

KC/BSN-ENV/: 78

30th, Nov, 2023

To,
Inspector General of Forests
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office,
Hyderabad 3rd Floor, Aranya Bhawan, Opp. RBI,
Safiabad – 500004, Hyderabad,
Telangana

Dear Sir,

Sub: - Submission of Environmental clearance compliance reports of Basantnagar Lime stone Mines (M/s. Kesoram Cement) –Reg

Ref: 1. EC Basantnagar Limestone Mines: J-11015/142/2006-IA-II (M) Dated: 19.02.2007

In reference of the above subject matter and referred letter, we are submitting herewith the point wise compliance of conditions of above environmental clearance letter for the period **April-2023 to September-2023** and also we are submitting the ambient air quality data, Ambient noise levels data and water quality data for the period along with report.

This is for your kind information please.
Yours faithfully

For **Basantnagar Limestone Mines, Basantnagar** (M/s. Kesoram Cement)
Cement division unit of Kesoram Industries Ltd



S. GOVINDA RAO
FACTORY MANAGER

Encl: A/a.

Cc to: 1. Environmental Engineer
T.S. Pollution Control Board,
Regional Office – Ramagundam

2. CPCB Regional Directorate (South)
Nisarga Bhawan, A-Block
1st and 2nd Floor, Thimmaiah Road
7th D-Main, shivnagar, Bengaluru-560079

P+91 8728 228121/129/152
F+91 8728 228160

Corporate Office :
E : corporate@kesoram.net

Cement Division Unit of Kesoram Industries Limited

Unit : Basantnagar, Works : Post Basantnagar - 505 187.
Dist : Peddapalli, Telangana

Registered Office : Birla Building, 8th Floor, 9/1, R.N. Mukherjee Road, Kolkata-700 001,
CIN - L17119WB1919PLC003429



**ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT
FOR THE PERIOD APR-22 TO SEPT-23**



**BASANTNAGAR
LIME STONE MINES**



**M/S KESORAM INDUSTRIES LIMITED
POST: BASANTNAGAR – 505 187
DIST: PEDDAPALLI (TS)**



B K BIRLA GROUP OF CO

BASANTNAGAR LIME STONE MINES

ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

FOR THE PERIOD 01.04.2023 TO 30.09.2023

EC Order No: J-11015/142/2006-IA.II (M), Dated February 19, 2007

Sl.No	Conditions	Status of compliance
A. Specific conditions		
(i)	Top soil Shall be stacked properly with proper slope with adequate safe guards and shall be backfilled for reclamation and rehabilitation of mined out areas.	Top Soil, stacked designated area, this will be utilized for Green Belt Development all around mine area and spreading over the dumps and Reclaimed and Rehabilitated area for development of Green belt.
(ii)	Overburden shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum of the dump shall not exceed 30m, each stage shall preferably be of 10m and overall slope of the dump shall not exceed 28°. The mine pit area shall reclaimed by backfilling the OB in Phased manner. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance shall be submitted to the Ministry of environment & Forest on six monthly basis.	<p>Generated Overburden were stacked at earmarked dump site(s) only.</p> <p>The mine pit area will be reclaimed by backfilling the OB in Phased manner.</p> <p>The OB dumps are vegetated with suitable native species to prevent erosion and surface run off.</p>
(iii)	Garland drains shall be constructed to arrest silt and sediment flows from soil and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, greenbelt development etc. The drains shall be regularly de-silted Particularly after monsoon and maintained properly. Garland drain(size, gradient and length) shall be constructed for both mine pit and waste dump and sump capacity shall 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 shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.	<p>The Garland drains of requisite size were constructed along the dumps and other areas to arrest silt and sediments. Collected water is being utilized for watering the mine area, roads, greenbelt development etc.</p> <p>All garland drains are maintained properly and de siltation is being carried out with regular intervals. Adequate size of sump is constructed in the lowermost benches with proper measures.</p> <p>Photos are enclosed</p>
(iv)	Drilling and blasting shall be using dust extractors/wet drilling.	<p>We are being adopted by wet drilling and using safe blasting techniques.</p> <p>The drilling and blasting operation is carried out during daytime only.</p>
(v)	Plantation shall be raised in an area of 157.90 ha including greenbelt of adequate width by planting the native species around the ML area, roads, OB dump sites etc., in consultation with local DFO/ Agriculture Department. The density of the trees shall be around 2000 plants per ha.	<p>Greenbelt developed are maintained in phased manner with Local adaptive native species around the ML area, roads, OB dump sites etc.</p> <p>Photos are enclosed</p>

(vi)	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the regional Director, Central Ground water board.	We Made a garland drain depth of 2mts & width 2mts to collect the rainwater in to mines for recharging ground water and harvesting purpose.
(vii)	Regular Monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mine operation. 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 MOEF,CENTRAL GROUND WATER authority and regional Director Central Ground Water Board.	<ol style="list-style-type: none"> 1. Ground water levels of each season & quality are being monitored on quarterly basis by engaging MOEF&CC certified third party laboratory. 2. Data of the same is being submitted to CGWA New Delhi, MOEF&CC IRO Hyderabad, CGWB RO Hyderabad and District Ground Officer Peddapalli on regular intervals.
(viii)	Prior permission from the competent authority shall be obtained for drawl of ground water, if any	Presently, no groundwater is drawl, all the water quantity required for mines for dust suppression etc is being met from mines rainwater harvesting sump and necessary permission will be obtained from competent authority as and when required.
(ix)	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be over loaded.	<ol style="list-style-type: none"> 1.Vehicular emissions are being monitored Regularly and complying regulatory norms. 2.Regular maintenance is carried out for the Vehicles used in the mining operations. 3.overloading of the vehicles is not being Practiced. 4.Water sprinklers and tanker are arranged on Haul roads to control of fugitive emissions.
(x)	A Final mine Closure plan, along with details of corpus fund, shall be submitted to the ministry of Environment & forests 5 years in advance of final mine closure for approval.	Final Mine Closure Plan (FMCP) shall be submitted to IBM and MOEF&CC as per prevailing rules for necessary approval. As our Mining Lease is valid up to 2030
B.GENERAL CONDITIONS.		
i	No change in mining technology and scope of working shall be made without prior approval of the ministry of Environment & forests.	Prior approval will be taken form MOEF&CC if there is any change in the scope of working.
ii	No change in the calendar plan including excavation, quantum of mineral limestone and waste shall be made.	There is no change in the calendar plan for the production of quantum of mineral limestone and waste.
iii	Conservation measures for protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with the local forest and wild life department.	Conservation measures are being taken up in core & buffer zone in consultation with local forest and wildlife department.
iv	Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM,SPM,SO ₂ ,NO _x Monitoring location of the stations should be decided based on the meteorological data, features and environmentally and ecologically sensitive targets and frequency of monitoring should be under taken in consultation with the state pollution control board.	<p>Four ambient air quality-monitoring stations each in core and buffer zone have been established. Ambient air quality monitoring (PM 10, PM 2.5, SO₂ & NO_x) of core zone and buffer zone is being carried out though MoEF recognized 3rd party.</p> <p>Monitoring reports are being submitted regularly to TSPCB Regional Office at Ramagundam.</p> <p>Ambient air quality monitoring is enclosed.</p>

v	Data on ambient air quality (RPM, SPM, SO ₂ , and NO _X) should be regularly submitted to the Ministry including its regional office located at Bangalore and the State pollution control board /Central pollution control board once in six months.	Data of ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _X) is being submitted to the MOEFCC IRO Hyderabad, CPCB RD at Bangalore and TSPCB Regional office, and Ramagundam once in six months along with compliance report.
vi	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul road, loading and unloading and at transfer points shall be provided and properly maintained.	1. Fugitive dust emissions from all the sources are being controlled. Blast hole drill machines are provided with wet drill system, 2. Water spraying on haul roads and on mineral heaps while loading and unloading at crusher hopper and at conveyor transfer points etc. 3. Blasting is carried during non-windy times.
vii	Measures shall be taken for control of noise levels below 85 Db in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs/muffs.	Noise levels are being monitored and maintained within the prescribed limits. Personnel protective equipment like ear plugs/muffs is provided to all workers engaged in mining operations. Data of the noise levels are enclosed.
viii	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated as so 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 shall be installed before discharge of Workshop effluents.	No waste water is generating from our Limestone mine. Only Garage workshop wastewater is being collected in Oil and Grease trap (3 chamber tank) and after settling and clean water is utilizing for dust suppression over haulage road.
ix	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	Persons working in dusty areas are being wearing Protective respiratory devices and adequate training and information on safety and health aspects is being carried out on a regular basis.
x	Occupational health surveillance program of the workers shall be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Occupational health surveillance program of the workers is being carried out on a regular basis.
xi	A separate environmental management cell with suitable qualified personnel shall be set-up under the control of a senior executive, who will report directly to the head of the organization.	A separate environmental management cell exists with a suitable qualified environmental officer to carry out various management and monitoring functions under the control of senior executive.
xii	The project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	This is an existing and ongoing project
xiii	The funds earmarked for environmental protection measures shall be kept in separate account and should not be delivered for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bangalore.	Funds earmarked (capital & revenue) for environmental protection measures are being utilized in separate account and Year wise expenditure is being regularly submitted to Ministry and its Regional Office.
xiv	The Project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land developmental work.	This is an existing and ongoing project

xv	The Regional office of this Ministry located at Bangalore 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 will be provided to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
xvi	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.	1. At the time of EC granted already we have sent the copy of EC to our Concerned Panchayat. 2. EC order has been placed on our website.
xvii	State Pollution Control Board should display a copy the clearance letter at the Regional office, District Industry Centre and collector office/Tehsildar office for 30 days.	It's board's jurisdiction.
xviii	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 and forests at http://envfor.nic.in and a copy of the same shall be forwarded to the Regional Office of this Ministry located Bangalore.	An advertisement has been published in below two local newspapers on 19.02.2007 1) Eenadu- Telugu 2) Deccan Chronical- English and copies were submitted to MOEF & CC, New Delhi and their regional office at Bangalore Copy is enclosed.

KC/BSN-ENV/: 77

30th, Nov, 2023

To,
Inspector General of Forests
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office,
Hyderabad 3rd Floor, Aranya Bhawan, Opp. RBI,
Safiabad – 500004, Hyderabad,
Telangana

Dear Sir,

Sub: - Submission of Environmental clearance compliance reports of Takkalapalli Limestone Mines (M/s. Kesoram Cement) –Reg

Ref: 1. EC Takkalapalli Limestone Mines: J-11015/143/2006-IA-II (M) Dated: 06.02.2007

In reference of the above subject matter and referred letter, we are submitting herewith the point wise compliance of conditions of above environmental clearance letter for the period **April-2023 to September-2023** and also we are submitting the ambient air quality data, Ambient noise levels data and water quality data for the period along with report.

This is for your kind information please.
Yours faithfully

For **Takkalapalli Limestone Mines, Basantnagar** (M/s. Kesoram Cement)
Cement division unit of Kesoram Industries Ltd



S.GOVINDA RAO
FACTORY MANAGER

Encl: A/a.

Cc to: 1.Environmental Engineer
T.S. Pollution Control Board,
Regional Office – Ramagundam

2. CPCB Regional Directorate (South)
Nisarga Bhawan, A-Block
1st and 2nd Floor, Thimmaiah Road
7th D-Main, shivnagar, Bengaluru-560079

P+91 8728 228121/129/152
F+91 8728 228160

Corporate Office :
E : corporate@kesoram.net

Cement Division Unit of Kesoram Industries Limited

Unit : Basantnagar, Works : Post Basantnagar - 505 187.
Dist : Peddapalli, Telangana

Registered Office : Birla Building, 8th Floor, 9/1, R.N. Mukherjee Road, Kolkata-700 001,
CIN - L17119WB1919PLC003429



**ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT
FOR THE PERIOD APR-23 TO SEP-23**



**TAKKALLAPALLI
LIMESTONE MINES**



**M/S KESORAM INDUSTRIES LIMITED
POST: BASANTNAGAR – 505 187
DIST: PEDDAPALLI (T.S)**



B K BIRLA GROUP OF COMPANIES

TAKKALAPALLI LIME STONE MINES

ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

FOR THE PERIOD 01.04.2023 TO 30.09.2023

EC Order No: J-11015/143/2006-IA.II (M), Dated February 6, 2007

Sl.No	Specific Conditions	Compliance status
i.	Top soil if any should be stacked properly with proper slope at ear marked site (s) with adequate measures and should be used for reclamation and rehabilitation of mined out area.	Top Soil, stacked designated area, this will be utilized for Green Belt Development all around mine area and spreading over the dumps and Reclaimed and Rehabilitated area for development of Green belt.
ii.	External OB dumps and other wastes should be stacked at earmarked sites only and should not be kept active for long period till its use for backfilling. Toe walls around the waste dumps shall be made to ensure and to prevent erosion and surface runoff. The total height of the dumps shall not exceed 30 m, each stage should preferably be of 10 m. Overall slope of the dump shall not exceed 28 deg, 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 dumps. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests on six monthly basis.	Generated Overburden were stacked at earmarked dump site(s) only. Height of the dump yards as per the standards. All along the dump yard we made safety berm at the height of 2 Mtrs & Width 2 Mtrs at the bottom of the dump yard.
iii.	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine working. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted particularly after monsoon and maintained properly.	Catch drains and siltation ponds of appropriate size were constructed to arrest silt and sediment flows from mine working. The water is being utilized for watering the mine area, roads, green belt development etc. The drains will be regularly de-silted particularly after monsoon and maintained properly.
iv.	Garland drain (size, gradient and length) shall be constructed for both mine pit 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 setting of site material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals.	The Garland drains of requisite size were constructed along the dumps and other areas to arrest silt and sediments. Collected water is being utilized for watering the mine area, roads, greenbelt development etc. All garland drains are maintained properly and de siltation is being carried out with regular intervals. Adequate size of sump is constructed in the lowermost benches with proper measures.

v.	Plantation shall be raised in the area of 16.88 ha including a green belt of adequate width by planting the native species around ML area, roads and external OB dumps etc in consultation with the local DFO / Agriculture Department at the end of mine life. The density of the trees should be around 2500 plants per ha.	Greenbelt developed are maintained in face manner with Local adaptive native species around the ML area, roads, OB dump sites etc.
vi.	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the regional director central ground water board.	We have developed Network of drains to connect the pit for harvesting and recharge.
vii.	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out two times in a year. Pre-monsoon (April – May) Post monsoon (November) and the data thus collected may be sent regularly to MoEF, Central Ground Water Authority and regional director Central Ground Water board.	<ol style="list-style-type: none"> 1. Ground water levels of each season & quality are being monitored on quarterly basis by engaging MOEF&CC certified third party laboratory. 2. Data of the same is being submitted to CGWA New Delhi, MOEF&CC IRO Hyderabad, CGWB RO Hyderabad and District Ground Officer Peddapalli on regular intervals.
viii.	Existing ecological status of the project area shall be conserved and protected. The project proponent should take all possible precautionary measures mining operation for conservation and protection of endangered fauna (Schedule – I), if any spotted in the project area. Action plans for the same shall be prepared with the consultation of DFO / wildlife department along with allocation of funds for this purpose and shall be submitted to RO of the Ministry at Bangalore.	<p>Ecological Conservation measures are being taken up in core & buffer zone in consultation with local forest and wildlife department.</p> <p>We have established deer park and action plan is being submitted regularly.</p>
ix.	Permission from the competent authority should be obtained for drawl of ground water if any required for the project.	Presently, no groundwater is drawl, all the water quantity required for mines for dust suppression etc. is being met from mines rainwater harvesting sump and necessary permission will be obtained from competent authority as and when required.
x.	Suitable rain water harvesting measures on long – term basis shall be planned and implemented consultation with Regional Director. CGWB	We have developed Network of drains to divert water of mines catchment area to mines sump. A sumps with capacity of 1.0 lakh m3 rain water storage harvesting and recharge.
xi.	The working depth of the mines shall be restricted above the ground water table. Prior approval shall be obtained from MoEF, in case, working depth of mine intersect the ground water table.	Prior approval will be taken from MOEF, in case, working depth of mine intersect the ground water table.
xii.	Vehicular emissions should be kept under control and regularly monitored. Measures shall be kept for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	<ol style="list-style-type: none"> 1.Vehicular emissions are being monitored Regularly and complying regulatory norms. 2.Regular maintenance is carried out for the Vehicles used in the mining operations. 3.overloading of the vehicles is not being Practiced. 4.Water tanker is arranged on Haul roads to control of fugitive emissions.

xiii.	The voids created at the end of mining shall be converted into water body with shallow depths not exceeding 30m. The higher benches of the excavated void/mine pit shall be terraced and plantation done to stabilize the slopes. Peripheral fencing shall be done along the excavated area.	At present depth of the pit is 10 mtrs only.
xiv.	At the end of the mine life the mined out area should be back filled to the extent possible, leveled and reclaimed by plantation.	At the end of the mine life the mined out area will be back filled, leveled and reclaimed by plantation.
xv.	Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rain fall data.	Dimension of the retaining wall at the toe of dumps is 2.0 mtrs height and 2.0 mtrs width to check run-off and siltation.
xvi.	Consent to operate should be obtained from SPCB before starting production from the mine.	Consent to operate already obtained from SPCB before starting production from the mine.
xvii.	Sewage treatment plant should be installed for colony. ETP should also be provided for workshop and mineral separation plant wastewater.	Sewage treatment plant was installed for colony STP. Workshop waste water is being collected in Oil and Grease trap (3 chamber tank)
xviii.	A final Mine Closure plan along with details of Corpus fund should be submitted to the Ministry of Environment & Forest 5 years in advance of final mine closure for approval.	Final Mine Closure Plan (FMCP) shall be submitted to IBM and MOEF&CC as per prevailing rules for necessary approval. As our Mining Lease is valid up to 22-12-2052
Sl. No	General Conditions	Compliance status
i.	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests	Prior approval will be taken from MOEF&CC if there is any change in the scope of working
ii.	No change in the calendar plan including excavation, quantum of mineral and waste should be made	There is no change in the calendar plan for the production of quantum of mineral limestone and waste.
iii.	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO ₂ , NO _x monitoring. Location of the stations should be decided based on the meteorological data. Topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Four ambient air quality-monitoring stations each in core and buffer zone have been established. Ambient air quality monitoring (PM 10, PM 2.5, SO ₂ & NO _x) of core zone and buffer zone is being carried out through MoEF recognized 3 rd party. Monitoring reports are being submitted regularly to TSPCB Regional Office at Ramagundam. Ambient air quality monitoring data is enclosed
iv.	Data on ambient air quality (RPM, SPM, SO ₂ , and NO _x) should be regularly submitted to the Ministry including its Regional office Bangalore and the state Pollution Control Board / Central Pollution Control Board once in six months.	Data of ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x) is being submitted to the MOEF&CC IRO Hyderabad, CPCB RD at Bangalore and TSPCB Regional office, and Ramagundam once in six months along with compliance report.
v.	Fugitive dust emission from all the sources should be controlled regularly. Water spray arrangement on haul roads, loading and at transfer points should be provided and properly maintained.	1. Fugitive dust emissions from all the sources are being controlled. Drill machines are provided with wet drilling system, 2. Water spraying on haul roads and on mineral heaps while loading and unloading at

		<p>crusher hopper and at conveyer transfer points etc. 3. Blasting is carried during non-windy times.</p> <p>Photos are enclosed</p>
vi.	Measures should be taken for control of noise level below 85 dBA in the work environment workers engaged in operations of HEMM etc should be provided with earplugs / muffs.	<p>Noise levels are being monitored and maintained within the prescribed limits. Personnel protective equipment like ear plugs/muffs is provided to all workers engaged in mining operations.</p> <p>Test reports of the noise levels are enclosed</p>
vii.	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 shall be installed before discharge of workshop effluents.	<p>No waste water is generating from our Limestone mines. Only Garage workshop wastewater is being collected in Oil and Grease trap (3 chamber tank) and after settling and clean water is utilizing for dust suppression over haulage road.</p> <p>Test reports of the Effluent water quality are enclosed</p>
viii.	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any clarifications due to exposure to dust and take corrective measures, if needed	<p>Persons working in dusty areas are being wearing Protective respiratory devices and adequate training and information on safety and health aspects is being carried out on a regular basis.</p>
ix.	A separate environment management cell with suitable qualified personnel shall be set-up under the control of a Senior Executive who will report directly to the Head of the Organization.	<p>A separate environmental management cell exists with a suitable qualified environmental officer to carry out various management and monitoring functions under the control of senior executive.</p>
x.	The fund earmarked for environmental protection measures 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 Bangalore.	<p>Funds earmarked (capital & revenue) for environmental protection measures are being utilized in separate account and Year wise expenditure is being regularly submitted to Ministry and its Regional Office.</p>
xi.	The Regional office of this ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should provide a set of filled in questioner EIA and EMP and extends full co- operation to the officer (s) of the Regional office by furnishing the requisite data/ information/ monitoring reports.	<p>Full cooperation will be provided to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.</p>
xii.	The project authorities shall inform to the Regional office located at Bangalore regarding data of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	<p>This is an existing and ongoing project</p>
xiii.	A copy of clearance letter will be marked to concerned Panchayat/ local NGO, if any from whom and suggestion/ representation	<p>1. At the time of EC granted already we have sent the copy of EC to our Concerned Panchayat.</p>

	has been received while processing the proposal.	2. EC order has been placed on our website.
xiv.	State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry and Collector's office / Tehsildhar's office for 30 days.	It's board's jurisdiction.
xv.	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 may also be seen at web site of the Ministry of Environment and Forests at http://rnvfor.nic.in and a copy of the same should be forwarded to the Regional office of this Ministry located at Bangalore.	Environmental Clearance was advertised in Telugu and English Newspapers. Copy is enclosed

FUGITIVE EMISSIONS CONTROL MEASURES

We have provided the Enclosures, silo's, sheds, water sprinklers, Rain guns, Water Tanker, Water Jet ,TPS and concrete roads for control of fugitive emission in plant & Mines.

1. Dust Supression

2. Road Sweeping& TPS Vehicle

3. Water tanker

4. MUCKPILE LOADING WITH WATER

5. WATER SPRINKLING

6. WET DRILLING



DUST FREE OPERATION AT MINES



MUCK-PILE LOADING



A.C Cabin

DUST FREE LOADING OF LIMESTONE



PLANTATION AT MINES



**TREES ON BOTH SIDES OF THE MAIN HAUL ROAD BETWEEN
MINES AND CRUSHER**



AFFORESTATION ON THE WASTE DUMP





Trusted Technology - Solid Strength

GREENBELT DEVELOPED ON BACK FILLED AREA

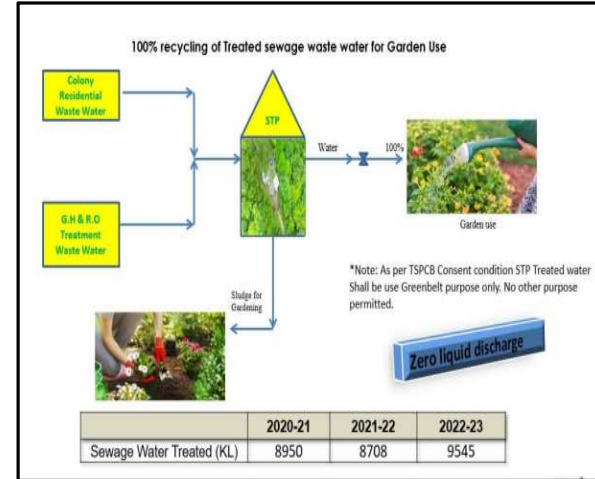


Water reservoirs in mined out area



Water Conservation

Trusted Technology - Solid Strength



TPH Water Reservoir

Mines Water Reservoir



RAIN WATER HARVESTING AT MINES AREA



AWARENESS PROGRAMMES ON ENVIRONMENT



PRIZES WON IN ME&MC WEEK

Basantnagar Limestone Mining Lease

- 1st Prize in Mineral Beneficiation
- 1st Prize in Mineral Conservation
- 2nd Prize in Waste Dump Management
- 2nd Prize in reclamation & Rehabilitation

Takkalapalli Limestone Mining Lease

- 3rd Prize in Mineral Beneficiation
- 3rd Prize in Waste Dump Management



FIMI Environmental National Award



Advertisement of Environmental Clearance in the News paper

Takkalapalli Lime Stone Mines:

10.2.2007

DECCAN Chronicle

The largest circulated English daily published in Andhra Pradesh

KESORAM CEMENT

NOTICE

The General Public is hereby informed that **M/s Kesoram Cement, Basantnagar, Karimnagar District, have been accorded ENVIRONMENTAL CLEARANCE** by Ministry of Environment & Forest, New Delhi for Mining 0.35 Million Tonnes Per Annum of Limestone from TAKKALLAPALLY LIMESTONE MINES vide letter No.J-11015/143/2006-1A-II(M),Dtd.06.02.2007.The Environmental Clearance Letter copy is available with the State Pollution Control Board and also available on the Ministry's website www.envfor.nic.in. This is issued for the notice of all General Public.

Sd/
L. Nagesh Gowd
Factory Manager.

Basantnagar
09-02-2007

కేసరాం సిమెంట్

THE LARGEST CIRCULATED DAILY IN ANDHRA PRADESH

కరీంనగర్ 10-2-2007 శనివారం పేజీ సంపుటి 33. పంపిక 182

కేసరాం సిమెంట్

ప్రకటన

సాధారణ ప్రజానికానికి అందుమూలముగా తెలియజేయునది మనగా **M/s. కేసరాం సిమెంట్, బసంత్ నగర్, కరీంనగర్ జిల్లా** వారికి లెటర్ నెం. J-11015/143/2006-1A-II(M) తేది. 6-2-2007 ద్వారా తప్పక పట్టి లైమెస్టోన్ మైనింగ్ నుండి సాల్టి 0.35 మిలియన్ టన్నుల లైమెస్టోన్ మైనింగ్ కారకు మినిస్ట్రీ ఆఫ్ ఎన్వైరాన్మెంట్ & ఫోరెస్ట్, న్యూఢిల్లీ వారిచే ఎన్వైరాన్మెంట్ లో క్లియరెన్స్ ఇవ్వబడినది. రాష్ట్ర కాలుష్య నియంత్రణ బోర్డ్ నందు ఎన్వైరాన్మెంట్ క్లియరెన్స్ కావీ అందుబాటులో ఉంటుంది మరియు మినిస్ట్రీ వెబ్ సైట్ www.envfor.nic.in నందు కూడా అందుబాటులో ఉంటుంది. సాధారణ ప్రజానికాస్పృంహణలో సమాచార నిమిత్తం ఈ ప్రకటన జారీచేయబడినది.

సం/-
L.నగేశ్ గౌడ్
ఫ్యాక్టరీ మేనేజర్

బసంత్ నగర్
9-2-2007

Basantnagar Limestone Mines:

Pa

→ JPC(F&A)

File

ఈనాడు

THE LARGEST CIRCULATED DAILY IN ANDHRA PRADESH

Pragathi Kudu Lakshminarayana 410071113

కరీంనగర్ 24-2-2007 శనివారం ఏటీ సంపుటి 33, వందక 196

కే-ఈరామ్ సిమెంట్

ప్రకటన

సాధారణ ప్రజాసేవలకు ఉపయోగపడేటట్లుగా, M/s. కేఈరామ్ సిమెంట్, బసంత్ నగర్, కరీంనగర్ జిల్లా వారికి, లేఖ నెం. J-11015/142/2006-1A, II(M) తేది 19-2-2007 ద్వారా బసంత్ నగర్ లైమిస్టోన్ మైన్స్ నుండి సంవత్సరానికి 1.00 నుండి 1.95 మిలియన్ టన్నుల లైమిస్టోన్ మైనింగ్ నిమిత్తం పర్యావరణం & అడవుల మంత్రిత్వ శాఖ, న్యూఢిల్లీ నుండి ఎన్విరాన్మెంట్ టల్ క్లియరెన్స్ ఇవ్వబడినది. ఎన్విరాన్మెంట్ క్లియరెన్స్ లేఖ కాబీ రాష్ట్ర కాల్యవ్యవస్థానియంత్రణ బోర్డు వద్ద లభించును మరియు మంత్రిత్వ శాఖ యొక్క వెబ్ సైట్: www.envfor.nic.in పై కూడా లభించును. సాధారణ ప్రజాసేవలకు ఉపయోగపడే సమాచారం నిమిత్తం ఈ ప్రకటన జారీ చేయబడుచున్నది.

బసంత్ నగర్
22-2-2007

సం/- L. నాగేశ్వర్
స్టాంప్డ్ మేనేజర్

Corporate Social Responsibility
Apr 23 to September 23

S. No	SDG	Description of CSR	Details of Expenditure & work done	Village	Rs. In Lakhs
1	SDG-4	Quality Education	School Running Expenses at Kesoram Cements,Basantnagar	Basantnagar	60.0
2	SDG -3	Support to Health and Medical Services	Medical Expenses at Dispensary	Basantnagar	5.84
3	SDG -6	Support to Providing Drinking Water	Free summer water camps - 4 centres	Basantnagar	1.86
4	SDG -15	Support to Biodiversity Conservation	Deer park maintenance	KC, Basantnagar	16.24
5	SDG -9	Support to Infrastructure	Painting to temples, repair & Jungle cutting- White wash	Surrounding Villages	0.65
6	SDG -6	Supporting for drinking water	Providing Drinking Water to Employees and Villagers	Basantnagar	10.24
7	SDG-13	Support to Biodiversity Conservation	Distribution of Trees Saplings	Basantnagar	0.10
8	SDG -9	Support to Sanitation	Construction of Toilets	GD Nagr	0.24
				Total	95.17



**ENVIRONMENTAL MONITORING
PARAMETERS**

FOR

Basanthnagarand Takkalapalli LIMESTONE MINES

OF

KESORAM CEMENT INDUSTRIES LIMITED

**Basanthnagar (V), Basanthnagar (P.O),
Peddapalli District, Telangana.**

**SEASONAL REPORT
(Post Monsoon – 2023)**

PREPARED BY



UNIVERSAL ENVIRO ASSOCIATES.
HYDERABAD – 500076. TELANGANA

1.0 INTRODUCTION:

Kesoram Cement (KC), a unit of Kesoram Industries Ltd., is a pioneer in cement manufacturing. KC is an ISO 9001 and ISO 14001 certified company located at Basanthnagar Village of Peddapalli District, Telangana.

This report highlights the monitoring carried for Basanthnagar and Takkalapalli Limestone Mines as per the statutory requirement of Indian Bureau of Mines [IBM].

1.1 LOCATION OF THE KESORAM CEMENT [BASANTNAGAR AND TAKKALAPALLI LIMESTONE MINES]

Kesoram Cement, Basanthnagar and Takkalapalli Limestone Mines is located at Basanthnagar on Karimnagar-Hyderabad highway, which is 10 Km away from Peddapalli town. The mine site lies between East longitude $79^{\circ} 20' - 79^{\circ} 25'$ and North latitude $18^{\circ} 40' - 18^{\circ} 45'$ and is covered under Survey of India toposheet No. 56 N/5 & 56 N/6.

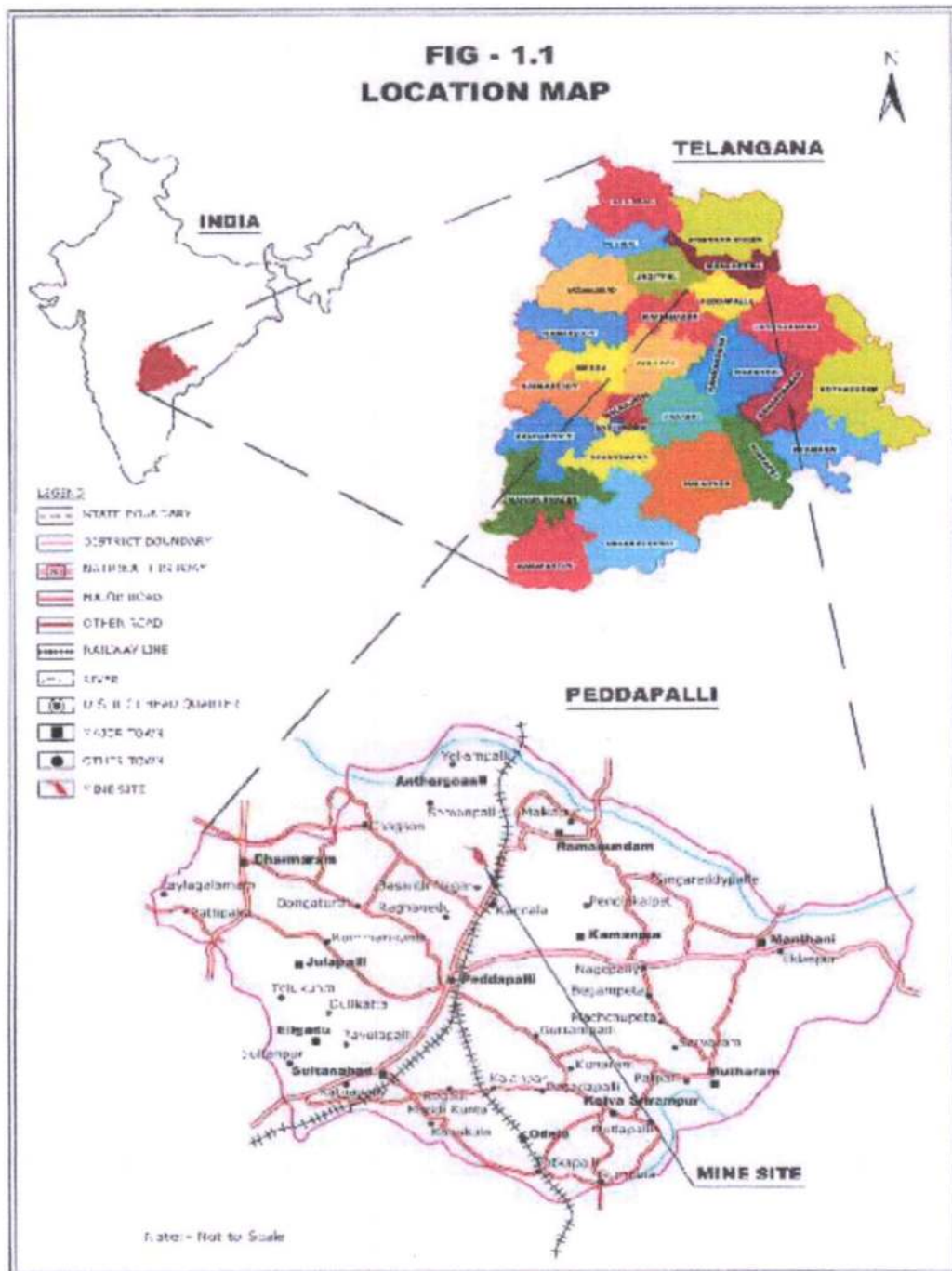
The site is connected by Broad gauge railway line of South Central Railway on Hyderabad – Ballarsha and it is about 3 Km from the mine. Nearest Airport to the mine is Hyderabad and is located at 210 Km. River Godavari is flowing at a distance of 20 Km towards North direction from the mine, which is the major water source.

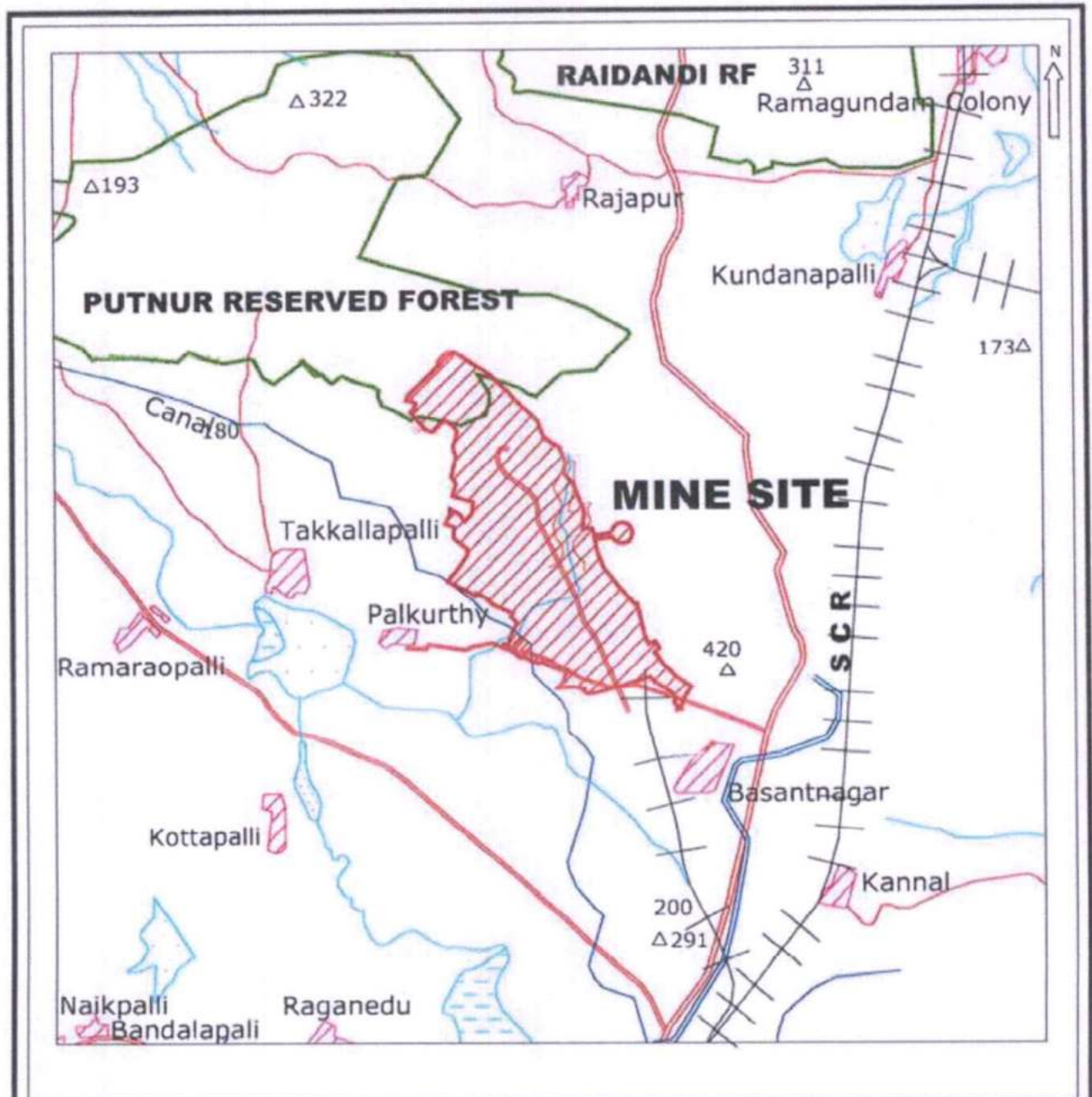
Figure-1.1 shows the location map of mine in Peddapalli District in Telangana.

Figure-1.2 shows the key map of the mine with surrounding features such as roads and railway line.

Figure-1.3 shows the 10 Km radius extent around the mine of Kesoram.

The salient features of the mine are given in **Table 1.1**.





LEGEND

-  ROADS
-  SPOT HEIGHT
-  STREAMS / TANKS
-  CANAL
-  FOREST
-  SETTLEMENTS
-  RAILWAY LINE
-  MINE SITE

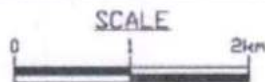
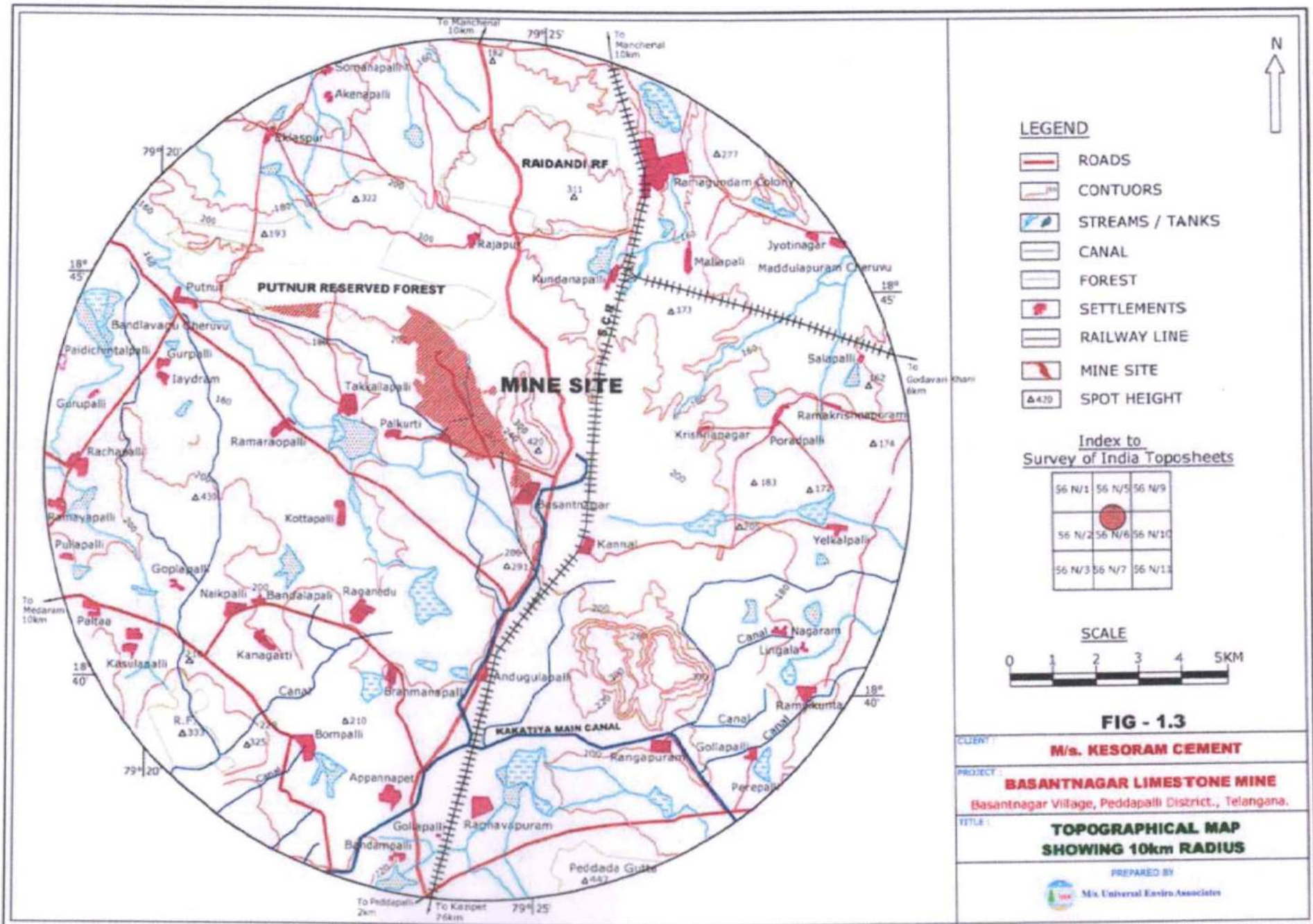
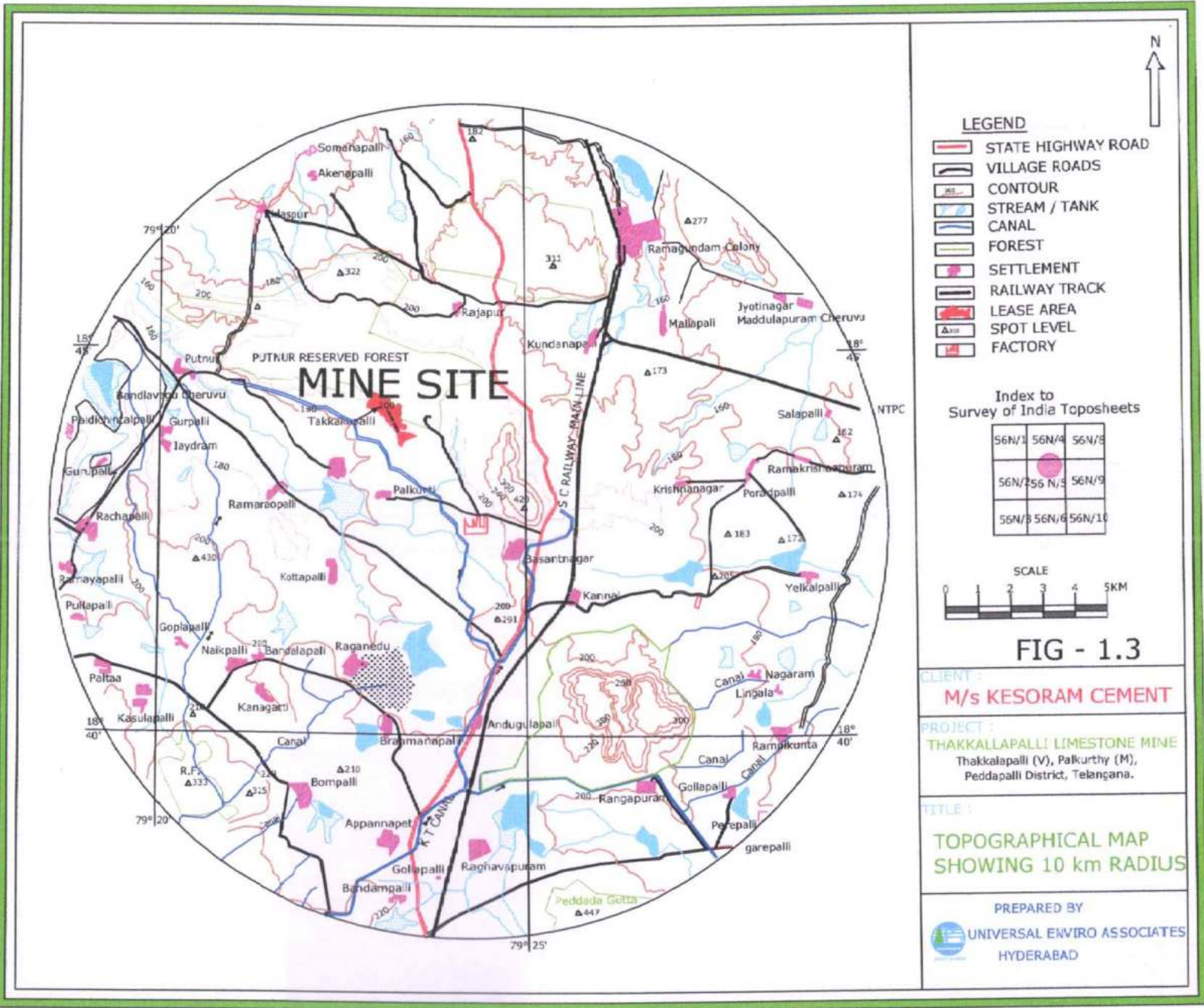


FIG - 1.2

CLIENT :	M/s. KESORAM CEMENT
PROJECT :	BASANTNAGAR LIMESTONE MINE Basantnagar Village, Peddapalli District., Telangana
TITLE :	KEYMAP
PREPARED BY  M/s. Universal Enviro Associates	





LEGEND

- STATE HIGHWAY ROAD
- VILLAGE ROADS
- CONTOUR
- STREAM / TANK
- CANAL
- FOREST
- SETTLEMENT
- RAILWAY TRACK
- LEASE AREA
- SPOT LEVEL
- FACTORY

Index to Survey of India Toposheets

56N/1	56N/4	56N/8
56N/2	56N/3	56N/9
56N/5	56N/6	56N/10

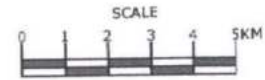


FIG - 1.3

CLIENT :
M/s KESORAM CEMENT

PROJECT :
THAKKALLAPALLI LIMESTONE MINE
Thakkalapalli (V), Palkurthy (M),
Peddapalli District, Telangana.

TITLE :
TOPOGRAPHICAL MAP
SHOWING 10 km RADIUS

PREPARED BY
 UNIVERSAL ENVIRO ASSOCIATES
HYDERABAD

Table 1.1
SAILENT FEATURES OF THE MINES

1	Altitude	180 m above MSL
2	Longitude	79°20' to 79°25' East
3	Latitude	18°40' to 18°45' North
4	Maximum day Temperature, °C	39
5	Minimum day Temperature, °C	11.4
6	Maximum relative humidity, %	72
7	Minimum relative humidity, %	40
8	Annual rainfall, mm	1107 (Average annual rainfall observed during the past 10 years)
9	Land availability, acres	890.20
10	Topography	Plant/Mine area is located in a flat terrain
11	Nearest Highway	NH-16 (2 km from mine site)
12	Nearest Railway Line	3 km connecting Kazipet-Ballarsha
13	Nearest Railway Station	Ragavapuram railway station is located at 3.0 km connecting Kazipet-Ballarsha
14	Nearest City	Hyderabad – 210 km
15	Nearest Industries	M/s IOCL storage depot at a distance of 5.0 km
16	Nearest Village	Palakurthy and Takkallapalli
17	Nearest Airport	Hyderabad – 210 km
18	Nearest Reserve forest	Putnuru Reserve forest (scrub forest) – 4.0 km
19	Nearest Sanctuary	None within 10 km
20	Nearest National Park	None within 10 km
21	Historical places	None within 10 km

*All the distances mentioned above are aerial distances.

The purpose of the study is to assess the air quality, water quality, water level, noise level measurement, Dust Fall, and illumination levels measurement in and around the Basanthnagar and Takkalapalli Limestone Mines of Kesoram Cement.

The team of engineers from UNIVERSAL ENVIRO ASSOCIATES has carried the study for the above environmental parameters during the Post Monsoon Season-2023.

This report consists of monitoring results and data analysis of the above assignments awarded to **M/s. UNIVERSAL ENVIRO ASSOCIATES.**

2.0 SCOPE AND MONITORING LOCATIONS

The scope of the study includes detailed characterization of environmental monitoring of air quality, water quality and Ground Water levels, noise level measurement, Dust Fall, and illumination levels measurement around the existing captive Limestone Mines of Kesoram Cement, located near Basanthnagar in Peddapalli District, Telangana.

2.1 AIR ENVIRONMENT

Ambient air quality monitoring was carried at fourteen different locations for two shifts in a day for two days continuously for two weeks for Post Monsoon Season – 2023.

Air quality levels were monitored and carried out for significant parameters like SPM, RPM (PM₁₀), and PM_{2.5}, SO₂, NO₂ & CO as per the methods prescribed by Central Pollution Control Board. Frequency of sampling and methodology adopted is detailed below:

2.1.1 DURATION PERIOD & FREQUENCY OF SAMPLING

Duration period & frequency of sampling adopted was as per guidelines of Indian Bureau of Mines. Details of the same are given below:

Duration : Fortnightly and Monthly

The existing Ambient Air Quality status (AAQ) has been monitored for SPM, RPM (PM₁₀), and PM_{2.5}, SO₂, NO₂ and CO. Pre-calibrated Respirable dust samplers have been used for the monitoring of the existing AAQ status. Methodologies adopted for sampling and analysis were, as per the approved methods of Central Pollution Control Board (CPCB) & Indian Standard (IS) 5182.

2.2 AMBIENT AIR QUALITY (AAQ) SAMPLING LOCATIONS

Ambient air quality of the study area has been assessed during Post Monsoon Season – 2023 through a network of Eight ambient air quality stations. The locations of ambient air quality monitoring stations are below mentioned.

AMBIENT AIR QUALITY LOCATIONS

Station Code	Locations	Frequency
A-1	Mines Office	Fortnightly
A-2	Working Site	
A-3	Takkalapalli Village near mines lease area	
A-4	Palakurthy Village near mines lease area	
A-5	Ramaraopalli Village	Monthly
A-6	Kothapalli Village	
A-7	Kannala Village	
A-8	Basantnagar Village	

2.2 - 1 FUGITIVE DUST SAMPLING LOCATIONS

FUGITIVE DUST of the study area has been assessed during Post Monsoon Season – 2023 through a network of Four ambient air quality stations. The locations of ambient air quality monitoring stations are below mentioned.

AMBIENT AIR QUALITY LOCATIONS

Station Code	Locations	Frequency
FA-1	Drilling area	Quarterly
FA-2	Loading Area	
FA-3	Haul Road	
FA-4	Unloading and Crusher area	

2.3 Ground Water Level

Water levels were monitored at four locations around the mines. The location of water level monitoring stations in and around the mines was given in **the table**.

TABLE-2.3

Ground Water Level Monitoring Locations

SL.No	Location Name	Distance w.r.t. Mine [km]	Direction w.r.t Mine
1	North Direction to Mines Site	--	--
2	East Direction to Mines Site	--	--
3	South Direction to Mines Site	--	--
4	West Direction to Mines Site	--	--

2.4 ILLUMINATION SURVEY REPORT

In order to assess the present quality of Illumination Survey, Illumination Survey measurement was carried at eight locations in the mine area. The locations of monitoring stations are given in **the table**.

Table-2.4

Illumination Survey Measurement Locations

Location Code	Location Name	Direction	Distance Km
I-1	Drilling Area	---	---
I-2	Loading Area	---	---
I-3	Haul Road	---	---
I-4	Near Crushers Area	---	---
I-5	Substation Area	---	---
I-6	Workshop Area	---	---
I-7	Parking Yard	---	---
I-8	Rest Shulter Area	---	---

2.5 NOISE LEVEL MEASUREMENT

In order to assess the present, Ambient and Source Noise level measurement was carried at thirteen locations in and around the mine area. The locations of monitoring stations are given in table

Noise level Measurement locations

Location Code	Location Name	Category
N-1	Mines Office Boundary wall at CPP	Ambient Noise
N-2	Plant Boundary wall at staff colony	
N-3	Plant Boundary wall at ramnagar workers colony	
N-4	Plant Boundary wall at G.D nagar	
N-5	Basantnagar Village	
N-6	Palakurthy Village	
N-7	Takkalapalli village	
N-8	Basantnagar Village	
N-9	Near Drilling Area	Source Noise
N-10	Near Loading Area	
N-11	Near Dumper Cabin	
N-12	Near Haulage Road Area	
N-13	Near Unloading Area	

2.7 SOIL QUALITY

In order to assess the present quality of soil, two samples were collected from different locations in and around the mines. Detailed description of the locations is given below. The location of the sampling stations is shown in below mentioned table.

Table-2.6
Description of the Soil sampling locations

Code	Location Name	Direction w.r.t mine	Distance in km
S-1	Basantnagar and Takkalapalli Limestone Mines - Mines Site	---	---
S-2	Takkalapalli Limestone Mines - Mines Site	---	---

3.0 DATA ANALYSIS

3.0 AMBIENT AIR QUALITY OBSERVATIONS

Summary of the ambient air quality (AAQ) and Fugitive Dust at each location is given in following table and detailed data is given in **ANNEXURE-I and IA.**

3.1 Dust Fall Measurement

Dust fall measurement was carried at four locations in and around the mine. The analysis results of the sample are given in **ANNEXURE – II.**

3.2 Illumination survey report

Illumination Survey monitored at various locations given Report as **ANNEXURE – III.**

3.3 Noise Level Measurement

Noise levels were measured at thirteen locations in the mines and surroundings. Noise level measurement values of each location is given in **ANNEXURE – IV.**

3.4 Soil Quality Monitoring

In order to assess the soil quality in the study area, two soil samples were collected during the study period. Locations of the soil sampling were selected as per their usage. Samples were collected at 30 cm, 60 cm and 90 cm depth from surface area and get homogeneous.

The analysis report and data for the soil quality is given in **ANNEXURE-V.**

Ground water survey report

Ground water Survey monitored at various locations given Report as **ANNEXURE – VI.**

ANNEXURE-1

AMBIENT AIR QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Season	Post Monsoon - 2023
Name of the location	Mines Office

S. No	Date of monitoring	Parameter details				
		(PM ₁₀) µg/m ³	(PM _{2.5}) µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	CO mg/m ³
1	04.07.2023	65.1	26.8	24.3	30.3	<1.0
2	27.07.2023	70.6	28.4	28.9	31.6	<1.0
3	09.08.2023	59.8	22.3	20.1	26.9	<1.0
4	26.08.2023	59.6	27.0	21.2	26.9	<1.0
5	07.09.2023	62.3	25.1	22.3	27.1	<1.0
6	29.09.2023	61.6	24.2	22.9	28.0	<1.0
NAAQ Standards for Rural and Residential Areas (24 hourly)		100	60	80	80	2.0
Standard Test Method		IS:5182, 2006 Part-23	CPCB Guide lines Volume-I	IS:5182, 2001 Part-2	IS:5182, 2006 Part-6	IS:5182, 1999 Part-10

SPM: Suspended Particulate Matter,
RPM: Respirable Particulate Matter,
FPM: Fine Particulate Matter
SO₂: Sulphur Di-oxide
NO₂: Oxides of Nitrogen
CO: Carbon Monoxide.



T. Krishna
Authorized Signatory



AMBIENT AIR QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkalapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Season	Post Monsoon - 2023
Name of the location	Working Site

S. No	Date of monitoring	Parameter details				
		(PM ₁₀) µg/m ³	(PM _{2.5}) µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	CO mg/m ³
1	04.07.2023	69.7	28.1	20.3	26.9	<1.0
2	27.07.2023	73.8	29.6	21.6	28.3	<1.0
3	09.08.2023	60.6	25.9	18.2	24.1	<1.0
4	26.08.2023	60.8	26.1	20.8	24.1	<1.0
5	07.09.2023	65.1	26.8	19.1	25.2	<1.0
6	29.09.2023	63.9	25.5	23.6	27.9	<1.0
NAAQ Standards for Rural and Residential Areas (24 hourly)		100	60	80	80	2.0
Standard Test Method		IS:5182, 2006 Part-23	CPCB Guide lines Volume-I	IS:5182, 2001 Part-2	IS:5182, 2006 Part-6	IS:5182, 1999 Part-10

SPM: Suspended Particulate Matter,
RPM: Respirable Particulate Matter,
FPM: Fine Particulate Matter
SO₂: Sulphur Di-oxide
NO₂: Oxides of Nitrogen
CO: Carbon Monoxide.



T. Raju
Authorized Signatory



AMBIENT AIR QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Season	Post Monsoon - 2023
Name of the location	Takkalapalli Village Near Mines lease area

S. No	Date of monitoring	Parameter details				
		(PM ₁₀) µg/m ³	(PM _{2.5}) µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	CO mg/m ³
1	04.07.2023	51.6	19.8	13.9	17.8	<1.0
2	27.07.2023	50.7	21.6	14.8	17.6	<1.0
3	09.08.2023	50.2	18.0	12.8	16.9	<1.0
4	26.08.2023	45.9	19.6	12.1	16.2	<1.0
5	07.09.2023	52.8	19.2	13.9	17.1	<1.0
6	29.09.2023	48.3	20.3	13.9	17.9	<1.0
NAAQ Standards for Rural and Residential Areas (24 hourly)		100	60	80	80	2.0
Standard Test Method		IS:5182, 2006 Part-23	CPCB Guide lines Volume-I	IS:5182, 2001 Part-2	IS:5182, 2006 Part-6	IS:5182, 1999 Part-10

SPM: Suspended Particulate Matter,
RPM: Respirable Particulate Matter,
FPM: Fine Particulate Matter
SO₂: Sulphur Di-oxide
NO_x: Oxides of Nitrogen
CO: Carbon Monoxide.



T. Priglewar
Authorized Signatory



AMBIENT AIR QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Season	Post Monsoon - 2023
Name of the location	Palakurthi Village Near Mines lease area

S. No	Date of monitoring	Parameter details				
		(PM ₁₀) µg/m ³	(PM _{2.5}) µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	CO mg/m ³
1	04.07.2023	58.9	22.7	16.2	19.1	<1.0
2	27.07.2023	62.4	23.9	17.0	18.6	<1.0
3	09.08.2023	52.1	20.6	15.1	18.4	<1.0
4	26.08.2023	54.1	18.3	15.0	17.9	<1.0
5	07.09.2023	53.6	21.9	16.1	19.7	<1.0
6	29.09.2023	58.9	19.6	15.9	18.6	<1.0
NAAQ Standards for Rural and Residential Areas (24 hourly)		100	60	80	80	2.0
Standard Test Method		IS:5182, 2006 Part-23	CPCB Guide lines Volume-I	IS:5182, 2001 Part-2	IS:5182, 2006 Part-6	IS:5182, 1999 Part-10

SPM: Suspended Particulate Matter,
RPM: Respirable Particulate Matter,
FPM: Fine Particulate Matter
SO₂: Sulphur Di-oxide
NO_x: Oxides of Nitrogen
CO: Carbon Monoxide.



T. Prishu
Authorized Signatory



AMBIENT AIR QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Season	Post Monsoon - 2023
Name of the location	Ramaraopalli Village

S. No	Date of monitoring	Parameter details				
		(PM ₁₀) µg/m ³	(PM _{2.5}) µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	CO mg/m ³
1	28.07.2023	55.9	17.3	11.6	14.5	<1.0
2	04.08.2023	54.3	16.2	10.6	15.1	<1.0
3	22.09.2023	56.9	18.3	12.8	17.1	<1.0
NAAQ Standards for Rural and Residential Areas (24 hourly)		100	60	80	80	2.0
Standard Test Method		IS:5182, 2006 Part-23	CPCB Guide lines Volume-I	IS:5182, 2001 Part-2	IS:5182, 2006 Part-6	IS:5182, 1999 Part-10

SPM: Suspended Particulate Matter,
RPM: Respirable Particulate Matter,
FPM: Fine Particulate Matter
SO₂: Sulphur Di-oxide
NO_x: Oxides of Nitrogen
CO: Carbon Monoxide.

T. Vignesh
Authorized Signatory



AMBIENT AIR QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Season	Post Monsoon - 2023
Name of the location	Kothaplli Village

S. No	Date of monitoring	Parameter details				
		(PM ₁₀) µg/m ³	(PM _{2.5}) µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	CO mg/m ³
1	28.07.2023	53.6	15.9	12.8	16.9	<1.0
2	04.08.2023	50.9	15.1	13.1	17.0	<1.0
3	22.09.2023	53.8	15.9	16.2	20.6	<1.0
NAAQ Standards for Rural and Residential Areas (24 hourly)		100	60	80	80	2.0
Standard Test Method		IS:5182, 2006 Part-23	CPCB Guide lines Volume-I	IS:5182, 2001 Part-2	IS:5182, 2006 Part-6	IS:5182, 1999 Part-10

SPM: Suspended Particulate Matter,
RPM: Respirable Particulate Matter,
FPM: Fine Particulate Matter
SO₂: Sulphur Di-oxide
NO₂: Oxides of Nitrogen
CO: Carbon Monoxide.

T. Prabhakar
Authorized Signatory



AMBIENT AIR QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Season	Post Monsoon - 2023
Name of the location	Kannala Village

S. No	Date of monitoring	Parameter details				
		(PM ₁₀) µg/m ³	(PM _{2.5}) µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	CO mg/m ³
1	28.07.2023	52.8	15.1	12.0	16.2	<1.0
2	04.08.2023	51.7	14.8	13.4	17.1	<1.0
3	22.09.2023	55.1	16.7	16.9	19.1	<1.0
NAAQ Standards for Rural and Residential Areas (24 hourly)		100	60	80	80	2.0
Standard Test Method		IS:5182, 2006 Part-23	CPCB Guide lines Volume-I	IS:5182, 2001 Part-2	IS:5182, 2006 Part-6	IS:5182, 1999 Part-10

SPM: Suspended Particulate Matter,
RPM: Respirable Particulate Matter,
FPM: Fine Particulate Matter
SO₂: Sulphur Di-oxide
NO₂: Oxides of Nitrogen
CO: Carbon Monoxide.

T. Kiglema
Authorized Signatory



AMBIENT AIR QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Season	Post Monsoon - 2023
Name of the location	Basantnagar Village

S. No	Date of monitoring	Parameter details				
		(PM ₁₀) µg/m ³	(PM _{2.5}) µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³	CO mg/m ³
1	28.07.2023	49.3	14.2	15.1	18.9	<1.0
2	04.08.2023	48.4	14.0	16.1	19.7	<1.0
3	22.09.2023	50.2	15.1	18.3	22.3	<1.0
NAAQ Standards for Rural and Residential Areas (24 hourly)		100	60	80	80	2.0
Standard Test Method		IS:5182, 2006 Part-23	CPCB Guide lines Volume-I	IS:5182, 2001 Part-2	IS:5182, 2006 Part-6	IS:5182, 1999 Part-10

SPM: Suspended Particulate Matter,
RPM: Respirable Particulate Matter,
FPM: Fine Particulate Matter
SO₂: Sulphur Di-oxide
NO₂: Oxides of Nitrogen
CO: Carbon Monoxide.
NS: Not Specified.

T. Prishu
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ANNEXURE – IA

FUGITIVE DUST DATA ($\mu\text{g}/\text{m}^3$)

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkalapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Period	Post Monsoon - 2023
Date of Sampling	18.09.2023 to 19.09.2023
Method of Analysis for PM ₁₀	Gravimetric Method
Method of Analysis for SPM	Gravimetric Method
Method of Analysis for SO ₂ (Sulphur Dioxide)	Improved West & Geake Method
Method of Analysis for NO _x (Oxides of Nitrogen)	Modified Jacob & Hocheiser Method

Location	SPM [$\mu\text{g}/\text{m}^3$]	PM ₁₀ [$\mu\text{g}/\text{m}^3$]	PM _{2.5} [$\mu\text{g}/\text{m}^3$]	SO ₂ [$\mu\text{g}/\text{m}^3$]	NO _x [$\mu\text{g}/\text{m}^3$]
Drilling Area – Basantnagar Lime tone Mine	1338	489	136	22.3	25.1
Loading Area - Basantnagar Lime tone Mine	1121	352	201	20.6	28.9
Haul Road	1086	412	239	21.6	28.2
Unloading and Crushers Area	1136	439	226	27.1	32.3



T. Prithvi
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FUGITIVE DUST DATA ($\mu\text{g}/\text{m}^3$)

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited.,
Location	Palakurthy-Takkalapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Period	Post Monsoon - 2023
Date of Sampling	18.09.2023 to 19.09.2023 (Haul road & Unloading and Crusher area)
	19.09.2023 to 20.09.2023 (Drilling area & Loading area)
Method of Analysis for PM_{10}	Gravimetric Method
Method of Analysis for SPM	Gravimetric Method
Method of Analysis for SO_2 (Sulphur Dioxide)	Improved West & Geake Method
Method of Analysis for NO_x (Oxides of Nitrogen)	Modified Jacob & Hocheiser Method

Location	SPM [$\mu\text{g}/\text{m}^3$]	PM_{10} [$\mu\text{g}/\text{m}^3$]	$\text{PM}_{2.5}$ [$\mu\text{g}/\text{m}^3$]	SO_2 [$\mu\text{g}/\text{m}^3$]	NO_x [$\mu\text{g}/\text{m}^3$]
Drilling Area – Basantnagar Lime tone Mine	1223	496	286	24.5	26.9
Loading Area - Basantnagar Lime tone Mine	1089	371	189	23.9	29.1
Haul Road	1086	412	239	21.6	28.2
Unloading and Crushers Area	1136	439	226	27.1	32.3

T. Prigunna
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ANNEXURE – II

DUST FALL MEASURING DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
Location	Palakurthy-Takkalapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Season	Post Monsoon – 2023
Date of Collection	03.10.2023
Name of the Location	BNR Limestone Mines Lease Area (Core Zone)

S. No	Name of the Parameter	Quantity Measured in mg	Calculated Deposition in T/Km ² /Month
1	pH	7.53	---
2	Total Un dissolved Matter	521	4.81
3	Total Dissolved Matter	489	5.60
4	Total Solids	1,010	6.1
5	Ash	62.3	1.01

Note: 'T' indicates Metric Tones

T. Prigleua
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DUST FALL MEASURING DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Season	Post Monsoon – 2023
Date of Collection	03.10.2023
Name of the Location	TKPL Limestone Mines Lease Area (Core Zone)

S. No	Name of the Parameter	Quantity Measured in mg	Calculated Deposition in T/Km ² /Month
1	pH	7.12	---
2	Total Un dissolved Matter	312	10.9
3	Total Dissolved Matter	205	4.71
4	Total Solids	517	8.5
5	Ash	65.3	0.83

Note: 'T' indicates Metric Tones

T. Prishwa
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DUST FALL MEASURING DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Season	Post Monsoon – 2023
Date of Collection	03.10.2023
Name of the Location	Basantnagar Village

S. No	Name of the Parameter	Quantity Measured in mg	Calculated Deposition in T/Km ² /Month
1	pH	7.30	---
2	Total Un dissolved Matter	336	4.09
3	Total Dissolved Matter	212	4.51
4	Total Solids		8.23
5	Ash	58.7	0.68

Note: 'T' indicates Metric Tones

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DUST FALL MEASURING DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Season	Post Monsoon – 2023
Date of Collection	03.10.2023
Name of the Location	Takkallapalli Village

S. No	Name of the Parameter	Quantity Measured in mg	Calculated Deposition in T/Km ² /Month
1	pH	7.11	---
2	Total Un dissolved Matter	186	3.12
3	Total Dissolved Matter	179	3.74
4	Total Solids	365	7.01
5	Ash	50.3	0.88

Note: 'T' indicates Metric Tones

T. Raghava
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ANNEXURE - III

ILLUMINATION SURVEY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Cement Industries Limited
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Season	Post Monsoon – 2023
Date of Collection	25.09.2023

S. No	Name of the Location	ILLUMINATION IN LUX		Illumination Standard as per DGMS	
		Horizontal	Vertical	Horizontal	Vertical
1	Drilling Area	16.9	26.8	15 H	25 V
2	Laoding Area	18.3	26.1	10 H	25 V
3	Haul Road	16.9	25.9	15 H	15 V
4	Near Crushers Area	17.6	26.7	15 H	15 V
5	Substation Area	18.6	28.3	15 H	25 V
6	Workshop Area	17.3	26.9	15 H	25 V
7	Parking Yard	16.6	28.0	15 H	25 V
8	Rest Shulter Area	19.1	27.6	15 H	25 V



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ANNEXURE - IV

AMBIENT NOISE LEVEL DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist. Telangana.
Season	Post Monsoon – 2023
Date of Collection	25.09.2023

S. No	Locations	Noise Levels dB(A)			
		DayTime	Limit	Night Time	Limit
1	Mines Office Boundary wall at CPP	67.3	75	55.2	70
2	Plant Boundary wall at staff colony	61.3	75	53.9	70
3	Plant Boundary wall at ramnagar workers colony	65.1	75	57.1	70
4	Plant Boundary wall at G.D nagar	62.8	75	50.6	70
5	Basantnagar Village	50.6	55	42.3	45
6	Palakurthy Village	48.3	55	41.9	45
7	Takkalapalli village	47.1	55	40.6	45

- Note: 1. Instrument make - Lutron SL-4001 (Made in Taiwan), Calibration valid up to: 25-02-2024.
2. Day time is reckoned in between 6 a.m to 10 p.m. as per CPCB guide lines.
3. Night time is reckoned in between 10 p.m to 6 a.m. as per CPCB guide lines.



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SOURCE NOISE LEVEL DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Season	Post Monsoon – 2023
Date of Collection	25.09.2023

S No	Station Code	Name of the Location	Noise level in dB(A)
1	N1	Near Drilling Area	72.9
2	N2	Near Loading Area	76.1
3	N3	Near Dumper Cabin	80.8
4	N4	Near Haulage Road Area	82.9
5	N5	Near Unloading Area	78.6
NOISE STANDARD			
Total time of exposure (Continuous or a number of short term exposures) per day in hours	Sound pressure level in dB(A)	Total time of exposure (Continuous or a number of short term exposures) per day in hours	Sound pressure level in dB(A)
8	90	1 – 1 1/2	102
6	92	1	105
4	95	1/2	107
3	97	1/4	110
2	100	1/8	115
Notes: 1. No exposure in excess of 115 dB(A) is to be permitted. 2. For any period of exposure failing in between any figure and the next higher or lower figures as indicated in column 1, the permissible sound pressure level is to be determined by extrapolation on a proportionate basis.			

Note: 1. Instrument make - Lutron SL-4033SD (Made in Taiwan), Calibration valid up to: 25-02-2024.



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ANNEXURE-V

SOIL QUALITY DATA

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
Location	Palakurthy-Takkallapalli (V), Palakurthy (Mdl), Peddapalli Dist.Telangana.
Season	Post Monsoon- 2023
Date of Collection	25.09.2023

S. No	Name of the Parameter	Unit	Standard Test Method	Results	
				S1	S2
1	pH (1:5 aqueous extract)	---	IS 2720 (Part-26) 1987(RA:2002)	7.79	8.09
2	Electrical Conductivity (1:5 aqueous extract)	µs/cm	IS14767:2000	312	274
3	Total Soluble Salts	mg/Kg	STIDA&CGI	412	329
4	Chlorides as Cl	mg/Kg	STIDA&CGI	80.6	68.3
5	Nitrogen as N	Kg/Ha	STIDA&CGI	281	269
6	Phosphorus as P ₂ O ₅	Kg/Ha	STIDA&CGI	20.3	26.1
7	Potassium as K ₂ O	Kg/Ha	FAO 2007	341	302
8	Sodium as Na	mg/Kg	STIDA&CGI	839	712
9	Calcium as Ca	mg/Kg	STIDA&CGI	3,289	3,012
10	Magnesium as Mg	mg/Kg	SW-846-3050B	481	439
11	Total Organic	%	STIDA&CGI	0.59	0.47
12	Texture	---	STIDA&CGI	Sandy Clay	Sandy Clay
	Sand	%	STIDA&CGI	34.0	48.0
	Slit	%	STIDA&CGI		26.0
	Clay	%	STIDA&CGI	35.0	

- STIDA & CGI (Soil Testing in India: Department of Agriculture & Corporation of Ministry of Agriculture, Government of India).
- Sample Collected in Homogeneous Method (Collected at 30cm, 60cm & 90cm depths and mixed thoroughly).

S1: Basantnagar Mine Site and S2: Takkallapalli Mine Site.



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ANNEXURE - VI

GROUND WATER SURVEY REPORT

Project	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
Location	Basantnagar, Paddapalli(Dist.), Telangana State.
Season	September – 2023 (Monsoon)
Date of Sampling	25-09-2023

S. No	Name of the location	Description	Water Level (From Ground) (In meters)
1	Takkalapalli Village	Bore Well	9.5
2	Palakurthy Village	Bore Well	7.3
3	Basantnagar Village	Bore Well	10.1
4	Kothapalli Village	Bore Well	8.6
5	Putnoor Village	Bore Well	9.1
6	Kurmapalli Village	Bore Well	5.6
7	Kannala Village	Bore Well	7.3
8	G.D Nagar Village	Open Well	7.8
9	Wokers Colony	Open Well	8.9
10	Ramaraopalli Village	Open Well	4.6
11	Kundanapalli Village	Open Well	5.3



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PROJECT	Basantnagar and Takkalapalli Limestone Mines of M/s. Kesoram Industries Limited
LOCATION	Basantnagar, Paddapalli(Dist.), Telangana State.
MONTH	September-2023
DATE OF SAMPLING	25-09-2023
DATE OF ANALYSIS	26-09-2023
Name of the location	Mines Garage

WASTE WATER QUALITY DATA

S. No	Parameter	Units	Method (APHA 23rd Edition 2017)	Result	GSR 422 (E) General Standards for Discharge of Effluents Inland Surface Water
1	pH@25.0°C	---	4500 H ⁺ B	8.91	5.5-9.0
2	Total Dissolved Solids	mg/L	2540 C	2,071	2100
3	Total Suspended Solids	mg/L	2540 D	78.3	100
4	Chemical Oxygen Demand	mg/L	5220 B	86.2	250
5	Chlorides as Cl ⁻	mg/L	4500 Cl ⁻ B	251	1000
6	Fluorides as F ⁻	mg/L	4500 F D	1.73	2.0
7	Dissolved Phosphate	mg/L	4500 P C	1.38	5.0
8	Percent Sodium	mg/L	3500 Na B	60.2	---
9	Boron as B	mg/L	4500-B B	0.59	2.0
10	Sulphates as SO ₄ ⁻²	mg/L	4500 SO ₄ ⁻² D	341	1000
11	Iron as Fe	mg/L	3500 Fe B	0.75	1.0
12	Oil & Grease	mg/L	5520 B	8.1	10
13	Colour	Hazeen	IS: 3025 (Part-4)2012	5.3	See Note - 1
14	Odour	---	IS: 3025 (Part-5)2012	Agreeable	See Note - 1
15	Biochemical Oxygen Demand (3 days @ 27°C)	mg/L	IS: 3025 (Part-44)1993 Reaffirmed 2014	25.1	30
16	Sulphide as S	mg/L	IS: 3025 (Part-29)2012	<0.1	2.0
17	Residual Sodium Carbonate	mg/L	IS: 3025 (Part-13)1964	<0.1	---



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