



SHREE CEMENT LTD.

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SCL/RAS/MoEF&CC/2019-20/

25/11/2019

The Director (Mines),
Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhavan
Jorbagh Road
New Delhi - 110 003

Sub: - Compliance of environmental clearance of Nimbeti Limestone Mine of M/s Shree Cement Limited situated near Village – Nimbeti & Jawangarh, Tehsil – Jaitaran, District Pali, Rajasthan.

Ref: - EC. Letter no. J-11015/226/2015-IA.II (M) dated: 11th May 2017, amendment EC letter no. J-11015/226/2015-IA.II (M) dated: November 27th. 2017 & amendment EC letter no. J-11015/226/2015-IA.II (M) dated: February 21th. 2018

Dear Sir,

Kindly refer to the above subject matter and referred EC letter. We are submitting herewith the six monthly compliance report for the period from April-2019 to September-2019.

This is for your kind information please.

Thanking you,

Yours faithfully,
For Shree Cement Ltd.

(Dr. Anil Kumar Trivedi)
Sr. G.M (Environment)

Copy to:

- 1) The Chief Conservator of Forest (C), Ministry of Environment & Forest, Regional Office (Central Region), Kendriya Bhavan, 5th Floor, Sector 'H' Aliganj, Lucknow (U.P.), Pin-226024
- 2) The In-Charge (Zonal Office), Central Pollution Control Board (CPCB), 3rd Floor, Sahkar Bhawan, North T.T. Nagar, Bhopal-462003(M.P.)
- 3) The Member Secretary, Rajasthan Pollution Control Board, 4, Institutional Area, Jhalana Doongri, JAIPUR-302004 (Rajasthan)

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SHREE CEMENT LIMITED; Vill-NIMBETI & JAWANGARH, Tehsil- JAITARAN, Dist- PALI (RAJASTHAN)

COMPLIANCE STATUS OF ENVIRONMENT CLEARANCE

LETTER NO.:J-11015/226/2015-IA.II (M) dated: May 11th, 2017, amendment EC letter no. J-

11015/226/2015-IA.II (M) dated: November 27th, 2017 & amendment EC letter no. J-

11015/226/2015-IA.II (M) dated: February 21th, 2018

April-2019 to September-2019

| S. No. | Specific conditions | Compliances |
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| (i) | Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Rajasthan and any other Court of Law, if any, as may be applicable to this project. | Will be Complied with as per the order. |
| (ii) | This Environmental clearance is granted subject to necessary permissions for land use to be obtained from the State Govt. of Rajasthan before commencing the activities. | Mine operation started after lease execution. |
| (iii) | The Proponent shall ensure that the canal should not be diverted. The 50m buffer zone on either side of stream/canal in lease area and adjoining to the mine lease area shall be maintained. | There is no stream/canal passes from the lease area. |
| (iv) | No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available. | There is no forest area within the mining lease. |
| (v) | The Environment clearance is subject to obtaining requisite NBWL Clearance, if any, from the Standing committee of National Board for Wildlife for Mining project. | Peafowl conservation plan has been executed as per approved plan. Details are given as below: 1) Cage for protection of sick birds / injured birds has been given to DFO Pali on dated.15/10/2015. Photographs are enclosed as <u>annexure 1.</u> 2) Awareness programmes have been organized for conservation and protection of peafowl in nearby schools and villages. Photographs are enclosed as <u>annexure 1.</u> 3) Plant saplings have been distributed to the villagers for enhancement of biodiversity. Photographs are enclosed as <u>annexure 1.</u> |
| (vi) | The project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Rajasthan and effectively implement all the conditions stipulated therein. | Consent to Operate have been obtained from Rajasthan State Pollution Control Board and complying all the conditions stipulated within. |
| (vii) | The proponent shall install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data within 09 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project proponent should display the result digitally in front of the main Gate of the mine site. | <ul style="list-style-type: none"> • Agreed, 03 nos AAQMS has been installed within mine lease area. Real time data are also displaying digitally in front of main gate. • There is no waste water discharge. |
| (viii) | The report on six monthly basis on changes in Ground | Complying with. |

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| | water level and quality shall be submitted to the Regional Office of the ministry, CGWA and State Pollution Control Board. | Monitoring data of ground water level and quality for the period of three years are given as Annexure-2 |
| (IX) | Project Proponent should plant only native species for green belt development. Plantation of local species should be carried out during Monsoon Season. The project should also implement community Development and Welfare programme in the area of Health, Education and Environment Protection. | Native species such as <i>Neem, Karanj, dhak, pili gulmohar</i> etc. are planted. Plantation has been carried out within and outside the mine lease area. Besides following community development work are carried out:- 1. Shree ki Pathshala for education development in nearby villages. 2. Mamta Project for better health of community, mobile van equipment with latest medical facilities health camps in nearby villages. 3. Plantation in nearby schools, roadside, community area, hospital, govt. buildings etc. |
| (x) | Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities. | 1. Well-equipped occupation health care center has been established at the site. 2. Well-equipped ambulances are available with adequate medical staff for immediate medical help and refer to the hospital at Beawar. 3. Occupational Health Surveillance programme being carried out on regular basis. 4. Six monthly check up of staff and workers is being carried out for ailments like BP, diabetes etc. No occupational diseases have been reported so far. 5. Mobile van equipped with latest medical facilities, 6. Health camps in nearby villages are organized regularly. |
| (B) General Conditions | | |
| (i) | A final Mine Closure plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest & Climate Change 5 years in advance of final mine closure for approval. | Mine closure plan will be submitted to the ministry 5 years before closure of the mine. |
| (ii) | No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest & Climate Change | Prior approval for change in mining technology and scope of working will be obtained. |
| (iii) | No change in the calendar plan including excavation, quantum of limestone and waste should be made. | Mining is being done as per the approved mining plan. |
| (iv) | The Project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project. | 1. Total water requirement for entire project including Cement, Power, Mine and Residential colony is <4380 KLD. 2. CGWA granted permission to withdraw 4000 KLD ground water. 3. Balance 380 KLD water is source from rain |

| | | <p>water collected in pits.</p> <p>4. Rain water collection pits have been developed at the following locations to use for plant & mining activities and to recharge the ground water.</p> <table border="1"> <tr> <th>Sr. No.</th><th>Structure</th><th>Water storage Capacity in KL</th></tr> <tr> <td>1.</td><td>Harvesting Pit-1 at Mines</td><td>900000</td></tr> <tr> <td>2.</td><td>Harvesting Pit-2 at Mines</td><td>40000</td></tr> <tr> <td>3.</td><td>Harvesting Pit-3 near plant gate</td><td>147000</td></tr> <tr> <td>4.</td><td>Harvesting Pit-4 in Colony near Vill. Bhagatpura</td><td>40000</td></tr> </table> | Sr. No. | Structure | Water storage Capacity in KL | 1. | Harvesting Pit-1 at Mines | 900000 | 2. | Harvesting Pit-2 at Mines | 40000 | 3. | Harvesting Pit-3 near plant gate | 147000 | 4. | Harvesting Pit-4 in Colony near Vill. Bhagatpura | 40000 |
|---------|---|--|---------|-----------|------------------------------|----|---------------------------|--------|----|---------------------------|-------|----|----------------------------------|--------|----|--|-------|
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| 1. | Harvesting Pit-1 at Mines | 900000 | | | | | | | | | | | | | | | |
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| 3. | Harvesting Pit-3 near plant gate | 147000 | | | | | | | | | | | | | | | |
| 4. | Harvesting Pit-4 in Colony near Vill. Bhagatpura | 40000 | | | | | | | | | | | | | | | |
| (v) | Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of Directorate General Mines Safety(DGMS) | Mining is done as per the approved mining plan and mining rule and regulations. | | | | | | | | | | | | | | | |
| (vi) | The project proponent shall carry out scientific investigation in respect of "Blast induced ground vibration, fly rock & air blast". Based on the study, Project Proponent should design an effective blast design to curb blast induced menace and public annoyance. The report shall be submitted to the Regional Office of the Ministry. | <p>1. Controlled blasting is done in most scientific manner by using shock tube detonators during day time to control noise level, vibration, & fly rock etc.</p> <p>2. Only day time blasting is in practice.</p> <p>3. Supervision of blasting operation by competent persons as per MMR, 1961 and Explosive Act.</p> | | | | | | | | | | | | | | | |
| (vii) | The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957. | Agreed. | | | | | | | | | | | | | | | |
| (viii) | Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest & Climate Change its Regional Office. | Digitally processed land use land cover report has been submitted to the MoEF&CC vide letter no. SCL/RAS/MoEF&CC/2018-19/3475 dated 30/05/2018 | | | | | | | | | | | | | | | |

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| (ix) | <p>The critical parameters such as PM₁₀ (size less than 10 micro meter), PM_{2.5} (size less than 2.5 micro meter), NO_x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored[(TDS, DO, PH, and TSS)]. The monitored data shall be uploaded on the project site at a suitable location near the main gate of the company in public domain. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest & Climate Change, shall also be referred. In this regard for its compliance</p> | <ol style="list-style-type: none"> 1. Status of compliance of the stipulated environment clearance conditions, including results of monitored data are available on company's web site and displayed at the main gate. 2. Emission levels are submitted on regular basis to the ministry, CPCB and SPCB. 3. Complying with the National Ambient Air Quality Emission Standards issued by the Ministry. 4. Monitoring result of ambient air quality (all values are in µg/m³) are enclosed herewith as <u>Annexure-3</u>. 5. Depending on the type of structures and the dominant excitation frequency, the peak particle velocity (ppv) on the ground adjacent to the structures is not exceeding. |
| (x) | <p>Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out by the Central Pollution Control Board.</p> | <ol style="list-style-type: none"> 1. Water spraying arrangement have been provided and working at the unloading points & inside the crushers. 2. Water spraying is being done on haul roads during HEMM movement. 3. Bag filters have been installed at all material transfer points. 4. Conveyor belts are covered to reduce the air born dust. 5. Wet drilling / dry drilling with dust extraction system is being practiced. |
| (xi) | <p>Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year- pre-monsoon(April-May), Monsoon (August), post monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest & Climate Change and its Regional office, Lucknow, Central Ground Water Authority and Regional Director, Central Ground Water Board.</p> | <ol style="list-style-type: none"> 1. Network of existing well and bore well have been established for ground water monitoring. 2. Monitoring of ground water quality and level are being carried out regularly as per guidelines of CGWA. <p>Monitoring data for ground water level and quality for the period of three years are attached herewith as <u>Annexure-2</u></p> |
| (xii) | <p>Regular monitoring of the flow rate of the springs and perennial nallah flowing in and around the mine lease shall be carried out and record maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the project Proponent has to provide water</p> | <ol style="list-style-type: none"> 1. There is no perennial nallaha/ river / surface water body in the lease area. 2. Monitoring of ground water quality and level are being carried out regularly as per guidelines of CGWA 3. Monitoring report is being submitted to MoEF & CC, CGWA, SPCB and CPCB on regular basis. |

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| | to the villagers for their use. A provision for regular monitoring of water table in open dug well located in village should be incorporated to ascertain the impact of mining over ground water table. | |
| (xiii) | Regular monitoring of water quality upstream & downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment , Forest and Climate Change and its Regional Office, Central Ground water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board & Central Pollution Control Board. | <ol style="list-style-type: none"> 1. There is no perennial nallaha/ river / surface water body in the lease area. 2. Monitoring of ground water quality and level are being carried out regularly as per guidelines of CGWA 3. Monitoring report being submitted to MoEF & CC, CGWA, SPCB & CPCB on continuous basis. |
| (xiv) | Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The Project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is provided to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads. | <ol style="list-style-type: none"> 1. Nimbeti Limestone mine is well connected to NH-158. At present no village road network is used for limestone transportation. 2. Company also maintains the existing road for strengthening of transport. 3. Safety precaution such as installation of safety signal, speed breakers, Traffic control, movement control, use of safety precaution such as safety belts for truck drivers etc. is being done by company. 4. Road safety trainings and consultation to truck drivers are provided. |
| (xv) | The illumination and sound at night at project site disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise level at night. Project Proponent must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours. | <ol style="list-style-type: none"> 1. Controlled blasting is being done in most scientific manner by using shock tube detonators during day time to control noise level, vibration, & fly rock etc. 2. Only day time blasting is in practice. 3. Noise level monitoring is being carried out on regular basis & submitted to the MoEF&CC, RSPCB. Monitoring results of ambient noise quality is attached herewith as <u>Annexure-4</u> 4. Lux level monitoring is being carried out at mine lease boundary. |
| (xvi) | Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. In case of Belt-conveyors facilities the system should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured. | <ol style="list-style-type: none"> 1. Regular water spray and compaction is being done for all haul roads to control the fugitive emissions. 2. Water spray arrangements have been provided at all crushers. 3. All material transfer point equipped with Bag filters 4. Conveyor belts are covered to reduce the air born dust. <p>Monitoring results for fugitive emission from mining activities are attached herewith are <u>Annexure-5.</u></p> |
| (xvii) | Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of PH shall be included in the monitoring plan and | Rain water is collected through development of proper canalization towards the mine pit. |

| | report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| (xviii) | There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board. | <div>1. Presently mining is being done at the top of the hill. Rain water collection pits have been developed at the following locations to use for plant & mining activities to recharge the ground water.</div> <table><tr><th>Sr. No.</th><th>Structure</th><th>Water storage Capacity in KL</th></tr><tr><td>1.</td><td>Harvesting Pit-1 at Mines</td><td>900000</td></tr><tr><td>2.</td><td>Harvesting Pit-2 at Mines</td><td>40000</td></tr><tr><td>3.</td><td>Harvesting Pit-3 near plant gate</td><td>147000</td></tr><tr><td>4.</td><td>Harvesting Pit-4 in Colony near Vill. Bhagatpura</td><td>40000</td></tr></table> <div>2. Following rain water harvesting measures have been developed outside the plant premises.</div> <table><tr><th>S. No.</th><th>Watershed development & Construction of Anicuts</th></tr><tr><td colspan="2">Year 2015-2016</td></tr><tr><td>1</td><td>Construction of anicut in Roopnagar(Ras) village</td></tr><tr><td colspan="2">Year 2010-2011</td></tr><tr><td>1</td><td>Construction of anicut in Bagatpura village</td></tr><tr><td>2</td><td>Construction of anicut in Bhimgarh village</td></tr><tr><td>3</td><td>Construction of anicut in Kanyakhedi village</td></tr><tr><td>4</td><td>Rooftop water harvesting in 12 schools</td></tr><tr><td>5</td><td>Construction of Rapat (Nimbeti to Jawangarh village)</td></tr><tr><td colspan="2">Year 2009-2010</td></tr><tr><td>6</td><td>Watershed development project for all villages</td></tr><tr><td>7</td><td>Small check dam/Anicut, Village Nimbeti</td></tr><tr><td>8</td><td>Construction of anicut in Nimbeti river</td></tr><tr><td>9</td><td>Construction of anicut in Kheda Village</td></tr><tr><td>10</td><td>Construction of anicut in Bhimgarh Village</td></tr></table> | Sr. No. | Structure | Water storage Capacity in KL | 1. | Harvesting Pit-1 at Mines | 900000 | 2. | Harvesting Pit-2 at Mines | 40000 | 3. | Harvesting Pit-3 near plant gate | 147000 | 4. | Harvesting Pit-4 in Colony near Vill. Bhagatpura | 40000 | S. No. | Watershed development & Construction of Anicuts | Year 2015-2016 | | 1 | Construction of anicut in Roopnagar(Ras) village | Year 2010-2011 | | 1 | Construction of anicut in Bagatpura village | 2 | Construction of anicut in Bhimgarh village | 3 | Construction of anicut in Kanyakhedi village | 4 | Rooftop water harvesting in 12 schools | 5 | Construction of Rapat (Nimbeti to Jawangarh village) | Year 2009-2010 | | 6 | Watershed development project for all villages | 7 | Small check dam/Anicut, Village Nimbeti | 8 | Construction of anicut in Nimbeti river | 9 | Construction of anicut in Kheda Village | 10 | Construction of anicut in Bhimgarh Village |
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| Year 2015-2016 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Construction of anicut in Roopnagar(Ras) village | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 2010-2011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Construction of anicut in Bagatpura village | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Construction of anicut in Bhimgarh village | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Construction of anicut in Kanyakhedi village | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Rooftop water harvesting in 12 schools | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Construction of Rapat (Nimbeti to Jawangarh village) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 2009-2010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Watershed development project for all villages | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Small check dam/Anicut, Village Nimbeti | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Construction of anicut in Nimbeti river | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Construction of anicut in Kheda Village | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Construction of anicut in Bhimgarh Village | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | | <table><tr><td>11</td><td>Pal construction at Anicut Nimbeti river</td></tr><tr><td colspan="2">Year 2008-2009</td></tr><tr><td>12</td><td>Construction/Repairing of anicut in Nimbeti village</td></tr><tr><td>13</td><td>Jawangarh Anicut</td></tr><tr><td>14</td><td>Bhairav Ji Dhani Anicut Jawangarh Anicut</td></tr></table> <p>3. Artificial recharge structures (de-silting & filter pits) have been provided with dug wells and bore wells inside the plant premises & Mine lease to recharge the ground water.</p> | 11 | Pal construction at Anicut Nimbeti river | Year 2008-2009 | | 12 | Construction/Repairing of anicut in Nimbeti village | 13 | Jawangarh Anicut | 14 | Bhairav Ji Dhani Anicut Jawangarh Anicut |
| 11 | Pal construction at Anicut Nimbeti river | | | | | | | | | | | |
| Year 2008-2009 | | | | | | | | | | | | |
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| 14 | Bhairav Ji Dhani Anicut Jawangarh Anicut | | | | | | | | | | | |
| (xix) | The project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors. | Regular compaction is being done at slopes of haul road & OB dump area with help of grader, dozer & compactors. | | | | | | | | | | |
| (xx) | The reclamation at waste dump shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adopted to that micro climate. | Presently dumps are active after maturity native plant species will be planted. | | | | | | | | | | |
| (xxi) | The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The issue related to backfilling of area, plantation, development of water reservoir, undisturbed area, waste dump area etc. in the mine lease shall be govern as per the approved mine pplan/ mining scheme as submitted to the Ministry while seeking EC. Monitoring and management of rehabilitated area should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis. | <ol style="list-style-type: none">1. There is no top soil. Limestone is exposed on surface.2. Interstitial clay sorted through grizzly is being stacked separately and used for road making within the lease areas3. OB is being stacked on earmarked sites only. At present waste dump yards are active. Plantation along the slope of the dump shall be done on maturity.4. Mining is being done as per approved mining plan.5. As per mining approved mining plan overall dump height will be 60 m (5 terrace of 12m) and overall slop will be 45°.6. Sedimentation pits have been made for waste dump yards at the corners of the garland drains. Check dams have been made across the surface run-off through and drains before final disposal.7. Compliance status is being submitted to the Ministry and its Regional Office, Lucknow on six monthly basis. | | | | | | | | | | |

| | | |
|---------|--|--|
| (xxii) | Catches drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of slit material. Sedimentation pits shall be constructed at the corners of the garlands drains and desilted at regular intervals. | <ol style="list-style-type: none"> 1. Check dams & siltation pond have been made across the surface run-off through and drains from mining area to arrest silt & sediments. 2. Garland drains with siltation pond have been made to check the surface run-off & silt. 3. Sedimentation pits have been made for waste dump yards at the corners of the garland drains. 4. Rain water collected in mine pits is used for water spray on haul roads and green belt development. 5. De-silting of siltation pond, garland drains and check dam is being done mainly after monsoon season. |
| (xxiii) | Plantation shall be raised in a 7.5 m wide green belt in safety zone around the mining lease, backfilled and reclaimed area, around water body, along the road etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB guidelines. The density of the trees should be around 2500 plants per ha. Green belt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years. | <ol style="list-style-type: none"> 1. Presently 76.15 ha land has been developed for plantation around the lease boundary, near crusher and road. 2. Planation around the water body, backfilled and reclaimed area would be started after such situation arises. 3. Native species are used for plantation. Such as Neem, Karanj, Gulmohar etc |
| (xxiv) | Project proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29 th October,2014,titled "Impact of mining activity on Habitation and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area", if any, applicable to the project. | Complied with. |
| (xxv) | The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted. | No grazing land is being used for mining purpose. |
| (xxvi) | The project proponent shall take all precautionary | Peafowl conservation plan has been |

| | | |
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| | measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora & fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office. | executed as per approved plan. The same has been submitted to the ministry and its regional office. |
| (xxvii) | At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional office located at Lucknow. Implementation of such program shall be ensured accordingly in a time bound manner. | Company is working on extensive social welfare works under CSR activities. Total expenses on social welfare activities for the 2018-19 was INR 921.78 lac for all units of cement, power and mining. |
| (xxviii) | Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile, STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | All necessary facilities such as toilets, drinking water, medical health etc. have been provided to construction labors. |
| (xxix) | Measures should be taken for control of noise levels below 85 dBA In the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. | <ol style="list-style-type: none"> 1. Regular maintenance of HEMM is in practice. 2. Controlled blasting is being done in most scientific manner by using shock tube detonators to control noise level, vibration, & fly rock etc. 3. Only day time blasting is in practice. 4. Overall noise level in and around the mine area are well within the prescribed standards (85 dB (A). 5. PPE's have been providing to all HEMM operators. |
| (xxx) | Industrial waste water(workshop) and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents. | HEMM washy water traces of oil and grease is passed through the up-flow filter for removal of oil and grease contents and reused in crusher for dust suppression. |
| (xxxi) | Personnel working in dusty areas should wear protective respiratory device and they should also be provided with adequate training and information on safety and health aspects. | <ol style="list-style-type: none"> 1. Nimbeti limestone mine is open cast and fully mechanized mine. 2. PPE'S have been provided to all workers/employee and regular Health & safety training being organized. |
| (xxxii) | A separate environmental cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the Organization. | Separate environment management cell with full-fledged laboratory has been established to carry out various environment monitoring functions under the control of Senior executive. |

| (xxxiii) | The funds earmarked for environmental protection should be kept in separate Account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office Located at Lucknow. | <div>1. All the pollution control measures have been implemented.</div> <div>2. Following is the last three years recurring cost for the environment pollution control:</div> <table><tr><th>Descripti on</th><th>2016-17</th><th>2017-18</th><th>2018-19</th></tr><tr><td>Plant</td><td>935.53 Lacs</td><td>1044.70 Lacs</td><td>1370.2 9 Lacs</td></tr><tr><td>Mines</td><td>243.68 Lacs</td><td>253.56 Lacs</td><td>297.99 Lacs</td></tr><tr><td>Total</td><td>1179.21 Lacs</td><td>1298.26 Lacs</td><td>1668.2 8 Lacs</td></tr></table> | Descripti on | 2016-17 | 2017-18 | 2018-19 | Plant | 935.53 Lacs | 1044.70 Lacs | 1370.2 9 Lacs | Mines | 243.68 Lacs | 253.56 Lacs | 297.99 Lacs | Total | 1179.21 Lacs | 1298.26 Lacs | 1668.2 8 Lacs |
|-----------------|---|---|--------------------------|---------|---------|---------|-------|----------------|-----------------|------------------|-------|----------------|----------------|----------------|--------------|-------------------------|-------------------------|--------------------------|
| Descripti on | 2016-17 | 2017-18 | 2018-19 | | | | | | | | | | | | | | | |
| Plant | 935.53 Lacs | 1044.70 Lacs | 1370.2 9 Lacs | | | | | | | | | | | | | | | |
| Mines | 243.68 Lacs | 253.56 Lacs | 297.99 Lacs | | | | | | | | | | | | | | | |
| Total | 1179.21 Lacs | 1298.26 Lacs | 1668.2 8 Lacs | | | | | | | | | | | | | | | |
| (xxxiv) | The project authorities should inform to the Regional office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work. | Nimbeti lime stone mine is in operation since 1997. | | | | | | | | | | | | | | | | |
| (xxxv) | The Project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest & Climate Change, its Regional Office, Lucknow, Central Pollution Control Board and State Pollution Control Board. | Compliance of the stipulated environment clearance conditions, including results of monitored data are being submitted on six monthly basis to the Ministry, its Regional Office, Lucknow, Central Pollution Control Board and State Pollution Control Board. | | | | | | | | | | | | | | | | |
| (xxxvi) | The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The (project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information /monitoring reports. | Full cooperation is being extended to the officer(s) of the Regional Office by furnishing the requisite data/information /monitoring reports. | | | | | | | | | | | | | | | | |
| (xxxvii) | A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion/representation has been received while processing the proposal. | <div>1. Copy of environment clearance letter has been sent on 16.05.2017 to the following:-<div><div>i. Gram Panchayat, Ras</div><div>ii. Gram Panchayat, Butiwas</div></div></div> <div>2. EC letter has been placed on our website:- www.shreecement.in</div> | | | | | | | | | | | | | | | | |
| (xxxviii) | State pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/Tehsildar's office for 30 days. | It's board's jurisdiction. | | | | | | | | | | | | | | | | |
| (xxxix) | The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest & Climate Change at http://envfor.nic.in and a copy of the same should be forwarded to the Regional office of this Ministry located Lucknow. | Advertisement has been given in two local newspapers widely circulated in the region namely, Rajasthan Patrika and Dainik Navjyoti on 18/05/2017. Copy of the newspapers has been sent on 13/06/2017. | | | | | | | | | | | | | | | | |

Peacock Conservation Plan implementation detail

| | |
|---|---|
| <p style="text-align: center; font-size: 2em; font-weight: bold;">SHREE CEMENT LTD.</p> <p style="text-align: center; font-size: 0.8em;">Regd. Office: BANGUR NAGAR, POST BOX NO.33, BEAWAR 305 901, RAJASTHAN, INDIA</p> | <p>CIN No. : L26943RJ1979PLC001935 Phone : 01462 228101-6 Toll Free : 1800 180 6003 / 6004 Fax : 01462 228117 / 228119 E-Mail : shreebwr@shreecementltd.com Website : www.shreecement.in</p> |
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|---|-------------------------|
| <p>To, The District Forest Officer, Dept. of Forest (Govt. of Rajasthan), Opp. Railway station, Pali (Raj.)</p> | <p>Date: 14/10/2015</p> |
|---|-------------------------|

Sub-Compliance of approved Peafowl conservation plan & Environment clearance of Nimbelli Limestone mines dated 21/07/2015 (Specific Condition no. V)

**Ref.:- 1) P. /Dev/ CWLW/ 2014/1042 dated 12/12/2014
 2) EC letter no J-11015/327/2012-IA.II(M) dated 21/07/2015.**

Dear Sir,

Kindly refer to above subject matter and referred letters dated 12/12/2014 & 21/07/2015; we are hereby providing 2 Nos. of cages for veterinary care of injured or sick deformed birds as per approved Peafowl conservation plan by your good office.

| | |
|---|---|
| <p>Thanking you, Yours faithfully, For Shree Cement Limited,  [Rakesh Bhargava] Vice President (Environment)</p> | <p><i>two cages (bird) received.</i>  15/10/15 जलेश्वर प्रसाद स. व. अ. जलेश्वर प्रसाद स. व. अ.</p> |
|---|---|

Enc. As above

JAIPUR OFFICE : 5B-187, Bapu Nagar, Opp. Rajasthan University, JLN Marg, Jaipur-302 015
 Phone : 0141 4241200, 4241204, Fax : 0141 4241219

NEW DELHI OFFICE : 122-123, Hans Bhawan, 1, Bhadurshah Zafar Marg, New Delhi 110 002
 Phone : 011 23370828, 23379218, 23370776, Fax : 011 23370499

CORP. OFFICE : 21, Strand Road, Kolkata 700 001 Phone : 033-22309601-4 Fax : 033 22434226

Mass Awareness Programme on Peacock Conservation 2018-19

Peacock conservation Awareness Programme at, SCL RAS



Mass Awareness Programme at, SCL, RAS



Mass Awareness Programme at, SCL, RAS.



Mass Awareness Programme at, SCL, RAS.



Mass Awareness Programme at Butiwas Govt. School



Mass Awareness Programme at Butiwas Govt. School



Awareness Creating on Peacock Conservation



Awareness Creating on Peacock Conservation



Plant sapling distribution programme



Plant sapling distribution programme



Cage Providing to DFO, Pali



Cage Providing to DFO, Pali



Ground water level & quality monitoring
Ground water level in meter below ground level (Year-2017)

| S. No | Location of well ↓ Season ⇒ | Winter (Jan.,17) | Pre-Monsoon (May,17) | Monsoon (August, 17) | Post-Monsoon (Nov,17) |
|-------|--|---------------------|-------------------------|-------------------------|--------------------------|
| 1 | B/W Near Old Mines Office (Within Plant Area)North Side | 16.31 | 20.84 | 17.46 | 18.59 |
| 2 | O/W Jassanath Ji ki Mandi (Outside plant Area)East Side | 10.38 | 15.84 | 13.50 | 13.24 |
| 3 | Open Well # 9 Stacker & reclaimer area West side | 11.41 | 19.80 | 17.26 | 14.26 |
| 4 | Open Well # 2 Near mess area South side | 11.56 | 22.20 | 18.65 | 15.95 |

| S. No | Location of Well⇒ | Bore Well within Plant Area Near Old Mines Office North Side | | | | Open Well outside plant Area JassaNath Ji ki Mandi East Side | | | |
|-------|---------------------------|---|-----------------------------|-----------------------------|----------------------------------|---|---------------------------------|-----------------------------|------------------------------|
| | Season Parameters | Winter (Jan.,17) | Pre- Monsoon (May,17) | Monsoo n (Aug, 17) | Post- Monsoo n (Nov,17) | Winter (Jan.,17) | Pre- Monsoo n (May,17) | Monsoo n (Aug, 17) | Post- Monsoon (Nov,17) |
| 1 | pH | 7.28 | 7.22 | 7.15 | 7.33 | 7.34 | 7.27 | 7.48 | 7.28 |
| 2 | Turbidity (NTU) | 3.11 | 2.85 | 2.54 | 2.88 | 4.14 | 3.56 | 3.12 | 4.02 |
| 3 | Total Hardness mg/l | 367 | 395 | 295 | 326 | 398 | 348 | 385 | 412 |
| 4 | Alkalinity mg/l | 267 | 284 | 248 | 267 | 248 | 259 | 295 | 257 |
| 5 | Iron mg/l | 0.28 | 0.24 | 0.18 | 0.21 | 0.31 | 0.33 | 0.12 | 0.23 |
| 6 | Chloride mg/l | 249 | 251 | 214 | 238 | 313 | 286 | 357 | 336 |
| 7 | TDS mg/l | 1011 | 813 | 922 | 1035 | 992 | 1052 | 1354 | 1025 |
| 8 | Calcium mg/l | 311 | 342 | 249 | 298 | 347 | 368 | 325 | 268 |
| 9 | Magnesi um mg/l | 51 | 67 | 48.00 | 53 | 42 | 35 | 31 | 38 |
| 10 | Sulphate mg/l | 48 | 51 | 51 | 46 | 65 | 58 | 75 | 62 |
| 11 | Nitrate mg/l | 12.5 | 13.5 | 11.50 | 12 | 16.1 | 15.3 | 12 | |
| 12 | Fluoride mg/l | 0.95 | 0.88 | 0.75 | 0.82 | 1.10 | <1.0 | <1.0 | <1.0 |

| S. No | Location of Well ⇨ | Open Well # 9 Stacker & reclaimer area West side | | | | Open Well # 2 Near mess area South side | | | |
|-------|---------------------|--|----------------------|----------------------|-----------------------|---|----------------------|----------------------|-----------------------|
| | Season Parameters | Winter (Jan.,17) | Pre-Monsoon (May,17) | Monsoon (August, 17) | Post-Monsoon (Nov,17) | Winter (Jan.,17) | Pre-Monsoon (May,17) | Monsoon (August, 17) | Post-Monsoon (Nov,17) |
| 1 | pH | 7.22 | 7.31 | 6.91 | 6.82 | 7.38 | 7.33 | 7.42 | 7.26 |
| 2 | Turbidity (NTU) | 2.95 | 2.75 | 2.11 | 4.26 | 2.68 | 2.45 | 1.82 | 2.24 |
| 3 | Total Hardness mg/l | 348 | 355 | 410 | 356 | 374 | 352 | 310 | 357 |
| 4 | Alkalinity mg/l | 238 | 249 | 216 | 268 | 228 | 235 | 214 | 241 |
| 5 | Iron mg/l | 0.48 | 0.42 | 0.21 | 0.39 | 0.31 | 0.25 | 0.11 | 0.28 |
| 6 | Chloride mg/l | 275 | 289 | 305 | 326 | 294 | 304 | 257 | 326 |
| 7 | TDS mg/l | 1068 | 1096 | 1324 | 1084 | 1085 | 1015 | 951 | 1065 |
| 8 | Calcium mg/l | 311 | 335 | 261 | 324 | 348 | 328 | 216 | 338 |
| 9 | Magnesium mg/l | 38 | 41 | 61 | 43 | 47 | 39 | 48 | 52 |
| 10 | Sulphate mg/l | 48 | 52 | 64 | 53 | 51 | 45 | 42 | 59 |
| 11 | Nitrate mg/l | 11.3 | 12.5 | 14.6 | 10.8 | 13.5 | 11.6 | 14.6 | 12.6 |
| 12 | Fluoride mg/l | 1.22 | 1.01 | <1.0 | <1.0 | 1.02 | 0.95 | <1.0 | <1.0 |

Ground water level & quality monitoring

Ground water level in meter below ground level (Year-2018)

| S. No | Location of well ⇨ | Winter (Jan.,18) | Pre-Monsoon (May,18) | Monsoon (August, 18) | Post-Monsoon (Nov,18) |
|-------|---|------------------|----------------------|----------------------|-----------------------|
| 1 | B/W Near Old Mines Office (Within Plant Area)North Side | 19.26 | 23.4 | 20.60 | 21.89 |
| 2 | O/W Jassanath Ji ki Mandi (Outside plant Area)East Side | 13.99 | 16.95 | 15.23 | 16.21 |
| 3 | Open Well # 9 Stacker & reclaimer area West side | 15.98 | 20.33 | 20.33 | 19.02 |
| 4 | Open Well # 2 Near mess area South side | 16.44 | 18.62 | 18.89 | 17.23 |

| S. No. | Location of Well ➡ | Bore Well within Plant Area Near Old Mines Office North Side | | | | Open Well outside plant Area JassaNath Ji ki Mandi East Side | | | |
|--------|---------------------|--|----------------------|-------------------|-----------------------|--|----------------------|-------------------|-----------------------|
| | Season Parameters | Winter (Jan.,18) | Pre-Monsoon (May,18) | Monsoon (Aug, 18) | Post-Monsoon (Nov,18) | Winter (Jan.,18) | Pre-Monsoon (May,18) | Monsoon (Aug, 18) | Post-Monsoon (Nov,18) |
| 1 | pH | 7.32 | 7.39 | 7.26 | 7.39 | 7.31 | 7.48 | 7.34 | 7.26 |
| 2 | Turbidity (NTU) | 2.58 | 3.01 | 2.56 | 2.22 | 3.58 | 2.75 | 3.15 | 2.62 |
| 3 | Total Hardness mg/l | 374 | 426 | 348 | 486 | 375 | 440 | 315 | 420 |
| 4 | Alkalinity mg/l | 245 | 255 | 268 | 203 | 238 | 230 | 346 | 264 |
| 5 | Iron mg/l | 0.18 | 0.22 | <0.005 | <0.005 | 0.27 | <0.005 | <0.005 | <0.005 |
| 6 | Chloride mg/l | 222 | 195 | 205 | 351 | 285 | 381.2 | 356 | 387 |
| 7 | TDS mg/l | 982 | 1032 | 1362 | 1458 | 997 | 1510 | 1295 | 1355 |
| 8 | Calcium mg/l | 334 | 365 | 348 | 286 | 334 | 105.6 | 195 | 230 |
| 9 | Magnesium mg/l | 48 | 52 | 58 | 60 | 42 | 43 | 55 | 58 |
| 10 | Sulphate mg/l | 42 | 39 | 35 | 69 | 57 | 128.1 | 95 | 72 |
| 11 | Nitrate mg/l | 11.7 | 12.2 | 10.60 | 12 | 13.1 | 9.26 | 10.5 | 11.7 |
| 12 | Fluoride mg/l | 0.75 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |

| S. No. | Location of Well ➡ | Open Well # 9 Stacker & reclaimer area West side | | | | Open Well # 2 Near mess area South side | | | |
|--------|---------------------|--|----------------------|----------------------|-----------------------|---|----------------------|----------------------|-----------------------|
| | Season Parameters | Winter (Jan.,18) | Pre-Monsoon (May,18) | Monsoon (August, 18) | Post-Monsoon (Nov,18) | Winter (Jan.,18) | Pre-Monsoon (May,18) | Monsoon (August, 18) | Post-Monsoon (Nov,18) |
| 1 | pH | 7.27 | 6.74 | 7.02 | 7.37 | 7.30 | 7.51 | 7.21 | 7.35 |
| 2 | Turbidity (NTU) | 3.58 | 3.01 | 3.25 | 2.85 | 2.48 | 2.22 | 2.68 | 2.56 |
| 3 | Total Hardness mg/l | 375 | 475 | 436 | 458 | 368 | 250 | 316 | 395 |
| 4 | Alkalinity mg/l | 257 | 285 | 301 | 276 | 237 | 211 | 248 | 287 |
| 5 | Iron mg/l | 0.41 | <0.005 | <0.005 | <0.005 | 0.39 | <0.005 | <0.005 | <0.005 |
| 6 | Chloride mg/l | 289 | 281.2 | 292 | 305 | 289 | 188.5 | 244 | 282 |

| | | | | | | | | | |
|----|-------------------|------|-------|------|------|------|------|------|------|
| 7 | TDS mg/l | 1015 | 1518 | 1368 | 1436 | 986 | 875 | 1006 | 1228 |
| 8 | Calcium mg/l | 307 | 90.2 | 153 | 195 | 318 | 41.7 | 75.6 | 95 |
| 9 | Magnesium mg/l | 39 | 60.8 | 46 | 53 | 44 | 35.5 | 32.6 | 44 |
| 10 | Sulphate mg/l | 56 | 140.2 | 111 | 88 | 49 | 32.4 | 45.6 | 75 |
| 11 | Nitrate mg/l | 9.3 | 9.48 | 10.6 | 11.1 | 11.3 | 9.26 | 10.6 | 9.5 |
| 12 | Fluoride mg/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |

Ground water level & quality monitoring

Ground water level in meter below ground level (Year-2019)

| S. No | Location of well Season ⇒ | Winter (Jan-19) | Pre-Monsoon (May-19) | Monsoon (August-19) |
|-------|---|-----------------|----------------------|---------------------|
| 1 | B/W Near Old Mines Office (Within Plant Area)North Side | 23.02 | 24.89 | 18.60 |
| 2 | O/W Jassanath Ji ki Mandi (Outside plant Area)East Side | 18.26 | 21.66 | 18.30 |
| 3 | Open Well # 9 Stacker & reclaimer area West side | 20.01 | 22.01 | 9.80 |
| 4 | Open Well # 2 Near mess area South side | 19.24 | 22.29 | 21.20 |

| S. No. | Location of Well ⇒ | Bore Well within Plant Area Near Old Mines Office North Side | | | Open Well outside plant Area JassaNath Ji ki Mandi East Side | | |
|--------|---------------------|---|----------------------|------------------|---|----------------------|------------------|
| | Season Parameters | Winter (Jan-19) | Pre-Monsoon (May-19) | Monsoon (Aug-19) | Winter (Jan-19) | Pre-Monsoon (May-19) | Monsoon (Aug-19) |
| 1 | pH | 7.57 | 7.62 | 7.42 | 7.54 | 7.52 | 7.26 |
| 2 | Turbidity (NTU) | 1.95 | 2.12 | 1.85 | 1.36 | 1.68 | 1.44 |
| 3 | Total Hardness mg/l | 520 | 510 | 523 | 470 | 460 | 475 |
| 4 | Alkalinity mg/l | 320 | 330 | 146 | 330 | 340 | 311 |
| 5 | Iron mg/l | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 6 | Chloride mg/l | 450.9 | 440.8 | 418 | 390.5 | 380.4 | 348 |

| | | | | | | | |
|----|-------------------|--------|--------|--------|--------|--------|--------|
| 7 | TDS mg/l | 1680.0 | 1660.0 | 1523.0 | 1490.0 | 1485.0 | 1311.0 |
| 8 | Calcium mg/l | 103.4 | 105.0 | 99.6 | 96.2 | 91.4 | 84.3 |
| 9 | Magnesium mg/l | 63.7 | 60.3 | 65.1 | 55.9 | 56.4 | 51.6 |
| 10 | Sulphate mg/l | 160.4 | 175.2 | 184.3 | 130.8 | 139.2 | 141.4 |
| 11 | Nitrate mg/l | 13.60 | 11.90 | 10.10 | 9.67 | 8.60 | 7.66 |
| 12 | Fluoride mg/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |

| S. No. | Location of Well → | Open Well # 9 Stack & reclaimer area West side | | | Open Well # 2 Near mess area South side | | |
|-----------|---------------------------|---|-----------------------------|------------------------|--|-----------------------------|------------------------|
| | Season Parameters | Winter (Jan-19) | Pre- Monsoon (May-19) | Monsoon (August-19) | Winter (Jan-19) | Pre- Monsoon (May-19) | Monsoon (August-19) |
| 1 | pH | 6.89 | 7.21 | 7.35 | 7.59 | 7.61 | 7.44 |
| 2 | Turbidity (NTU) | 1.86 | 2.16 | 1.95 | 1.95 | 2.16 | 1.68 |
| 3 | Total Hardness mg/l | 470 | 490 | 433 | 240 | 290 | 246 |
| 4 | Alkalinity mg/l | 290 | 280 | 261 | 218 | 230 | 196 |
| 5 | Iron mg/l | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| 6 | Chloride mg/l | 272.4 | 281 | 256 | 180.9 | 175.5 | 166 |
| 7 | TDS mg/l | 1508.0 | 1490.0 | 1206.0 | 868.0 | 878.0 | 736.0 |
| 8 | Calcium mg/l | 94.6 | 98.6 | 90.6 | 45.7 | 55.3 | 51.6 |
| 9 | Magnesium mg/l | 56.9 | 59.3 | 49.3 | 30.6 | 36.9 | 33.6 |
| 10 | Sulphate mg/l | 150.9 | 162.5 | 151.4 | 28.3 | 35.2 | 34.6 |
| 11 | Nitrate mg/l | 8.35 | 7.40 | 6.24 | 4.10 | 2.40 | 3.15 |
| 12 | Fluoride mg/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |

Annexure-3

Ambient Air quality results (All values in $\mu\text{g}/\text{m}^3$)

| Location | Mines office | | | | Near Nimbeti village | | | |
|----------|--------------|-------|-----------------|-----------------|----------------------|-------|-----------------|-----------------|
| Month | PM 2.5 | PM 10 | SO ₂ | NO _x | PM 2.5 | PM 10 | SO ₂ | NO _x |
| Apr-19 | 34 | 53.5 | 8.3 | 11.4 | 31.5 | 53 | 8.0 | 11.5 |
| May-19 | 35 | 54 | 8.9 | 12.1 | 35.5 | 55.5 | 7.6 | 12.6 |
| Jun-19 | 36.5 | 53.5 | 8.3 | 12.9 | 32 | 54.5 | 8.1 | 11.9 |
| Jul-19 | 15 | 23 | 8.3 | 10.3 | 14 | 22 | 8.7 | 10.1 |
| Aug-19 | 15 | 20 | 8.0 | 10.0 | 17.5 | 27 | 8.3 | 9.9 |
| Sep-19 | 37.5 | 57.35 | 8.7 | 18.9 | 39.5 | 59 | 7.9 | 19.8 |

Annexure-4

Ambient noise level at Mine): all values in dB (A):-

| Location | Mines office | | Near Nimbeti village | | Near Mines crusher | | Near Mines phase | |
|----------|--------------|-------|----------------------|-------|--------------------|-------|------------------|-------|
| Month | Day | Night | Day | Night | Day | Night | Day | Night |
| Apr-19 | 72.20 | 62.00 | 66.00 | 59.50 | 71.05 | 55.75 | 66.85 | 56.60 |
| May-19 | 73.10 | 64.20 | 67.70 | 55.25 | 71.35 | 59.60 | 65.20 | 57.15 |
| Jun-19 | 70.95 | 64.20 | 67.05 | 54.50 | 72.70 | 58.70 | 66.90 | 58.05 |
| Jul-19 | 71.5 | 64.7 | 66.3 | 53.1 | 70.7 | 59.8 | 64.6 | 57.5 |
| Aug-19 | 71.6 | 62.8 | 65.6 | 52.6 | 70.6 | 59.8 | 64.1 | 57.5 |
| Sep-19 | 71.0 | 63.2 | 67.5 | 59.6 | 71.4 | 61.1 | 64.7 | 54.3 |

Annexure-5

Fugitive Emission for Mining Activities (All values in $\mu\text{g}/\text{m}^3$)

| Location | Near Mines crusher | | | Near Mines phase | | |
|----------|--------------------|-----------------|-----------------|------------------|-----------------|-----------------|
| Month | SPM | SO ₂ | NO _x | SPM | SO ₂ | NO _x |
| Apr-19 | 391.5 | 8.3 | 11.5 | 349.5 | 8.6 | 11.5 |
| May-19 | 412.5 | 8.5 | 11.3 | 347.5 | 9.2 | 12.0 |
| Jun-19 | 375.5 | 9.1 | 11.9 | 381.0 | 8.6 | 12.6 |
| Jul-19 | 82 | 9.9 | 11.5 | 85.5 | 9.5 | 12.4 |
| Aug-19 | 91 | 9.6 | 11.1 | 101 | 9.5 | 12.4 |
| Sep-19 | 82.5 | 8.3 | 9.5 | 99 | 10.2 | 10.4 |