Your (Half Yearly Compliance Report) has been Submitted with following details	
Proposal No	IA/OR/MIN/100679/2016
Compliance ID	138498544
Compliance Number(For Tracking)	EC/M/COMPLIANCE/138498544/2025
Reporting Year	2025
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	28-10-2025
RO/SRO Name	Shri Senthil Kumar Sampath
RO/SRO Email	agmu156@ifs.nic.in
State	ODISHA
RO/SRO Office Address	Integrated Regional Offices, Bhubaneswar
Note:- SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, ODISHA with Notification to Project Proponent.	

Dalmia cement
FUTURE TODAY

cement! sugar! refractories! power!

LQ/MOEFCC/002/2025-26/119
October 24, 2025.

To,
The Addl. Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office (EZ),
A/3, Chandrasekharpur,
Bhubaneswar – 751 023

Sub: **Submission of Six-Monthly Compliance Report of the Environmental Clearance of Lanjiberna Limestone & Dolomite Mines of M/s Dalmia Cement Bharat Limited for the period April 2025 to September 2025.**

Ref: Environmental clearance ref. F. No. J-11015/202/2016-IA. II (M) dated 04.03.2020.

Dear Sir,

With reference to above captioned subject matter, we are submitting herewith the six-monthly compliance report of the conditions laid down in above Environmental clearance for the period April 2025 to September 2025.

Thanking you,

Yours sincerely,
For **Dalmia Cement Bharat Limited,**

Akmishra.

Ashok Kumar Mishra
Head - Environment

Encl: As above.

CC:
1. The Director, Impact Assessment Division, MoEF&CC, New Delhi.
2. The Member Secretary, CPCB, New Delhi.
3. The Member Secretary, OSPCB, Bhubaneswar, Odisha.

Half Yearly Compliance Report
2025
01 Dec(01 Apr - 30 Sep)

Acknowledgement

Proposal Name	Lanjiberna Limestone and Dolomite Mine of M/s Dalmia Cement Bharat Limited with expansion in production of limestone from 4.2 Million TPA to 9.5 Million TPA, 0.08 Million TPA of Dolomite and Rejects/Wastes 7.42 Million TPA (Total Excavation: 17 MTPA) in the mine lease area of 873.057 Ha located at villages - Alanda, Bihabandh, Jhagarpur, kesramal, Raiberna, Katang, Dhauraada, Lanjiberna and Kukuda, Tehsil - Rajgangpur and Kutra, District - Sundargarh, Odisha
Name of Entity / Corporate Office	Dalmia Cement (Bharat) Limited
Village(s)	N/A
District	SUNDARGARH

Proposal No.	IA/OR/MIN/100679/2016
Plot / Survey / Khasra No.	N/A
State	ODISHA
MoEF File No.	J-11015/202/2016-IA.II(M)

Category	Non-Coal Mining
Sub-District	N/A
Entity's PAN	*****9414C
Entity name as per PAN	DALMIA CEMENT (BHARAT) LIMITED

Compliance Reporting Details

Reporting Year 2025

Remarks (if any)

Reporting Period 01 Dec(01 Apr - 30 Sep)

Details of Production and Project Area

Name of Entity / Corporate Office Dalmia Cement (Bharat) Limited

	Project Area as per EC Granted	Actual Project Area in Possession
Private	745.097	250.382
Revenue Land	65.40	23.09
Forest	62.56	62.56
Others	0	0
Total	873.0569999999999	336.032

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Limestone	Tons per Annum (TPA)	31/03/2030	9500000	7164908	950000
2	Dolomite	Tons per Annum (TPA)	31/03/2030	80000	49803	80000
3	Rejects/Aggregates	Tons per Annum (TPA)	31/03/2030	7420000	7039951	7420000

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	WATER QUALITY MONITORING AND PRESERVATION	Water requirement will be restricted to 509 KLD and PP to improvise on the water uses and adopt better technology for water use along with enhances water conservation practices.

PPs Submission: Complied Water consumption is restricted within the permitted quantity. ETP and STP have been installed to maximize water recycling. Rain water harvesting system has been installed at office building roof top and being recharged into the ground is through 2 nos. of ground water recharge pits.	Date: 23/10/2025

2	AIR QUALITY MONITORING AND PRESERVATION	PP to ensure that the necessary EMP should be implemented and monitored properly to ensure better compliance in order to contain the vehicular emission to minimum.

PPs Submission: Complied The Environment Management Plan/Program has been implemented at our mines and is continuously monitored. Environmental monitoring is being carried out periodically by 3rd party NABL accredited lab.	Date: 23/10/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

PPs Submission: Complied Noted.	Date: 23/10/2025

2	Statutory compliance	The Project proponent complies with all the statutory requirements and judgment of Hon’ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.

PPs Submission: Complied All the statutory requirements are being complied from time to time including the judgement of	Date:

Honble Supreme Court.		23/10/2025
3	Statutory compliance	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
PPs Submission: Complied Noted.		Date: 23/10/2025
4	Statutory compliance	This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF & CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
PPs Submission: Complied Not Applicable.		Date: 23/10/2025
5	Statutory compliance	The PP shall adhere to the provision of the Mines Act,1952, Mines and Mineral (Development & Regulation), Act,2015 and rules & regulations Made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
PPs Submission: Complied We are adhering to the provision of the Mines Act, 1952 and the Mineral (Development and Regulation) Act, 2015 from time to time. All statutory compliances w.r.t DGMS and IBM are being adhered from time to time.		Date: 23/10/2025
6	Statutory compliance	The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
PPs Submission: Complied Requisite consents from the concerned landowners are in place for mining activity.		Date: 23/10/2025
7	Statutory compliance	The Project Proponent shall follow the mitigation measures provided in MoEF & CC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
PPs Submission: Complied Mitigation measures w.r.t impact of mining activities on Habitations have been followed and implemented at our mines.		Date: 23/10/2025
8	Statutory compliance	The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.

PPs Submission: Complied Permission for ground water withdrawal has been obtained vide NOC No: - CGWA/NOC/MIN/REN/2/2025/11501 dated 24.04.2025 valid till 30.10.2026.		Date: 28/10/2025
9	Statutory compliance	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
PPs Submission: Complied EC Letter has been submitted to the concerned panchayat.		Date: 27/10/2025
10	Statutory compliance	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
PPs Submission: Complied Noted.		Date: 23/10/2025
11	Statutory compliance	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site Of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF & CC Regional Office for compliance and record
PPs Submission: Complied Newspaper advertisement about the grant of this EC letter was made in Manthan, Odia Newspaper and in Odisha Today, English newspaper on 09.03.2020.		Date: 23/10/2025
12	Statutory compliance	The Project Proponent shall inform the MoEF &CC for any change in Ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para11 of EIA Notification,2006 as amended from time to time.
PPs Submission: Complied No such change is envisaged. In case of any change in ownership, the same shall be intimated to the concerned authority.		Date: 27/10/2025
13	AIR QUALITY MONITORING AND PRESERVATION	The Project Proponent shall install a minimum of 3(three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and 502 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCl/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

PPs Submission: Complied 2 nos. of online CAAQMS stations one in upwind and another in downwind directions have been installed. The air quality data is being digitally displayed in front of main gate for the public view as attached.		Date: 23/10/2025
14	AIR QUALITY MONITORING AND PRESERVATION	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metaled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment's /machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF CC/ Central Pollution Control Board.
PPs Submission: Complied Water sprinkling on haulage roads by truck tankers is done on a regular basis for dust suppression. Dust suppression systems have been installed at all source emission points. One no. of truck mounted mist cannon has been deployed at haulage roads for dust suppression.		Date: 23/10/2025
15	WATER QUALITY MONITORING AND PRESERVATION	In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF & CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
PPs Submission: Complied Permission for ground water withdrawal has been obtained vide NOC No: - CGWA/NOC/MIN/REN/2/2025/11501 dated 24.04.2025 and is valid till 30.10.2026.		Date: 23/10/2025
16	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records 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 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. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
PPs Submission: Complied Regular monitoring of the nearby surface water bodies as well as the water table is done in and around the mines lease area by 3rd party NABL accredited laboratory. The report of ground water quality and level is submitted to MoEF and CC, CGWA and SPCB on regular basis.		Date: 23/10/2025
17	WATER QUALITY MONITORING AND PRESERVATION	Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The

		Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

PPs Submission: Complied The ground water level and quality in and around the mines lease area are being monitored and analyzed by 3rd party NABL accredited lab. The reports are being submitted periodically to the statutory bodies.	Date: 23/10/2025

18	WATER QUALITY MONITORING AND PRESERVATION	The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF & CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

PPs Submission: Complied Regular monitoring of surface water bodies such as nallahs, springs etc. in and around the mines lease area is being done and records maintained. The water quality monitoring and analysis is being done by 3rd party NABL accredited lab and reports are sent to statutory bodies regularly.	Date: 23/10/2025

19	WATER QUALITY MONITORING AND PRESERVATION	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS).The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard

PPs Submission: Complied All monitoring and analysis data generated by 3rd party NABL accredited lab is being submitted to State Pollution Control Board on regular basis and displayed near main gate. The monitoring results for the period April 2025 to September 2025 is attached.	Date: 23/10/2025

20	WATER QUALITY MONITORING AND PRESERVATION	Project Proponent shall plan, develop and implement rainwater harvesting Measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF & CC annually.

PPs Submission: Complied The ponds in the nearby villages are desilted before monsoon to harvest maximum rain water. Additionally, roof top rainwater harvesting system with ground recharge system has been installed near Mines office premises.		Date: 23/10/2025
21	WATER QUALITY MONITORING AND PRESERVATION	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
PPs Submission: Complied Effluent Treatment Plant has been installed and treated water quality is being analyzed through 3rd party NABL accredited lab. The results obtained conform to OSPCB prescribed standards. Oil and Grease trap has been installed in the ETP to remove oil and grease.		Date: 23/10/2025
22	WATER QUALITY MONITORING AND PRESERVATION	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF &CC and State Pollution Control Board/Committee.
PPs Submission: Complied ETP and STP has been installed for recycling and reuse of treated water and efforts are being taken to reduce the fresh water consumption.		Date: 23/10/2025
23	Noise Monitoring & Prevention	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
PPs Submission: Complied Peak particle velocity is being monitored periodically within the nearest habitation as per DGMS guidelines.		Date: 23/10/2025
24	Noise Monitoring & Prevention	The illumination and sound at night at project sites 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 levels at night. PPs 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 /night hours.
PPs Submission: Complied The orientation of floodlights is maintained away from the villagers to avoid disturbance and noise levels are continuously monitored to maintain the same within the prescribed norms.		Date: 23/10/2025
25	Noise Monitoring & Prevention	The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. All personnel including laborers working in dusty areas shall be provide with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.
PPs Submission: Complied All necessary precautionary measures such as controlled blasting have been taken to control the		Date: 23/10/2025

noise levels as per stipulated standard. Workers engaged in high noise operation areas such as crushers have been provided with proper PPEs such as ear plugs/muffs. All personnel have been provided with adequate training, awareness and information on safety and health aspects.		
26	MINING PLAN	The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. Quantum of mineral, waste, over burden, inter burden and top soil etc. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
PPs Submission: Complied All the working parameters are as per the approved mining plan. No such change in basic mining proposal is envisaged. In case of any change, the same shall be intimated to the concerned authority in due course of time.		Date: 27/10/2025
27	MINING PLAN	The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
PPs Submission: Complied Noted and will be complied with in due course of time.		Date: 23/10/2025
28	MINING PLAN	The land-use of the mine lease area at various stages of mining scheme As well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.
PPs Submission: Complied The land use at various stages of mining is as per the approved mining plan. The compliance status of the same is submitted periodically to the statutory body. The present land-use is attached.		Date: 23/10/2025
29	LAND RECLAMATION	The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
PPs Submission: Complied		Date:

The Overburden (O.B.) generated during the mining operations is being stacked at earmarked OB dump site as per approved mining plan. All safety aspects w.r.t slope stability is being adhered to and the top soil is used for land reclamation and plantation purposes.		23/10/2025
30	LAND RECLAMATION	The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
PPs Submission: Complied The rejects/wastes generated during mining operations are stacked at waste dump site as per approved mining plan where in the physical parameters such as height, width and angle of slope are maintained as stipulated in approved mining plan.		Date: 23/10/2025
31	LAND RECLAMATION	The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan,
PPs Submission: Complied The reclamation of waste dump sites will be done as per the approved Mining Plan cum Progressive Mine Closure Plan.		Date: 23/10/2025
32	LAND RECLAMATION	The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
PPs Submission: Complied The waste dumps are currently in active state and will be stabilized with vegetation on the slopes thereby preventing erosion and slope stability will be maintained accordingly.		Date: 23/10/2025
33	LAND RECLAMATION	The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
PPs Submission: Complied The last slope stability study was conducted in Feb 2024 by IIT Bhubaneswar, and the report has been submitted to the concerned regional office of MoEF CC.		Date: 23/10/2025
34	LAND RECLAMATION	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
PPs Submission: Complied Garland drains, settling tanks and siltation ponds have been constructed around the working mines.		Date: 23/10/2025

The collected water is utilized for dust suppression, green cover development.		
35	LAND RECLAMATION	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
PPs Submission: Complied Check dams, garland drain and retaining wall have been constructed around mine pit and OB dumps.		Date: 23/10/2025
36	LAND RECLAMATION	The top soil, if any, shall temporarily be stored at earmarked site(s) with in the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.
PPs Submission: Complied Top soil removed is being utilized for plantation and green belt development.		Date: 23/10/2025
37	Human Health Environment	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
PPs Submission: Complied Transportation of limestone from mines to plant is done through fully covered cross country belt conveyor system (CCBC). Only PUC certified vehicles are allowed to operate within the mining lease hold area.		Date: 23/10/2025
38	Human Health Environment	The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipment’s like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust

		while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.
PPs Submission: Complied Water sprinkling by truck mounted tankers is being done regularly on haulage roads. Dust suppression systems such as dry fog system is in place at receiving hopper, transfer towers etc. Bag filters have been installed at crusher houses. One truck mounted mist cannon has been deployed at haulage roads for dust suppression.		Date: 23/10/2025
39	GREENBELT	The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
PPs Submission: Being Complied Green cover development is under progress in the active mining area and plantation is done around the colony. Around 8222 saplings have been planted this year.		Date: 23/10/2025
40	GREENBELT	The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
PPs Submission: Being Complied Around 8222 saplings have been planted in this year with an average survival rate of 70 percent. Efforts are being taken to increase the survival rate to more than 90 percent. Afforestation is being carried out with the local species.		Date: 23/10/2025
41	GREENBELT	The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
PPs Submission: Complied Noted and will be taken care in due course of time.		Date: 23/10/2025
42	GREENBELT	The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.

PPs Submission: Being Complied Site specific wildlife conservation plan has been approved by chief conservator of forest (WL), Odisha having letter No -4313/CWLW-FDWC-FD-0040-2022, Dated 03rd March 2023 and fund has been deposited as per demand raised by the State Forest Department on 21.03.2024. Deposited challan attached.		Date: 24/10/2025
43	GREENBELT	And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.
PPs Submission: Being Complied The approved wildlife conservation plan is under implementation in consultation with State Forest and wildlife department.		Date: 23/10/2025
44	Human Health Environment	The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to biomass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
PPs Submission: Complied Health Risk assessment has been done and necessary control measures are being taken to protect the health and well being of workers and nearby community from time to time.		Date: 23/10/2025
45	Human Health Environment	The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).
PPs Submission: Complied Occupational health surveillance is carried out periodically.		Date: 23/10/2025

46	Human Health Environment	The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 - 24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.
PPs Submission: Complied Records of health performance Indicators w.r.t workers engaged in the mining activities are maintained. A health dispensary is in place and operation for immediate attention w.r.t health of mines worker and local community with ambulances provided round the clock for any emergency.		Date: 27/10/2025
47	Human Health Environment	The Project Proponent shall ensure that 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.
PPs Submission: Complied PPEs are provided to the workers and have been made mandatory with necessary training on safety, health and environment aspects.		Date: 23/10/2025
48	Human Health Environment	Project Proponent shall make provision for the housing for workers/labours or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
PPs Submission: Complied All necessary and basic amenities were provided for mine workers at site.		Date: 23/10/2025
49	Human Health Environment	The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.
PPs Submission: Being Complied Action Plan addressing the issues raised during the public hearing is under implementation as per budgetary provision.		Date: 23/10/2025
50	Corporate Environmental Responsibility	The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's 0.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be

		implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude &longitude of infrastructure developed & road constructed needs to be submitted to Regional Office, MoEF&CC annually along with audited statement

PPs Submission: Complied The budget earmarked for Corporate Environmental Responsibility has been kept aside and is utilized for the said purpose only.	Date: 23/10/2025

51	Corporate Environmental Responsibility	Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such fund should be reported to the MoEF&CC and its concerned Regional Office.

PPs Submission: Complied Funds earmarked for environmental protection measures are used only for environmental aspects and has not been diverted for any other purpose.	Date: 27/10/2025

52	MISCELLANEOUS	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.

PPs Submission: Complied Noted and will be complied in due course of time.	Date: 23/10/2025

53	MISCELLANEOUS	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

PPs Submission: Complied Six monthly compliance reports are being submitted periodically to the statutory bodies. The last six- monthly report was submitted online on 28.04.2025.	Date: 27/10/2025

54	MISCELLANEOUS	A separate Environmental Management Cell with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.

PPs Submission: Complied An Environment Management Cell is in place with designated HSE officer who directly reports to Mines Head and functionally to Head-Environment. Third Party NABL accredited lab has been engaged to carry out all environmental monitoring activities.	Date: 23/10/2025

55	MISCELLANEOUS	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.

PPs Submission: Complied Noted and full cooperation will be extended to the concerned authority.	Date: 27/10/2025

56	MISCELLANEOUS	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of

		monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
PPs Submission: Complied Digital Map of the entire lease area (LULC Map) was last prepared and updated in March 2024 and the same has been submitted to regional office of MOEF and CC on 23rd May 2024 vide Letter No.DCBL/LM/39.		Date: 23/10/2025
57	Human Health Environment	The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF & CC Regional Office and DGMS on half-yearly basis.
PPs Submission: Complied Periodical medical examination of workers engaged in mining activities is being done as per DGMS guidelines, records being maintained and submitted to the statutory bodies. An OHS specialist has been deputed in mines dispensary.		Date: 23/10/2025
58	Statutory compliance	This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC under the provision of Forest Conservation Act, 1980, if applicable to the Project.
PPs Submission: Complied Forest Clearance for diversion of 62.56 Ha forest land for mining has been obtained vide File No. 8-56/1994-FC (pt) dated 30.09.2013.		Date: 28/10/2025
59	Statutory compliance	Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
PPs Submission: Complied CTO has been granted and valid till 31.03.2030 and conditions as stipulated in CTO have been complied with. The mining activity has commenced post obtaining Consent to Establish (CTE) and Consent to Operate (CTO) from Odisha State Pollution Control Board.		Date: 23/10/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	The detailed environment monitoring report of Lanjiberna Mines for the period April 2025 to September 2025 is attached as additional attachment.

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

Rainwater Harvesting Pit-1

Rainwater Harvesting Pit-2

Digital Display Board

Truck Mounted Mist Cannon & Truck Tankers for Dust Suppression on Road.

STP of Capacity 75 KLD

ETP of Capacity 25 KLD

Chapter 7: Financial Assurance/ Performance Surety (AREA PUT TO USE)

2025-2026

Consolidated View of Financial Assurance

Sl.No	Particular	Area put to use at Start of Year (ha) (A)	Additional Requirement (ha) (B)	Total (ha) (C = A + B)
1	Area under Mining	159.21	8.22	167.43
2	Topsoil stacking	0.00	0.00	0.00
3	Overburden/Waste Dumping	47.36	0.00	47.36
4	Mineral Storage	1.43	0.00	1.43
5	Infrastructure (Workshop, Administrative Building etc.)	2.60	0.00	2.60
6	Roads	9.14	0.00	9.14
7	Railway	0.00	0.00	0.00
8	Tailing Pond	0.00	0.00	0.00
9	Effluent Treatment Plant	0.00	0.00	0.00
10	Mineral Separation Plant	9.97	0.73	10.70
11	Township Area	0.00	0.00	0.00
12	Others to specify	2.72	0.91	3.63
	Total	232.43	9.86	242.29

Truck Mounted Mist Cannon

Dry Fog System

Fixed Type Mist Cannon

ENVIRONMENTAL MONITORING REPORT

BASED ON DATA GENERATED

FROM

APRIL 2025 – SEPTEMBER 2025

OF

LANJIBERNA LIMESTONE & DOLOMITE MINES (DCBL)

At/Po: LANJIBERNA – 770023, Dist: SUNDARGARH, ODISHA

Prepared By:

Cleenviron Private Limited

PLOT NO: 689/17, INDUSTRIAL ESTATE, KALUNGA – 770031, ROURKELA, ODISHA

Tele: 0661 – 2475746

Email:cleenviron@gmail.com

1. DATA ANALYSIS

1.1 Micro-meteorological Study:

1.1.1 Wind Speed & Wind Direction

During the entire period from 1st April to 30th September all total 4392 no. of data are recorded by the instrument and after interpretation of the collected data it was found that Calm condition prevailed over 5.19%, while considering the 24 hourly data. 0.73% calm condition prevailed from morning 6 hrs to 14hrs for the entire study period, 4.80% calm condition prevailed from 14hrs to 22hrs and 9.29% calm condition prevailed from 22hrs to 06hrs. The predominant wind directions were from N & NE with average wind speed 3.04 m/sec. The wind rose diagram for the entire study period are depicted on the **Figure No: 1.1, 1.2, 1.3 & 1.4.**

1.1.2 Temperature

The maximum & minimum temperature during the entire study period were divided in to two parts as the study period was covering summer as well as monsoon seasons. The Minimum temperature during the summer season was found to be 19.59°C and the Maximum temperature was found to be 43.45°C up to the end of 30th June.

The minimum and maximum temperature during the monsoon season i.e. from July to September was found to be 22.62°C and 34.62°C. **Table No 1.1** shows a summary of micro-meteorological data collected for the entire period.

1.1.3 Rainfall

The total rain fall from 1st April to 30th September was observed to be 1104.2 mm. during the study period. A month wise rainfall data recorded at the site is depicted in **Table No 1.1.**

Table No: 1

A SUMMARY OF THE MICRO-METEOROLOGICAL DATA

Project Site : Lanjiberna Limestone & Dolomite Mines
Location : Magazine Hill Top

Sl No	Parameters	From April – September 2025
1	Predominant Wind Direction	From N & NE
2	Calm Condition %	5.19
3	Average Wind Speed m/sec	3.04
4	Temperature °C	
	Summer Season	
	Minimum	19.59
	Maximum	43.45
	Monsoon Season	
	Minimum	22.62
	Maximum	34.62
5	**Rain Fall in mm**	
	April	19.6
	May	92.8
	June	244.4
	July	390.6
	August	145.2
	September	211.6
	Total	**1104.2**

Figure No: 1.1 **Wind Rose Diagram for 24 Hours**

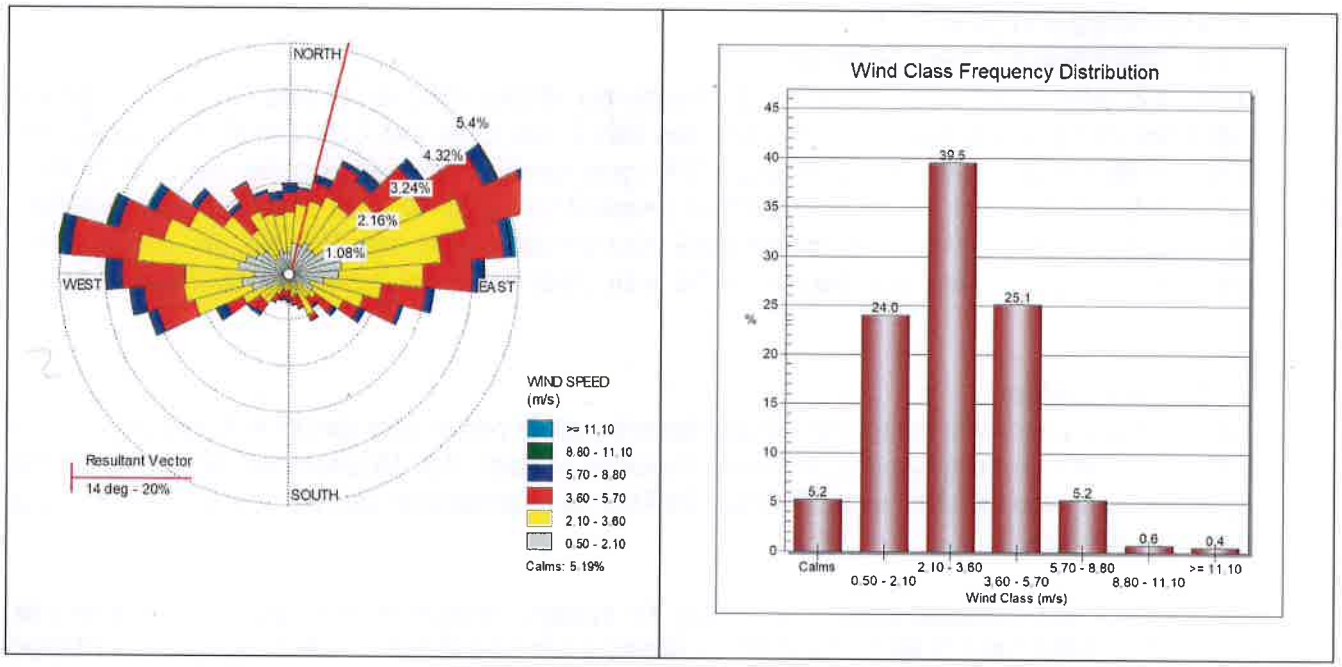

Figure No: 1.2 **Wind Rose Diagram from 06 – 14 Hours**

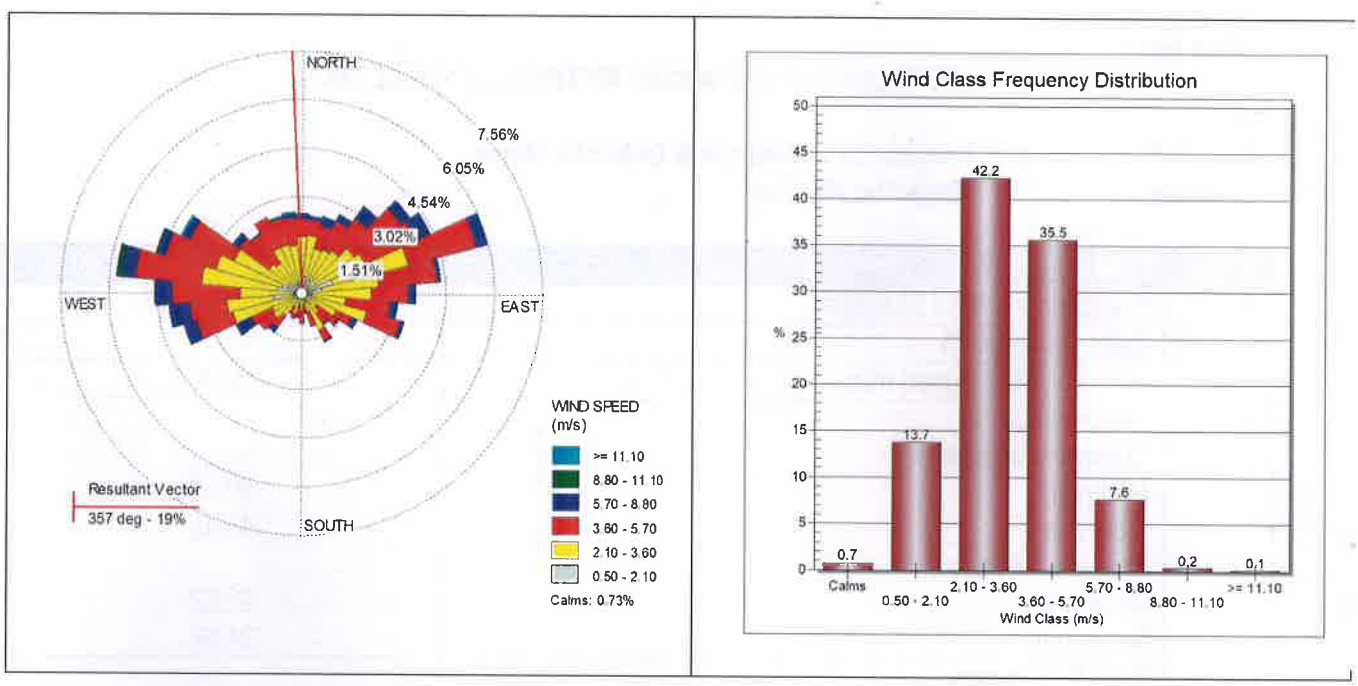

Figure No: 1.3 **Wind Rose Diagram from 14 – 22 Hours**

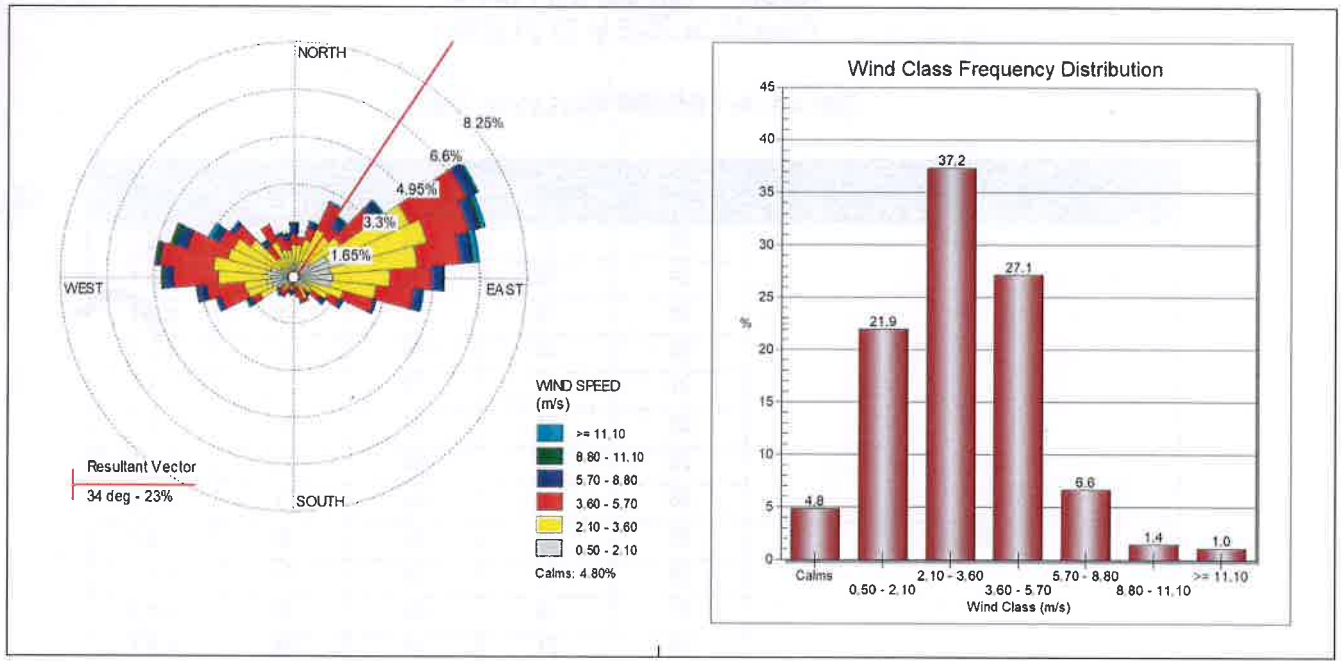

Figure No: 1.4 **Wind Rose Diagram from 22 – 06 Hours**

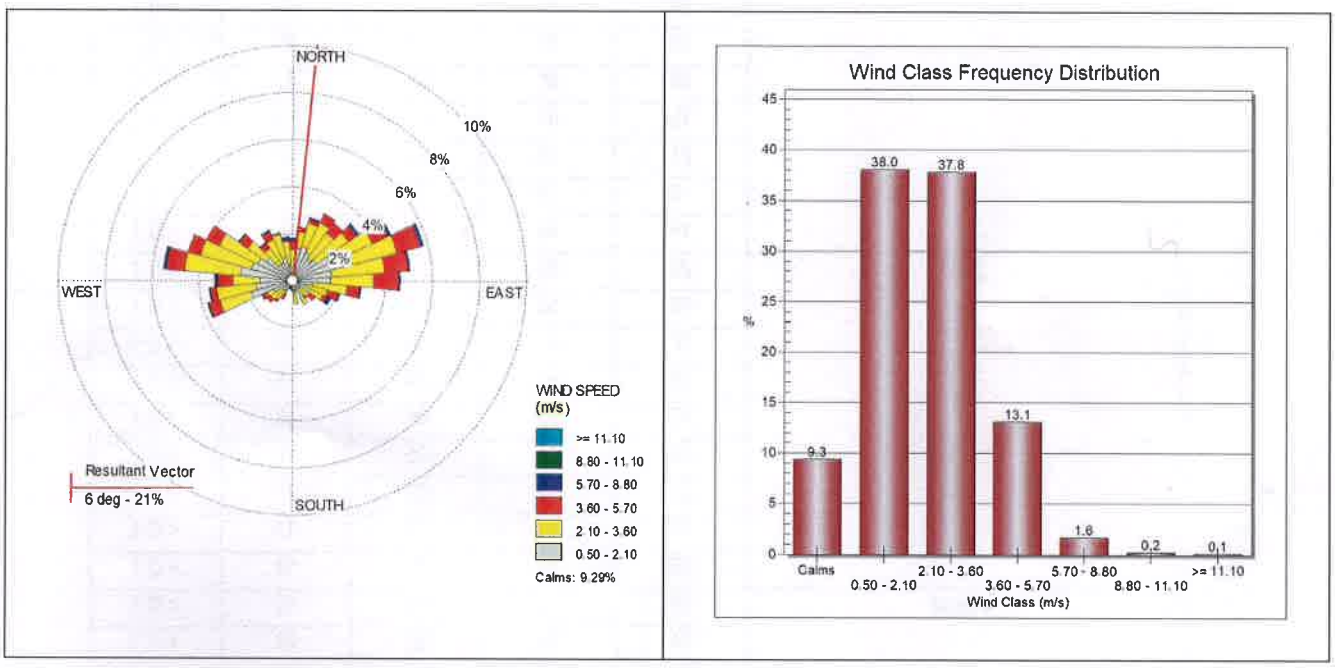

Table No: 2

AMBIENT AIR QUALITY DATA

From 01.04.2025 to 30.09.2025

Station: A-1 (HEMM Workshop Area)

Months	PM2.5 µg/m³	PM10 µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³
April	25	77	06	22	< 0.1
	24	74	07	21	< 0.1
	26	79	05	20	< 0.1
	28	80	06	19	< 0.1
	27	78	07	21	< 0.1
	27	81	07	24	< 0.1
	28	80	06	21	< 0.1
	26	77	06	22	< 0.1
May	25	76	05	20	< 0.1
	26	80	06	21	< 0.1
	27	78	05	19	< 0.1
	28	81	07	24	< 0.1
	26	79	06	22	< 0.1
	21	62	< 03	20	< 0.1
	23	75	03	15	< 0.1
	21	60	05	19	< 0.1
	21	62	03	17	< 0.1
Jun	23	69	05	25	< 0.1
	28	84	04	20	< 0.1
	26	81	03	18	< 0.1
	29	86	05	21	< 0.1
	19	61	03	15	< 0.1
	21	65	04	18	< 0.1
	18	55	03	16	< 0.1
	19	56	< 03	14	< 0.1
July	20	60	04	19	< 0.1
	16	53	< 3	13	< 0.1
	17	51	03	15	< 0.1
	18	49	04	18	< 0.1
	17	52	04	18	< 0.1
	19	55	05	19	< 0.1
	21	59	04	20	< 0.1
	15	48	03	15	< 0.1
	17	51	03	16	< 0.1
August	19	56	04	19	< 0.1
	24	71	05	20	< 0.1
	17	52	03	14	< 0.1
	27	80	05	21	< 0.1
	29	82	06	23	< 0.1
	21	62	04	18	< 0.1
	22	60	04	19	< 0.1
	20	58	03	17	< 0.1
September	19	53	03	16	< 0.1

Months	PM2.5 µg/m³	PM10 µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³
	17	51	04	16	< 0.1
	21	61	05	21	< 0.1
	20	58	04	19	< 0.1
	17	54	03	17	< 0.1
	22	59	05	20	< 0.1
	18	50	04	18	< 0.1
	23	60	04	19	< 0.1
	21	54	03	16	< 0.1

Table No: 3

AMBIENT AIR QUALITY DATA

From 01.04.2025 to 30.09.2025

Station: A-2 (Magazine Hill Top Area)

Months	PM2.5 µg/m³	PM10 µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³
April	17	52	03	15	< 0.1
	18	50	04	16	< 0.1
	18	56	05	18	< 0.1
	19	55	04	17	< 0.1
	16	48	03	16	< 0.1
	17	50	04	17	< 0.1
	17	49	05	17	< 0.1
	16	50	04	15	< 0.1
May	16	48	03	16	< 0.1
	17	50	04	18	< 0.1
	15	45	03	15	< 0.1
	18	54	05	19	< 0.1
	16	52	04	17	< 0.1
	14	43	05	20	< 0.1
	14	43	< 03	14	< 0.1
	17	51	04	16	< 0.1
	16	48	03	22	< 0.1
June	16	48	03	15	< 0.1
	14	36	< 03	12	< 0.1
	15	46	< 03	14	< 0.1
	15	45	03	15	< 0.1
	13	43	< 03	13	< 0.1
	16	44	03	17	< 0.1
	17	47	< 03	12	< 0.1
	18	49	03	15	< 0.1
July	14	42	< 3	11	< 0.1
	15	44	03	14	< 0.1
	13	41	03	15	< 0.1
	13	41	< 3	13	< 0.1
	15	49	< 3	16	< 0.1
	16	45	< 3	13	< 0.1

Months	PM2.5 µg/m³	PM10 µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³
	14	43	03	12	< 0.1
	18	50	03	14	< 0.1
	16	42	< 3	14	< 0.1
Aug	14	42	03	13	< 0.1
	15	46	03	14	< 0.1
	13	41	< 3	12	< 0.1
	16	48	04	18	< 0.1
	17	49	04	19	< 0.1
	18	43	< 3	13	< 0.1
	16	45	03	14	< 0.1
	19	50	04	17	< 0.1
September	15	43	03	14	< 0.1
	16	45	< 3	13	< 0.1
	17	47	04	17	< 0.1
	14	42	< 3	12	< 0.1
	14	44	< 3	11	< 0.1
	18	49	03	16	< 0.1
	16	42	< 3	14	< 0.1
	13	41	03	13	< 0.1
	15	46	03	15	< 0.1

Table No: 4

AMBIENT AIR QUALITY DATA
From 01.04.2025 to 30.09.2025

Station: A-3 (Near Old Brick Plant Colony Area)

Months	PM2.5 µg/m³	PM10 µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³
April	24	71	07	21	< 0.1
	21	60	05	18	< 0.1
	26	74	04	17	< 0.1
	23	66	06	20	< 0.1
	22	63	06	19	< 0.1
	20	60	05	19	< 0.1
	26	80	06	21	< 0.1
	28	79	08	22	< 0.1
May	24	73	03	16	< 0.1
	21	60	04	18	< 0.1
	23	68	05	19	< 0.1
	24	69	05	19	< 0.1
	22	63	04	20	< 0.1
	22	65	03	17	< 0.1
	20	60	04	18	< 0.1
	28	80	07	23	< 0.1
	27	78	06	26	< 0.1
June	21	61	03	15	< 0.1
	23	71	04	19	< 0.1

Months	PM2.5 µg/m³	PM10 µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³
	18	55	< 03	15	< 0.1
	16	47	03	17	< 0.1
	19	58	03	18	< 0.1
	20	60	< 03	16	< 0.1
	22	63	05	20	< 0.1
	17	52	03	16	< 0.1
July	15	47	< 3	12	< 0.1
	18	49	< 3	14	< 0.1
	16	53	04	17	< 0.1
	19	55	04	18	< 0.1
	15	46	03	15	< 0.1
	18	50	04	16	< 0.1
	16	47	< 3	14	< 0.1
	21	58	03	13	< 0.1
	17	54	< 3	14	< 0.1
August	19	56	04	19	< 0.1
	20	58	04	20	< 0.1
	17	51	03	14	< 0.1
	21	53	03	17	< 0.1
	18	55	< 3	45	< 0.1
	22	57	04	19	< 0.1
	23	60	05	21	< 0.1
	17	54	04	18	< 0.1
September	19	51	04	18	< 0.1
	18	54	05	19	< 0.1
	22	58	05	20	< 0.1
	20	55	03	16	< 0.1
	21	59	04	21	< 0.1
	23	57	03	17	< 0.1
	20	56	03	15	< 0.1
	22	60	05	22	< 0.1
	24	59	04	18	< 0.1

Table No: 5

AMBIENT AIR QUALITY DATA
From 01.04.2025 to 30.09.2025

Station: A-4 (Village Bihabandh)

Months	PM2.5 µg/m³	PM10 µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³
April	21	64	05	19	< 0.1
	17	48	04	16	< 0.1
	19	54	05	18	< 0.1
	21	58	05	20	< 0.1
	21	62	04	21	< 0.1
	17	51	04	18	< 0.1
	18	49	05	18	< 0.1

Months	PM2.5 µg/m³	PM10 µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³
	16	45	05	20	< 0.1
May	16	45	< 03	15	< 0.1
	17	45	03	16	< 0.1
	18	53	04	18	< 0.1
	19	60	05	19	< 0.1
	17	46	04	17	< 0.1
	13	40	< 03	12	< 0.1
	15	41	< 03	20	< 0.1
	15	44	04	17	< 0.1
	12	37	03	14	< 0.1
June	16	52	03	17	< 0.1
	19	62	04	15	< 0.1
	17	59	03	17	< 0.1
	18	57	< 03	14	< 0.1
	21	60	04	19	< 0.1
	20	55	03	16	< 0.1
	20	64	03	16	< 0.1
	21	60	< 03	13	< 0.1
July	18	56	04	17	< 0.1
	14	39	< 3	11	< 0.1
	15	48	03	15	< 0.1
	17	53	< 3	12	< 0.1
	15	41	03	14	< 0.1
	16	47	03	16	< 0.1
	19	50	04	18	< 0.1
	17	48	03	15	< 0.1
	13	42	< 3	12	< 0.1
August	16	48	04	19	< 0.1
	13	43	< 3	12	< 0.1
	17	50	03	15	< 0.1
	15	45	< 3	13	< 0.1
	18	50	03	14	< 0.1
	14	41	< 3	11	< 0.1
	20	51	04	18	< 0.1
	21	56	05	20	< 0.1
September	14	41	03	14	< 0.1
	15	54	04	18	< 0.1
	18	50	04	19	< 0.1
	16	48	03	17	< 0.1
	17	51	05	20	< 0.1
	16	49	< 3	13	< 0.1
	19	47	03	14	< 0.1
	18	45	< 3	12	< 0.1
	14	46	03	16	< 0.1

Table No: 6

STACK EMISSION MONITORING DATA

Location	Month	Particulate Matter Concentration in mg/Nm^3
Crusher plant – 2	Apr	53
	May	94
	Jun	62
	July	58
	Aug	58
	Sept	48
Crusher plant – 4	Apr	35
	May	42
	Jun	36
	July	26
	Aug	21
	Sept	21

Table No: 7

QUARRY DISCHARGE WATER QUALITY DATA (PIT -1)

Sl No	Parameters	Results Obtained						Unit	General Standards As per Schedule - VI of EPA, G.S.R.422(E), 1993
		Apr	May	Jun	July	Aug	Sept		
1.	Total Suspended Solids	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	4.8	mg/l	200
2.	pH Value	7.78	7.79	7.82	7.06	7.34	7.88	-	5.5 – 9.0
3.	Oil & Grease	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	mg/l	10
4.	BOD (5 days at 20°C)	01	01	01	01	01	01	mg/l	100
5.	COD	< 4.0	4.20	< 4.0	< 4.0	< 4.0	< 4.0	mg/l	-

Table No: 8

QUARRY DISCHARGE WATER QUALITY DATA (PIT – 2)

Sl No	Parameters	Results Obtained						Unit	General Standards As per Schedule - VI of EPA, G.S.R.422(E), 1993
		Apr	May	Jun	July	Aug	Sept		
1.	Total Suspended Solids	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	14.3	mg/l	200
2.	pH Value	7.84	7.99	7.70	7.61	6.63	7.91	-	5.5 – 9.0
3.	Oil & Grease	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	mg/l	10
4.	BOD (5 days at 20°C)	02	01	02	01	02	02	mg/l	100
5.	COD	< 4.0	< 4.0	5.80	< 4.0	5.48	5.90	mg/l	-

Table No: 9

GROUND WATER QUALITY RESULT FOR THE MONTH OF APRIL 2025

Sl No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Lanjiberna Colony Dug well	Village Kheramuta Tube Well	Village Katang Tube Well	Village Litibeda Tube Well	Village Bihabandh Tube Well		
1	Turbidity	1.0	0.3	0.8	2.6	0.9	NTU	5.0
2	pH Value	7.05	7.62	6.00	6.84	6.93	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	339.97	237.57	94.21	208.90	225.28	mg/l	600
4	Iron (as Fe)	0.14	0.24	0.26	0.27	0.24	mg/l	0.3
5	Chlorides (as Cl)	35.22	21.52	17.61	9.78	23.48	mg/l	1000
6	Total Dissolved Solids	422	296	118	242	306	mg/l	2000
7	Electrical Conductivity	704	478	194	390	463	µS/cm	-
8	Calcium (as Ca)	54.17	47.61	22.98	52.53	50.89	mg/l	200
9	Magnesium (as Mg)	49.77	28.86	8.96	18.91	23.89	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	65.47	26.25	4.74	< 0.50	3.99	mg/l	400
13	Total Nitrate (as NO_3)	4.54	7.80	< 2.20	2.38	44.13	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	228	168	76	184	168	mg/l	600
15	Acidity	10	04	24	12	12	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	10.62	12.18	4.01	0.98	3.14	mg/l	-
18	Potassium (as K)	4.02	1.39	0.76	0.42	2.98	mg/l	-
19	Fluoride (as F)	0.26	0.54	< 0.05	< 0.05	< 0.05	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	25.6	25.7	25.6	25.4	25.6	oC	-
32	Residual Free Chlorine	0.18	0.18	0.05	0.11	0.10	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 10

GROUND WATER QUALITY RESULT FOR THE MONTH OF MAY 2025

Sl No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Village Dhauradha Dug Well	Village Lanjiberna Dug Well	Village Jharbeda Dug Well	Village Gyanpali Dug Well	Village Kunumuru Dug Well		
1	Turbidity	0.2	0.1	0.1	0.2	0.2	NTU	5.0
2	pH Value	8.11	7.61	7.36	7.00	7.40	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	304.8	316.99	150.37	40.64	134.11	mg/l	600
4	Iron (as Fe)	0.89	1.45	0.81	0.10	0.69	mg/l	0.3
5	Chlorides (as Cl)	26.42	24.46	17.61	7.83	25.44	mg/l	1000
6	Total Dissolved Solids	452	440	230	62	300	mg/l	2000
7	Electrical Conductivity	695	734	386	100	521	µS/cm	-
8	Calcium (as Ca)	48.86	48.86	43.98	14.66	34.20	mg/l	200
9	Magnesium (as Mg)	44.45	47.40	9.87	1.00	12.09	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	111.48	14.02	14.37	3.97	39.58	mg/l	400
13	Total Nitrate (as NO_3)	< 2.20	< 2.20	< 2.20	3.59	5.96	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	148	244	120	24	144	mg/l	600
15	Acidity	< 2.0	02	02	06	08	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05

Sl No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Village Dhauradha Dug Well	Village Lanjiberna Dug Well	Village Jharbeda Dug Well	Village Gyanpali Dug Well	Village Kunumuru Dug Well		
17	Sodium (as Na)	20.29	18.45	14.11	3.46	11.12	mg/l	-
18	Potassium (as K)	4.73	12.26	3.29	0.89	6.02	mg/l	-
19	Fluoride (as F)	< 0.05	< 0.05	< 0.05	0.32	0.80	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	26.2	26.3	26.2	26.4	26.6	°C	-
32	Residual Free Chlorine	0.14	0.20	0.18	0.11	0.16	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 11

GROUND WATER QUALITY RESULT FOR THE MONTH OF JUNE 2025

Sl No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		DugWell Village Lanjiberna	Village Katang Tube Well	Village Laxmiposh Dug Well	TubeWell Village Badagudiali	TubeWell Village Gariamunda		
1	Turbidity	0.10	0.10	0.10	0.70	0.10	NTU	5.0
2	pH Value	6.76	7.12	7.04	6.35	6.79	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	327.89	344.08	198.35	206.45	214.54	mg/l	600
4	Iron (as Fe)	0.02	0.20	0.17	0.26	0.26	mg/l	0.3
5	Chlorides (as Cl)	33.75	9.64	3.86	29.89	40.50	mg/l	1000
6	Total Dissolved Solids	416	378	226	280	470	mg/l	2000
7	Electrical Conductivity	694	631	379	469	704	µS/cm	-
8	Calcium (as Ca)	82.74	71.39	43.81	43.81	58.41	mg/l	200
9	Magnesium (as Mg)	29.51	40.33	21.64	23.61	16.72	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	52.7	7.42	1.55	25.98	19.02	mg/l	400
13	Total Nitrate (as NO_3)	< 2.20	11.63	12.20	< 2.20	2.24	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	196	252	160	148	288	mg/l	600
15	Acidity	12	08	06	10	06	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	18.19	5.26	4.96	21.25	74.0	mg/l	-
18	Potassium (as K)	2.26	1.44	2.22	1.92	4.48	mg/l	-
19	Fluoride (as F)	0.97	1.58	0.97	0.33	1.57	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	25.5	25.5	25.6	25.8	25.7	°C	-
32	Residual Free Chlorine	0.24	0.16	0.10	0.17	0.11	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 12

GROUND WATER QUALITY RESULT FOR THE MONTH OF JULY 2025

Sl No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Dhauradha	Dug Well Village Lanjiberna	Village Garvana Tube Well	Tube Well Village Kukudamunda	Tube Well Village Rajgangpur		
1	Turbidity	0.20	0.10	0.30	0.10	0.10	NTU	5.0
2	pH Value	6.91	7.29	6.15	6.85	6.96	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	327.89	299.55	133.58	234.78	198.35	mg/l	600
4	Iron (as Fe)	1.26	0.07	0.36	0.10	0.11	mg/l	0.3
5	Chlorides (as Cl)	9.64	17.36	22.18	14.46	13.50	mg/l	1000
6	Total Dissolved Solids	330	367	188	254	244	mg/l	2000
7	Electrical Conductivity	571	592	336	450	419	µS/cm	-
8	Calcium (as Ca)	73.01	58.41	32.49	53.54	51.92	mg/l	200
9	Magnesium (as Mg)	35.41	37.38	12.79	24.59	16.72	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	11.43	38.90	19.58	3.63	2.52	mg/l	400
13	Total Nitrate (as NO_3)	9.57	< 2.20	2.41	13.26	4.78	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	228	216	68	164	156	mg/l	600
15	Acidity	08	08	14	06	12	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	4.88	18.12	15.05	6.13	17.74	mg/l	-
18	Potassium (as K)	2.17	1.78	9.99	3.56	3.06	mg/l	-
19	Fluoride (as F)	1.46	1.08	0.82	1.22	0.89	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	25.7	25.8	25.9	25.1	25.1	°C	-
32	Residual Free Chlorine	0.11	0.13	0.09	0.10	0.08	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 13

GROUND WATER QUALITY RESULT FOR THE MONTH OF AUGUST 2025

Sl No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Kheramuta	Dug Well Lanjiberna Colony	Village Kutra Tube Well	Dug Well Village Khatkurbhal	Tube Well Village Jauramunda		
1	Turbidity	0.10	0.10	0.10	0.10	0.10	NTU	5.0
2	pH Value	6.67	6.75	6.75	7.21	6.18	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	708.4	368.37	331.94	429.09	48.58	mg/l	600
4	Iron (as Fe)	1.50	0.05	0.58	0.09	5.76	mg/l	0.3
5	Chlorides (as Cl)	317.23	33.75	38.57	178.38	9.64	mg/l	1000
6	Total Dissolved Solids	1210	438	384	815	52	mg/l	2000
7	Electrical Conductivity	2160	730	693	1468	93.8	µS/cm	-
8	Calcium (as Ca)	225.52	90.86	87.61	77.88	12.98	mg/l	200
9	Magnesium (as Mg)	35.41	34.43	27.54	57.05	3.94	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	125.95	72.65	17.30	81.38	3.10	mg/l	400
13	Total Nitrate (as NO_3)	64.2	9.02	15.66	114.4	5.76	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	324	180	200	180	16	mg/l	600
15	Acidity	30	16	12	06	06	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05

Sl No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Kheramuta	Dug Well Lanjiberna Colony	Village Kutra Tube Well	Dug Well Village Khatkurbhal	Tube Well Village Jauramunda		
17	Sodium (as Na)	71.2	16.53	7.90	65.80	2.98	mg/l	-
18	Potassium (as K)	1.67	0.68	4.10	44.12	0.76	mg/l	-
19	Fluoride (as F)	< 0.05	< 0.05	0.11	0.15	< 0.05	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	26.7	25.8	26.2	26.5	26.5	°C	-
32	Residual Free Chlorine	0.11	0.13	0.10	0.14	0.12	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 14

GROUND WATER QUALITY RESULT FOR THE MONTH OF SEPTEMBER 2025

Sl No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Lanjiberna	Tube Well Village Kunumuru	Tube Well Village Gariamunda	Tube Well Village Badagudiali	Tube Well Village Katang		
1	Turbidity	0.10	0.20	0.10	0.20	0.10	NTU	5.0
2	pH Value	6.59	6.74	6.71	6.05	6.52	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	267.65	43.30	192.86	247.97	326.69	mg/l	600
4	Iron (as Fe)	0.24	5.71	0.43	2.05	0.88	mg/l	0.3
5	Chlorides (as Cl)	35.68	21.28	15.43	96.42	21.21	mg/l	1000
6	Total Dissolved Solids	422	106	432	638	430	mg/l	2000
7	Electrical Conductivity	704	174.9	718	1064	720	µS/cm	-
8	Calcium (as Ca)	83.61	7.89	55.21	58.37	82.03	mg/l	200
9	Magnesium (as Mg)	14.35	5.74	13.39	24.87	29.65	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	37.85	11.89	25.11	77.11	57.11	mg/l	400
13	Total Nitrate (as NO_3)	31.08	25.27	8.74	119.17	6.22	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	196	32	280	144	232	mg/l	600
15	Acidity	26	28	12	48	22	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	19.90	7.73	68.4	88.92	18.21	mg/l	-
18	Potassium (as K)	11.02	0.56	4.01	12.65	2.99	mg/l	-
19	Fluoride (as F)	0.26	< 0.05	1.12	0.07	0.27	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	26.9	26.9	26.7	26.9	26.8	°C	-
32	Residual Free Chlorine	0.16	0.11	0.13	0.11	0.13	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No:15

DRINKING WATER QUALITY RESULT FOR THE MONTH OF APRIL 2025

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Mines Canteen Drinking Water Point	Crusher – 4 Drinking Water Point	HEMM Workshop Drinking Water Point	Lanjiberna Colony Gate Drinking Water Point		
1	Turbidity	2.0	2.0	1.2	1.5	NTU	5.0
2	pH Value	7.72	7.86	7.84	7.10	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	253.95	233.47	229.38	299.0	mg/l	600
4	Iron (as Fe)	0.21	0.23	0.21	0.09	mg/l	0.3
5	Chlorides (as Cl)	13.70	14.68	14.68	26.42	mg/l	1000
6	Total Dissolved Solids	314	290	302	372	mg/l	2000
7	Electrical Conductivity	478	467	457	602	µS/cm	-
8	Calcium (as Ca)	41.04	52.53	52.53	52.53	mg/l	200
9	Magnesium (as Mg)	36.85	24.88	23.89	40.81	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	31.73	57.53	59.84	64.99	mg/l	400
13	Total Nitrate (as NO_3)	9.98	4.28	25.97	13.70	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	208	136	120	180	mg/l	600
15	Acidity	02	02	02	06	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	2.62	3.25	4.01	7.27	mg/l	-
18	Potassium (as K)	0.93	1.22	1.92	1.84	mg/l	-
19	Fluoride (as F)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	25.5	25.5	25.7	25.6	°C	-
32	Residual Free Chlorine	0.18	0.10	0.11	0.13	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 16

DRINKING WATER QUALITY RESULT FOR THE MONTH OF MAY 2025

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Crusher – 2 Drinking Water Point	Mines Office Main Gate Drinking Water Point	Mines Colony Drinking Water Point	Near Dispensary Drinking Water Point		
1	Turbidity	0.1	0.3	0.1	0.1	NTU	5.0
2	pH Value	7.78	8.03	7.28	7.68	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	230.74	230.74	340.03	231.65	mg/l	600
4	Iron (as Fe)	0.22	< 0.01	< 0.01	< 0.01	mg/l	0.3
5	Chlorides (as Cl)	13.70	12.72	36.20	13.70	mg/l	1000
6	Total Dissolved Solids	308	290	390	286	mg/l	2000
7	Electrical Conductivity	513	484	649	497	µS/cm	-
8	Calcium (as Ca)	47.05	45.43	73.01	48.86	mg/l	200
9	Magnesium (as Mg)	27.54	28.53	38.36	26.66	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	53.72	25.31	62.16	45.78	mg/l	400
13	Total Nitrate (as NO_3)	13.70	9.39	4.41	11.05	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	120	148	146	112	mg/l	600
15	Acidity	04	04	18	04	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	3.25	7.12	13.48	5.48	mg/l	-

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Crusher – 2 Drinking Water Point	Mines Office Main Gate Drinking Water Point	Mines Colony Drinking Water Point	Near Dispensary Drinking Water Point		
18	Potassium (as K)	2.41	3.74	5.10	3.16	mg/l	-
19	Fluoride (as F)	0.42	< 0.05	< 0.50	< 0.05	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	0.1	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	26.0	25.9	25.1	26.6	°C	-
32	Residual Free Chlorine	0.12	0.14	0.11	0.19	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 17

DRINKING WATER QUALITY RESULT FOR THE MONTH OF JUNE 2025

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Near Crusher – 4 Drinking Water Point	HEMM Workshop Drinking Water Point	General Store Drinking Water Point	Mines Canteen Drinking Water Point		
1	Turbidity	0.10	0.10	0.10	0.10	NTU	5.0
2	pH Value	7.01	7.51	7.75	7.80	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	242.88	246.93	230.74	255.02	mg/l	600
4	Iron (as Fe)	0.07	0.29	0.28	0.27	mg/l	0.3
5	Chlorides (as Cl)	12.54	11.57	12.54	9.64	mg/l	1000
6	Total Dissolved Solids	314	304	276	284	mg/l	2000
7	Electrical Conductivity	525	510	458	471	µS/cm	-
8	Calcium (as Ca)	55.16	58.41	48.67	48.67	mg/l	200
9	Magnesium (as Mg)	25.58	24.59	26.56	32.46	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	57.6	52.55	33.4	33.45	mg/l	400
13	Total Nitrate (as NO_3)	16.85	34.34	12.22	11.22	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	140	100	144	152	mg/l	600
15	Acidity	02	06	04	04	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	8.06	8.67	6.84	6.59	mg/l	-
18	Potassium (as K)	2.19	2.15	2.14	2.19	mg/l	-
19	Fluoride (as F)	0.57	0.24	0.61	0.07	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	0.1	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	25.1	25.3	25.3	25.1	°C	-
32	Residual Free Chlorine	0.12	0.11	0.16	0.13	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 18

DRINKING WATER QUALITY RESULT FOR THE MONTH OF JULY 2025

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Near Crusher – 4 Drinking Water Point	HEMM Workshop Drinking Water Point	General Store Drinking Water Point	Mines Canteen Drinking Water Point		
1	Turbidity	0.10	0.20	0.10	0.20	NTU	5.0
2	pH Value	6.99	6.79	7.44	7.75	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	348.13	348.13	206.45	242.88	mg/l	600
4	Iron (as Fe)	< 0.01	0.26	0.28	< 0.01	mg/l	0.3
5	Chlorides (as Cl)	55.93	28.93	7.71	9.64	mg/l	1000
6	Total Dissolved Solids	380	380	250	290	mg/l	2000
7	Electrical Conductivity	664	679	437	470	µS/cm	-
8	Calcium (as Ca)	68.14	63.27	50.30	55.16	mg/l	200
9	Magnesium (as Mg)	43.28	46.23	19.67	25.58	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	61.52	66.28	63.91	63.24	mg/l	400
13	Total Nitrate (as NO_3)	11.12	9.84	10.66	13.55	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	196	192	88	140	mg/l	600
15	Acidity	10	08	04	08	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	16.48	17.05	4.58	5.48	mg/l	-
18	Potassium (as K)	1.30	0.68	2.38	2.97	mg/l	-
19	Fluoride (as F)	1.16	1.05	1.26	1.41	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	0.1	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	25.3	25.3	25.3	25.2	°C	-
32	Residual Free Chlorine	0.78	0.62	0.54	0.84	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 19

DRINKING WATER QUALITY RESULT FOR THE MONTH OF AUGUST 2025

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		HEMM Workshop Drinking Water Point	Near Crusher – 2 Drinking Water Point	Near Dispensary Drinking Water Point	General Store Drinking Water Point		
1	Turbidity	0.10	0.10	0.10	0.10	NTU	5.0
2	pH Value	7.64	7.38	7.50	7.72	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	202.4	198.35	198.35	214.54	mg/l	600
4	Iron (as Fe)	0.03	0.09	0.14	0.13	mg/l	0.3
5	Chlorides (as Cl)	9.64	9.64	14.46	12.53	mg/l	1000
6	Total Dissolved Solids	228	230	232	254	mg/l	2000
7	Electrical Conductivity	379	384	387	421	µS/cm	-
8	Calcium (as Ca)	48.67	47.05	55.16	43.80	mg/l	200
9	Magnesium (as Mg)	19.67	19.67	14.75	25.57	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	48.54	48.10	47.33	58.38	mg/l	400
13	Total Nitrate (as NO_3)	15.24	14.56	11.44	11.22	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	84	88	88	96	mg/l	600

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		HEMM Workshop Drinking Water Point	Near Crusher – 2 Drinking Water Point	Near Dispensary Drinking Water Point	General Store Drinking Water Point		
15	Acidity	02	02	04	< 2.0	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	4.47	4.47	4.37	4.67	mg/l	-
18	Potassium (as K)	2.14	2.14	2.19	2.92	mg/l	-
19	Fluoride (as F)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	0.1	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	26.8	26.4	26.9	26.9	°C	-
32	Residual Free Chlorine	0.15	0.11	0.12	0.10	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 20

DRINKING WATER QUALITY RESULT FOR THE MONTH OF SEPTEMBER 2025

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Near Crusher – 4 Drinking Water Point	Near Colony Main Gate Drinking Water Point	Mines Colony Drinking Water Point	Near Canteen Drinking Water Point		
1	Turbidity	0.10	0.10	0.20	< 0.1	NTU	5.0
2	pH Value	7.62	6.99	6.54	7.76	-	6.5 – 8.5
3	Total Hardness (as $CaCO_3$)	196.8	330.62	350.30	240.09	mg/l	600
4	Iron (as Fe)	0.29	0.25	0.26	0.17	mg/l	0.3
5	Chlorides (as Cl)	8.68	26.99	28.93	12.53	mg/l	1000
6	Total Dissolved Solids	252	412	432	272	mg/l	2000
7	Electrical Conductivity	418	695	717	452	µS/cm	-
8	Calcium (as Ca)	36.28	56.79	77.40	35.75	mg/l	200
9	Magnesium (as Mg)	25.82	45.91	38.26	30.60	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO_4)	51.45	69.44	66.82	61.91	mg/l	400
13	Total Nitrate (as NO_3)	32.18	9.22	7.90	10.28	mg/l	45
14	Total Alkalinity (as $CaCO_3$)	88	196	204	116	mg/l	600
15	Acidity	< 2.0	06	12	02	mg/l	-
16	Sulphide (as H_2S)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	4.42	15.06	16.04	4.76	mg/l	-
18	Potassium (as K)	2.05	0.88	0.68	2.89	mg/l	-
19	Fluoride (as F)	0.46	< 0.05	0.14	0.35	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	0.1	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	26.8	26.8	26.8	26.2	°C	-
32	Residual Free Chlorine	0.10	0.12	0.11	0.13	mg/l	1.0 (min)

Sl No	Parameter	Results Obtained				Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Near Crusher – 4 Drinking Water Point	Near Colony Main Gate Drinking Water Point	Mines Colony Drinking Water Point	Near Canteen Drinking Water Point		
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No: 21

21.1 EFFLUENT WATER QUALITY RESULT OF HEMM WORKSHOP ETP OUTLET

Sl No	Parameters	Results Obtained of Outlet						Permissible Limit as per CTO Conditions	Unit
		APR	MAY	JUN	JUL	AUG	SEPT		
1	pH Value	8.07	7.66	7.98	7.19	8.43	7.49	6.5 – 8.5	-
2.	Total Suspended Solids	< 2.5	3.1	< 2.5	< 2.5	< 2.5	5.4	50	mg/l
3.	Oil & Grease	2.2	< 2.0	2.5	< 2.0	2.2	2.8	10	mg/l
4.	BOD 5days at 20°C	07	06	04	06	12	14	-	mg/l
5.	Chemical Oxygen Demand	18.37	16.54	11.66	17.23	32.36	39.41	150	mg/l

21.2 EFFLUENT WATER QUALITY RESULT OF STP OUTLET

Sl No	Parameters	Results Obtained of Outlet						Permissible Limit as per CTO Conditions	Unit
		APR	MAY	JUN	JUL	AUG	SEPT		
1	pH Value	7.47	7.56	7.49	7.31	7.39	7.36	6.5 – 9.0	-
2.	Total Suspended Solids	13.2	< 2.5	3.9	< 2.5	3.4	2.6	100	mg/l
3.	BOD 5days at 20°C	13	17	16	24	23	20	30	mg/l
4.	Chemical Oxygen Demand	31.46	48.70	52.35	69.50	79.19	58.73	-	mg/l

Table No: 22

SOIL QUALITY RESULT FOR THE MONTH OF APR 2025

Sl. No.	Parameter	Unit	Village Dhauradha Area	Dispensary Area	Colony Area	Store Area
1.	Colour	-	Greyish	Brownish	Brownish	Brownish
2.	Type of Soil	-	Small Grained Soil	Fine Grained Soil	Mixed Grained Soil	Granular Soil
3.	Texture	-	Silty	Sandy Loam	Silty Loam	Silty Loam
4.	Bulk Density	gm/cm^3	2.3	3.4	3.5	3.49
5.	pH (1:2 Suspension)	-	8.12	8.00	7.76	7.88
6.	Electrical Conductivity	µS/cm	260	340	530	372
7.	Available Phosphorous (as P_2O_5)	Kg/ha	< 5.0	< 5.0	< 5.0	< 5.0
8.	Available Potassium (as K_2O)	Kg/ha	141.84	218.88	314.88	195.36
9.	Organic Carbon	%	< 0.50	2.14	< 0.50	< 0.50
10.	Available Nitrogen (as N)	Kg/ha	150.53	163.07	250.88	225.79
11.	Iron	mg/kg	4.17	3.84	4.05	5.4
12.	Calcium	mg/kg	164	158	172	176
13.	Manganese	mg/kg	0.71	0.41	0.93	5.24
14.	Infiltration Rate	cm/hr	10.58	9.54	9.54	2.23
15.	Porosity	mg/m^3	0.62	0.58	0.34	0.28
16.	Moisture Content	%	21.3	23.2	24.6	18.6
17.	Chloride	mg/kg	0.18	0.19	0.16	0.11
18.	Sulphate	mg/kg	0.09	0.10	0.14	0.62

Table No: 23

SOIL QUALITY RESULT FOR THE MONTH OF MAY 2025

Sl. No.	Parameter	Unit	STP Area	ETP Area	Crusher – 2 Area	Village Kheramuta
1.	Colour	-	Brownish	Greyish	Brownish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Mixed Grained Soil	Granular Soil
3.	Texture	-	Silty	Sandy Loam	Silty Loam	Silty Loam
4.	Bulk Density	gm/cm^3	4.3	7.4	6.5	5.49
5.	pH (1:2 Suspension)	-	7.56	8.48	8.55	8.80
6.	Electrical Conductivity	µS/cm	489	583	260	283
7.	Available Phosphorous (as P_2O_5)	Kg/ha	6.08	10.08	< 5.0	< 5.0
8.	Available Potassium (as K_2O)	Kg/ha	336.12	362.88	139.8	277.68
9.	Organic Carbon	%	1.91	1.67	1.71	1.46
10.	Organic Matter	%	1.91	1.67	1.71	1.46
11.	Available Nitrogen (as N)	Kg/ha	275.97	125.44	112.89	112.89
12.	Iron	mg/kg	4.17	3.84	4.05	5.4
13.	Calcium	mg/kg	154	105	168	107
14.	Manganese	mg/kg	0.71	0.41	0.93	0.21
15.	Infiltration Rate	cm/hr	9.7	10.54	8.62	5.24
16.	Porosity	gm/cm^3	0.62	0.84	0.34	0.58
17.	Moisture Content	%	21.3	23.2	24.6	18.6
18.	Chloride	mg/kg	0.18	0.19	0.16	0.11
19.	Sulphate	mg/kg	0.19	0.07	0.14	0.13

Table No: 24

SOIL QUALITY RESULT FOR THE MONTH OF JUNE 2025

Sl. No.	Parameter	Unit	Village Katang Area	Magazine Hill Top Area	Village Bihabandh	Crusher – 4 Area
1.	Colour	-	Greyish	Brownish	Reddish	Brownish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Clay	Silty Clay	Clay Loam	Loamy
4.	Bulk Density	gm/cm^3	1.20	1.3	1.18	1.27
5.	pH (1:2 Suspension)	-	8.33	7.79	7.44	8.41
6.	Electrical Conductivity	µS/cm	280	343	377	297
7.	Available Phosphorous (as P_2O_5)	Kg/ha	< 5.0	7.94	< 5.0	< 5.0
8.	Available Potassium (as K_2O)	Kg/ha	154.2	165.12	201.84	145.92
9.	Organic Carbon	%	1.25	0.97	0.91	< 0.50
10.	Organic Matter	%	2.15	1.67	1.57	< 0.86
11.	Available Nitrogen (as N)	Kg/ha	137.98	150.53	150.53	112.90
12.	Iron	mg/kg	3.88	6.08	3.16	2.84
13.	Calcium	mg/kg	194	164	158	162
14.	Manganese	mg/kg	9.22	0.71	0.41	0.41
15.	Infiltration Rate	cm/hr	3.84	4.58	6.54	4.54
16.	Porosity	gm/cm^3	0.15	0.21	0.22	0.18
17.	Moisture Content	%	26.2	27.6	26.9	24.6
18.	Chloride	mg/kg	0.65	0.34	1.88	1.42
19.	Sulphate	mg/kg	0.9	0.67	0.25	0.29

Table No: 25

SOIL QUALITY RESULT FOR THE MONTH OF JULY 2025

Sl. No.	Parameter	Unit	Village Katang Area	Magazine Hill Top Area	Village Bihabandh	Crusher – 4 Area
1.	Colour	-	Greyish	Reddish	Greyish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Clay	Silty Clay	Clay Loam	Loamy
4.	Bulk Density	gm/cm^3	1.5	1.1	1.3	1.6
5.	pH (1:2 Suspension)	-	8.43	8.34	8.53	8.28
6.	Electrical Conductivity	µS/cm	260	216	197	284
7.	Available Phosphorous (as P_2O_5)	Kg/ha	10.56	12.16	< 5.0	< 5.0
8.	Available Potassium (as K_2O)	Kg/ha	295.8	181.2	56.16	128.26
9.	Organic Carbon	%	0.69	0.80	0.53	0.99
10.	Organic Matter	%	1.19	1.38	0.91	1.71
11.	Available Nitrogen (as N)	Kg/ha	275.97	238.34	250.88	150.53
12.	Iron	mg/kg	2.54	4.8	3.76	6.28
13.	Calcium	mg/kg	124.3	131.4	150.3	112.4
14.	Manganese	mg/kg	3.02	3.64	4.46	6.13
15.	Infiltration Rate	cm/hr	4.26	5.64	6.15	6.32
16.	Porosity	gm/cm^3	0.28	0.32	0.33	0.36
17.	Moisture Content	%	28.7	29.3	27.4	27.8
18.	Chloride	mg/kg	0.11	0.14	0.2	0.17
19.	Sulphate	mg/kg	0.19	0.07	0.08	0.13

Table No: 26

SOIL QUALITY RESULT FOR THE MONTH OF AUGUST 2025

Sl. No.	Parameter	Unit	Village Katang Area	Magazine Hill Top Area	Village Bihabandh	Crusher – 4 Area
1.	Colour	-	Yellowish	Brownish	Brownish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Silty	Silty Loam	Clay Loam	Silty Clay Loam
4.	Bulk Density	gm/cm^3	1.2	1.34	1.62	1.54
5.	pH (1:2 Suspension)	-	7.87	7.52	8.30	8.09
6.	Electrical Conductivity	µS/cm	165.7	169.6	203	303
7.	Available Phosphorous (as P_2O_5)	Kg/ha	< 5.0	< 5.0	< 5.0	8.86
8.	Available Potassium (as K_2O)	Kg/ha	47.04	159.48	161.52	266.88
9.	Organic Carbon	%	< 0.5	< 0.5	< 0.5	1.75
10.	Organic Matter	%	< 0.86	< 0.86	< 0.86	3.02
11.	Available Nitrogen (as N)	Kg/ha	87.81	112.90	100.35	125.44
12.	Iron	mg/kg	3.27	3.56	2.94	3.26
13.	Calcium	mg/kg	162	154	184	194
14.	Manganese	mg/kg	9.22	7.42	8.52	6.84
15.	Infiltration Rate	cm/hr	3.66	3.53	3.84	4.22
16.	Porosity	gm/cm^3	0.19	0.22	0.25	0.28
17.	Moisture Content	%	25.34	25.8	26.31	24.86
18.	Chloride	mg/kg	0.15	0.46	1.25	1.31
19.	Sulphate	mg/kg	0.48	0.35	0.74	0.68

Table No: 27

SOIL QUALITY RESULT FOR THE MONTH OF SEPTEMBER 2025

Sl. No.	Parameter	Unit	Village Bihabandh Area	Magazine Hill Top Area	Crusher – 4 Area	Mines Colony Area
1.	Colour	-	Yellowish	Brownish	Brownish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Silty	Silty Loam	Clay Loam	Silty Clay Loam
4.	Bulk Density	gm/cm^3	1.2	1.34	1.62	1.54
5.	pH (1:2 Suspension)	-	8.27	7.96	8.43	8.53
6.	Electrical Conductivity	µS/cm	143.9	186.7	214	262
7.	Available Phosphorous (as P_2O_5)	Kg/ha	< 5.0	< 5.0	< 5.0	< 5.0
8.	Available Potassium (as K_2O)	Kg/ha	140.52	123.6	178.32	146.28
9.	Organic Carbon	%	< 0.50	0.90	< 0.50	0.84
10.	Organic Matter	%	< 0.86	1.55	< 0.86	1.45
11.	Available Nitrogen (as N)	Kg/ha	125.44	137.98	50.18	112.90
12.	Iron	mg/kg	2.27	3.15	3.94	2.18
13.	Calcium	mg/kg	155	170	169	149
14.	Manganese	mg/kg	5.22	6.24	7.24	5.49
15.	Infiltration Rate	cm/hr	5.86	5.63	6.48	6.32
16.	Porosity	gm/cm^3	0.19	0.22	0.25	0.28
17.	Moisture Content	%	26.4	25.72	20.6	24.64
18.	Chloride	mg/kg	0.11	0.16	0.2	0.26
19.	Sulphate	mg/kg	1.48	1.35	1.74	1.68

Table No: 28

NOISE LEVEL MONITORING DATA

From 01.04.2025 to 30.09.2025

Month	Location	L_{eq} dB(A) Day Time	L_{eq} dB(A) Night Time
Apr	Mines View Point	47.7	50.9
	Crusher Plant – 4	69.7	68.1
	Mine Colony Area	56.3	56.6
	Mines Office Area	52.5	41.1
	Magazine Hill Top Area	38.5	35.9
May	Mines View Point	55.3	62.5
	Crusher Plant – 2	61.8	61.3
	Mine Colony Area	53.7	53.2
	Mines Office Area	59.2	48.5
	Magazine Hill Top Area	43.4	38.4
Jun	Mines View Point	53.7	62.7
	Crusher Plant – 4	67.7	69.6
	Mine Colony Area	54.4	57.0
	Mines Office Area	54.0	59.7
	Magazine Hill Top Area	55.4	55.9
July	Mines View Point	58.9	63.1
	Crusher Plant – 2	59.1	60.1
	Mine Colony Area	43.1	55.4
	Mines Office Area	53.3	51.9
	Magazine Hill Top Area	48.4	55.9
Aug	Mines View Point	56.5	56.6

Month	Location	L_{eq} dB(A) Day Time	L_{eq} dB(A) Night Time
	Crusher Plant – 4	67.1	71.1
	Mine Colony Area	52.5	53.0
	Mines Office Area	52.1	54.3
	Magazine Hill Top Area	45.0	49.4
Sept	Mines View Point	48.1	57.4
	Crusher Plant – 2	42.8	53.4
	Mine Colony Area	53.3	60.8
	Mines Office Area	51.0	49.4
	Magazine Hill Top Area	65.3	64.5

***