along with installation of 2 Crushers (2 x 1200 TPH) in the mine lease area of 1549.022 ha, located at Villages Aliguna, Ambajhola, Bundel, Chulbari, etc., Tehsils: Thuamul Rampur & Kashipur, Districts: Kalahandi & Rayagada, State: Odisha.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude: 19°28'42.42"N to 19°32'02.35" N and Longitude: 83°06'04.66" E to 83°09'49.81" E. The mine lease area falls under the Survey of India Toposheet No: E43F2 & E43F3 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 250ha and appraised at the Central level.
- iii. Details of Mine Lease:
  - a) The Project Proponent has submitted that earlier Larsen & Turbo had Sijimali Block with an area of 1549.09 ha for which ToR has been issued by the MoEF&CC vide Proposal No. IA/OR/MIN/35455/2015 & File No. J-11015/100/2016-IA.II(M) dated 15.03.2016.
  - b) Now this block was granted to M/s. Vedanta Ltd. having the same area through E-auction dated 09.02.2023 and accordingly Govt. of Odisha granted the Letter of Intent (LoI) for grant of mining lease vide letter no: 2103/SM-MC2-MC-0006-

2023/2103/S&M, Bhubaneswar dated 01.03.2023 over an area of 1549.022 ha in favour of M/s. Vedanta Ltd and the Lol is valid up to 28.02.2026.

iv. Land Use/Land Cover of the Mine Lease Area:

Private land	127.9 Ha
Government land	722.9 Ha
Forest land	699.7 Ha
Total Mining lease area (MLA)	1549.022 Ha
Private land for crusher, workshop & other infrastructure outside the MLA	No infrastructure is proposed outside the mine lease area
Additional information (if any)	Total ML Area is 1549.02 ha, as per auction documents; Govt. Land is 1257.311 Ha, Private Land is 133.810 Ha & Forest Land is 157.901 Ha.  Whereas as per revised certified land schedule; 722.9 Ha is Govt Land, 699.7 Ha is Forest Land and 127.9 Ha is Pvt. Land.

v. Details of Mining Plan:

- a) The Project Proponent has submitted that the Mining Plan is yet to be approved by Indian Bureau of Mines (IBM).
- b) The method of mining will be fully mechanized opencast method of mining with HEMM with deep hole drilling & blasting with combination of loaders & tippers. Total Geological Resources estimated as 311.01 Million TPA and Mineable Reserves estimated as 299.58 Million TPA. Life of the mine will be ~31 years.
- c) The proposed bench height and width will be 8m and 20 m respectively. The individual bench slope will be 85° and overall pit slope will be 30°. Ultimate depth of mining will be 45m bgl.
- d) The bauxite will be transported from mine face to crusher or ROM ore stock pile by rear dump trucks. The bauxite will be loaded by front end loaders or hydraulic excavators. Crushed bauxite will be transported up to the railway siding by covered trucks and from the railway siding up to plant by rail.
- e) At conceptual stage estimated 4.78 million tonnes of top soil will be generated and same will be used for greenbelt/plantation. At conceptual stage, estimated 204.29 million tonnes of waste will be generated. Waste will be used to backfilled the 1204.57 ha excavated area.
- f) No mining activities exist in the mine lease area and no mining activities have been carried out by Vedanta Ltd. as the block has been recently auctioned & LOI letter issued to the Company on 01.03.2023. Since, Sijimali Block is a virgin block and mining lease is yet to be granted, so no illegal mining has been carried out within the mine lease area.

vi. Water requirement:

Total water requirement	725 KLD	Fresh water	-
		Treated water	-
Quantity of fresh & treated water will be figured out during the preparation of Hydrogeology Report.			
Source	The water will be sourced from the Ground, Surface & Mine Sump.		
Permission	Water will be sourced from ground water & surface water and water will be withdrawal after taking the permission from the Competent Authority.		

vii. Nearest village / town/ highway/railway station / water bodies/monument

Particulars	Particular's Name	Distance & Directions
Village	Habitation	Within the mine lease area
Town	Bhawanipatna	~39 km, North
Highway	SH-44	~1.5 km, West
Railway Station	Sikarpai	~ 20 km, SE
Water Bodies	Chauladhoba Nallah	~0.4 km, South

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/ No	Details of Certificate/letter/Remarks
Forest Land	No	<p>699.7 ha of forest land is involved within the ML Area. Application for Forest Clearance is under process.</p> <p>i. Request Letter regarding Forest Clearance for Sijimali Mine has also been submitted to the Principal Chief Conservator of Forest-Nodal, Bhubaneswar, Odisha and Divisional Forest Officer Kalahandi &amp; Rayagada on 28.04.2023</p> <p>ii. M/s. Vedanta Limited requested District Collector &amp; District Magistrate and Divisional Forest Officer of Rayagada &amp; Kalahandi on 09.03.2023 for Compensatory Afforestation Land allotment. Again, it was requested to District Collector &amp; District Magistrate and Divisional Forest Officer of Rayagada &amp; Kalahandi on 14.04.2023 regarding the same.</p> <p>iii. Subsequently, Collector Rayagada requested all Tehsildars of the district on</p>

		20.04.2023 to identify suitable land for Compensatory Afforestation purpose iv. The revised land schedule after Hal-Sabik comparison and DLC land status verification have been submitted to the Tehsildar of Thuamul Rampur and Kashipur of Kalahandi and Rayagada districts respectively on 25.04.2023 for final authentication.
National park	No	National Park is not located within 10 km of the area.
Wildlife Sanctuary	No	Wildlife Sanctuary is not located within 10 km of the area. Karlapat Wildlife Sanctuary located at a distance of ~12.9 km, North.
Eco-Sensitive Zone(ESZ)/Eco-Sensitive Area(ESA)	No	Eco-Sensitive Zone (ESZ) /Eco-Sensitive Area (ESA) is not located within 10 km of the area.
Elephant/Tiger Reserve	No	No Elephant/ tiger reserves is located within 10 km of the area.
Coastal Regulation Zone (CRZ)	No	The proposed mine is located in District Kalahandi & Raygada of State Odisha, which is not a coastal zone. Therefore, the proposed mine does not come under purview of CRZ.
Schedule-I species (No.s and name of schedule-I species with authenticated letter)& Wildlife Conservation Plan		List of flora & fauna is under preparation. Presence of Schedule I species will be finalized after the authentication of list of flora & fauna and Wildlife Conservation Plan will be prepared accordingly.

ix. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	Greenbelt will be developed over an area of 33.43 ha with 83,575 nos of saplings @ 2500 and 1204.57ha area will be covered under plantation/regrassing with 12,04,570 nos of saplings @ 1000
Budget for green plant& plantation till the end of life of mine.	Total nos of saplings 12,88,145 Budget Proposed: Rs. 25.76 Crore
Budget for nursery	15 Lakhs
No. of tree cuts in the mine lease area and compensatory afforestation	The nos of tree cutting will be ascertained after the tree enumeration and compensatory afforestation will be done accordingly
Particulars for Green belt/plantation	Area covered (in Ha)



7.5 m barrier & non-mineralized zone	33.43 ha
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x. Rehabilitation & Resettlement:

R & R details	The mine site falls in 18 revenue villages covering 500 nos of PAFs & 100 nos of PDFs. R&R study is under process & will be incorporated in Draft EIA/EMP Report.
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xi. Details of Court Cases:

Court Case, No and its present status	One Court Case is Pending.  Case Details SLP (C) 616/2023 – Larsen & Toubro v Union of India &Anr. SLP has been filed before the Supreme Court of India challenging the Orissa High Court order dated 02.03.2023 holding that L&T is not entitled to the mining lease for the Sijimali Bauxite Block. However, this case has no impact on consideration of the current application made by M/s. Vedanta for the Sijimali Bauxite Block.
Undertaking by Project Proponent w.r.t court case	The Project Proponent has submitted an undertaking dated 20.05.2023 stating that there is no other case pending in respect of the project.

xii. The Project Proponent submitted the Affidavit in a non-judicial stamp paper of Rs 100 bearing no: R 010981 dated 24.03.2023 stating that they will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.

xiii. The total project cost estimated as Rs792.0 Cr and about 374 persons will get employment.

**3. Observation and Recommendation of the EAC: -**

The Project Proponent/Consultant presented the KML file to indicate the site features in the study area of 10 km radius. The Project Proponent has shown the boundary of the mine lease area and informed the EAC that the total mine lease area is 1549.022 Ha, out of which 699.7 Ha is a Forest Land. The mine lease area falls in two districts namely Kalahandi and Rayagada Districts. The EAC asked the Project Proponent whether any elephant corridor passing within the study area. The Project Proponent informed the EAC that the Karlapat Wildlife Sanctuary is located at a distance of ~12.9 km, North from the mine lease area and the Draft Notification for Karlapat Wildlife Sanctuary was notified vide S.O. 2894(E) dated 09.08.2019. AS per the Draft Notification, the Eco-Sensitive Zone shall be to an extent of 0 (zero) to 10 kilometres around the boundary of Karlapat Wildlife Sanctuary and the area of the Eco-Sensitive Zone is 939.58 square kilometres. The EAC observed that the villages such as Malipadar and Bundel are falling under Eco-Sensitive Zone of Karlapat Wildlife Sanctuary as per Draft Notification of Karlapat Wildlife Sanctuary. The EAC

asked the Project Proponent that whether letter/certificate has been obtained from the Forest Department in this regard. The Project Proponent informed the EAC that they are in the process of obtaining the certificate from the Forest Dept. The EAC was of the view that certificate/letter from the Forest Dept. is mandatory.

The EAC asked the Project Proponent whether there is any movement of elephants observed in the study area. The Project Proponent informed the EAC there is no movement of elephants in the study area and further informed that the authenticated list of flora and fauna will be submitted along with the Final EIA/EMP report and accordingly Wildlife Conservation will be prepared. The EAC noted that that as per the Draft Notification of Karlapat Wildlife Sanctuary, the elephant is observed in the study area. The EAC asked about the presence of school in the vicinity of the mine lease area. The Project Proponent informed the EAC that a school is located at a distance of 500m on the southern side from the mine lease area. A small natural water reservoir exists within the mine lease area.

The EAC asked about the status of online application for diversion of forest clearance. The Project Proponent informed the EAC that online proposal for diversion of forest clearance has been submitted vide proposal no: FP/OR/MIN/QRY/431317/2023 dated 29.05.2023. PP vide email dated 30.05.2023 submitted the proof of submission of online proposal. The entire land falls in the 18 revenue villages and 2 villages are part of the mine lease area. The Project Proponent informed the EAC that earlier the instant mine was granted Terms of Reference by the Ministry vide ToR letter dated 15.03.2016 in favour of M/s Larsen & Tourbo Limited over an area of 1549 Ha. Later on, the instant mine was granted to M/s. Vedanta Ltd. with same area through E-auction dated 09.02.2023 and accordingly Govt. of Odisha issued the Letter of Intent (LoI) on 01.03.2023 in favour of M/s. Vedanta Ltd and the LoI is valid up to 28.02.2026. The mine out bauxite will be used in the aluminium refinery plant. The EAC asked about the status of the approval of mining plan. The Project Proponent informed the EAC that the mining plan is yet to be approved by the Indian Bureau of Mines.

The EAC asked about the status of the court case. The Project Proponent informed the EAC that there is a court case between the L&T and the State Govt. M/s Larsen & Tourbo Limited (L&T) filed a Writ Petition (C) No. 4301 of 2021 on 02.02.2021 in Hon'ble Orissa High Court. After hearing all the parties, Hon'ble Orissa High Court dismissed the petition of M/s L&T on 02.03.2023. Then on 25.03.2023, M/s L&T filed a SLP with SLP No. 6163 of 2023 in the Hon'ble Supreme Court by challenging the judgement of the Hon'ble Orissa High Court dated 02.03.2023. No stay was granted by the Court and the next dated of hearing is 08.08.2023. The EAC was of the view that the instant matter is regarding the challenging of Letter of Intent (LoI) which is the basis document for consideration of the proposal. The EAC asked the Project Proponent to submit the copy of petition filed in the Hon'ble Supreme Court. Based on the above discussions held, the EAC **deferred** the proposal for want of following additional information: -

- i. The EAC observed that the villages such as Malipadar and Bundel are falling under Eco-Sensitive Zone of Karlapat Wildlife Sanctuary as per Draft Notification of Karlapat Wildlife Sanctuary dated 09.08.2019. Hence, the Project Proponent needs to submit the letter along with the authenticated map from the Forest Dept. in this regard. Ministry may also seek comments from ESZ Division.
- ii. The Project Proponent needs to submit the copy of petition filed in the Hon'ble Supreme Court and other relevant orders with the chronology of events.

**1.7 Devapur Limestone Mine-II of M/s Telangana State Mineral Development Corporation Ltd.with Proposed Limestone Production Capacity: 9.06 Million TPA, Top Soil: 0.03 Million TPA, Over Burden: 1.19 Million TPA, Mineral Reject: 1.65 Million TPA (Total Excavation: 11.93 Million TPA) along with installation of 2 Crushers 1 x 1500 TPH &1 x 1100 TPH in the mine lease area of 588.26 Ha,located at Villages: Devapur&Gatrapalli, Tehsil: Kasipet, District: Mancherial, State: Telangana - [F.No: IA-J-11015/13/2023-IA-II(NCM), Proposal No: IA/TG/MIN/427637/2023; Consultant: M/s J.M. EnviroNet Pvt. Ltd.]-Terms of Reference**

The instant proposal is for mining of Limestone in Devapur Limestone Mine-II of M/s Telangana State Mineral Development Corporation Ltd. with Proposed Limestone Production Capacity: 9.06 Million TPA, Top Soil: 0.03 Million TPA, Over Burden: 1.19 Million TPA, Mineral Reject: 1.65 Million TPA (Total Excavation: 11.93 Million TPA) along with installation of 2 Crushers 1 x 1500 TPH & 1 x 1100 TPH in the mine lease area of 588.26 Ha, located at Villages: Devapur & Gatrapalli, Tehsil: Kasipet, District: Mancherial, Telangana.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude 19°0'16.23"N to 19°3'2.36"N and Longitude: 79°18'21.46"E to 79°21'25.40"E. The mine lease falls under the Survey of India Toposheet No: E44B8 and falls in Seismic Zone II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 250 ha and appraised at the Central level.
- iii. Details of Mine Lease:

S. No	Prospecting License/Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/Minor)	Granted by	Mine lease area in Ha
1	Letter of Intent (LoI) was issued vide Memo no. 97/M.II(2)/2019-11 and same was communicated by Director of Mines & Geology, Govt. of Telangana vide letter no. 15425/R3-3/2012, dated 15.11.2022	21.10.2022	Limestone (Major)	Government of Telangana	588.26

iv. Land Use/Land Cover of the Mine Lease Area:

Private land	NIL
Government land	NIL
Forest land	588.26 Ha
Total Mining lease area (MLA), ha	588.26 Ha
Private land for crusher, workshop & other infrastructure outside the MLA	An area of 3.770 ha under utility for roads, Crusher, Magazine, workshop etc. within existing adjacent mining lease and same will be used till 2029 or beyond. In this duration or after this duration, same facility may be shifted to proposed mining lease as per requirement.

v. Mining plan details:

Mining Plan including Progressive Mine Closure Plan approved by Indian Bureau of Mines	Letter No.	AP/ADB/MP/LST-46/Hyd
	Date	01.03.2023
	Mineral & (Major/Minor)	Limestone (Major)
	Mine Lease Area, Ha	588.26
Mining Parameters	Quantitative Description	
Method of Mining	Fully mechanized opencast method. Mining will involve top soil/OB Removal, Drilling, Blasting, Loading, Hauling, Crushing & Transportation. An area of 460.25ha will be excavated including 7.5m safety zone between the existing mining lease area of 210 ha & proposed mining lease covering total safety zone area of 10.66 ha.	

Drilling/Blasting	S. No.	Particular	Drilling/Blasting
	1.	Bench height (m)	8.0 m
	2.	Bench Width (m)	20 m
	3.	Drill hole dia	115/150 mm
	4.	Depth of hole	8.0 m
	5.	Burden	5.0 m
	6.	Spacing	8.0 m
	7.	No. of Drills required	1.0 m/hr
	8.	Powder Factor	8.5t/kg
Geological Reserves	163.70 Million ton		
Mineable Reserves	148.44 Million ton (140.20 Million tonnes cement grade limestone & 8.24 Million tonnes sub grade limestone)		
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Total Excavation: 11.93 Million TPA Limestone: 9.06 Million TPA, Top Soil: 0.03 Million TPA, Over Burden: 1.19 Million TPA, Mineral Reject: 1.65 Million TPA		
Life of mine	18 Years (Mine Life may change after considering the outcome of the additional exploration proposed during first five years of mine opening.		
Mine Bench Height&Bench Width	Bench Height: 8.0 m Bench Width: 20 m		
No. of Mine Benches	7		
Existing Depth, m bgl	This is proposed mine		
Ultimate Depth of Mining, m bgl	56 m		
Ground Water Table, m bgl	240mRL		
Details of ground water intersection	This proposal is for ToR. Details will be incorporated in EIA/EMP Report		
Individual bench slope	80°		
Overall pit slope	45°		
Details of existing/ proposed Crusher	Installation of 2 Crushers having Capacities 1500 TPH & 1100 TPH		
Mineral Beneficiation	No beneficiation will be involved		
RoM output size	Upto 1 CuM		
Transportation details including capacity of dumper/tipper, mode of transport and distance	Limestone will be transported to the Orient cement plant through existing lease via belt conveyor over a distance of ~1.3 Km.		
Generation of Topsoil/OB & its Management during plan period & conceptual period	<p>During Plan Period</p> <ul style="list-style-type: none"> <li>➤ About 0.055 Million Tons of top soil will be utilized for greenbelt/plantation.</li> <li>➤ About 3.45 Million Tons of OB will be generated which will be stacked in a dump &amp; will be vegetated &amp; stabilized.</li> </ul> <p>During Mine life</p>		

	<ul style="list-style-type: none"> <li>➤ About 0.99 Million Tons (0.821 Million CuM) of top soil will be generated which will be utilized for greenbelt/plantation.</li> <li>➤ About 20.04 Million Tons (8.90 Million CuM) of OB will be generated which will be utilized for backfilling.</li> </ul>
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	<p>During Plan Period, about 4.06 Million Tons of Mineral Reject will be generated which will be stacked for blending with high grade limestone in Future.</p> <p>During Mine life, 8.24 Million Tons (3.296 Million CuM) of Mineral Reject will be generated which will be stacked for blending with high grade limestone.</p>

vi. Water requirement:

Total water requirement	350 KLD	Fresh water	315
		Treated water	35
Source	The drinking water requirement (5 KLD) will be fulfilled from Orient Cement Plant and rest of the water requirement will be fulfilled by existing mine sump of adjoining mine (Devapur Limestone Mine-I) & the mine sump of proposed mine.		
Permission for withdrawal/ intersection along with details of grant and its validity	This proposal is for ToR. Details will be incorporated in EIA/EMP Report.		

vii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest:

Particulars	Particular's Name	Distance & Directions
Village	Village Gatraopalli & Ipulagudem Village Tudemguda Village Gadapur & Village Maddimada	~0.6 km, NNW ~ 1 km, NNW ~1 km, ESE
Town	Mancherial	~17 km, SE
Highway	NH-363 NH-63 SH-24	~12 km, ESE ~16 km, SSE ~18 km, SW
Interstate Boundary	Maharashtra	~47 km, N
Railway Station/Railway line	Mandamarri Railway Station Mancherial Railway Station	~13 km, ESE ~17 km, ESE
Water Bodies	One seasonal nallah passes through NW corner of the mining lease DevapurVagu RallaVagu	~ 4.5 km, ENE ~7.5 km, ENE

	VolliVagu RaliVagu Kadam (Saraswati) Canal	~7.0 km, ESE ~5.75 km, SSW ~9.0 km, SW
Forest	The entire lease area falls in the Rali Reserved Forest Land. Protected Forest Rayali RF Waripet RF	~4.0 km, SW ~8.5 km, WSW ~9.5 km, ENE

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	Yes	Online Application for obtaining Forest Clearance has been submitted on Parivesh 2.0 Web Portal on 29.03.2023. PP also submitted the proof of submission of application for diversion of forest clearance vide online proposal no: FP/TG/MIN/QRY/423308/2023 dated 29.03.2023.
National Park	No	No National Park, Wild Life Sanctuaries, Elephant/Tiger Reserve, Eco Sensitive Zone (ESZ)/ Eco-Sensitive Area (ESA) etc. within 10 km radius study area.
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area(ESA)	No	
Coastal Regulation Zone (CRZ)	No	-
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	Yes	There are 15 Schedule I species Black Kite, Black shouldered Kite, Crested Goshawk, India Peafowl, Oriental Honey buzzard, Shikra, Four-horned Antelope, Gaur, Indian Gazelle, Indian Pangolin, Indian Ratel, Indian Wolf, Leopard, Sloth Bear, Tiger
Wildlife Conservation Plan	Wildlife Conservation Plan will be enclosed along with EIA/EMP Report	

ix. Green belt/Plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	Total Greenbelt/Plantation: 396.96 ha Greenbelt (7.5 m): 14.73 ha Plantation on unworked area: 27.41 ha Plantation along Nallah: 13.05 ha Plantation on waste dump: 8.88 ha Plantation on backfilled area: 327.89 ha Top bench plantation: 5.0 ha area. No. of saplings proposed: 5,00,565
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Budget for green plant& plantation till the end of life of mine.	Rs. 10,01,13,000
Budget for nursery	Rs. 15 Lakhs
Details of existing plantation and its survival rate	Survival Rate will be maintained 90%
No. of tree cuts in the mine lease area and compensatory afforestation	There are total 4,05,874 no. of trees in mining lease area. Out of these 3,93,784 trees will be cut & 12,000 trees are proposed for transplantation. The total 607.33 ha land has been selected and reserved for compensatory afforestation. Total 5,00,565 saplings will be planted within ML Area & cost of Plantation will be Rs. 10,01,13,000.
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	Greenbelt: 14.53
50 m safety zone of nallah, roads, electric lines	Plantation along Nallah: 13.04
500 m safety zones of nearest habitation villages	There is no habitation within ML Area

x. Rehabilitation & Resettlement (R&R):

R & R details	The Project Proponent has submitted that the entire mine lease area of 588.26 ha is a forest land and as such no displacement of people is involved. State/Central government policies and rules as applicable will be followed in case of resettlement and rehabilitation if any.
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xi. Court case details:

Court Case, No and its present status	The Project Proponent has submitted an undertaking vide letter dated 20.04.2023 stating that there is no litigation pending against the project and/or any direction/order passed by any court of Law against the project and /or land in which the project and that for any such litigation whatsoever, the sole responsibilities will be borne by the company.
Undertaking by Project Proponent w.r.t court case	

xii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent submitted the Affidavit in a non-judicial stamp paper of Rs 100 bearing no: AW 263173 dated 20.04.2023 stating that the company hereby undertake by affidavit to comply with all the statutory requirement & judgment of Hon'ble
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	Supreme Court dated 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India &Ors.
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xiii. Details of project cost and employment:

Particulars	(Rs. In Crore)
Project Cost	Rs. 208.22 Crore
Employment (No.s)	183 Persons

### 3. Observation and Recommendation of the EAC: -

The Project Proponent/Consultant informed the EAC that the Ministry of Mines, Gol vide letter dated 11.03.2021 conveyed the approval of the Central Govt. for reserving an area to the extent of 588.26 Ha in favour of M/s Telangana State Mineral Development Corporation Ltd under section 17A(2) of Mines & Minerals (Development & Regulation) Act, 1957. Letter of Intent (LoI) for mining lease was granted by the Govt of Telangana vide dated 21.10.2022 and same was communicated by Director of Mines & Geology, Govt. of Telangana vide letter dated 15.11.2022. Then, the Gazette Notification dated 17.03.2023 was passed by the State Govt. for reservation of 588.26 ha for carrying out mining operations for Limestone as per section 17 A(2) of MMDR Act, 1957.

The Project Proponent presented the KML file to indicate the site features in the study area of 10 km radius. The Project Proponent informed the EAC that out of 798.26 Ha, an area of 210 Ha adjacent to the mine lease area was excluded and the balance 588.26 Ha is reserved in favour of M/s Telangana State Mineral Development Corporation Ltd. The entire mine lease area of 588.26 Ha is a forest land. There are 15 Schedule-I species found in the study area. Draft Wildlife Conservation Plan has been prepared and is yet to be submitted for approval. A nallah is found in the northern part of the mine lease area and will not be disturbed and safety zone of 50m on either side of the nallah will be maintained. The existing infrastructures will be utilized.

The EAC asked about the location of the mine lease area w.r.t Kawal Tiger Reserve and Amrabad Tiger Reserve. The Project Proponent informed the EAC that the instant mine is 8.6 km away from the ESZ of Kawal Tiger Reserve. No Corridor found between Kawal and Amrabad Tiger Reserve. The Project Proponent also informed the EAC that movement of Tigers observed in the study area during the year 2020. The EAC asked the Project Proponent whether the Forest Dept. has carried out Tiger monitoring exercise or not. The Project Proponent informed the EAC that they are not having data and not aware of the Tiger monitoring exercise.

The Project Proponent also informed the EAC that it is proposed to mine in the safety zone of the common mine boundary. An application has been submitted to DGMS for seeking permission to mine in the safety zone of the common mine boundary. Application for obtaining Forest Clearance has been submitted vide online proposal no: FP/TG/MIN/QRY/423308/2023 dated 29.03.2023. Limestone will be

transported to the cement plant through existing lease via conveyor belt. The Project Proponent informed the EAC that the habitations are located at a distance of 600m away from the mine lease area. A School is located at a distance of 1km from the mine lease area. Mining in the common mine boundary will be undertaken only after obtaining the Forest Clearance and permission from DGMS. Maximum production of 9.06 MTPA will be achieved in the 5<sup>th</sup> year of mining operations.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 30-31 May, 2023, under the provisions of EIA Notification 2006 and its subsequent amendments, **recommended** the proposal for grant of Terms of Reference (ToR) to M/s Telangana State Mineral Development Corporation Ltd. for mining of Limestone in Devapur Limestone Mine-II with Proposed Limestone Production Capacity: 9.06 Million TPA, Top Soil: 0.03 Million TPA, Over Burden: 1.19 Million TPA, Mineral Reject: 1.65 Million TPA (Total Excavation: 11.93 Million TPA) along with installation of 2 Crushers 1 x 1500 TPH & 1 x 1100 TPH in the mine lease area of 588.26 Ha, located at Villages: Devapur & Gatrapalli, Tehsil: Kasipet, District: Mancherial, Telangana for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects:-

- i. The Project Proponent needs to submit the ecology restoration plan since the entire mine lease area of 588.26 Ha is a forest land during submission of EC proposal.
- i. The Project Proponent needs to submit the action plan to monitor the movement of tigers in the study area. The Project Proponent needs to submit the data from the Forest Dept. regarding the Tiger monitoring carried out in the study area.
- ii. The Project Proponent needs to submit the action plan for year wise backfilling during submission of EC proposal.
- ii. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, crusher, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- iii. The Project Proponent shall monitor the water quality in the impact zone such as water reservoir, river water with specific reference to the parameter Langelier Saturation Index which will denote the impact of calcium carbonates on water bodies and these parameters and determine the tendency of water to form calcium carbonate scaling.

- iv. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution.
- v. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity including the transport scenario of the other mines in the study area and should indicate the capacity of each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters used for the modeling also needs to be submitted.
- vi. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.
- vii. The Project Proponent needs to submit the greenbelt/afforestation development plan for undertaking plantation in the periphery of the mine lease boundary, safety zone etc., The details of the no. of saplings proposed, type of species, spacing and the area to be covered including the cost and timeline for completion of plantation needs to be provided in the EIA report.
- viii. The Project Proponent needs to submit employment based skill development plan for the local people and thrust should be to provide employment to local people after imparting training.
- iii. The Project Proponent needs to submit the implementation status of the EC compliance for the adjacent mine located to this instant mine during submission of EC proposal.
- ix. The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

**Day 2: 31<sup>st</sup> May, 2023 (Wednesday)**

**2.1 Proposal for Environmental Clearance of M/s. RCCPL Pvt Ltd for expansion of Limestone production from 3.5 MTPA to 5.0 MTPA, Top soil/alluvium: 0.039 MTPA, Overburden: 0.628 MTPA, Mineral Reject/IB:0.250 MTPA, (Total excavation: 5.917 MTPA) within the mine lease area of 363.440 ha [Forest land: 66.359 ha + Non-Forest land (Revenue land): 297.081 ha], located at Village Sadhera, Maihar Tehsil, Satna District, Madhya Pradesh - [File No: J-11011/700/2008-IA.II(I), Proposal No: IA/MP/MIN/258597/2010; Consultant: M/s**

**Pragathi Labs & Consultants Pvt Limited] - Environmental Clearance (Expansion)**

The instant proposal is for grant of Environmental Clearance (EC) for M/s. RCCPL Pvt Ltd for expansion of Limestone production from 3.5 MTPA to 5.0 MTPA, Top soil/alluvium: 0.039 MTPA, Overburden: 0.628 MTPA, Mineral Reject/IB:0.250 MTPA, (Total excavation: 5.917 MTPA) within the mine lease area of 363.440 ha [Forest land: 66.359 ha + Non-Forest land (Revenue land): 297.081 ha], located at Village Sadhera, Maihar Tehsil, Satna District, Madhya Pradesh.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude: 24°06'54.34"N to 24°08'37.7"N and Longitude: 80°44'29.85"E to 80°45'50.05"E. The mine lease area falls under the Survey of India Toposheet No: 63 D/12 & 16 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" of the schedule of the EIA Notification, 2006 as the mining lease area is greater than 250 ha and appraised at the Central level.
- iii. The proposal was earlier considered in the 48<sup>th</sup>EAC (Non-Coal Mining) Meeting held during 28-30 March, 2022 and after detailed deliberations deferred the proposal for want of additional information. Then, the Project Proponent submitted the information on 02.05.2023 in Parivesh portal. Accordingly, the proposal was considered in the 15<sup>th</sup> EAC (Non-Coal Mining) meeting held during 30-31 May, 2023.

Based on observation of EAC in its EAC meeting held during 28-30 March, 2022 and compliance of observation of EAC made by PP are detailed below:

S. No	Observation of EAC in its meeting held during 28-30 March, 2022	Reply by Project Proponent
1	The Project Proponent needs to submit the validation of baseline data for expansion of production from 3.5 MTPA of total excavation to 5.0 MTPA of total excavation for assessing the impact of air	<p>The Project Proponent has submitted that one-month validation of baseline data was carried out during the month of April 2023. PP also submitted that the ambient air quality monitored at 8 locations, noise level monitored at 8 locations, surface water at 4 locations, ground water at 8 locations and soil quality at 10 locations.</p> <p>Further, PP has submitted the comparison of baseline data carried out during March-May, 2019 and revalidation of one-month baseline data carried out during April, 2023.</p> <div style="border: 1px solid black; width: 300px; margin-left: auto; margin-right: auto; text-align: center;">Ambient Air Quality</div>

quality, noise level and ground vibration.	S.No	Parameters	Summer 2019	April 2023	Standards ( $\mu\text{g}/\text{m}^3$ )	
	1	PM <sub>10</sub>	35.1-73.5 $\mu\text{g}/\text{m}^3$	40.6- 79.3 $\mu\text{g}/\text{m}^3$	100	
	2	PM <sub>2.5</sub>	23.3-49.6 $\mu\text{g}/\text{m}^3$	28.6-54.3 $\mu\text{g}/\text{m}^3$	60	
	3	SO <sub>2</sub>	10.2-16.8 $\mu\text{g}/\text{m}^3$	13.1- 19.6 $\mu\text{g}/\text{m}^3$	80	
	4	NO <sub>2</sub>	10.5-18.2 $\mu\text{g}/\text{m}^3$	15.6- 21.8 $\mu\text{g}/\text{m}^3$	80	
	<b>Noise Level</b>					
	S.No	Locations	Summer 2019		April 2023	
			L <sub>day</sub>	L <sub>Night</sub>	L <sub>day</sub>	L <sub>Night</sub>
	1	Mine Site	68.3	64.2	70.7	53.8
	2	Itahara	52.6	49.0	55.8	40.0
	3	Hinauta	47.4	43.4	49.1	36.0
	4	Bhadanpur	48.9	44.0	52.5	38.1
	5	Sadhera	50.1	44.8	53.9	41.5
	6	Badera	47.4	42.2	51.5	37.8
	7	Ajwain	45.5	41.4	48.5	38.1
	8	Khirwa	49.2	44.3	53.5	38.6
	Standards Day Time dB (A):		Industrial: 75, Commercial: 65 Residential: 55, Silence: 50			
	Standards Night Time dB (A):		Industrial: 70, Commercial: 55 Residential: 45, Silence: 40			
	<b>Ground Water quality</b>					
	S. No	Parameters	Summer 2019	April 2023	Standards	
	1	pH	6.9-7.6	7.2-7.8	6.5 to 8.5	
	2	TDS (mg/l)	298-625	200-476	500-2000	
	3	Fluoride (mg/l)	0.3-0.8	0.5-0.9	1-1.5	
	4	Total Hardness, mg/l	155.2-288.1	155-372	200 – 600	
	5	Calcium (mg/l)	32.8-62.8	30.0-76.0	75-200	
6	Magnesium(mg/l)	16.7-38.6	13.4-54.7	30-100		
<b>Surface Water quality</b>						
S. No	Parameters	Summer 2019	April 2023			
1	pH	7.23-7.66	7.2 – 7.4			
2	EC	395-624	845 – 1135			
3	DO, mg/l	5.3-6.4	5.0 – 5.6			
4	Total Hardness, mg/l	122.5-194.8	264 – 324			
5	COD	<5.0	<5.0			
6	BOD	<3.0	<3.0			
7	Fluoride (mg/l)	0.5-0.7	0.3-0.4			
<b>Soil quality</b>						
S.No	Parameters	Summer 2019	April 2023			
1	pH	6.24-7.66	7.4-7.9			
2	Electrical Conductivity ( $\mu\text{mhos}/\text{cm}$ )	128-358	182-325			
3	Organic Carbon	0.64-1.16	0.48-1.09			
4	Nitrogen (kg/ha)	42.3-88.3	38-76			
5	Phosphorus (kg/ha)	49.6-76.8	39-65			
6	Potash (kg/ha)	118.6-165.8	124-177			

		<p>Further, Project Proponent submitted that the The existing mine is maintaining the Air Pollution Control Equipment i.e. bag filters which are operating with efficacy of 99.99%.Air quality modeling was carried out for worst case and controlled case scenarios and the post project concentration with 60% controlled measures observed to be PM10: 83.2 µg/m<sup>3</sup>and PM2.5: 54.5 µg/m<sup>3</sup>. The material will be transported by fully covered Over Land Belt Conveyor (OLBC) to the cement plant. There will not be any dust pollution due to the transportation of limestone.</p> <p>PP also submitted the test report for analysis of ambient air quality, noise level, water quality and soil analysis done by Pragathi Labs &amp; Consultants Pvt. Ltd (Lab recognized by Ministry of Environment, Forests, Govt. of India).</p>																																				
2	<p>The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity including the transport scenario of the operating mines in the study area and should indicate the capacity of each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters used for the modeling also</p>	<p>The Project Proponent has submitted that the cumulative impact assessment has been carried out by considering the 11 mines within 10 km radius.</p> <table border="1" data-bbox="587 958 1385 1377"> <thead> <tr> <th>S.No</th> <th>Industry</th> <th>Capacity, MTPA</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Sadhera Limestone Mine</td> <td>5.0</td> </tr> <tr> <td>2</td> <td>Salaiya Mine</td> <td>2.0</td> </tr> <tr> <td>3</td> <td>Bandhi &amp; Ghorwal Mines</td> <td>1.0</td> </tr> <tr> <td>4</td> <td>UltratechBhadanpur Mines</td> <td>2.6</td> </tr> <tr> <td>5</td> <td>Sanghi Infrastructure M.P. Ltd</td> <td>5.4</td> </tr> <tr> <td>6</td> <td>UltratechPiprahhat Limestone Mine</td> <td>4.6</td> </tr> <tr> <td>7</td> <td>UltratechUmrour Limestone Mine</td> <td>1.8</td> </tr> <tr> <td>8</td> <td>KJS Cement Limestone Mine</td> <td>0.025</td> </tr> <tr> <td>9</td> <td>Sunderson Limestone Mine</td> <td>0.2</td> </tr> <tr> <td>10</td> <td>Ismail &amp; Sons Bauxite Mine</td> <td>0.12</td> </tr> <tr> <td>11</td> <td>Goenka Limestone Mine</td> <td>0.10</td> </tr> </tbody> </table> <p>PP also submitted that the activities such as Drilling &amp; Blasting, Crushing, Screening, Stockpile, Wind erosion, Material handling, Haul road, Bull dozing and Conveyor was considered for prediction of cumulative air quality modeling. The predicted cumulative incremental Ground Level Concentrations (GLCs) includes the activity of mines and its transportation for parameters PM10, PM2.5, NO<sub>x</sub>, CO and SO<sub>2</sub>. Transport of ore to crusher plant and overburden to dumps is proposed through tippers of 55 tonne capacity. The limestone from the Sadhera mine will be crushed within the lease area and then transported to the cement plant at Bharouli through closed overland belt conveyor (OLBC), hence no pollution will be envisaged due to this activity.</p> <p>Further, PP submitted that assuming the mines are operating with 60% control measures in compliance with</p>	S.No	Industry	Capacity, MTPA	1	Sadhera Limestone Mine	5.0	2	Salaiya Mine	2.0	3	Bandhi & Ghorwal Mines	1.0	4	UltratechBhadanpur Mines	2.6	5	Sanghi Infrastructure M.P. Ltd	5.4	6	UltratechPiprahhat Limestone Mine	4.6	7	UltratechUmrour Limestone Mine	1.8	8	KJS Cement Limestone Mine	0.025	9	Sunderson Limestone Mine	0.2	10	Ismail & Sons Bauxite Mine	0.12	11	Goenka Limestone Mine	0.10
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	needs to be submitted.	Environmental Clearances & Consent to Operate, the predicted incremental GLC's of PM10 & PM2.5 'with control measures' will be 34.00 µg/m <sup>3</sup> & 10.20 µg/m <sup>3</sup> due to the arise of fugitive dust from the mining activities. The predicted incremental GLC's of NOx and CO was observed to be 7.24 µg/m <sup>3</sup> and 3.11 µg/m <sup>3</sup> that occurs due to the activity of transportation and operation of backup DG sets. The predicted incremental GLC's for SO2 is found to be 0.84 µg/m <sup>3</sup> that occurs due to the operation of backup DG sets and is found to be insignificant.																																														
3	The Project Proponent needs to revise the budget of public hearing concerns raised by the public with a timeline of 3 years from the date of start of mining operations. The activities proposed should be actionable and monitorable.	The Project Proponent has submitted the budget to address the concerns of the public hearing has been revised from Rs 1.828 Cr to Rs 0.316 Cr with a timeline of 3 years.																																														
4	The Project Proponent needs to revise the EMP cost by removing the cost of monitoring and should submit the activity wise time bound actionable budget. PP should assign the recurring cost on the EMP cost to be spent every year. PP should also submit the details of EMP in place and its efficacy and the amount spent towards the same.	<p>The Project Proponent has submitted the revised EMP cost as mentioned below: -</p> <table border="1"> <thead> <tr> <th rowspan="2">S.No</th> <th rowspan="2">EMP Measures</th> <th colspan="2">Proposed Cost of EMP (Rs. In Crores)</th> <th colspan="2">Existing EMP Cost (In Crores)</th> </tr> <tr> <th>Capital Cost</th> <th>Recurring Cost per Annum</th> <th>Capital Cost</th> <th>Recurring Cost per Annum</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Air environment</td> <td>0.50</td> <td>0.85</td> <td>36.32</td> <td>0.40</td> </tr> <tr> <td>B</td> <td>Water environment</td> <td>0.48</td> <td>0.46</td> <td>0.86</td> <td>0.28</td> </tr> <tr> <td>C</td> <td>Noise and ground vibration</td> <td>0.05</td> <td>0.02</td> <td>0.06</td> <td>0.02</td> </tr> <tr> <td>D</td> <td>Soil and waste dump management</td> <td>0.10</td> <td>0.03</td> <td>0.27</td> <td>0.07</td> </tr> <tr> <td>E</td> <td>Plantation &amp; Green belt</td> <td>2.82</td> <td>0.57</td> <td>0.76</td> <td>0.27</td> </tr> <tr> <td></td> <td>Grand Total</td> <td>3.95</td> <td>1.94</td> <td>38.26</td> <td>1.04</td> </tr> </tbody> </table> <p>PP also submitted that the following fugitive emission control practices are adopted at RCCPL are as follows:</p> <ol style="list-style-type: none"> <li>i. Installed 3 bag filters at crusher and transfer points;</li> </ol>	S.No	EMP Measures	Proposed Cost of EMP (Rs. In Crores)		Existing EMP Cost (In Crores)		Capital Cost	Recurring Cost per Annum	Capital Cost	Recurring Cost per Annum	A	Air environment	0.50	0.85	36.32	0.40	B	Water environment	0.48	0.46	0.86	0.28	C	Noise and ground vibration	0.05	0.02	0.06	0.02	D	Soil and waste dump management	0.10	0.03	0.27	0.07	E	Plantation & Green belt	2.82	0.57	0.76	0.27		Grand Total	3.95	1.94	38.26	1.04
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		<ul style="list-style-type: none"> <li>ii. Continuous water spraying at material handling sections and conveyor belts transfer points to control fugitive emission;</li> <li>iii. Periodic maintenance of pollution control equipment's;</li> <li>iv. Greenbelt along the roads, material handling area; and safety zone of mine boundary</li> <li>v. Established 1 online ambient air quality monitoring station in the premises &amp; 4 Nos AAQM monitoring station as per approved plan of MPPCB for regular monitoring on air quality of area.</li> </ul> <p>A temporary sump is made at the bottom of the mine pit to collect the rain water. The water collected in the mine pit is being used for dust suppression, in workshop for washing and in plantation. The water is also discharged in the nearby nala which is used by villagers for irrigation purpose. This in-turn reduces the consumption of ground water resource. Construction of pipeline to supply mine pit water from mine to plant is under process. This will reduce the consumption of fresh ground water at plant.</p> <p>Catch drains 1575-meter-long 2-meter-deep &amp; 3 siltation ponds with respectively capacity 24000, 18200 &amp; 15000 m<sup>3</sup> have been constructed. These drains are desilted before &amp; after monsoon and maintained. Mine sump water utilized for greenbelt, sprinkling on road etc. The water is ultimately discharged in the nearby peripheral nala which is used by villagers for irrigation purpose. Garland drain of a length of 3000-meter-long, 4.5-meter-wide and 3.5-meter-deep is constructed in mining lease area. Drains are also constructed along the Retaining wall at the toe of dumps. Mine sump is created with a depth of 4 m.</p> <p>PP has submitted that topsoil of about 51222 m<sup>3</sup> is stacked with proper slope and preserved separately in the topsoil dump as per the approved mining plan. To avoid the soil erosion, a trench and stone retention wall is made along the periphery of the topsoil dump. This soil will be used as top layer of the reclaimed area for plantation in future.</p> <p>Further, PP has submitted the photographs showing the water injection and dust collection arrangement in drilling machine, water fog on haul road, covered conveyor belt, sump, topsoil dump, siltation pond, garland drains and greenbelt development.</p>
5	The Project Proponent needs to	The Project Proponent has submitted that the Land use classification of 297.081 Ha area are as follows: -



	<p>submit the land use classification of revenue land of 297.081 Ha and their designated use. PP needs to submit the map demarcating the mineralized and non-mineralized area in the forest land of 66.359 ha. PP also needs to submit the ecology restoration plan.</p>	<ul style="list-style-type: none"> <li>i. Private Land: 251.355 ha</li> <li>ii. Government Land: 45.726 ha</li> </ul> <p>Land is being used for mining activity. The entire forest area of 66.359 ha is mineralised zone.</p> <p>PP also submitted that there will be reclamation &amp; rehabilitation of mined out area by backfilling proposed from the year 2023-24 onwards. At the end of the life of the mine, pit area of about 182.83 ha will be converted into water reservoir and pisciculture. This will help to recharge the ground water enhancing more water availability to local population. An area of 52.27 ha will be backfilled and utilized for plantation. Out of the total area of 363.440 ha area, cover under forest (diverted) land is about 66.359 ha and about 297.081 ha area under Non Forest (Revenue Area). The mined out land will be utilized as water reservoir. The following measures will be undertaken for waste management during planning period and beyond:</p> <ul style="list-style-type: none"> <li>i. Dumping of various size of materials in a mixture form for better stability;</li> <li>ii. Water sprinkling;</li> <li>iii. Compaction;</li> <li>iv. Levelling;</li> <li>v. Terracing at dead end;</li> <li>vi. Construction of check dams;</li> </ul> <p>The recommended species for eco-restoration are as follows <i>Acacia catechua Willd</i>, <i>Acacia nilotica Linn</i>, <i>Aegle marmelos L.</i>, <i>Albizia procera</i>, <i>Azadirachta indica A. Juss</i>, <i>Buchanania lanzan Spreng</i>, <i>Dalbergiasisso Roxb</i>, <i>Tectonagrandis</i>, <i>Diospyros</i>, <i>Butea monosperma</i>, <i>Lagerstoremia parviflora</i> and <i>Cassia fistula</i>.</p>												
6	<p>The Project Proponent needs to submit the protection measures already taken and proposed for protection of seasonal nalas in the vicinity of the mine lease area.</p>	<p>The Project Proponent has submitted that an earthen bund of 2.5 m height has been constructed along the nala -1430 m, Strengthening and maintenance of bund on regular basis, plantation has been carried out on the bund with a survival rate of 90%, plantation and vegetation will be developed further for strengthening the bund. PP also submitted the photographs showing the plantation carried out.</p>												
7	<p>The Project Proponent should explore the possibility of plantation of Teak</p>	<p>The Project Proponent has submitted that about 4200 Teak saplings planted in Sadhera Limestone Mines in FY 2022-23.</p> <p style="text-align: center;"><b>Five Year Plantation Plan</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Year</th> <th style="width: 15%;">2020-21</th> <th style="width: 15%;">2021-22</th> <th style="width: 15%;">2022-23</th> <th style="width: 15%;">2023-24</th> <th style="width: 15%;">2024-25</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Year	2020-21	2021-22	2022-23	2023-24	2024-25						
Year	2020-21	2021-22	2022-23	2023-24	2024-25									

	in the mine lease area.	Area, Ha	2	2	2	2	2	
		No. of Saplings	4000	4000	4000	4000	4000	
		Proposed afforestation at the end of Mines						
		Year	As on 31.03.2023	As on 31.03.2025	At the end of ML	Species proposed		
		Area, Ha	17.26	21.26	170.46	Teak, Tendu, Palash, Amaltash, Landia, Shisam, Neem etc.		
No. of Saplings	36,819	44,819	3,43,840					
8	The Project Proponent needs to submit the latest satisfactory certified EC compliance report by the Ministry's Integrated Regional Office for the EC granted on 23.03.2011.	The Project Proponent has submitted the Certified Compliance Report issued by the Integrated Regional Office (IRO), Bhopal vide F.No: 5-21/2011(Env.) dated 21.07.2022. Site was conducted by IRO on 15.06.2022. IRO observed that out of total 56 conditions, it may be seen that 48 are complied, 5 are partly complied, 2 are agreed to comply and 1 is compliance in progress.						
9	The Project Proponent needs to clarify whether the proposal of installation of 400 TPH crusher is also a part of ToR proposal and whether the same has been included in the Public Hearing or not?	The Project Proponent has submitted that there is no proposal for installation of additional crusher. The existing crusher will be adequate for the proposed expansion.						
10	The Project Proponent needs to clarify whether amendment in EC has been obtained for reduction of mine lease area from 539.561 ha to 291.792 Ha and then to 363.440 ha. Also, PP needs to	The Project Proponent has submitted that as per the direction of Mineral Resource Department, Govt of Madhya Pradesh, supplementary mining lease agreement was executed on 31.07.2014 for reduced mine lease area of 363.440 ha from 539.561 ha. The request for correction in Mining lease area was submitted to MoEF, New Delhi through letters dated 23.05.14 & subsequent letters 17.01.15, 15.12.15, 18.02.16. PP also submitted that the EC will be construed to be available for the mining area as per the revised						

	clarify whether transfer of EC from M/s Reliance Cementation Pvt Ltd to M/s RCCPL Private Limited has been obtained by PP or not? PP needs to submit all the supporting documents in this regard.	mining lease deed as per Ministry's OM dated 01.02.2013.  PP has submitted that the Transfer of EC has been obtained on 24.01.2020 from M/s Reliance Cementation Pvt Ltd to M/s RCCPL Pvt Ltd.																																			
11	The Project Proponent needs to submit the valid mine lease document and lease deed executed on 17.06.2021 over an area of 363.440ha. PP also needs to submit the details of mine lease from its inception chronologically with all supporting documents.	The Project Proponent has submitted the chronology of mine lease as given below: - <table border="1" data-bbox="587 705 1388 1388"> <thead> <tr> <th>S. No</th> <th>Particulars</th> <th>Order No</th> <th>Date</th> <th>Mine Lease Area, Ha</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Letter of Intent</td> <td>F 2-69/07/12/1</td> <td>16.07.2009</td> <td>539.561</td> </tr> <tr> <td>2</td> <td>ML Grant Order</td> <td>F 2-69/07/12/1</td> <td>30.04.2010</td> <td>291.792</td> </tr> <tr> <td>3</td> <td>Lease Deed execution</td> <td>Form K</td> <td>17.06.2010</td> <td>291.792</td> </tr> <tr> <td>4</td> <td>ML Grant Order</td> <td>F 2-69/2007/12/1</td> <td>28.05.2014</td> <td>363.44</td> </tr> <tr> <td>5</td> <td>Supplementary mining lease agreement</td> <td></td> <td>31.07.2014</td> <td>363.44</td> </tr> <tr> <td>6</td> <td>ML Grant Order in the name of M/s RCCPL Pvt. Ltd</td> <td>F 2-69/07/12/1</td> <td>16.08.2019</td> <td>363.44</td> </tr> </tbody> </table>	S. No	Particulars	Order No	Date	Mine Lease Area, Ha	1	Letter of Intent	F 2-69/07/12/1	16.07.2009	539.561	2	ML Grant Order	F 2-69/07/12/1	30.04.2010	291.792	3	Lease Deed execution	Form K	17.06.2010	291.792	4	ML Grant Order	F 2-69/2007/12/1	28.05.2014	363.44	5	Supplementary mining lease agreement		31.07.2014	363.44	6	ML Grant Order in the name of M/s RCCPL Pvt. Ltd	F 2-69/07/12/1	16.08.2019	363.44
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12	The Project Proponent needs to submit the Forest clearance in the name of M/s RCCPL Private Limited.	The Project Proponent has submitted that the Forest Department, Government of MP has been given administrative approval for name change from Reliance Cementation Private Limited to RCCPL Private Limited in the forest clearance which has been recommended to MoEF&CC, New Delhi by PCCF land management vide letter dated 9/01/2023.																																			
13	The Project Proponent should submit the list of Schedule - I species present in the lease area authenticated by PCCF and the status of National Park/Sanctuary,	The Project Proponent has submitted the authenticated list of flora and fauna and Wildlife conservation plan for Schedule-I species approved by PCCF, Chief Wild Life Warden, Madhya Pradesh.  PP also the submitted the map authenticated by PCCF stating that there is no National Park/Sanctuary, Biosphere Reserve, Wildlife Corridors exist within 10 km from project site.																																			

	Biosphere Reserve/Tiger Reserve/Elephant Reserve/any other Reserve, Habitat for migratory birds, Corridor for animals within 10 km of the lease area. PP also needs to submit the approval of Wildlife Conservation Plan.													
14	In Form-2, the Project Proponent submitted that Rehabilitation and Resettlement (R&R) is not applicable whereas in EIA report PP has submitted that there are 178 Project Displaced Families (PDFs) and 27 Project Affected Families (PAFs) which is contradictory. Hence, PP needs to clarify the same.	The Project Proponent has submitted that this proposed project is for expansion of existing limestone production from 3.5 to 5.0 MTPA. The present expansion is within the ML area and there is no increase in ML area. Socio-economic and R&R Study was conducted by GreenC India Consulting Pvt Limited (formerly GIS Enabled Environment & Neo-geographic Centre) for existing project. In the existing project there were 178 Project Displaced Families (PDFs) and 27 Project Affected Families (PAFs). This present proposal is within the same mine lease and hence no R&R is involved.												
15	The Committee noted that the PP has submitted the year wise production details from the year 2013-14 to 2018-19 only and hence PP needs to submit the authenticated production details for the year 2019 - 2020 to 2021-22 for examination of violation in the Ministry.	<p>The Project Proponent has submitted the past production details authenticated from the Department of Mines and Geology, Government of Madhya Pradesh vide letter dated 05.07.2022 for the year 2019-20 to 2021-22.</p> <table border="1"> <thead> <tr> <th>S. No</th> <th>Year</th> <th>Production (Tonnes)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2019-20</td> <td>3406286.56</td> </tr> <tr> <td>2</td> <td>2020-21</td> <td>3494282.82</td> </tr> <tr> <td>3</td> <td>2021-22</td> <td>3496472.35</td> </tr> </tbody> </table>	S. No	Year	Production (Tonnes)	1	2019-20	3406286.56	2	2020-21	3494282.82	3	2021-22	3496472.35
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### 3. Observation and Recommendation of the EAC:

The Project Proponent/Consultant presented the KML file to indicate the site features in the vicinity of the mine lease area and in the study area of 10km radius. The Project Proponent informed the EAC that the total mine lease area is 363.440 ha, out of which Forest land is 66.359 ha and Revenue land is 297.081 ha. The Project Proponent also informed the EAC there is another mine lease area is present within the instant mine lease area belonging to different owner and is non-operational from the year 2000. The instant mine lease in operation from the year 2013 and presently four benches are being operated i.e., 3 Limestone mine benches and 1 OB bench. The crushed limestone will be dispatched to the cement plant located at Bharauli in Satna district by 'Over Land Closed Belt Conveyor' of around 7.5 km length. No National Parks, Wildlife Sanctuaries, Biosphere reserves, Elephant/Tiger Reserve existing within the study area. About 11 mines are located within the study area. The EAC asked about the evacuation route for the another mine lease located within the instant mine lease area. The Project Proponent informed the EAC that the road is located in the instant mine for the purpose of transportation of mineral and the road is located in non-mineralized zone.

The EAC deliberated on the additional details submitted by the Project Proponent and the Consultant. The Project Proponent informed the EAC that one-month validation of baseline data was carried out during the month of April 2023. The ambient air quality was monitored at 8 locations, noise level monitored at 8 locations, surface water at 4 locations, ground water at 8 locations and soil quality at 10 locations. Further, the Project Proponent has presented the comparison of baseline data carried out during March-May, 2019 and revalidation of one-month baseline data carried out during April, 2023. The Project Proponent informed the EAC that the cumulative impact assessment has been carried out by considering the 11 mines within 10 km radius. Wind direction is from NW-SE. The activities such as Drilling & Blasting, Crushing, Screening, Stockpile, Wind erosion, Material handling, Haul road, Bull dozing and Conveyor was considered for prediction of cumulative air quality modeling.

The Project Proponent informed the EAC that the budget of the public hearing has been revised from Rs 31.6 Lakhs to Rs 84.0 Lakhs. The EAC observed that in EIA report, the Project Proponent has mentioned that the budget for public hearing as Rs 182.80 Lakhs and in ADS reply, Project Proponent mentioned as Rs 31.6 Lakhs. The EAC noted that there is mismatch in the figures of the budget earmarked for public hearing. The EAC asked the Project Proponent to revisit the same with actual budget and activities with a timeline of 3 years. The Project Proponent also informed the EAC that reclamation & rehabilitation of mined out area by backfilling will start from the year 2023-24 onwards. At the end of the life of the mine, pit area of about 182.83 ha will be converted into water reservoir and pisciculture. Certified Compliance Report was granted by the Integrated Regional Office (IRO), Bhopal vide letter dated 21.07.2022. Site was conducted by IRO on 15.06.2022. The EAC noted the observations of the IRO that *"although plantation was seen on OB dumps, there is further scope to strengthen the plantation on the topsoil/OB dumps in the mine lease area for which a*

*time targeted action plan shall be submitted*". The Project Proponent informed the EAC that the action taken report was submitted to Ministry's IRO. The closure report for the action taken report is yet to be issued by IRO. The EAC asked the Project Proponent to submit the time targeted action plan to strengthen the plantation on the topsoil/OB dumps in the mine lease area along with the exact figures against the EC dated 23.03.2011.

The Project Proponent informed the EAC that there is no proposal for installation of additional crusher. The existing crusher will be adequate for the proposed expansion. The Project Proponent also informed the EAC that the Forest Department, Government of MP has given administrative approval for name change from Reliance Cementation Private Limited to RCCPL Private Limited in the forest clearance which has been recommended to MoEF&CC, New Delhi by PCCF land management vide letter dated 9/01/2023. The EAC asked the Project Proponent to show the certified production detail for the FY 2022-23. The Project Proponent informed the EAC that about 3.49 MTPA production was achieved against the EC capacity of 3.5 MTPA during the FY 2022-23. The EAC asked the Project Proponent/ Consultant to submit an undertaking regarding the change of EIA Consultant for owning the contents of EIA report. Based on the above discussions held, the EAC **deferred** the proposal for want of following additional information:

- i. The Project Proponent needs to submit the time targeted action plan to strengthen the plantation on the topsoil/OB dumps in the mine lease area along with the exact figures against the EC dated 23.03.2011.
- ii. The Project Proponent needs to submit the closure report to be issued by the Ministry's IRO.
- iii. The EAC observed that in EIA report, the Project Proponent has mentioned that the budget for public hearing as Rs 182.80 Lakhs and in ADS reply, Project Proponent mentioned as Rs 31.6 Lakhs and whereas during the presentation, the Project Proponent presented as Rs 84.0 Lakhs. The EAC noted that there is a mismatch in the figures of the budget earmarked for public hearing. The EAC asked the Project Proponent to revisit the same with actual budget and activities with a timeline of 3 years.
- iv. The Project Proponent needs to submit the details regarding another mine lease area located within the instant mine lease area belonging to different owner and which is non-operational from the year 2000 w.r.t details of EC, status of mine operation, transportation route and MoU signed between the two lessees.
- v. The Project Proponent needs to submit the certified production detail for the FY 2022-23 as shown before the EAC during the presentation.

- vi. The Project Proponent/Consultant needs to submit an undertaking regarding the change of EIA Consultant for owning the contents of EIA report.

**2.2 Itoura Limestone mine of M/s. RCCPL Private Limited with production capacity of 0.8 MTPA, Waste/rejection 0.51 MTPA, Topsoil 0.09 MTPA (Total excavation: 1.4 MTPA) in the mine lease area of 747.817 ha located at villages Itoura, Bachwai, KarhiPawai, Giduri, and Rewra, Tehsil Raghurajnar, Satna District, Madhya Pradesh - [File No: J-11015/16/2019-IA.II(M), Proposal No: IA/MP/MIN/101792/2019; Consultant: M/s Pragathi Labs & Consultants Pvt Limited]- Reconsideration of EC**

The instant proposal is for reconsideration of EC of M/s. RCCPL Private Limited for mining of Limestone in Itoura Limestone mine with production capacity of 0.8 MTPA, Waste/Reject: 0.51 MTPA, Topsoil: 0.09 MTPA (Total excavation - 1.4 MTPA) in the mine lease area of 747.817 ha, located at Villages Itoura, Bachwai, KarhiPawai, Giduri, and Rewra, Tehsil Raghurajnar, Satna District, Madhya Pradesh.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude 24°34'44.65"N - 24°36'50.87"N and Longitude 80°44'22.98"E - 80°47'45.92"E. The mine lease falls under the Survey of India Toposheet No: G44 U10 and G44 U14 and falls in Seismic Zone II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 250ha and appraised at the Central level.
- iii. The proposal was initially considered in the EAC (Non-Coal Mining) meeting held during 30<sup>th</sup> November - 3<sup>rd</sup> December, 2021 wherein the EAC deferred the proposal for want of requisite information. The Project Proponent vide Letter Ref No: RCCPL/ Itaura\_MP/MoEF&CC/05 dated 28<sup>th</sup> March 2022 submitted the information and accordingly the proposal was reconsidered in the EAC (Non Coal Mining) meeting held during 19-21 April, 2022 wherein the EAC deferred the proposal for want of requisite information. Then, the Project Proponent vide letter dated 02.06.2022 and 24.06.2022 submitted the information on 07.06.2022 and 27.06.2022 respectively in Parivesh and accordingly the proposal was reconsidered in the 1<sup>st</sup> EAC (Non-Coal Mining) meeting held during 27 - 29 July, 2022 and the EAC deferred the proposal and was of the view that the proposal may be considered only after the submission of the additional information.
- iv. Then, the Project Proponent submitted the information on 16.11.2022 in Parivesh and the proposal was again reconsidered in the 7<sup>th</sup> EAC (Non-Coal Mining) meeting held during 5 - 6 December, 2022. Then, the Project Proponent

submitted the information on 06.03.2023 in Parivesh portal. The Ministry on 07.03.2023 informed the Project Proponent that NABET have suspended the sector 1(a) for Mining of Minerals of Consultant, M/s Vimta Labs Limited w.e.f 16.01.2023 for a period of 6 months and hence the Project Proponent is requested to inform regarding the change of EIA Consultant and shall submit an undertaking from the Consultant for owning the contents of EIA report for further consideration before the EAC meeting. The Project Proponent on 11.03.2023 informed the Ministry that M/s Pragathi Labs & Consultants Pvt. Limited has been engaged as EIA consultant. The Consultant vide letter dated 09.03.2023 submitted an undertaking stating that they have gone through the EIA & EMP report of Itoura Limestone mining and also gave undertaking for owning the contents and data provided in the report for presentation. Accordingly, the proposal was again reconsidered in the EAC (Non-Coal Mining) meeting held on 17<sup>th</sup> April, 2023 wherein the EAC after detailed deliberations deferred the proposal for want of requisite information. Then, the Project Proponent submitted the information on 26.04.2023 in Parivesh portal. Accordingly, the proposal was considered in the 15<sup>th</sup> EAC (Non-Coal Mining) meeting held during 30-31 May, 2023.

Based on observation of EAC in its EAC meeting held on 17<sup>th</sup> April, 2023 and compliance of observation of EAC made by PP are detailed below:

S. No	Observation of EAC in its meeting held on 17 <sup>th</sup> April, 2023	Reply by Project Proponent																				
1	The EAC asked the Project Proponent to submit the revalidation of one-month baseline data and comparison and interpretation of the both season data in Parivesh portal. The project proponent is also requested to upload the lab report of these data on Parivesh portal.	<p>The Project Proponent has submitted that the revalidation of one-month baseline data was carried out during 1<sup>st</sup> March, 2023 to 31<sup>st</sup> March, 2023. PP also submitted that the ambient air quality monitored at 9 locations, noise level monitored at 8 locations, surface water at 2 locations, ground water at 8 locations and soil quality at 8 locations.</p> <p>Further, PP has submitted the comparison of baseline data carried out during December, 2018 – February, 2019 and revalidation of one-month baseline data carried out during March, 2023.</p> <table border="1"> <thead> <tr> <th colspan="5">Ambient Air Quality</th> </tr> <tr> <th>S.No</th> <th>Parameters</th> <th>Winter 2019</th> <th>March 2023</th> <th>Standards (µg/m<sup>3</sup>)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>PM<sub>10</sub></td> <td>31.4 - 54.5µg/m<sup>3</sup></td> <td>43.6- 67.2µg/m<sup>3</sup></td> <td>100</td> </tr> <tr> <td>2</td> <td>PM<sub>2.5</sub></td> <td>19.4 – 37.6µg/m<sup>3</sup></td> <td>31.1- 48.9µg/m<sup>3</sup></td> <td>60</td> </tr> </tbody> </table>	Ambient Air Quality					S.No	Parameters	Winter 2019	March 2023	Standards (µg/m <sup>3</sup> )	1	PM <sub>10</sub>	31.4 - 54.5µg/m <sup>3</sup>	43.6- 67.2µg/m <sup>3</sup>	100	2	PM <sub>2.5</sub>	19.4 – 37.6µg/m <sup>3</sup>	31.1- 48.9µg/m <sup>3</sup>	60
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3	SO <sub>2</sub>	10.8 – 15.6 µg/m <sup>3</sup>	12.0-16.5µg/m <sup>3</sup>	80	
4	NO <sub>2</sub>	13.8– 20.5 µg/m <sup>3</sup>	15.2-20.8µg/m <sup>3</sup>	80	
<b>Noise Level</b>					
S.No	Locations	December, 2018 – February, 2019		March 2023	
		L <sub>day</sub>	L <sub>Night</sub>	L <sub>day</sub>	L <sub>Night</sub>
1	Mine Site	52	39	46.4	43.2
2	Chhinda	54	41	49.5	45.9
3	Dilaura	48	36	42.8	39.8
4	Ahirdgaon	47	35	41.4	38.4
5	Sagma	54	41	48.8	44.9
6	Amaudha	51	38	45.8	42.9
7	Khunti	53	41	49.0	45.7
8	Daria	53	40	48.1	44.9
Standards Day Time dB (A):		Industrial: 75, Commercial: 65 Residential: 55, Silence: 50			
Standards Night Time dB (A):		Industrial: 70, Commercial: 55 Residential: 45, Silence: 40			
<b>Ground Water quality</b>					
S. No	Parameters	December, 2018 – February, 2019	March 2023	Standards	
1	pH	7.02 - 7.6	7.1 - 7.6	6.5 to 8.5	
2	TDS (mg/l)	408 - 716.3	475 - 849	500-2000	
3	Fluoride (mg/l)	0.4 - 0.6	1.0 - 1.1	1-1.5	
4	Sulphate (mg/l)	48.8 - 132.5	49.0 - 74.0	200-400	
5	Calcium (mg/l)	38.6 - 72.3	58 - 83	75-200	
6	Magnesium(mg/l)	15.8 - 34.6	13.0 - 41.0	30-100	
7	EC	610 - 1188	720 – 1286	-	
8	Total Hardness, mg/l	161.5 - 309.1	204 - 372	200 –600	
9	Chlorides, mg/l	88.6 - 216.5	105 - 190	250-1000	
10	Nitrates, mg/l	4.5 - 40	6.0 - 16.0	45	
11	Iron, mg/l	0.02 -0.4	0.5 - 1.2	0.3	
<b>Surface Water quality</b>					
S.No	Parameters	December, 2018 – February, 2019	March 2023		
1	pH	7.5 - 7.6	7.2 – 7.4		
2	EC	570 - 682	845 - 1135		

	3	DO, mg/l	5.6 – 5.8	4.9 – 5.6	
	4	Total Hardness, mg/l	162.8 – 195.1	264 – 324	
	5	Chlorides, mg/l	58.6 – 114.6	110-170	
	6	Nitrates, mg/l	2.8 – 3.1	2.8 – 3.5	
	7	Fluoride (mg/l)	0.4 – 0.5	0.9	
	8	Sulphate (mg/l)	45.6 – 70.5	58-78	
	<b>Soil quality</b>				
	S.No	Parameters	December, 2018 – February, 2019	March 2023	
1	pH	7.2 – 7.9	7.1 – 7.7		
2	Electrical Conductivity (µmhos/cm)	198 – 512	227 – 507		
3	Organic Carbon	0.36 – 0.55	0.32-0.65		
4	Nitrogen (kg/ha)	48.6 – 88.5	50.1 – 100.30		
5	Phosphorus (kg/ha)	48.9 – 71.6	45 – 91		
6	Potash (kg/ha)	84.6 – 132.4	98.5 - 140		
<p>PP also submitted the test report for analysis of ambient air quality, noise level, water quality and soil analysis done by Pragathi Labs &amp; Consultants Pvt. Ltd (Lab recognized by Ministry of Environment, Forests, Govt. of India).</p>					

v. The details of the Terms of References (TOR) are furnished as below:

Date of application	Proposal No	Consideration	Details	Date of accord
10.04.2019	IA/MP/MIN/101792/2019	May 29-30, 2019	Production capacity of 0.8 MTPA, Waste/Reject: 0.51 MTPA, Topsoil: 0.09 MTPA (Total excavation - 1.4 MTPA) in the mine lease area of 747.817 ha	09.07.2019

vi. Details of Mine lease:

S.no	Lease particulars	Date of the grant	Name of the Mineral	Period of Grant	Granted by	Mine lease area in Ha
1	Letter of Intent vide letter no. F 3-35/2010/12/ 1 in the name of	03.01.2018	Limestone	50 years	Government of Madhya Pradesh	747.817

	M/s Reliance Cement Company Private Limited					
2	Name change of the company from M/s Reliance Cement Company Private Limited to M/s RCCPL Private Limited vide order no F 3-35/2010/12/1	14.03.2019	Limestone	-	Government of Madhya Pradesh	747.817
3	Grant of mining lease letter no. F.3-35/2010/ 12/1	25.09.2020	Limestone	50 years	Government of Madhya Pradesh	747.817

## vii. Details of executed Mine leases.

S.no	Date of grant of Lease execution	Period of Grant		Details
		From	To	
1	Date of entering into original lease deed.	25.09.2020	24.09.2070	ML deed executed on 12.11.2020 and registered on 27.11.2020

## viii. Mining plan details:

Mining Plan including Progressive Mine Closure Plan approved by Indian Bureau of Mines	Letter No.	MP/Satna/Limestone/MPLN/G-06/19-20, 3661
	Date	27.11.2019
	Mineral	Limestone
	Mine lease area	747.817 ha
Mining Parameters	Quantitative Description	
Method of Mining	Fully mechanized opencast	
Bench Height	6 m	
Bench Width	Minimum working bench width would be maintained as 20-30 m	
Mineable Reserve	47.59 million Tonnes	
Extractable Reserve	38.07 million Tonnes	
Life of mine	50 years	
Individual bench slope	80 <sup>o</sup>	
Overall pit slope	45 <sup>o</sup>	

Drilling/Blasting	Drilling and blasting will be carried out for excavation of OB and limestone. For limestone, 115 mm to 150 mm size drills will be used for drilling. Crawler mounted hydraulic excavator with bucket capacity of 2.6 m <sup>3</sup> capacity will be used for loading. Shovel combination with 30 – 60 tonne capacity dumpers or 18 tonne capacity tippers will be used to transport the blasted material from the face to dump area and crusher.
RoM output size	600 mm
Transportation details	The ROM limestone will be crushed before being dispatched to the cement plant. Till the installation of crusher, sized limestone will be transported to cement plant for captive use. The limestone after processing will be dispatched to own cement plant of the RCCPL Pvt. Ltd. at Bharauli for captive use. It is proposed to transport the limestone up to the cement plant by tipper trucks through road.
Dumper's capacity	18 tonne
Topsoil	During five-year plan period, about 1,38,422 m <sup>3</sup> of top soil will be generated which will be used for preparing protective bund. During conceptual period, total of 2.84 million m <sup>3</sup> top soil will be generated. No dumping has been proposed at the conceptual stage. No dump will remain at end. The soil/ reject/ sub-grade dump spread over 5.80 ha will be re-handled and used for the backfilled area at the conceptual period.
OB/Waste	During the first five-year plan period, about 6,14,932 m <sup>3</sup> of OB/waste will be generated and up to conceptual period 11.31 million m <sup>3</sup> OB will be generated. The generated OB / waste material will be used for preparation of ramp to crusher, platform of crusher in area 100 m x 100 m and stacking yard of sweetener at top of crusher and finally utilized for backfilling the mined-out pit or other market requirement.
Presence of another mine lease area inside the mine lease area	PP submitted the letter from the Office of the Directorate of Geology and Mining, Madhya Pradesh vide Lr No 2630/Khanji/vividh/Na.kr.141/2019 dated 27.02.2020 stating that the 1) No mining operations have been started by the lessee, M/s Reliance Cement Company Private Limited in the sanctioned area and no illegal excavation of any type has been done in the sanctioned area and 2) In village Rewra, lease area of 23.90 hect. is sanctioned to Mrs. Manju Singh legal heir of Mr. Gopal Sharan Singh, in which mining activities are being carried out in accordance to the approved Mining Plan,

	Environmental Clearance & air and water consent. A combined map of sanctioned areas to Reliance Cement Company Private Limited and Mrs. Manju Singh is enclosed. As per the map, sanctioned mining lease area sanctioned in the favour of Mrs. Manju Singh is located in the middle of the sanctioned mining lease area of the Reliance Cement.
Conceptual Plan	PP has submitted the revised conceptual plan with proposed reclamation plan and also to incorporate proposed embankment along the Satna River for protection of river as well as mining pit. The design of embankment has been prepared by NIT Raipur, which clearly concludes that “from the flood model study, it was observed that the inundation on the right bank i.e., towards the mine side is the most unlikely situation in the present context. However, considering the unforeseen event to protect the mine areas from local flood level and to channelize the surface runoff, construction of embankment may be considered in phased manners as per the advancement of mining excavation”.
Depth of mining	27 m (first five years), 39 m (for entire life of the mine)
Ground water intersection	The mining operation intersects water table after mine workings are beyond 6.0 m bgl during monsoon and 12.5 m bgl during non-monsoon. There will be ground water inflow into mine pit during monsoon period in the 2 <sup>nd</sup> year onward.
Permission	PP submitted that the application for obtaining NOC vide No. 21-4/1123/MP/MIN/2021 dated 29.04.2021 which is under progress.
NOC from Railway Dept.	The Project Proponent submitted the NOC from the Western Central Railway vide Lr No. Dy.CE/C-II/STA/Misc/NOC dated 20.06.2022 with the following terms and conditions: <ul style="list-style-type: none"> <li>i. No mining activity shall be permitted within 100m distance from Railway boundary.</li> <li>ii. The provision of Minor Mineral Rule, 1966 shall be followed for Railway boundary.</li> <li>iii. There should be no damage to Railway’s property or safety of passengers due to mining activities.</li> <li>iv. In case any loss/damage to Railways property or passengers, on account of mining activities, the same shall be borne by blasting RCCPL undertaking company.</li> </ul>

	The Project Proponent also submitted the Scientific study carried out by Rock Excavation Engineering Division, CSIR-Central Institute of Mining & Fuel Research, Dhanabad for assessment of blasting impacts on the under-construction railway line and for designing of controlled blasting patterns.
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ix. Land Use/Land Cover of the Mine Lease Area:

Private land	547.534 ha
Government land	200.283 ha
Total Mining lease area (MLA)	747.817 ha
Private land for crusher, workshop & other infrastructure outside the MLA	Nil
Additional information (if any)	<p>The Project Proponent has submitted the No Objection Certificate from Gram Panchayat Office Karhi Kothar vide Lr.No 2/GP/KP/2023 dated 18.01.2023 stating that any institution or educational institution already established is operating whose shifting and change in its original form is done on the basis of consensus, Gram Panchayat issues No Objection Certificate (NoC).</p> <p>The Project Proponent vide letter dated 06.03.2023 submitted an undertaking stating that</p> <ol style="list-style-type: none"> <li>a) The existing school/institute is located in Village Karhi Pawai on Survey Numbers 72, 83, 84, 85, 86, 87, 88, 89, 90, 103 &amp; 109 within the ML area.</li> <li>b) Process for shifting of the institute will be completed within 5-7 years from the commencement of mining.</li> <li>c) Meanwhile, mining beyond 500meter zone from the existing institution will be carried out as per the recommendations of technical study to be carried out by the premier institutes like Central Institute of Mining &amp; Fuel Research (CIMFR) and conditions prescribed by DGMS under MMR 1961.</li> <li>d) Approach roads leading to the existing institution will not be disturbed during the course of mining.</li> <li>e) Prescribed safety measures will be adopted to safeguard the students, approach road and the school/institute.</li> </ol>

x. Nearest village / town/ highway/railway station / water bodies:

Particulars	Particular's Name	Distance & Direction
Nearest Town	Satna	2.0 km, ESE
Nearest Highway	NH-75 Panna Khajuraho Road	140 m, S
Nearest Railway station	Satna	4.1 km, ESE
Water bodies	Satna River	Adjacent, SW to ML boundary
Engineering design for garland drains, check dams, check filters and embankment and its efficacy to mitigate the potential impact and protection of Satna River (Adjacent, SW to ML boundary)	<p>PP submitted that the detailed study has been carried out by NIT, Raipur addressing the engineering design of garland drains, check dams, check filters and embankment and its efficacy to mitigate the potential impact and protection of Satna River. Satna river flows NW-SE along the north western boundary of mine lease area. From the flood model study, it was observed that the inundation on the right bank i.e., towards the mine side is the most unlikely situation in the present context. However, considering the unforeseen event to protect the mine areas from local flood level and to channelize the surface run-off, construction of embankment may be considered in phased manner as per the advancement of mining excavation. To accommodate the surface run-off and to sustain the peak flow conditions, provision of garland drain along with settling pits/check dams with check filters is recommended in the mine lease area. Water stored in the settling pit/check dams can be utilized in the mining area for sprinkling through tanks as well as for recharging ground water through recharge ponds. The river width near ML area ranges from 49 m to 96 m with average depth of around 2.3 m and High Flood Level [HFL] around 302.5 m. As per study observation HFL 302.5 m, a natural stream joining the Satna river near mine pit 13 is going to inundate due to back flow of water from Satna river to the natural stream, so there is a requirement of embankment along the mine pits 11 and 13. In order to safeguard the mine from accumulation of surface runoff in the mine lease area, proper drainage will be provided along with settling pits to cater the surface run-off.</p>	

xi. Water requirement:

Total water requirement	183.0 KLD	Dust Suppression & Crusher	135.0 KLD
		Green belt/ Plantation	36.0 KLD
		Domestic	4.0 KLD
		Workshop	8.0 KLD
Source	Initially from bore wells and in later stages from mine pit		

Permission	CGWA NOC no. CGWA/NOC/MIN/ORIG/2022/14984 dated 05.04.2022.
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- xii. The Project Proponent reported that there is no forest land involved in the mine lease area. PP submitted the letter regarding the same issued by the Deputy Conservator of Forest vide Lr No Mach/2489, Satna dated 04.03.2021. PP also reported that 1 (one) Mauhar protected forest (PF) exists at a distance of 8 km, SE from ML boundary. Further, PP submitted that there are no Wild Life Sanctuaries, National Parks, Elephant/Tiger Reserves within 10 km of the mine lease area. PP also submitted the letter vide Lr No Machi/2486, Satna dated 04.03.2021 regarding the same along with the authenticated map. The Project Proponent reported that there is one Schedule I species such as Pea fowl found in the study area. PP submitted the authenticated list of flora and fauna vide Lr No Machi/2488, Satna dated 04.03.2021. PP also submitted the approval of Wildlife Conservation Plan by PCCF (Wildlife) vide letter dated 25.03.2022 with a budget of Rs 14.50 Lakhs.
- xiii. The Project Proponent reported that proposed area for green belt/plantation will be 302.14 ha. PP also submitted that 134.17 ha of backfilled area will be used for plantation. PP earmarked a budget of Rs 6.593 Crores as Capital cost and Rs 0.709 Cr as recurring cost/annum towards development of greenbelt/plantation. PP submitted that the mining will commence from SE direction of the lease area. PP submitted an undertaking vide letter dated 25.03.2022 stating that the adequate plantation will be carried out in peripheral area and safety zone with the sapling of 10 ft. height having at least 90% survival rate. Plantation shall be completed within 3 years from the start of mining operations covering an area of 36.08 ha in the following manner a) 7.5 m barrier from ML boundary towards SE side b) 20 m on either side of Main Road & Railway c) 50 m from Habitation d) 20 m from Crusher Plant e) 10 m from Haulage Road. Before commencement of mining in the remaining area, the surrounding safety barrier area will be covered with plantation. Density of the plantation shall be 1500 plants/ha. The casualties of each year shall be replaced with new saplings and such number of saplings shall not be counted in the number of saplings proposed to plant in that year. Progressive bench plantation up to HFL for eco restoration of water bodies will be done.
- xiv. Baseline details: The primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Winter. The Monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of December, 2018 to February, 2019 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)
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Period of baseline data collection	December, 2018 to February, 2019				
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Winter				
Period	Results of Baseline monitoring				
Scenario of pollution to be generated for normative and peak total excavation	<p>PP submitted that the proposed normative production is estimated to be 2667 TPD (ROM) for 300 working days. As a worst-case scenario, the air dispersion modeling has been carried out for peak production capacity of 2963 TPD (ROM) for 270 working days to predict the impact during their maximum peak production considering all mining activities as the equipment utilized for mitigating the pollution control can handle 10% increase in the production capacity. PP reported that the short-term air dispersion model simulations indicate that the predicted incremental maximum GLC's of PM<sub>10</sub> will be about 49.21 µg/m<sup>3</sup> 'without control measures' within mine lease area. Further, assuming the mine will operate with 60% control measures in compliance with Environmental Clearances &amp; Consent to Operate, the predicted incremental GLC's of PM<sub>10</sub> 'with control measures' will be 19.70 µg/m<sup>3</sup>. Similarly, incremental GLC's of PM<sub>2.5</sub> were found to be 14.80 µg/m<sup>3</sup> 'without control measures' within mine lease area. These GLC's will be further reduced after implementation of EMP control measures. The predicted incremental GLC's of PM<sub>2.5</sub> 'with control measures' will be 5.91 µg/m<sup>3</sup>. The maximum incremental GLC's of NO<sub>2</sub>, CO &amp; SO<sub>2</sub> are about 10.04 µg/m<sup>3</sup>, 4.53 µg/m<sup>3</sup>, 0.93 µg/m<sup>3</sup> which are likely to occur due to the movement of vehicles at the haul roads located within the mine lease area.</p>				
AAQ parameters at 9 locations	Pollutant	Min, µg/m <sup>3</sup>	Max, µg/m <sup>3</sup>	98 %ile, µg/m <sup>3</sup>	Standard, µg/m <sup>3</sup>
	PM2.5	19.4	37.6	30.1	60
	PM10	31.4	54.5	44.7	100
	SO2	10.8	15.6	14.1	80
	NOx	13.8	20.5	17.6	80
AAQ modelling (Incremental GLC)	Pollutant	Baseline Concentration, µg/m <sup>3</sup>	Incremental Concentration, µg/m <sup>3</sup>	Total GLC, µg/m <sup>3</sup>	Standard
	PM2.5	37.6	3.1	40.7	60
	PM10	54.5	9.6	64.1	100
	SO2	15.6	0.1	15.7	80
	NOx	20.5	2.8	23.3	80
Noise level at 8 locations	Day Time: 41.4 to 49.5 Leq dB (A) Night Time: 38.4 to 45.9 Leq dB (A)				
Noise Modeling - Dhvani-Pro Software	PP submitted that noise modeling has been carried out using Dhvani-Pro modeling software considering line, point and area sources involved in mining activity. The likely generation of noise levels due to operation of HEMM in the proposed mine are Blasting, Drilling, Shovel, Dumpers, Dozers, Crusher and movement of vehicles on haul road. The noise produced by blasting will be for extremely short duration of around less than				

	<p>a second. The mining operations will be carried out between 6 am to 10 pm in two shifts. The ISO 9613-2 General noise calculation model was used which considers frequency dependent attenuation due to geometric divergence, atmospheric absorption, and ground effect. PP reported that the predicted noise levels at mine lease boundary ranged between 47.0-52.0 dB(A). The noise levels were predicted considering operation of high noise generating machinery within the lease area. The predictions are carried out without considering any attenuation in noise levels due to barriers such as plantation, etc. From the noise modelling, it can be stated that the impact on the present noise levels due to proposed mining operations will be restricted to the work zone environment only. The implementation of green belt will be effective in attenuating the noise levels emanated from the mining activity.</p>
Surface water quality at 2 locations	<p>pH varied from 7.5 to 7.6, EC ranged between 570 <math>\mu</math>S/cm to 682 <math>\mu</math>S/cm, Dissolved Oxygen (5.6 mg/l to 5.8 mg/l), BOD observed in the range less than 3 mg/l. TH (162.8 mg/l to 195.1 mg/l). The physico-chemical and biological analysis revealed that most of the parameters are well within the permissible limits as per IS: 2296. The surface water quality does not indicate any industrial contamination.</p>
Ground water quality at 8 locations	<p>pH varied from 7.0 to 7.6, EC ranged between 610 <math>\mu</math>S/cm to 1188 <math>\mu</math>S/cm, TH (161.5 mg/l to 309.1 mg/l), TDS (408 – 716.3 mg/l). All the parameters are found to comply with the requirements of IS: 10500:2012.</p>
Soil quality at 8 locations	<p>As per the physical data soils are fine texture, having low bulk density, imperatively high water holding capacity, and slow permeability. As per chemical characteristics soil reaction (pH) soils are neutral to moderately alkaline and electrical conductivity (EC) is non saline (normal). Organic matter is very low to low. Macro nutrient like nitrogen is very low to low and phosphorus is sufficient, potassium is very low to low, calcium, magnesium are high and base saturation is high. Sodium is below the limit to make soil saline or sodic or alkali. Micro-nutrients, Mn (moderate to high), Zn (low to medium), and B (low), Fe (v.low) Al (v.low), SO<sub>4</sub> and Cl are normal to high. As per analysis of soils data and field observation the land can be classified as class IIe and IIIe land i.e., Moderate to Good soils on plain to gentle slopes subject to water erosion, as per land capability classification (USDA) i.e. good land for sustained agriculture.</p>
Traffic study	<p>The traffic density study carried out at Sohawal, [SH-39] (To &amp; Fro), SH-11, [SH-11] (To &amp; Fro), Unchehara [SH-11] (To &amp; Fro) and Maihar [SH-11] (To &amp; Fro) passing through transportation route from mine site to cement plant site for 24 hrs. PP submitted that the 18 Ton capacity tippers have been considered instead of 10 Ton capacity tippers for transportation of mineral from mine to plant to keep the number of tippers minimum. Existing Public</p>

	<p>Road is a Tar Road of 8m-12m width. There are narrow railway crossing and culvert also. With these constraints, it is difficult to ply higher capacity tippers than 18 T capacity, frequently on this road. Most of the mines in this region use 18 T capacity tippers, which will also help in maintain fleet, availability of spare parts &amp; services. Existing traffic load on the proposed transportation route is measured to be maximum 2241 PCU. With the opening of Itoura Limestone mine, about 10 trucks per hour would be required for transportation of material. The traffic contribution from mine to the road network will thus is the “to” and “fro” movement of 20 vehicles per hour, which is equivalent to 960 PCU per day (taking a PCU factor of 3 per vehicle). With present level of traffic route and the predicted increase in traffic due to project, adequacy of road/ highway has been estimated by comparison with the recommendations stipulated by Indian Road Congress (IRC). The total traffic load after implementation of the mining project will be well within the IRC stipulated maximum load of 15,000 PCU/day for a two-lane highway. As per the standards by IRC for traffic capacity of the roads and it was observed that the existing road network will be adequate.</p>
<p>Water management plan and its action plan for utilization of creation of water body of 189.64ha for benefit of the agriculture, local people and community use.</p>	<p>PP submitted that as per the reclamation and rehabilitation plan, an area of 189.640 ha is proposed to be converted into water reservoir at the conceptual stage. The proposed water reservoir will act as a ground water recharge structure and water source for the nearby communities. An amount of 21,65,688.80 m<sup>3</sup> (2.166 MCM) of rainfall will be collected in the water reservoir area and after considering 80% of the rainfall collected after losses, 17,32,551.04 m<sup>3</sup> (1.733 MCM) will be available for recharge resulting in post mining water table recovery in the area and supplementing water requirement of surrounding villages. Natural recharge estimated as per CGWA guidelines considering the water spread area of 189.640 ha, water availability for 365 days and recharge factor of 1.4 mm/day is 9,69,060.40 m<sup>3</sup>. Natural recharge estimated as per CGWA guidelines considering the water spread area of 189.640 ha, water availability for 365 days and recharge factor of 1.4 mm/day is 9,69,060.40 m<sup>3</sup>. Balance of 7,63,490.64 m<sup>3</sup> will be used for irrigation in the vicinity covering 148.7 ha with an average water requirement of 43.70 m<sup>3</sup>/day/ha for an average crop growing period of 117.5 days.</p>

xv. Public Hearing (PH) Details:

<p>Advertisement for PH with date</p>	<p>Hindi newspaper namely “Patrika”, “Nava Swadesh” and “Madhya Pradesh Jansandesh” dated 16.07.2021</p>
<p>Date of PH</p>	<p>18.08.2021</p>
<p>Venue</p>	<p>Govt. Primary School, Village Rewra, Tehsil Raghurajnagar, District Satna</p>

Chaired by	Additional District Collector
Main issues raised during PH	Employment, CSR activities, environment measures, welfare measures and compensation to be paid for land
Budget proposed for addressing issues raised during PH	Rs 2.04 Cr

xvi. The Project Proponent reported that the socio-economic primary survey for rehabilitation and resettlement baseline were carried out during February, March and September 2020 as per the specified guidelines. During the survey, M/s Vimta Labs carried out primary household survey and census surveys of Project Affected Families (PAFs), Focus Group Discussions (FGD) and in-depth interviews in all affected villages. PP also reported that there will be no displacement of homesteads and no. of Project Affected Persons (PAPs) is 1768. PP submitted that the compensation and rehabilitation & resettlement package as per the provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and “The Madhya Pradesh Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015 and annual statement of rates (2019-20) as per the government of Madhya Pradesh (District Wise Market Valuation Guidelines 2019-2020 Amendment Date 21.06.2019) has been worked out. Total compensation to be paid is worked out to be Rs. 328 Crores. Entire payment will be made through cheque to concerned PAP. A detailed socio-economic household survey was conducted in all villages covering the proposed project area for generating the baseline socio-economic data as well as to carry out need assessment. PP proposed the following schemes, which may pave way for improving social status of the PAFs and may establish a regular income to them in future such as introducing Livestock Development Program, Sericulture, Women based small enterprise, Data entry and soft skills, Skill Training for the youth, Programs for Vulnerable Communities, Programs on Health, Education, etc. Swachh Bharat Mission, Water and Rural Infrastructure. PP submitted the action plan for three years with a budget of Rs 25.0 Lakhs.

xvii. Court case details:

Court Case	There is no any Court Cases pending against the project and/or land in which the project is proposed to be set up
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xviii. The Project Proponent submitted the undertaking by way of affidavit dated 21<sup>st</sup> May, 2019 as per the Ministry’s OM dated 30.05.2018 stating that M/s RCCPL Private Ltd shall comply with all the statutory requirements and judgement of Hon’ble Supreme Court dated 2nd August 2017 in the matter of Common Cause Vs Union of India & Ors in Writ Petition (Civil) No. 114 of 2014. The Consultant submitted an undertaking vide dated 10.11.2021 that M/s Vimta

Labs Limited has compiled with all the prescribed Terms of Reference (ToR) issued vide Lr No. J-11015/17/2019-IA.II(M) dated 09.07.2019. The Consultant also submitted the Plagiarism Certificate checked on 10.11.2021 and the Head of the Accredited Consultant Organization/ Authorized person certified that “this EIA Report has been evaluated using online software i.e., Plagiarism Detector (Licensed Version). The report produced has been analyzed by the system and based on it, I certify that the EIA Report produce in accordance with good scientific practice”.

xix. Details of the EMP:

Activities	Capital Cost (Crores)	Recurring Cost (Lakhs / Annum)
Air pollution control and management	4.333	1.109
Water and wastewater control and management	5.265	0.480
Noise and vibration control and management	0.110	0.010
Soil conservation and solid waste management	0.166	0.024
Plantation & Green Belt	6.593	0.709
Others	1.117	0.000
Grand Total	17.584	2.332

xx. Details of project cost and employment:

Particulars	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	₹19.624 (17.584 + 2.04)
Project Cost	₹240 Cr.
Employment	75 nos.

### 3. Observation and Recommendation of the EAC:

The Project Proponent/Consultant informed the EAC that revalidation of one-month baseline data was carried out during 1<sup>st</sup> March, 2023 to 31<sup>st</sup> March, 2023. The ambient air quality was monitored at 9 locations, noise level monitored at 8 locations, surface water sample collected at 2 locations, ground water sample collected at 8 locations and soil quality at 8 locations. The Project Proponent also presented the comparison of baseline data carried out during December, 2018 - February, 2019 and revalidation of one-month baseline data carried out during March, 2023.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 30-31 May, 2023 under the provisions of EIA Notification 2006 and its subsequent amendments, **recommended** the proposal for grant of Environmental Clearance to Itoura Limestone mine of M/s. RCCPL Private Limited for the production capacity of 0.8 MTPA, Waste/rejection 0.51 MTPA, Topsoil 0.09 MTPA (Total excavation: 1.4 MTPA) in the mine lease area of 747.817 ha, located

at villages Itoura, Bachwai, KarhiPawai, Giduri, and Rewra, Tehsil Raghurajnar, Satna District, Madhya Pradesh subject to the following specific conditions in addition to the standard EC conditions applicable for non-coal mining projects: -

- i. The conditions/preventive measures prescribed by the Railway Board, if any shall be complied by the Project Proponent and implementation status should be submitted to the IRO & Railway Board.
- ii. The Project Proponent shall ensure that no mining activity will be carried out within 100m distance from Railway boundary.
- iii. The Project Proponent shall implement the recommendations of the Scientific study carried out by Rock Excavation Engineering Division, CSIR-Central Institute of Mining & Fuel Research, Dhanabad for assessment of blasting impacts on the under-construction railway line and for designing of controlled blasting patterns. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- iv. The Project Proponent shall monitor the ground induced blasting vibrations for every blast and the results are to be compared with the limiting values prescribed by Director General of Mine Safety (DGMS). PP shall ensure that the values of "peak particle velocity" and "Air Over Pressure" shall be maintained below the permissible values prescribed by the DGMS, from time to time. The data needs to be maintained and submitted along with the six monthly compliance report.
- v. The Project Proponent shall adhere to the measures proposed for strengthening of mine pit and protection of railway line.
- vi. The Project Proponent shall shift the educational institution within 5 years from the commencement of mining operations.
- vii. The Project Proponent needs to implement the recommendations of the study carried out by NIT, Raipur for provision of engineering design of garland drains, check dams, check filters and embankment and its efficacy to mitigate the potential impact and protection of Satna River.
- viii. The Project Proponent shall ensure that the bund between the river shall be after the plantation where the Pit 11 and Pit 13 is indicated that the width is 8.5m and the total distance of the pit from the flood plain should be more than 60m.

- ix. In order to prevent the erosion of soil due to flooding etc., the Project Proponent shall undertake plantation of native and diversified species near the proposed embankment along the River Satna.
- x. The Project Proponent should install the continuous ambient air quality monitoring stations (CAAQMS) as per the scientific study and in consultation with CPCB/SPCB. The real time data so generated should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB.
- xi. The Project Proponent needs to install the permanent water sprinklers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine area.
- xii. The Project Proponent shall adhere to action plan for utilization of creation of water body of 189.64ha for benefit of the agriculture, local people and community use.
- xiii. The Project Proponent should follow-up the status of implementation on Wildlife Conservation Plan from the Forest Officials and the same shall be submitted to the Ministry's Integrated Regional Office in the six monthly compliance report.
- xiv. The Project Proponent shall undertake the adequate plantation in peripheral area and safety zone with the sapling of 10 ft height having at least 90% survival rate with a spacing of 2 x 2m and the plantation shall be completed within 3 years from the start of mining operations. Density of the plantation shall be 1500-2000 plants/ha. The casualties of each year shall be replaced every year with new saplings and such number of saplings shall not be counted in the number of saplings proposed to plant in that year. PP shall undertake the progressive bench plantation up to HFL for eco restoration of water bodies.
- xv. The Project Proponent shall strictly follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z11013/57/2014-IA.II (M), dated 29th October, 2014.
- xvi. The budget of Rs 2.40 Cr to address the concerns raised by the public in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.
- xvii. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 17.584 Cr. The adoption

of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.

- xviii. The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at mine site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.
- xix. The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.
- xx. The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly.
- xxi. The Project Proponent shall explore the possibility of using atleast 20% of electric vehicles/LNG/CNG instead of diesel operation.
- xxii. The Project Proponent shall provide the rainwater harvesting structure at mine office and other infrastructures.
- xxiii. The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.
- xxiv. NoC from the Central Ground Water Authority (CGWA)/ Concerned Local authority, as the case may be, shall be obtained before drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.



- xxv. The Project Proponent should implement the Rehabilitation of project affected families (PAFs) and payment of compensation to PAFs in line with the policy and guidelines of the Central/State Government, as provided under the law in such a way that the compensation should benefit the current and future generation.
- xxvi. The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.
- xxvii. The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Integrated Regional Office.

**2.3 Amendment in EC dated 10.12.2009 for Budhwada Limestone Mine (ML area 160 Ha and production capacity 1.10 MTPA) located at Village Budawada, Jaggayyapeta Taluk, Krishna District, Andhra Pradesh of M/s The Ramco Cements Limited - [File.No: J-11015/150/2008-IA-II(M); Proposal No: IA/AP/MIN/296628/2023, Consultant: Nil] - Amendment in EC**

The instant proposal is for Amendment in EC dated 10.12.2009 of M/s The Ramco Cements Limited w.r.t establishing Railway siding facility with stacker &reclaimer facility within the Mining lease area and to permit transportation of limestone from mine to the cement plant by road as well as by railway line for Budhwada Limestone Mine (ML area 160 Ha and production capacity 1.10 MTPA) located at Village Budawada, Jaggayyapeta Taluk, Krishna District, Andhra Pradesh.

- 2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:
  - i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals. The instant proposal attracts the general conditions as the mine lease area is located at a distance of 1.8 km from the Andhra Pradesh – Telangana Interstate boundary and falls under Category “A” and appraised at the Central level.
  - ii. Details of Previous Environmental Clearance (EC):
    - a) The Project Proponent initially obtained Environmental Clearance (EC) vide EC letter dated 10.12.2009 for Budhwada Limestone Mine (ML area 160 Ha and production capacity 1.10 MTPA) located at Village Budawada, Jaggayyapeta Taluk, Krishna District, Andhra Pradesh in favour of M/s Madras Cement Ltd.

- b) Then, the PP obtained Transfer of Environmental Clearance on 28.04.2023 from M/s Madras Cement Ltd to M/s The Ramco Cements Limited.

iii. Details of Mine Lease:

- a) The Project Proponent has submitted that the Govt. of Andhra Pradesh vide Go.Ms.No.291, dated 30.10.2008 granted the mining lease for Limestone over an area of 160.0 Ha in Sy. No: 376 of Budawada Reserve Forest, Jaggayyapetta Taluk, Krishna District for a period of 20 years in favour of M/s Madras Cement Ltd. The mine lease deed was executed on 17.03.2009 for a period of 20 years i.e., upto 16.03.2029.
- b) Then, the Govt. of Andhra Pradesh vide Go.Ms.No.96 dated 13.10.2015 accorded permission for change of the name from M/s Madras Cements Limited to M/s The Ramco Cements Limited.
- c) Subsequently, the Govt. of Andhra Pradesh vide Go.Ms.No. 59 dated 02.05.2017 extended the mining lease for a period of 50 years w.e.f 17.03.2009 to 16.03.2059 for mining of Limestone over an area of 160.0 Ha in favour of M/s The Ramco Cements Limited.
- d) Thereafter, the Government of Andhra Pradesh issued the Corrigendum orders vide Go.Ms.No. 39, Dt. 03.06.2021 to the earlier grant orders, stating that wherever the words “Survey No. 376 of Budawada village, Jaggayyapet Mandal” occur shall be read as “Survey No. 236 (p) of Jaggayyapet village and Mandal, Krishna Dist., Andhra Pradesh”.
- e) The Project Proponent executed the supplementary mine lease deed on 08.09.2021 for extension for the period upto 16.03.2059.

iv. Now, the Project Proponent requested for amendment in EC dated 10.12.2009 for the following: -

S. No	Reference of EC dated 10.12.2009	Clause of EC dated 10.12.2009	Amendment sought by Project Proponent
1	B. General Conditions, Point No. I, Pg. No: 4	No change in mining technology and scope of working shall be made without prior approval of Ministry of Environment & Forests	Establishing Railway siding facility with stacker & reclaimer facility within the Mining lease area and to permit transportation of limestone from RamcoBudawada RF limestone mine to the cement plant by road as well as by railway line.

- v. The Project Proponent has submitted that to achieve the EC permitted limestone production quantity of 1.10 MTPA and also to get EC for the expanded 2.50 MTPA limestone production capacity, prima facie, issues pertaining to approach road is to be resolved. Since the delay is causing a major

stumble block for the progress of this mine initiated prior year 2008, the company has explored additional / alternative facility for transport of Limestone from the subject mine to its factory at Jayanthipuram. Though belt conveyor option is technically viable, due to non-availability of intervening land between the mines and the cement plant which comprises of RF, other mine leases, habitation, perennial river etc., it could not be considered practically feasible for implementation in the present circumstances.

- vi. The Project Proponent has submitted that at present, sized material from the crusher in the ML area is loaded into tipper / trucks and dispatched to cement plant by road. Now it is proposed to stack the sized material from crusher in the northern part of the lease area through stacker, then reclaim it to the 4 over ground hoppers for wagon loading and transport the material by wagons. Transportation of material by rail route entails establishment of the following facilities:
1. Stacker – 1 No. – 1200 TPH capacity non slewing hydraulic luffing stacker
  2. Reclaimer – 1 No. – 1320 TPH design capacity Bridge reclaimer
  3. Silo of 4400 Tonne storage capacity with sufficient number of chutes connected with a conveyor belt from the Limestone Crusher Plant for loading of empty rake of 59 BOXN wagons and other accessories.
  4. Establishment of Railway siding within the lease area.
  5. Transportation by rail to the Jayanthipuram cement plant at distance of 8 km, after getting the necessary communication from JPT railway station master.
  6. Unloading through Wagon Tippler at Jayanthipuram Cement plant having load capacity of 105 tonne and having unloading rated capacity of 600 TPH for unloading the limestone into the hopper from the rakes.
  7. The unloaded limestone from rakes into wagon tippler will be transported through a series of belt conveyors, which also passes through online Cross Belt Analyser (CBA), for the chemical parameter monitoring before stacking into the stockpile in the factory premises. From stock piles the limestone will be taken into process for manufacture of clinker.
- vii. The Project Proponent has submitted that the South Central Railway (SCR) vide Lr.No. C/T/143/TRCL-JPTN/20 dt.19.01.2021 has accorded in principle approval for the proposed private siding of the M/s The Ramco Cements Limited taking off from Jaggayyapet Town (JPTN) station. The SCR Railway Line from Jaggayyapet to Mellacheruvu is passing through this Mining Lease on north side of the boundary over a length of 495 m.
- viii. The Project Proponent has submitted that the Modified Mining Plan (including Progressive Mine Closure Plan) due to proposed crushing plant and Railway siding at the subject ML area was approved by Indian Bureau of Mines vide Lr.No: AP/KSN/MP/LST-30/HYD dated 07.07.2021 over an area of 160 Ha for the period 2021-22 to 2023- 2024.

- ix. The Project Proponent has obtained the Permission (NOC) for Renewal vide Lr.No.PRR05-11028/16/2019-SLNA-GIS-CORD , date:13/02/2021 from the O/o the Commissioner, Panchayat Raj & Rural Development & Administrator, Apwaltafor their existing Budawada Limestone mine located at Budawada Village, Jaggaiahpetta Mandal, Krishna District, Andhra Pradesh to carry out the mining operations below the ground water table and usage of 38 KLD of ground water from the captive mine of Jayanthipuram Lime Stone Mine. This NOC is valid for three years from the date of issue.
- x. Details of Forest Clearance:
- a) The Project Proponent has submitted that the entire mine lease area of 160 Ha is a Forest land.
  - b) Stage-I Forest Clearance has been granted by MoEF&CC (FC Division) vide letter No. 8-56/2005-FC dated 31.12.2008 in favour of M/s Madras Cements Ltd., for diversion of 160 ha of forest land for mining of Lime stone in Budavada Reserve Forest in Krishna District of Andhra Pradesh.
  - c) Stage-II Forest Clearance has been granted by MoEF&CC (FC Division) vide letter No. 8-56/2005-FC dated 22.12.2011 in favour of M/s Madras Cements Ltd., for diversion of 160 ha of forest land for mining of Lime stone in Budavada Reserve Forest in Krishna District of Andhra Pradesh.
  - d) Govt. of Andhra Pradesh vide G.O Ms.No.26 dated 31.03.2012 accorded permission for diversion of 160 Ha of forest land for mining of Limestone in favour of M/s Madras Cements Ltd.
  - e) The FC has been transferred from M/s Madras Cements Ltd., to M/s Ramco Cements Ltd., vide letter No. Rc.No:712/2000-TO dated 03.09.2016 granted by Forest Department, Govt. of Andhra Pradesh.
- xi. The Project Proponent has submitted that the production process / mining technology remains unchanged and the rail transport prima facie is environmentally a better option which would reduce the pollution significantly when compared to road transport option. With regards to dust pollution, measure such as green net during construction, covering transport material with tarpaulin, proper maintenance of equipment, good quality of fuel, peripheral green belt, Enclosing the peripheral area on the northern side of the lease area mainly the ore stacking, handling and loading point by plantation, construction of an earthen bund of at least 2m along the periphery of mineral stock yard, dust suppression in the approach roads, provision of mist spray arrangement in the material handling area, enclosing conveyors transfer chutes, Bag filter arrangement at limestone crusher and transfer points etc, wagon loading arrangement with covered hatch provided with bag filter will be ensured. With regards to water environment, to obviate any minor negative impact on this front if any it is proposed for laying of railway siding with proper drainage gradient on either side, provision of longitudinal garland drain on either side of the railway siding and around the mineral stockyards depending upon the slope of the area.

Rain water collected in these areas will be collected through this drain and connected to settling ponds with silt traps before discharging downstream. It is proposed to carry out block plantation in the entire safety zone area on the northern side of the lease area and also in the possible vacant land further north of the proposed RS alignment and the existing branch line passing through the lease area during the construction phase itself.

xii. Details of CTE/CTO, Certified Compliance Report, Past production:

- a) Consent for Establishment (CFE) granted by Andhra Pradesh Pollution Control Board (APPCB) vide Order No. 285/PCB/CFE/ROVJA/HO/2009-69 dated 08.04.2010 for production of 1.10 MTPA Limestone over an area of 160 ha. PP also submitted that the Auto Renewal of Consent for Operation & Hazardous waste Authorisation Order vide Order No. APPCB/VJA/VJA/ 488/HO/CFO/2021 dated 07/11/2022 has been granted by the Andhra Pradesh Pollution Control Board (APPCB) for a further period of 5 (five) years i.e., up to 31.01.2028.
- b) Certified Compliance Report issued by the Integrated Regional Office (IRO), Vijayawada vide File No. IRO/VIJ/EPA/MISC/111-01/2021 dated 24.05.2022. The project was monitored by IRO on 11.11.2021.
- c) The Project Proponent has submitted the details of the certified production and dispatch from the Dept. of Geology and Mines Lr.No. 436/M/2001 dated 08.12.2022 for the year 2009-10 to 2021-22.

S. No	Year	Production/Dispatch in MT	EC Capacity, MTPA
1	2009-10	0	1.10
2	2010-11	0	1.10
3	2011-12	0	1.10
4	2012-13	0	1.10
5	2013-14	0	1.10
6	2014-15	1,000	1.10
7	2015-16	4,333	1.10
8	2016-17	1,000	1.10
9	2017-18	240	1.10
10	2018-19	97,140	1.10
11	2019-20	85,200	1.10
12	2020-21	4,000	1.10
13	2021-22	3,23,863	1.10

xiii. Court case details:

Court Case, No and its present status	<p>With regards to mineral transportation in a small stretch of land owned by Rashtriya Ispat Nigam Limited (RINL), writ petition was filed by RINL and its details are as follows:</p> <p><u>Writ. No. 5066 of 2019, dt.10.04.2019.</u></p>
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	<ul style="list-style-type: none"> <li>• RINL filed writ petition on 10.04.2019 against Govt. of Andhra Pradesh and TRCL. The High Court of Andhra Pradesh issued the order on 25.04.2019 for suspension of Memo No. 11031/M.III(2)/2013, Dt. 23.05.2018 and further memo No. 11031/M.III(2)/2013, Dt. 23.01.2019.</li> <li>• Hon'ble AP High Court was pleased to dismiss the writ petition filed by RINL on 14.06.2021 after hearing all the parties and also was pleased to vacate the interim stay granted in the matter.</li> </ul> <p><u>RINL Writ Appeal No. 424 of 2021, dt.15.07.2021 against the judgment of writ. No. 5066 of 2019, dt.10.04.2019.</u></p> <ul style="list-style-type: none"> <li>• The above appeal was heard on 22.07.2021 and Honbl'e Chief Justice Bench has issued the orders to stop operations on road and maintain the "Status Quo" in this matter till the next date of hearing.</li> <li>• Status Quo is maintained in RINL land. Presently an alternative transport route which is of a greater distance is being utilized.</li> </ul>
<p>Undertaking by Project Proponent w.r.t court case</p>	<p>The Project Proponent has submitted an undertaking vide letter dated 20.05.2023 stating that they solemnly agree to abide by all the directions of the Hon'ble Court in this matter.</p>

### 3. Observation and Recommendation of the EAC:

The Project Proponent informed the EAC that the instant proposal is for amendment in EC dated 10.12.2009 w.r.t Establishing Railway siding facility with stacker & reclaiming facility within the Mining lease area and to permit transportation of limestone from RamcoBudawada RF limestone mine to the cement plant by road as well as by railway line. The Project Proponent also informed the EAC that the instant proposal attracts the general conditions as the mine lease area is located at a distance of 1.8 km from the Andhra Pradesh – Telangana Interstate boundary.

The Project Proponent informed the EAC that earlier proposal for expansion in production capacity from 1.10 MTPA to 2.50 MTPA was submitted to the Ministry. ToR was obtained on 29.07.2015 and public hearing was conducted on 24.04.2016. The proposal for EC was considered in the EAC Meeting held during 23-24 October, 2017 wherein *"the Committee was of the view that only 10% of the production has been achieved and proposal for expansion could not be justified by the PP. The Committee also observed that the PP did not develop the green belt around the Mining lease,*

*which is one of the conditions of the earlier EC. PP submitted that they could not develop the green belt and achieve their rated production as they did not get permission from the other nearby mining lease owners to use the area under their control to approach their mining lease and due to this the production is less. PP also submitted that they are in process of resolving the issue pertaining to approach road. Therefore, the Committee decided to defer the proposal and instructed the PP to take steps to fulfil the conditions stipulated in earlier EC and resolve the issues pertaining to approach road".* Due to non-availability of small stretch of M/s RINL Land, between ML and main road on north east corner for mineral transport, less production was achieved till the year 2021. With regards to mineral transportation in a small stretch of land owned by Rashtriya Ispat Nigam Limited (RINL), writ petition was filed by RINL. Status Quo is maintained in RINL land. Presently an alternative transport route which is of a greater distance is being utilized. Further, the Project Proponent informed the EAC that all statutory permission and clearances has been already obtained.

The Project Proponent has shown the certified compliance report issued by the Integrated Regional Office (IRO), Vijayawada vide letter dated 24.05.2022. The project was monitored by IRO on 11.11.2021. During the site visit, IRO observed that the mine is not in full-fledged operations for the planned production due to lack of proper approach road to transport Limestone from mines to plant. IRO also observed that the non-compliances with regards to Wildlife Conservation Plan, Hydro-geological study, development of green belt and financial closure and final approval. The Project Proponent also informed the EAC that there is no Schedule-I species found in the study area. Action taken report was submitted to the Ministry's IRO.

The EAC asked the Project Proponent what is the need for the road transportation. The Project Proponent informed the EAC in case of non-availability of trains, road transportation shall be utilized. The EAC also noted that the Closure report for the non-compliances is yet to be issued by IRO. The EAC observed that the Project Proponent has not submitted the production details for the FY 2022-23. The EAC also opined that the Project Proponent needs to submit the details regarding the road transportation. Based on the above discussions held, the EAC **deferred** the proposal for want of following additional information: -

- i. The Project Proponent needs to submit the details regarding the road transportation and its limitation along with the traffic management plan and an action plan for permanent dust suppression systems.
- ii. The Project Proponent needs to submit the Closure report for the non-compliances identified by IRO.
- iii. The Project Proponent needs to submit the certified production details for the FY 2022-23.

**2.4 Amendment in EC dated 20.02.2009 granted to M/s National Aluminium Company Limited (NALCO) in the mine lease area of 1315.264 ha, located at Village: Damanjodi, Tehsil: Pottangi, District: Koraput, Odisha - [File. No: J-11015/49/2008-IA.II(M), Proposal No: IA/OR/MIN/294341/2022; Consultant: M/s Global Tech Enviro Experts Pvt Ltd] - Amendment in EC**

The instant proposal is for Amendment in EC dated 20.02.2009 granted to M/s National Aluminium Company Limited (NALCO) in the mine lease area of 1315.264 ha, located at Village: Damanjodi, Tehsil: Pottangi, District: Koraput, Odisha.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The Project Proponent initially obtained Environmental Clearance (EC) vide EC letter dated 20.02.2009 for annual production of 6.825 million tonnes of bauxite by opencast mechanized method in the mine lease area of 2414.263 ha.
- ii. Now, the Project Proponent requested for amendment in EC dated 20.02.2009 for the following: -
  - a) Change in mine lease area from 2414.263 ha to 1315.264 ha and
  - b) To establish a new Crusher of capacity of 900TPH at Central Block Sector-2 with screening & conveying system to load ore at mid-point loading facilities to the existing 14.6 cable belt conveyor without change in production capacity.
- iii. The proposal was earlier considered in the 10<sup>th</sup>EAC (Non-Coal Mining) meeting held on 8<sup>th</sup>February, 2023 wherein the EAC after detailed deliberations deferred the proposal. Then, the Project Proponent submitted the information on 12.05.2023 in Parivesh portal. Accordingly, the proposal was considered in the 15<sup>th</sup> EAC (Non-Coal Mining) meeting held during 30-31 May, 2023.

Based on observation of EAC in its EAC meeting held on 8<sup>th</sup>February, 2023 and compliance of observation of EAC made by PP are detailed below:

S. No	Observation of EAC in its meeting held on 8 <sup>th</sup> February, 2023	Reply by Project Proponent
1	The Project Proponent needs to submit the copies of the letter obtained on 15.09.1986 for production capacity of 2.4 MTPA and the EC obtained on 11.05.1994 for production capacity of 4.8 MTPA under EIA Notification, 1994.	The Project Proponent has submitted the copy of the environmental approval obtained on 15.09.1986. PP also submitted the copy of the letter issued by the Ministry of Environment & Forests vide letter dated 11.05.1994.



2	<p>The Project Proponent needs to submit all the copies of Forest Clearance and its details in a chronological sequence in a tabular form (Details of letter, date of grant and the area granted) to ascertain the operation of the mine w.r.t Forest Clearance.</p>	<p>The Project Proponent has submitted the chronological details of forest clearance/temporary working permission granted as given below: -</p>																														
	<table border="1"> <thead> <tr> <th data-bbox="783 358 935 501">S. No</th> <th data-bbox="935 358 1098 501">Date of grant of forest clearance/ TWP</th> <th data-bbox="1098 358 1238 501">Order No</th> <th data-bbox="1238 358 1402 501">Forest Clearance granted in ha.</th> <th data-bbox="1402 358 1436 501">Remarks</th> </tr> </thead> <tbody> <tr> <td data-bbox="783 501 935 779">1</td> <td data-bbox="935 501 1098 779">03.05.1984</td> <td data-bbox="1098 501 1238 779">F.No.8-330/83-FRY(CONS)</td> <td data-bbox="1238 501 1402 779">732.000 Ha (621.700 in Central &amp; North Block + 110.300 Ha in South Block)</td> <td data-bbox="1402 501 1436 779">Work confined to 621.700 in Central &amp; North Block excluding safety zone</td> </tr> <tr> <td data-bbox="783 779 935 1025">2</td> <td data-bbox="935 779 1098 1025">14.02.2006</td> <td data-bbox="1098 779 1238 1025">F.No 8-40/93-FC</td> <td data-bbox="1238 779 1402 1025">300.000</td> <td data-bbox="1402 779 1436 1025">Work confined to 921.700 Ha (621.70 + 300.00 Ha) excluding safety zone</td> </tr> <tr> <td data-bbox="783 1025 935 1384">3</td> <td data-bbox="935 1025 1098 1384">30.10.2010</td> <td data-bbox="1098 1025 1238 1384">NA</td> <td data-bbox="1238 1025 1402 1384">NA</td> <td data-bbox="1402 1025 1436 1384">Applied for lease renewal (Forest land: 1294.283 ha) Initial lease period 30 years: 17.11.1982 to 16.11.2012</td> </tr> <tr> <td data-bbox="783 1384 935 1720">4</td> <td data-bbox="935 1384 1098 1720">14.12.2012</td> <td data-bbox="1098 1384 1238 1720">TWP order no, 8-40/1993-FC(pt-1)</td> <td data-bbox="1238 1384 1402 1720">NA</td> <td data-bbox="1402 1384 1436 1720">TWP granted for one year over the broken up area of 293.70 Ha (work continued over the broken up area)</td> </tr> <tr> <td data-bbox="783 1720 935 2016">5</td> <td data-bbox="935 1720 1098 2016">14.11.2013</td> <td data-bbox="1098 1720 1238 2016">TWP order no, 8-40/1993-FC(pt-1)</td> <td data-bbox="1238 1720 1402 2016">NA</td> <td data-bbox="1402 1720 1436 2016">TWP extended for three months over the broken up area of 293.70 Ha (work continued over the</td> </tr> </tbody> </table>	S. No	Date of grant of forest clearance/ TWP	Order No	Forest Clearance granted in ha.	Remarks	1	03.05.1984	F.No.8-330/83-FRY(CONS)	732.000 Ha (621.700 in Central & North Block + 110.300 Ha in South Block)	Work confined to 621.700 in Central & North Block excluding safety zone	2	14.02.2006	F.No 8-40/93-FC	300.000	Work confined to 921.700 Ha (621.70 + 300.00 Ha) excluding safety zone	3	30.10.2010	NA	NA	Applied for lease renewal (Forest land: 1294.283 ha) Initial lease period 30 years: 17.11.1982 to 16.11.2012	4	14.12.2012	TWP order no, 8-40/1993-FC(pt-1)	NA	TWP granted for one year over the broken up area of 293.70 Ha (work continued over the broken up area)	5	14.11.2013	TWP order no, 8-40/1993-FC(pt-1)	NA	TWP extended for three months over the broken up area of 293.70 Ha (work continued over the	
S. No	Date of grant of forest clearance/ TWP	Order No	Forest Clearance granted in ha.	Remarks																												
1	03.05.1984	F.No.8-330/83-FRY(CONS)	732.000 Ha (621.700 in Central & North Block + 110.300 Ha in South Block)	Work confined to 621.700 in Central & North Block excluding safety zone																												
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					broken up area)	
		6	21.11.2013	Stage-I Order No. 8-40/1993-FC(pt-1)	1294.283	Stage – I FC granted over 1294.283 ha of Forest land including 372.583 ha of unbroken forest land and safety zone of 25.275 ha (work continued over the broken up area)
		7	15.09.2014	Stage-I Order No. 8-40/1993-FC(pt-1)	1294.283	FC granted over entire 1294.283 ha of Forest land including 372.583 ha of unbroken forest land and safety zone of 25.275 ha
			Total diverted forest land (Ha)		(621.700 + 300.000 + 372.583) = 1294.283 ha	Work confined to 1294.83 ha of forest land excluding safety zone of 25.275 ha
3	The Project Proponent needs to submit the Certified Compliance Report for the earlier EC dated 20.02.2009.	The Project Proponent submitted the certified compliance report issued by the Integrated Regional Office (IRO), Bhubaneswar vide F.No. 101-836/EPE dated 10.05.2023 for the EC dated 20.02.2009. Site visit was conducted by IRO on 15.03.2023 & 16.03.2023.				
4	The Project Proponent needs to submit the authenticated production details from the Department of Geology and Mines from the year 1993-94 to 2022-23.	The Project Proponent has submitted the certified past production details from the Office of the Deputy Director of Mines, Koraput Circle vide No. 417/Mines, dated 15.03.2023 for the period 1993-94 to 2022-23 (upto February 2023).				
		S.No	Financial Year	Production of Bauxite in MT	EC Capacity, MTPA	

		1	1993-94	2435596	4.8
		2	1994-95	2138344	4.8
		3	1995-96	2408472	4.8
		4	1996-97	2558002	4.8
		5	1997-98	2661557	4.8
		6	1998-99	2806288	4.8
		7	1999-00	2822464	4.8
		8	2000-01	2834189	4.8
		9	2001-02	3522059	4.8
		10	2002-03	4777003	4.8
		11	2003-04	4816762	4.8
		12	2004-05	4851726	4.8
		13	2005-06	4854253	4.8
		14	2006-07	4623278	4.8
		15	2007-08	4684684	4.8
		16	2008-09	4700027	6.825
		17	2009-10	4878888	6.825
		18	2010-11	4823908	6.825
		19	2011-12	5002626	6.825
		20	2012-13	5419391	6.825
		21	2013-14	6292677	6.825
		22	2014-15	5139120	6.825
		23	2015-16	6340142	6.825
		24	2016-17	6825000	6.825
		25	2017-18	6825000	6.825
		26	2018-19	6825000	6.825
		27	2019-20	6729579	6.825
		28	2020-21	6579835	6.825
		29	2021-22	6414906	6.825
		30	2022-23 (upto February 2023)	5854059	6.825
5	The Project Proponent also needs to submit the copies of all Consent to Operate (CTO) from the year 1993-94 to till date along with its validity and its detail in chronological sequence in a tabular form.	The Project Proponent has submitted the copies of CTO viz. CTO dated 26.07.1994 for the year 1994-95, CTO dated 28.01.1995 for the year 1995-96, CTO dated 15.09.1997 for the year 1997-98, CTO dated 15.09.1998 for the year 1998-99, CTO dated 08.06.1999 for the year 1999-2000, CTO dated 04.07.2000 (2,00,000 MT/Month) for the year 2000-01, CTO dated 28.06.2001 (2,00,000 MT/Month) for the year 2001-02, CTO dated 30.09.2002 (2,00,000 T/Month) for the year 2002-03, CTO dated 01.01.2004 for the year 2003-04, CTO			

		<p>dated 11.11.2004 for the year 2004-05, CTO dated 15.02.2006 for the year 2005-06, CTO dated 14.03.2007 (4.8 Million Tons/A) for the year 2006-11, CTO dated 08.11.2011 (6.3 MTPA) for the year 2011-13, CTO dated 21.01.2014 (6.825 MTPA) for the year 2013-14, CTO dated 18.11.2014 (6.825 MTPA) for the year 2014-16, CTO dated 19.02.2016 (6.825 MTPA) for the year 2016-2020, CTO dated 27.03.2020 (6.825 MTPA) for the year 2020-22&amp; CTO dated 17.03.2022 (6.825 MTPA) for the year 2022-24.</p>
<p>6</p>	<p>Project Proponent should submit techno feasibility and impact on environment report due to addition of new crusher of 900TPH with screening and conveying system.</p>	<p>The Project Proponent has submitted the Detailed Project Report (DPR) on Transportation of Bauxite from Sector 2 of Central Block Bauxite Mines to Existing Crusher House (Stream# 1 &amp; 2) and/or Mid Point Loading on the Existing Cable Belt Conveying System at NALCO Mines, Damanjodi carried out by M. N. Dastur&amp; Company (P) Ltd. during the month of August, 2021.</p> <p>The Project Proponent has submitted that the opencast mechanized mining at Central Block-2(CB-2) would be a blast free mining. It involves ripping, sizing of ROM minerals, and overland conveyor transportation of sized ROM and handling of the same. It, therefore, involves significant emission of fugitive dusts (FD) to the air environment. The sources of such fugitive dust emissions within the ML area are as under:</p> <ul style="list-style-type: none"> <li>a) Mineral sizing, i.e. crushing and screening of ore</li> <li>b) Movement of dumpers on the haul roads</li> <li>c) Wind borne dust emissions from stockpiles</li> </ul> <p>Mineral sizing plant and conveyor transportation of the sized minerals are the source of closed work zone FD emissions. Mineral sizing plant, which will be housed in a</p>

		<p>separate building, would be provided with dry fog (DF) system for control of FD emissions. All the conveyors carrying the sized materials would be of covered type. The conveyor transfer points will be provided with DF system to minimize the air pollution. The sized products would be stored in a covered bin or silo. Due to the mining activities, there will be little effect on ambient air quality. By adopting appropriate air pollution control measures and reinforcing already-existing air pollution control measures, the effects can be further reduced. To reduce the production of noxious gases, oxygen-balanced explosives are used, and the right proportion of ANFO and fuel oil is maintained.</p> <p>PP also submitted that Six nallahs consisting of five seasonal nallahs and one perennial nallah (JhulagudaNallah) originate in the western part of the central block within the mine lease and flows down the slopes of the hill to meet other streams flowing in the study area. A dam has been constructed on this perennial nallah (Jhulagudanallah) to have a reservoir with storage capacity of 1500 m<sup>3</sup> of water. A number of springs originates from the Panchpatmali hill and flows down the slopes. These springs are used as fresh water resource by the downstream villagers in the study area. There are no waste dumps or OB dumps as concurrent reclamation method has been adopted. The sedimentation pits are cleaned periodically to maintain the sump capacity to hold water. There are no active dumps and hence there is no question of washouts from dumps. For Construction Water of new crusher, storage vats for storing enough water will be constructed for meeting the work requirements. Thus, no way it will affect the surrounding water quality. As the Mining activities limited to 35m only from the surface, there is no impact of Mining operation on the ground water /</p>
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		<p>aquifers. Cleaning of mining machineries would generate some amount of waste water containing oil and dirt. The quantity generated would not be a significant one and the discharge would be intermittent and will be treated in the existing ETP.</p> <p>For the active mine area, the noise level in other areas say at a distance of 20m or so will come down drastically and will be within the tolerance limits. In the active mine workings although, there will be some sources producing higher noise levels and they are not expected to be in operation continuously for 8 hours, keeping Leq (8hrs) to be well within the stipulated standards. In case these machineries operate continuously for 8 hours, earplugs will be used for personal protection of workers exposed to these noise Zones. Noise will be heard only at the active mine area, at faraway places from the actual mine workings there will not be any impact of noise due to mining operations and will not be felt in the nearby villages. Further green belt/plantation and other mitigate measures will be carried out to abate noise propagation in the area. Noise generating sources like crushers, grizzly bars, vibrating screens etc. including air compressors will be installed in a separate building or enclosures for abating the noise</p>
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- iv. The Project Proponent has given a following justification for amendment in EC stating that in view of the depletion of the reserve in North Block, it is planned to shift the operation from North Block to Central Block of same mine and transport the bauxite from mines to plant through the existing cable belt conveyor. Reserve of North block is coming to an end in near future. It is proposed to develop the Central Block & install a new crusher house of capacity of 3.825 MTPA and feed to the existing cable belt conveyor through a new mid-point loading facility. The rest 3.0 MTPA shall be crushed using existing semi-mobile crushing plant (SMCP) and existing crushers in the North Block, which will be fed to the existing Cable Belt Conveyor. Bauxite reserve in the north block will exhaust by 2025. Accordingly, it is also proposed to dismantle SMCP from North Block region and relocate to the Central Block. After complete shifting of SMCP, the total operation will be carried out in the new crushing

system as well as relocated SMCP from the North Block through the existing Cable Belt Conveyor System. All other operations will be as per the prevailing system. The new crushing house will be within the existing lease and there will be no enhancement of production.

- v. Details of Mine Lease:
- a) The Project Proponent has submitted that initially mining lease was granted on 22.09.1982 for a period of 30 years over an area of 4692.05 ha.
  - b) The Project Proponent has submitted that the mine lease of Panchpatmali Central & North Block over an area of 3403.281 ha was valid upto 16.11.2012. Prior to renewal of mine lease, it was planned to part surrender the non-bauxite bearing lease to the State Govt and accordingly an application was submitted to the State Govt. on 16.07.2010 to part surrender the lease area of 2087.919 ha out of 3403.281 ha.
  - c) Then, the Project Proponent has submitted the application for renewal of mining lease to the State Govt. vide dated 30.10.2010 in the prescribed Form-J over an area of 1315.363 ha for a period of 20 years.
  - d) Thereafter, the Govt. of Odisha, Dept. of Steel and Mines vide Lr No: 6730/III(K)SM-19/2000(Pt)/SM, Bhubaneswar vide dated 08.09.2014 have accepted the 2<sup>nd</sup> part surrender of ML for Bauxite over 2087.919 ha out of the balance ML area of 3403.183 ha.
  - e) Further, the Project Proponent has submitted that the Govt. of Odisha, Dept. of Steel and Mines vide Lr No. 8903/IV (BX) SM-14/13/SM, Bhubaneswar vide dated 27.10.2016 have extended the period of the validity of the mining lease of M/s NALCO for Bauxite over an area of 1315.264 ha in Village Panchapatmali (Central and North Block) in the District of Koraput is extended upto 16.11.2032 from the date of last extension i.e, beyond 01.04.2020.
  - f) Accordingly, the Project Proponent has executed the supplementary deed made on 26.09.2017 for extension of lease period upto 16.11.2032 over an area of 1315.264 ha.
- vi. The Project Proponent has submitted that an application along with Form-I and Prefeasibility report was submitted to the MoEF&CC vide letter dated 30.09.2011 over an area of 1315.363 ha for Bauxite production of 6.825 MTPA for issuance of Terms of Reference (ToR). PP also submitted that the Terms of Reference (ToR) was issued by the Ministry vide letter dated 28.02.2012 and in the meantime the Ministry has issued a notification vide S.O 674(E) dated 13.03.2013 stating that no fresh environment clearance shall be required for a mining project or activity at the time of renewal of mining lease, which has already obtained environmental clearance under this notification. Hence, no EC was required as per this notification.
- vii. The Project Proponent has submitted that the Mining Plan including Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM) vide Lr No: RMP/A/22-ORI/BHU/2020-21 dated 09.11.2021 for mining of Bauxite over an area of 1315.264 ha.

- viii. The Project Proponent has submitted that the total mine lease area is 1315.264 ha, out of which Govt. land is 20.981ha and Forest land is 1294.283 ha. The Project Proponent has submitted the Forest Clearance (FC) has been granted by the MoEF&CC vide F.No 8-40/1993-FC(pt-I) vide dated 15.09.2014 granted under Section -2 of the Forest (Conservation) Act, 1980 for diversion of 1294.283 ha of forest land (including 372.583 hectares of unbroken forest land proposed for fresh breaking and safety zone of 25.275 hectares) within the mining lease area of Panchpatmali Central & North Block over an area of 1315.363 ha during first renewal of mining lease period for bauxite mining by M/s NALCO.
- ix. The Project Proponent has submitted a declaration vide letter dated 07.12.2022 stating that no litigation is pending against the project or project proponent or land on which the project is proposed.

### **3. Observation and Recommendation of the EAC:**

The Project Proponent/Consultant presented the KML file to indicate the site features in the study area of 10 km radius. The Project Proponent has shown the location of the existing SMCP crusher 1 x 900 TPH and primary crusher 2 x 900 TPH and proposed additional crusher 1 x 900 TPH. It is also proposed to dismantle SMCP from North Block region and relocate to the Central Block. After complete shifting of SMCP, the total operation will be carried out in the new crushing system as well as relocated SMCP from the North Block through the existing Cable Belt Conveyor System. Midpoint loading facility is at a distance of 200m from the mine lease area.

The EAC deliberated on the additional details submitted by the Project Proponent and the Consultant. The Project Proponent informed the EAC that the working is confined to 1294.83 ha of forest land excluding safety zone of 25.275 ha. The EAC observed that excess production was done against the EC capacity of 4.8 MTPA during the year 2003-04 (48,16,762 MT), 2004-05 (48,51,726 MT) and 2005-06 (48,54,253 MT). The Project Proponent accepted that the excess production was done against the EC capacity of 4.8 MTPA during the year 2003-04, 2004-05 and 2005-06. The Project Proponent also presented the details of Consent to Operate (CTO) from the year 1993-94 to till date. The EAC noted that for the year 2000-01, CTO capacity was 2,00,000 MT/Month and Project Proponent has excavated 2834189 MT, during the year 2001-02, CTO capacity was 2,00,000 MT/Month and Project Proponent has excavated 35,22,059 MT and for the year 2002-03, CTO capacity was 2,00,000 MT/Month and Project Proponent has excavated 47,77,003 MT. The EAC also observed that the Project Proponent has not mentioned the capacities mentioned in CTO from the 1993-94 to 1999-2000. The EAC was of the view that the Project Proponent needs to mention the capacities granted in CTO from the 1993-94 to 1999-2000 for detailed examination.



The EAC noted that there was a reduction in mine lease area from 2414.263 ha to 1315.264 ha at the time of renewal of mine lease. The Project Proponent informed the EAC that an application along with Form-I and Prefeasibility report was submitted to the MoEF&CC vide letter dated 30.09.2011 over an area of 1315.363 ha for Bauxite production of 6.825 MTPA for issuance of Terms of Reference (ToR). The EAC opined that *“the renewal of a mining lease after 27<sup>th</sup> January, 1994 will require an EC even if there is no expansion or modernization activity or any increase in the pollution load”* as per the judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause Versus Union of India and Ors. The EAC asked the Project Proponent to submit the details regarding renewal of mine lease and the application submitted to the Ministry for obtaining EC at the time of renewal of mine lease for detailed examination.

The Project Proponent has shown the certified compliance report issued by the Integrated Regional Office (IRO), Bhubaneswar vide dated 10.05.2023 for the EC dated 20.02.2009. Site visit was conducted by IRO on 15.03.2023 & 16.03.2023. IRO observed the partially complied conditions in terms of reclamation and rehabilitation, measures to prevent pollution of rivers and funds earmarked for environment protection measures. The EAC was of the view that the Project Proponent needs to submit the action taken report for the non-compliances identified by the IRO and their closure report. Based on the above discussions held, the EAC **deferred** the proposal for want of following additional information:-

- i. The Project Proponent needs to submit the action taken report for the non-compliances identified by the IRO and their closure report.
- ii. The EAC also observed that the Project Proponent has not mentioned the capacities mentioned in CTO from the 1993-94 to 1999-2000. Hence, the Project Proponent needs to mention the capacities granted in CTO from the 1993-94 to 1999-2000 for detailed examination.
- iii. The Project Proponent to submit the details regarding renewal of mine lease and the application submitted to the Ministry for obtaining EC at the time of renewal of mine lease for detailed examination of violation.

**2.5 Kalay Mineral Block- Block IV (Auction Block) of M/s Fomento Resources Private Limited for mining of Iron Ore with proposed production capacity of 0.75 MTPA, Waste: 3.0 MTPA in the mine lease area of 152.5073 Ha, located at Village Santona, Sanguem Taluka, South Goa District, Goa - [F.No: IA-J-11015/11/2023-IA-II(NCM), Proposal No: IA/GA/MIN/422578/2023, Consultant: M/s Mineral Engineering Services] -Terms of Reference (ToR)**

The instant proposal is for mining of Iron Ore in Kalay Mineral Block - Block IV (Auction Block) of M/s Fomento Resources Private Limited with proposed production

capacity of 0.75 MTPA, Waste: 3.0 MTPA in the mine lease area of 152.5073 Ha, located at Village Santona, Sanguem Taluka, South Goa District, Goa.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude: 15° 17' 01.6125" N to 15°18' 08.7974" N and Longitude: 74° 08' 55.2583" E to 74° 09' 44.8333" E. The mine lease area falls under the Survey of India Toposheet No: D43C3 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and instant proposal attracts the general conditions as the mine lease area is located within 5km radius of BhagwanMahavir Wildlife Sanctuary and falls under Category "A" and appraised at the Central level.

iii. Details of Mine Lease:

S . n o	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Perio d of Grant	Granted by	Mine lease area in Ha
1	Letter of Intent for grant of mining lease vide LrNo. DMG/25/Auction cell/LOI-function/ 2023/ 2804 in pursuant to Rule 10(2) of the Auction Rules	13/01/2023	Iron Ore (Major)	LOI valid for 3 years	Directorate of Mines and Geology	179.18 26 Ha
2	Letter No.03/18/2023/ Major/Mines/3286 dated 13/03/2023 for revising the area by excluding the Eco-sensitive zone (ESZ) area of 26.6753Ha.	13/03/2023	Iron Ore (Major)	LOI valid for 3 years	Directorate of Mines and Geology	152.50 73 Ha

iv. Land Use/Land Cover of the Mine Lease Area:

Private land	72.9675 Ha
Government land	79.5398 Ha
Forest land	Nil
Total Mining lease area (MLA), ha	152.5073 Ha
Private land for crusher, workshop & other infrastructure outside the MLA	Nil

v. Details of Mining Plan:

- g) The Project Proponent has submitted that the Mining Plan has been submitted to Indian Bureau of Mines on 31/03/2023 for its approval and the same is under process.
- h) The method of mining will be opencast mechanized using Heavy Earth Mining Machinery without drilling and blasting. Geological Reserves is estimated as 16.731 Million Tonnes and Mineable Reserves estimated as 8.188 Million Tonnes. Life of the mine will be 24 years.
- i) The proposed bench height and width will be 6m and 8m respectively. The individual bench slope will be 63° and overall pit slope will be 30°.
- j) The ore will be transported from Mine to jetty through road to a distance of 14 km by engaging Tipper Trucks/ Dumper.
- k) There will be no generation of Topsoil and Mineral Rejects. Waste (OB) generated will be disposed at the earmarked site as per Mining plan.

vi. Water requirement:

Total water requirement	300LKD	Fresh water	246KLD
		Treated water	54KLD
Source	1. Mine Pit Water – used for Dust suppression, Workshop, Wheel wash System and Green belt/plantation. 2. Well water – used for Domestic purpose.		
Permission for withdrawal/ intersection along with details of grant and its validity	Application has been submitted to Water Resources Department, Goa, and same is under process.		

vii. Nearest village / town/ highway/railway station / water bodies/monument

Particulars	Particular's Name	Distance & Direction
Village	Santona Village	The Mineral Block is located within Santona village.
Town	Sanvordem Town	6 km by road in the South-West Direction.
Highway	State Highway SH-7	1.27 km by road in the West Direction.
Interstate Boundary	Karnataka	10.03 km (aerial distance).
Railway Station/Railway line	Kalay Railway station	4.0 km by road in the East Direction.
Water Bodies	Kalay River	5m from the Eastern boundary of the Mineral Block.

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks

Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	--
National Park	No	--
Wildlife Sanctuary	Yes	BhagwanMahavir Wildlife Sanctuary is located at a distance of 1.04 km from the boundary of Kalay Mineral Block.
Elephant/Tiger Reserve	No	--
Eco-Sensitive Zone (ESZ) /Eco-Sensitive Area (ESA)	Yes	1. BhagwanMahavir Wildlife Sanctuary is located at 1.04km from the boundary towards Eastern side of the Block. 2. The Mineral Block does not fall within the Eco-Sensitive Area.
Coastal Regulation Zone (CRZ)	No	--
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	-	Details regarding Schedule-I species will be provided in the EIA report after carrying out baseline study.
Wildlife Conservation Plan	-	Based on the observation of Schedule-I species in the study area during the baseline study.

ix. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	Proposed areas to be brought under plantation is as given below: 1. Greenbelt - 3.0288 Ha 2. Plantation - 71.4867 Ha (other than greenbelt at conceptual stage) Plantation of around 2500 saplings per hectare is proposed.
Budget for green plant & plantation till the end of life of mine.	Rs 1.86 Crores
Budget for nursery	Saplings from Forest Department, Government of Goa will be procured.
Details of existing plantation and its survival rate	Details of existing plantation within the Mineral Block is given below: 1. Stabilized Dumps – 5.6 Ha 2. Mined out area reclaimed & rehabilitated – 3.12 Ha The plantation was carried out by the erstwhile Mine Lessee.
No. of tree cuts in the mine lease area and compensatory afforestation	Mining operation will be carried out in the area, which was already broken up. Hence, there is no proposal of cutting of trees. Compensatory Afforestation is not applicable.

Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	1. Greenbelt – 3.0288 Ha (within 7.5m barrier) 2. Plantation – 71.4867 Ha (other than greenbelt at Conceptual stage)
50 m safety zone of nallah, roads, electric lines	

x. Rehabilitation & Resettlement:

R & R details	Not Applicable, as no resettlement is proposed during life of mine.
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xi. Details of Court Cases:

Court Case, No. and its present status	<p>1. Writ Petition 592 of 2022 in Hon'ble High Court of Bombay at Goa</p> <ul style="list-style-type: none"> <li>• The said petition seeks to challenge the constitutionality of the tender documents of Phase I auction of Goa mines.</li> <li>• The petition alleges that there is a non-disclosure of essential facts such as bore hole data, approved mining plan, production data of the previous five years and exploration data and has therefore prayed for quashing of auction notice to the extent it fails to include the essential facts which is against the principle that level playing field should be provided to the petitioner for its participation in the auction.</li> </ul> <p>2. As per the last order, Fomento Resources Private Limited is added as a party to the petition as it has acquired Block IV- Kalay Mineral Block in e-auction tendered vide NIT dated 30/09/2022.</p> <p>3. No stay on conducting the e-auction of Mineral Block granted and the Case is pending for disposal.</p>
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xii. Details of project cost and employment:

Particulars	(Rs. In Crore)
Project Cost	Rs.3680 Lakhs
Employment (No.s)	Direct & indirect employment of 327 persons. Approximately 1500 peoples will benefit directly & in-directly by this project.

### 3. Observation and Recommendation of the EAC:

The Project Proponent/Consultant presented the KML file to indicate the site features in the study area of 10 km radius. The Project Proponent has shown the boundary of the mine lease area and informed that there are three pits exist within the mine lease area. The Project Proponent has shown the two proposed transportation routes from Kalay Block to Sanvordem Jetty/Capxem Jetty via Ambeudoc Sanvordem Junction and another route from Kalay Block to Sanvordem Jetty/Capxem Jetty via

Bandoli Sanvordem Junction. Bhagwan Mahavir Wildlife Sanctuary is located at a distance of 1.04 km, E from the boundary of the mine lease area. Santona Village is a not a part of ESA of Western Ghats. The EAC asked the Project Proponent whether letter has been obtained from the Forest Dept. in this regard. The Project Proponent informed the EAC that they are in the process of obtaining letter from the Forest Dept.

The Project Proponent also informed the EAC that the Dept. of Mining & Geology has informed that the revised area of 152.5073 Ha is excluding the Eco Sensitive Zone (ESZ) area of 26.6753 Ha. The EAC observed that the Final Notification on Bhagwan Mahaveer Wildlife Sanctuary and National Park, Goa was published vide S.O. 221(E) dated 23.01.2015. As per the Notification, the extent of Eco-sensitive Zone shall be one kilometre of land or the water body whichever is nearer to the boundary of the Bhagwan Mahaveer Wildlife Sanctuary and National Park in the State of Goa. The EAC also observed that the Village Santona is partially falling within the ESZ Boundary. The EAC opined that the Ministry may seek comments from the ESZ Division in the Ministry regarding whether the instant mine lease area falls within the ESZ/ESA or not.

Kalay River is located adjacent to the mine lease area on the eastern side. The transportation route passes through the village road. The width of the road is more than 12m. Tippers of 10 Tonnes of capacity will be utilized for transportation. Railway line is running parallelly to the mine lease area at a distance of 75m. The EAC asked the Project Proponent whether it is possible to evacuate the material through railways. The Project Proponent informed the EAC that they will try to explore this option. Habitations exist within the mine lease area and do not fall in the proposed working area. In the next five years, the mining activity will not close to the habitation. The EAC opined that the habitations inside the mine lease area need to be shifted. The Project Proponent informed the EAC that one court case has been filed in Hon'ble High Court of Bombay at Goa vide Writ Petition 592 of 2022 to challenge the constitutionality of the tender documents of Phase I auction of Goa mines. As per the last order, Fomento Resources Private Limited is added as a party to the petition as it has acquired Block IV- Kalay Mineral Block in e-auction tendered vide NIT dated 30/09/2022. No stay on conducting the e-auction of Mineral Block granted and the Case is pending for disposal. Based on the above discussions, the EAC **deferred** the proposal for want of following additional information:-

- i. The EAC opined that the Ministry may seek comments from the ESZ Division in the Ministry regarding whether the instant mine lease area falls within the ESZ of Bhagwan Mahaveer Wildlife Sanctuary and National Park / ESA of Western Ghats or not.
- ii. The Project Proponent needs to submit the map demarcating the location of the mine lease area w.r.t ESA of Western Ghats and ESZ of Bhagwan Mahaveer Wildlife Sanctuary and National Park.

**2.6 Itagi Limestone Mine of M/s. Orient Cement Ltd for Expansion in production Capacity of Limestone: 3.0 Million TPA to 7.5 Million TPA, Top Soil 0.1 Million TPA, Over Burden 0.2 Million TPA (Total Excavation: 7.8 Million TPA) along with one existing Crusher of 1200 TPH Capacity & Installation of one additional Crusher of 1200 TPH Capacity in the mine lease area of 519.0 Ha, located at Villages: Itagi & Mogla, Tehsil: Chittapur, District: Kalaburagi, Karnataka - [F.No: J-11015/60/2011-IA.II(M); Proposal No: IA/KA/MIN/426863/2023, Consultant: M/s J.M. EnvironetPvt. Ltd.] – Terms of Reference (Expansion)**

The instant proposal is for mining of Limestone in Itagi Limestone Mine of M/s. Orient Cement Ltd for expansion in production Capacity of Limestone: 3.0 Million TPA to 7.5 Million TPA, Top Soil 0.1 Million TPA, Over Burden 0.2 Million TPA (Total Excavation: 7.8 Million TPA) along with one existing Crusher of 1200 TPH Capacity & Installation of one additional Crusher of 1200 TPH Capacity in the mine lease area of 519.0 Ha, located at Villages: Itagi&Mogla, Tehsil: Chittapur, District: Kalaburagi, Karnataka.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and as revealed from the discussions held during the meeting are given as under:

- i. The mine lease area is located between Latitude: 17°06'41.03" to N 17°08'10.57" N and Longitude: 77°07'35.07" E to 77°09'13.57" E. The mine lease falls under the Survey of India Toposheet No: 56 G/4 (E43R4) and falls in Seismic Zone II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 250 ha and appraised at the Central level.

iii. Details of previous Environmental Clearance (EC):

Date of application	Proposal No/ File No	Consideration by EAC	Details of EC	Date of accord
14.08.2012	J-11015/60/2011-IA.II (M)	December 19 <sup>th</sup> -21 <sup>st</sup> , 2012 & April 16 <sup>th</sup> -18 <sup>th</sup> , 2013	Limestone production of 3.0 million tonnes per annum (ROM) for proposed mine lease area excluding Pit-3, i.e. 512.354ha (602.54ha – 89.70ha), located at Village(s) Itagi&Mogla, Taluk-Chittapur, District-Gulbarga, Karnataka with the condition that mining operations	22.09.2014

			may be restricted to mining in Pit-1 (238.80ha) and Pit-2 (42.10ha) as per approved mine plan	
14.06.2021	IA/KA/MIN/ 214419/2021  J-11015/ 60/2011-IA.II (M)	12-13 May, 2022	Amendment in EC dated 22.09.2014 w.r.t Change in mine area from 512.354 ha (602.054 ha - 89.70 ha) to executed ML area 519 ha for existing limestone mine with production capacity of 3.0 MTPA (ROM) located at Villages Itagi&Mogla, Taluka Chittapur, District Kalaburagi, Karnataka in favour of M/s. Orient Cement Limited	28.06.2022

iv. Details of Mine Lease:

S. No.	Prospecting License/ Letter of Intent (Lol)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Period of Grant	Granted by	Mine lease area in Ha
1.	Grant of Mine lease vide letter no. DMG/MLS/ 1682AML/ 2010/ 2015-16	04.07.2015	Limestone	50 Years	Govt. of Karnataka	522.05
2.	Corrigendum in Mining lease grant vide letter no. DMG/MLS/ 1682AML/ 2010/ 2015-16	31.07.2015	Limestone	50 Years	Govt. of Karnataka	519.0

v. Details of Mine Lease Deed execution:

S. No	Details of grant of Mine Lease deed execution	Period of Grant		Name of the Mineral	Mine lease area in Ha
		From	To		
1	Mining Lease deed was executed on 31.07.2015 vide lease deed no. 2681	31.07.2015	30.07.2065	Limestone	519.0



effective from 31.07.2015 for the period of 50 years till 30.07.2065.				
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vi. Land Use/Land Cover of the Mine Lease Area:

Private land	512.14 ha
Government land	6.86 ha
Forest land	Nil
Total Mining lease area (MLA), ha	519 ha
Private land for crusher, workshop & other infrastructure outside the MLA	Nil

vii. Details of Mining Plan: -

Mining Plan including Progressive Mine Closure Plan approved by Indian Bureau of Mines	Letter No.	279/1060/2012/BNG/194	
	Date	13.04.2022	
	Mineral & (Major/Minor)	Limestone (Major)	
	Mine Lease Area, Ha	519	
	Validity	2022-23 to 2024-25	
Additional information (if any)	Second Modification in Approved Mining Plan along with Progressive Mine Closure Plan for proposed increase in capacity from 3.0 to 7.5 Million TPA is under progress. The existing approved Mining Plan is valid upto 31.03.2025.		
Mining Parameters	Quantitative Description		
Method of Mining	Fully-Mechanized Opencast Method		
Drilling/Blasting	S. No.	Particular	Details
	1.	Bench height (m)	8 m
	2.	Bench Width (m)	25 to 30 m (working benches) & 5 m at UPL
	3.	Drill hole dia	150 mm
	4.	Depth of hole	8.8 meter
	5.	Burden	4.5 meter
	6.	Spacing	6.5 meter
	7.	Powder Factor	8.9 kg/t
Geological Reserves	741.81 Million Tonnes		
Mineable Reserves	198.24 Million Tonnes		
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Top Soil: 0.1 Million TPA OB/SB/IB: 0.2 Million TPA Limestone Production Capacity from 3.0 Million TPA to 7.5 Million TPA Total Excavation: 7.8 Million TPA		

Life of mine	~27 years (It may be increased on the basis of further exploration & EC conditions)		
Mine Bench Height & Bench Width	8m and 25 to 30 m (working benches) & 5 m at UPL		
No. of Mine Benches	05 Nos		
Existing Depth, m bgl	41m bgl		
Ultimate Depth of Mining, m bgl	63m bgl		
Ground Water Table, m bgl	82 m bgl * Depth as recorded in EC dated 22.09.2014.		
Details of ground water intersection	No intersection of Groundwater level is reported as per the current data available. Further, detailed hydro-geological study will be carried out during the preparation of Draft EIA/EMP Report.		
Individual bench slope	80° from horizontal		
Overall pit slope	<45 ° (working benches) & 58° (at the UPL)		
Details of existing/ proposed Crusher	One existing Crusher of 1200 TPH Capacity & Installation of one additional Crusher of 1200 TPH Capacity		
Mineral Beneficiation	Not involved		
RoM output size	Feed size: 1000 mm Product size: 50 mm		
Transportation details including capacity of dumper/tipper, mode of transport and distance	Excavated limestone is being/ will be transported to crusher (located & to be located within mine) by 30 T capacity rear dumpers and further crushed limestone is being transported to interlinked cement plant via covered conveyor belt.		
Generation of Topsoil/OB & its Management during plan period & conceptual period	At conceptual stage, about 1.18 Million Tonnes of top soil will be generated and same will used for greenbelt/plantation concurrently.		
Generation of Mineral Rejects/Waste & its Management during plan period & conceptual period	During entire life of the mine, about 3.0 Million Tonnes of OB will be generated and it will be conceptually stored in one dump having an area of 12.5 Ha and this dump will be stabilized with plantation. The dump will have 03 terraces of 10 m height each. Part waste material will be utilized in bund formation in safety zones of village & nallah. The bund height will be 5 m along village & 3 m along the nallahs.		

viii. Water requirement:

Total water requirement	250 KLD	Fresh Water	-
		Treated Water	-
This proposal is for ToR. Quantity of fresh & treated water will be figure out during the preparation of Hydrogeology Report.			
Source	Kagina River and Mine sump		

Permission for withdrawal/ intersection along with details of grant and its validity	Permission for pumping of 5560 KLD water from Kagina River has been obtained from Karnataka Neeravari Nigam Limited (KNNL) dated 11.02.2022, which was valid upto 18.03.2023. Renewal for the same is under process.
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ix. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest

Particular	Particular's Name	Distance & Directions
Village	Itagi	Adjacent in West direction and surrounded by the Mine Lease
Town	Chittapur	~3.6 km, WSW
Highway	SH- 126 SH-10	~4.0 km, WSW ~6.5 km, NNE
Interstate Boundary	None	-
Railway Station/Railway line	Malkhed Road Railway Station	~2.5 km, NE
Water Bodies	Kagina River Benithora River	~5.5 km, NW ~8.0 km, NNE
Forest	None	-

x. Presence of Environmentally Sensitive areas in the study area:

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	No Forest land fall within the mine lease area.
National Park	No	No National Park, Wild Life Sanctuaries, Eco Sensitive Zone (ESZ)/Elephant/Tiger Reserve, Eco-Sensitive Area (ESA) etc. falling within 10 km study area.
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone (ESZ) /Eco-Sensitive Area (ESA)	No	
Coastal Regulation Zone (CRZ)	No	The proposed mine is located in District Kalaburagi of State Karnataka, which is not a coastal zone. Therefore, the proposed mine does not come under purview of CRZ notification.
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	-	This proposal is for ToR. List of flora & fauna is under preparation. Presence of Schedule I species will be finalized after the authentication of list of flora & fauna.
Wildlife Conservation Plan	-	This proposal is for ToR. Presence of Schedule I species shall be finalized after the authentication of list of flora & fauna and Wildlife Conservation Plan will be prepared accordingly.

xi. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	At present, an area of 2.75 ha has been covered under the greenbelt and an area of 4.6 ha to be covered under greenbelt. Hence, total area to be developed under greenbelt is 7.35 ha with 18,375 nos of saplings. At present an area of 14.04 ha has been covered under plantation and remaining area of 63.96 ha to be covered under plantation. Therefore, total area to be covered under plantation is 78.0 ha with 1,95,000 nos of saplings. Total area covered under greenbelt/plantation is 85.35 ha with 2,13,375 nos of saplings.
Budget for green plant & plantation till the end of life of mine.	Rs. 4.26 Crore
Budget for nursery	Rs. 1.0 crore (Presently saplings are procured from local forest department)
Details of existing plantation and its survival rate	41,975 no.s and 85%
No. of tree cuts in the mine lease area and compensatory afforestation	This proposal is for expansion and expansion will be carried out in existing premises. (About 10 nos of trees will be cut during the mining operation in conceptualised area)
7.5 m barrier & non-mineralized zone	7.35 ha along 7.5 m ML Periphery
50 m safety zone of nallah, roads, electric lines	Along the Nallah: 36.16 Ha
500 m safety zones of nearest habitation villages	18.59 Ha

xii. Details of CTE/CTO, Certified Compliance Report, and Certified Production Details from the inception of the mine:

Particular	Details of Letter along with date of grant and validity
Consent to Establish	Consent for Establish (CFE) under Air & Water Act was obtained from KSPCB vide letter no. PCB/MIN/CFE/2014-15/1012, dated 21.11.2014.
Consent to Operate	Consent for Operation (CFO) under Air & Water Act was obtained by KSPCB vide letter no AW-317304 dated 27.02.2020 & same is valid from 01.04.2020 to 31.03.2025.
Certified Compliance Report and Inspection date	Earlier Compliance Report has been certified on 21.01.2019. Application for providing latest certification has been submitted to Integrated Regional Office, MoEF&CC, Bengaluru on 18.05.2023 and Certified Compliance Report will be

	submitted along with Final EIA/EMP Report.			
Certified Production Details from the inception of the mine (in tabular form against the EC capacity)	Mine commenced operation on September, 2015. Authenticated production details were obtained from Deputy Director (Department of Mines and Geology), Kalaburagi, Karnataka vide letter no. DMG/DDK/ML/2023-24/482 dated 05.05.2023.			
	S. No.	Year	Production (In Tonnes)	EC Capacity (MTPA)
	1.	2015-16	6,21,947	3.0
	2.	2016-17	21,21,251	3.0
	3.	2017-18	21,89,772	3.0
	4.	2018-19	25,84,206	3.0
	5.	2019-20	26,44,810	3.0
	6.	2020-21	23,46,850	3.0
	7.	2021-22	23,43,231	3.0
	8.	2022-23	28,91,615	3.0
<i>Source: - Deputy Director, (Dept. of Mines &amp; Geology), District Kalaburagi, Karnataka</i>				

xiii. Rehabilitation & Resettlement (R&R):

R & R details	Total no. of villages involved in R&R are two, and no. of affected families are 82, currently Rehabilitation and Resettlement process is being carried out.
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xiv. Court case details:

Court Case, No and its present status	No court case is pending against the project
Undertaking by Project Proponent w.r.t court case	The Project Proponent has submitted an undertaking vide letter dated 20.04.2023 stating that there is no litigation pending against the project and/or any direction/order passed by any court of Law against the project and /or land in which the project and that for any such litigation whatsoever, the sole responsibilities will be borne by the company.

xv. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent submitted the Affidavit in a non-judicial stamp paper of Rs 100 bearing no: AV 467963 dated 20.04.2023 stating that the company hereby undertakes by affidavit that it will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors.
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xvi. Details of project cost and employment:

Particular	(Rs. In Crore)
Project Cost	40 Crore
Employment (No.s)	Existing: 112 nos& Additional: 103 nos; Total: 215 nos

### 3. Observation and Recommendation of the EAC:

The Project Proponent/Consultant presented the KML file to indicate the site features in the study area of 10 km radius. The Project Proponent has shown the boundary of the mine lease area and the location of the crusher within the mine lease area and the Cement plant located adjacent to the mine lease area. There is a school located in the Itagi Village which is 70m from the mine lease boundary and 500m will be maintained as no mining zone. The Pit 3 is kept as no mining zone. The Project Proponent informed the EAC that the mine lease is valid upto 30.07.2065. The Project Proponent also informed the EAC that approval for modification in Mining Plan along with Progressive Mine Closure Plan for proposed increase in capacity from 3.0 to 7.5 Million TPA is under progress.

The Project Proponent has shown the certified past production from the year 2015-16 to 2022-23 and informed that there was no excess production was done against the EC capacity of 3.0 MTPA. Maximum production was achieved during the FY 2022-23 i.e., 28,91,615 MT. At conceptual stage, about 1.18 Million Tonnes of top soil will be generated and same will used for greenbelt/plantation concurrently. During entire life of the mine, about 3.0 Million Tonnes of OB will be generated and it will be conceptually stored in one dump having an area of 12.5 ha and the dump will be stabilized with plantation. Part waste material will be utilized in bund formation in safety zones of village & nallah. An area of 208.01 ha will be converted into water reservoir at the end of the conceptual stage.

Based on the above discussions, the EAC in its meeting held during 30-31 May, 2023, under the provisions of EIA Notification 2006 and its subsequent amendments, **recommended** the proposal for grant of Terms of Reference (ToR) to M/s. Orient Cement Ltd for Itagi Limestone Mine for Expansion in production Capacity of Limestone from 3.0 Million TPA to 7.5 Million TPA, Top Soil 0.1 Million TPA, Over Burden 0.2 Million TPA (Total Excavation: 7.8 Million TPA) along with one existing Crusher of 1200 TPH Capacity & Installation of one additional Crusher of 1200 TPH Capacity in the mine lease area of 519.0 Ha, located at Villages: Itagi & Mogla, Tehsil: Chittapur, District: Kalaburagi, Karnataka for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions applicable for non-coal mining projects:-

- iv. The Project Proponent needs to submit the effectiveness of the implementation of the EMP, concerns over the public hearing and R&R as per earlier EC during submission of EC proposal.

- v. The Project Proponent needs to submit the water management plan for conversion of area of 208.01 Ha into water reservoir and its effective utilization during submission of EC proposal.
- vi. The Project Proponent needs to submit the measures to be taken for protection of undisturbed area of 210.53 Ha, Pit 3 which will be kept as no mining zone, schools and habitation during submission of EC proposal.
- vii. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, crusher, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- viii. The Project Proponent shall monitor the water quality in the impact zone such as water reservoir, river water with specific reference to the parameter Langelier Saturation Index which will denote the impact of calcium carbonates on water bodies and these parameters and determine the tendency of water to form calcium carbonate scaling.
- ix. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air and noise pollution.
- x. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity including the transport scenario and cement plant in the study area and should indicate the capacity of each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters used for the modeling also needs to be submitted.
- x. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.
- xi. The Project Proponent needs to submit the compensatory afforestation plan/transplanting for the no. of trees to be cut in the mine lease area during submission of EC proposal.

- xii. The Project Proponent needs to submit the action plan during submission of EC proposal for carrying out plantation along the 7.5m barrier, safety zone of roads and gap plantation. PP should also submit the details no of saplings planted and to be planted, type of saplings existing and proposed and the area covered and to be covered under greenbelt/plantation along with the timeline and budget.
- xiii. The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.
- xiv. The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
- xv. The Project Proponent shall prepare the scheme for mandatory recycle/reuse of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
- xvi. The Project Proponent needs to submit the Certified Compliance Report as per Ministry's OM dated 08.06.2022 at the time of appraisal of EC.
- xvii. The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

**Additional Agenda:**

**2.7 Mining of 1003 m<sup>3</sup>/annum of Black Granite in the mine lease area of 166.920 Ha, located at Survey No. 917 (Part) & 921 (Part), Village Mahimandalam, Katpadi Taluk, District Vellore, Tamil Nadu by M/s Tamil Nadu Minerals Limited- Environmental Clearance (EC) regarding.**

The Project Proponent obtained Environmental Clearance on 09.04.2021 under Violation. Based on the recommendations of EAC, the Ministry granted the EC with a condition to spend an amount of Rs 61.40 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan within a span of three years.

2. Now, the Project Proponent vide letter dated 19.04.2023 requested the Ministry to change of the scope of work under Remediation Plan, Community Resource Augmentation Plan and Natural Resource Augmentation Plan towards Greenbelt development, Construction of retention ponds etc., without reducing the amount of Rs



61.40 Lakhs as directed by the Ministry and to transfer the entire proposal to SEIAA, Tamil Nadu.

3. The validity of the mine lease has been expired on 22.11.2022. The Project Proponent informed that the most of the works related to Remediation Plan and Community Resource Augmentation Plan are being funded and carried out by the District Administration through the District Mineral Foundation Trust as per the Tamil Nadu District Mineral Foundation Rules, 2017.

4. The matter has been examined in the Ministry and the Ministry has noted that the EC dated 09.04.2021 was expired on 22.11.2022. The proposal was placed in the 15<sup>th</sup> EAC (Non-Coal Mining) meeting held during 30-31 May, 2023.

**5. Observation and Recommendation of the EAC:**

The EAC noted that the Project Proponent has not sent the brief to the members of the EAC and further there is no communication made by the Project Proponent regarding participation in the EAC meeting. Therefore, the EAC **deferred** the proposal.

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**List of members of Expert Appraisal Committee participated through VC**

S.No	Member Name	Member Address	Designation	30 <sup>th</sup> May, 2023	31 <sup>st</sup> May, 2023
1	Dr. Dinesh Misra, IFS (Retd.)	Plot No 65, Sector 8, Gandhinagar, Gujarat, 382 008	Chairman	Yes	Yes
2	Sh. Niranjana Kumar Vasu, IFS (Retd.)	816, Shanti Nagar, Opposite Durgapur Railway Station, Jaipur-Rajasthan, 302018	Member	Yes	Yes
3	Dr. Asha Rajvanshi, Scientist 'G' (Retd.), WII	B/104/106 Rock Valley Apartments, GMS Road, Sewla Kalan, P.O. Majra, Dehradun, Uttarakhand-248171	Member	No	No
4	Shri. Avijit Ghosh (CMD- Heavy Engineering Corporation Limited) (Retd.)	Singhee Marg, A- 604 Shahadeo Tower, P.P.Compound, Ranchi 834001, Jharkhand	Member	Yes	Yes
5	Shri. Bandi Ramchandra Reddy (CMD-South Eastern Coalfields Limited)-(Retd.)	Flat No-503 A, Jyoti Cosmos, White Fields, Hi-Tech City, Kondapur, Hyderabad-500081	Member	No	No
6	Prof. Pramod Kumar, Professor,	Shri Aurobindo College, University of Delhi 1372, B-	Member	Yes	Yes

	Shri Aurobindo College, University of Delhi	1, Vasant Kunj, New Delhi-110070			
7	Prof. Devesh Walia, Department of Environmental Studies	Department of Environmental Studies, NEHU, Shillong-793022 Meghalaya	Member	Yes	Yes
8	Dr. Suresh Tiwari Scientist-F	Indian Institute of Tropical Meteorology, Pune, New Delhi Branch, Prof. Ram Nath Vij Marg Rajinder Nagar, New Delhi - 110060	Member	No	No
9	Dr. K.G. Asha Manjari, Professor, University of Mysore	10/B, "SPARSHA", 2nd Main, 2 <sup>nd</sup> Cross, Bhogadillnd Stage, Mysore-570026, Karnataka	Member	Yes	Yes
10	Prof. Dev Dutt Sharma, Vice-Chancellor	Sardar Patel University, Mandi H.P. 175001	Member	No	No
11	Shri V. K. Soni, Representative of India Meteorological Department	Government of India, Ministry of Earth Sciences, India Meteorological Department, Mausam Bhawan, Lodi Road, New Delhi – 110003	Member	No	No
12	Shri Yogesh Kale, Representative of Indian Bureau of Mines	Controller of Mines, IBM Block D, Second Floor, Indira Bhawan, Civil Lines, Nagpur - 440001	Member	Yes	Yes
13	Shri Niaz Mohammed	Representative of Directorate General of Mines Safety	Member	Yes	Yes
14	Shri Pankaj Verma	3 <sup>rd</sup> Floor, Vaayu Block, Indira Paryawaran Bhawan, MoEF&CC, Jorbagh, New Delhi- 110003.	Member Secretary	Yes	Yes
15	Dr. Saurabh Upadhyay	3 <sup>rd</sup> Floor, Vaayu Block, Indira Paryawaran Bhawan, MoEF&CC, Jorbagh, New Delhi- 110003.	Scientist C	Yes	Yes

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