

VAML/MoEF&CC/006/2026-01
May 28,, 2026

O/C

To,
Deputy Director General of Forests (C), ✓
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office,
A/3, Chandrasekharapur,
Bhubaneswar, Odisha – 751023

Sub: Submission of Half-Yearly Compliance Report of Smelter & CPP of M/s. Vedanta Aluminium Metal Limited, Jharsuguda for the period from October 2025 to March 2026

Ref: 1. Environment Clearance letter No. J-11011/144/2006-IA.II (I) dated 07.03.2007
2. Environment Clearance letter No. J-13011/10/2006-IA.II (T) dated 14.03.2007
3. Environment Clearance letter No. J-11011/29/2007-IA.II (I) dated 11.06.2008
4. Environment Clearance letter No. J-11011/29/2007-IA.II (I) dated 05.05.2022

Respected Sir,

This has reference to the above subject, cited reference and as per the provision of Environment Clearance and EIA notification 2006, we are herewith submitting the half-yearly compliance status for conditions in the Environment Clearance for 2.5 LTPA Aluminium Smelter, Captive Power Plant 675 MW, expansion of Aluminium Smelter (2.5 to 16 LTPA) and Captive Power Plant (675 MW to 1350 MW), Aluminium Smelter 18 LTPA (16 to 18 LTPA) and Captive Power Plant.

We would like to draw your attention towards the fact that we are facing problem during uploading of half-yearly compliance report at Parivesh 2.0 Portal. Moreover, we are also facing problem in raising the ticket on Parivesh 2.0 Portal for the above issue (screenshot enclosed). We will upload the documents as soon as the issue will be resolved. In order to meet the stipulated timeline of submission, we are hereby submitting the half-yearly compliance reports via email and hardcopies of the Annexures will be submitted due to constraints of size of files.

Further, as already intimated and submitted that we have already applied EC transfer application from M/s. Vedanta Limited to M/s. Vedanta Aluminium Metal Limited.

Thanking You,

Yours Faithfully,

For M/s. Vedanta Aluminium Metal Limited, Jharsuguda

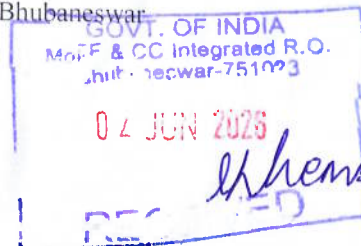

Dr. Amit Kumar Tyagi
Head- Environment

Copy to: 1. The Director, I.A. Division, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 110003
2. The Member Secretary, Central Pollution Control Board, "Paribesh Bhawan", CBD-Cum Office Complex, East Arjun Nagar, New Delhi-110032
3. The Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar

Enclosures: As above

Vedanta Aluminium Metal Limited

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T: +91-664 566 6000 | F: +91-664 566 6267 | Website: www.vedantaaluminium.com



REGISTERED OFFICE: Vedanta Aluminium Metal Limited, C-103, Atul Projects, Corporate Avenue New Link, Chakala MIDC, Mumbai, Maharashtra, India, 400093
CIN: U24202MH2023PLC411663 | Email: vaml.sect@vedanta.co.in

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M/s. Vedanta Aluminium Metal Limited, Jharsuguda
 Compliance Status on Environment Clearance - Expansion of Aluminium Smelter from 16
 LTPA to 18 LTPA and existing 1215 MW CPP vide letter No. F. No. J-11011/29/2007-IA II(I)
 dated 5th May 2022

| S. No. | CONDITIONS | COMPLIANCE STATUS |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A. Specific conditions | | |
| i | The project proponent shall abide by all orders and judicial pronouncements, made from time to time in OA No. 10/2021/EZ pending before the National Green Tribunal (NGT), Eastern Zone, Kolkata. | All the orders and judicial pronouncements by NGT in the OA No. 10/2021/EZ has been complied with. Details of Court cases are enclosed as Annexure-1. |
| ii | The poly-aromatic hydrocarbons (PAH) from the carbon plant (anode bake oven) shall not exceed 2 mg/Nm ³ . The data on PAH shall be monitored quarterly and report shall be submitted regularly to the Ministry/Regional Office at Bhubaneswar and Odisha Pollution Control Board. | Poly-Aromatic Hydrocarbons (PAH) is being monitored in the stack of Bake Oven and is in the range of 0.22 to 0.29 mg/Nm ³ . The same is monitored regularly and report is submitted quarterly, six monthly to MoEFCC and regional office of the Ministry and monthly to the OSPCB. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2. |
| iii | A nallah is passing through the project site, PP shall maintain the nallah in its natural form and provide the green buffer zone of 10 m on both side of the nallah. | Nallah is maintained in its natural form with 10 m green buffer zone on both side of the nallah. In compliance with this condition, we had submitted report to RO, MoEFCC office vide letter no. VL/MOEF/006/2024-04 dated 30.03.2024. Study Report enclosed as Annexure-3. |
| iv | Particulate fluoride emissions shall not be more than 0.65 mg/Nm ³ and fugitive particulate fluoride emissions from pot room shall not be more than 1.85 mg/Nm ³ . | The particulate fluoride emission ranges between 0.044 to 0.067 mg/Nm ³ . Roof monitoring system through cassette method has been installed for fugitive fluoride (gaseous and particulate) monitoring and the same is being carried out by MoEFCC approved lab and fugitive particulate fluoride emissions ranges between 0.246 to 0.687 mg/Nm ³ . Moreover, laser-based fluoride monitoring system has also been installed in pot rooms for monitoring of fugitive fluoride and online data transmitted on OSPCB server. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2. |
| v | Project proponent shall maintain the Fluoride consumption less than 10 kg/tonne of Aluminium production by April, 2022 and reduce further at 8.0 kg/t by April, 2023 as committed by PP. | MoEF&CC has notified revised standards dated 21.07.25 for Aluminium Smelters and this condition has been replaced by AlF ₃ consumption of 20 kg/ton of Al from the date of notification. Further, we have submitted letter dated 04.08.25 to your good office for using the revised standard and As per the revised standards our AlF ₃ consumption from Oct-25 to Mar-26 ranges between 17.109 to 18.416 kg/MT of Al. Notification enclosed as Annexure-4. |
| vi | Three tier Green Belt shall be developed in a time frame of one year covering 33% of total area with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green | 33 percent Green belt has been developed all along the plant periphery and plant area. Efforts have been made to cover three-tier green belt all along the periphery. High potential local species have been planted to attenuate the pollutants as per the CPCB guidelines. We would like to bring your kind notice towards the fact that Jharsuguda town is situated more than 3 Km. |



M/s. Vedanta Aluminium Metal Limited, Jharsuguda
 Compliance Status on Environment Clearance - Expansion of Aluminium Smelter from 16 LTPA to 18 LTPA and existing 1215 MW CPP vide letter No. F. No. J-11011/29/2007-IA II(I) dated 5th May 2022

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| | <p>belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. This shall include development of green belt of 50 width from the project site towards the Jharsuguda village located at 0.2km from the site. In addition to this, following activities shall also be undertaken as committed by the proponent:</p> <ul style="list-style-type: none"> • Green cover on reclaimed ash ponds over an area of 40 Ha shall be developed by June 2022. • PP shall undertake plantation over 37.5 ha outside plant premises in consultation with DFO, Jharsuguda. | <p>Moreover, as a responsible corporate, we have taken up plantation activities in Jharsuguda at various locations. Green Belt photos are enclosed as Annexure-5a.</p> <p>Further, we have completed the green cover on reclaimed ash ponds over an area of 40 Ha as committed and OSPCB compliance letter is enclosed as Annexure-5b.</p> <p>We have also completed plantation over 37.5 ha outside plant premises in consultation with DFO, Jharsuguda. Compliance letter submitted to DFO office dated 25.09.25 enclosed as Annexure-5c.</p> |
| vii | <p>Present stock of SPL carbon (36320 T) and legacy SPL stock shall be liquidated by Sep, 2023 as committed.</p> | <p>We are regularly disposing the SPL Carbon stock to OSPCB authorized recycler. We have disposed 104268.14 MT of SPL Carbon since commitment which includes the liquidation of legacy stock of SPL carbon of 36320 MT. Annual Return (Form-4) of FY-22, FY-23, FY-24 and FY-25 are enclosed as Annexure-6.</p> |
| viii | <p>Refractory SPL stock (40000 T) stored in covered shed on concrete floors shall be disposed of Dec, 2025 as committed.</p> | <p>We are regularly disposing the Refractory SPL to Re Sustainability TSDF (formerly known as RAMKY TSDF) as per the Hazardous Waste Authorization. We have disposed off 9858.46 MT of Refractory SPL in FY'25 and 145755.42 MT of Refractory SPL in FY'26 which includes the stock stored in covered shed on concrete floors.</p> <p>Annual Returns (Form-4) of FY-22, FY-23, FY-24 and FY-25 are enclosed as Annexure-6.</p> |
| ix | <p>PM levels shall be less than 30 mg/Nm³ for all units under expansion. In case of older units, PP shall initiate retrofitting/modification action to achieve the PM emission level of 30 mg/Nm³ by October, 2024.</p> | <p>We are achieving PM levels of 30 mg/Nm³ in all existing as well as in expansion units of our Aluminium Smelter Plant. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2.</p> <p>With respect to the 1215 MW Captive Power Plant, we would like to submit that efforts in the form of installation of Hybrid ESPs have already been taken and the PM level of 50 mg/Nm³ as per the CTO condition has already been achieved. However, we would like to submit that beyond the modification/retrofitting that has been done during plant inception, there is no further scope for modification.</p> |
| x | <p>Wastes shall be sent to RAMKY TSDF located at Sukinda. Further, waste disposed in this SI.F shall be evacuated and disposed to</p> | <p>We would like to submit that disposal of hazardous waste is being carried out as per the Hazardous Waste Authorization to the authorized agencies including Re Sustainability TSDF (formerly known as RAMKY TSDF). We had already discontinued the SPL disposal</p> |

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| | authorized agency for detoxification as committed by PP. | in this SLF since 2016-17 onwards. As per CPCB SOP, we have evacuated and disposed off the SPL Carbon portion to OSPCB authorized agency. Since there is no CPCB SOP for SPL Refractory portion, we have obtained approval from OSPCB for capping the SLF Phase 2. |
| xi | PP shall use Roof Top Rainwater Harvesting systems with a total capacity of around 10000 m ³ of rainwater and re-use the water in the plant. | We have installed 7 nos. of roof top rainwater harvesting structure with a total capacity of more than 10000 m ³ of rainwater for reuse. The details of all rainwater harvesting measures adopted in our complex has been submitted to CGWA vide letter no VL/CGWB/003/2024-01 dated August 05, 2024, enclosed as Annexure-7a. Moreover, we have completed cleaning and restoration of various community ponds and farm ponds thereby augmenting the capacity for rainwater harvesting in the surrounding villages. Photos of few ponds are enclosed as Annexure-7b. |
| xii | All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Aluminium sector shall be strictly implemented. | The recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Aluminium sector and its subsequent amendments is being implemented at site. Status of CREP compliance is enclosed as Annexure-8. |
| xiii | PP shall utilize 100% ash as per Fly Ash Notification 2021 and its subsequent amendments. Further, legacy ash shall be utilized completely by 31/05/2027 as committed by PP. | Fly ash is being collected in dry form in silos of capacity 12000 m ³ . Ash is being utilized in cement, brick manufacturing, road and infrastructure activities, reclamation of low-lying areas and the balance is disposed off to the ash pond in the form of High Concentration Slurry disposal. As per MoEFCC Fly ash amendment notification dated 30 th December 2022, we have declared that all our ash ponds and dykes are operational in nature. The communication letter sent to the OSPCB and CPCB office vide letter no VL/AU/22-23/117/OPCB dated 30 th March 2023. Letter is enclosed as Annexure-9a. As per Fly ash notification 2021 and its subsequent amendments, more than 100 percent ash was utilized in FY 2026. Monthly fly ash utilization report has been uploaded in CPCB portal. Moreover, continuous efforts have been made to utilize fly ash in different sustainable avenues as per enclosed plan for 100 percent Fly ash utilization/disposal, in close coordination with the statutory bodies. Ash Utilization Plan of FY-26 and request letters are enclosed as Annexure-9b and Annexure-9c respectively. |
| xiv | Dust Suppression measures such as water sprinkling through mobile tankers is being carried out especially during the dry season. Ash | Water sprinkling is being done for dust suppression through mobile tankers on regular basis and mobile mist canon has also been deployed to arrest fugitive emissions. Tarpaulin covering is being ensured for ash trucks. Photos enclosed as Annexure-10. |

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dated 5th May 2022

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| | laden trucks are covered with tarpaulin to avoid spillage. | |
| xv | Regular monitoring of Air, Water & Soil quality shall be carried out in the Ash Pond area. | The monitoring of air, water and soil quality is being carried out regularly in the Ash Pond Areas. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2. |
| xvi | Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to RO. | Performance monitoring of pollution control equipment has been completed and report has been submitted to RO, MoEFCC office vide letter no. VL/MoEF/006/2025 - 13 dated 28 th June 2025. For FY26, we have awarded work order to NIT Rourkela for Performance monitoring and draft report finalization is under progress. Performance Evaluation report enclosed as Annexure-11. |
| xvii | The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC. | The Principal Chief Conservator of Forests, (Wildlife) and Chief Wildlife Warden, Odisha has approved the site-specific wildlife conservation plan on 30.04.2021 with a financial forecast of Rs. 610.894 lakhs to be spent for implementation by the Forest Department (Both Jharsuguda and Sambalpur Forest Division) for this plan. Accordingly, as per the demand raised by the Divisional Forest Officer, Jharsuguda, an amount of Rs. 530.904 lakhs have been deposited on 17.05.2021 towards implementation of the above -mentioned plan over a period of 10 years. The plan is under implementation by Forest Department. Moreover, the recommendations given in the wildlife management plan to be executed by Vedanta Ltd. have been completed except compliance of condition for providing the software for WL-Anukampa and its maintenance. We are continuously taking follow-up with the DFO office for the implementation status and way forward to comply with the WL-Anukampa and its maintenance condition. Latest communication and implementation status are enclosed as Annexure-12. |
| xviii | The area of sampling and analysis of fluoride in soil and forage should extend up to 10 kilometres radius of plant premises covering upwind and downwind directions. Further, fluoride sampling and analysis should be taken quarterly at the nearest irrigated lands growing crops, vegetables, and other products of human consumption. | Monthly sampling and analysis of fluoride in soil and forage has been extended up to 10 Kilometres radius covering upwind and downwind directions. Reports are regularly being submitted to the statutory bodies. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2. |
| xix | The major emissions are from the pot room roof. The sampling frequency should be increased, and sampling is done at multiple locations. The laser-based advance technology shall be adopted to | Laser Based continuous online monitoring system has been installed and commissioned at all the pot rooms to monitor gaseous fluoride emissions and the same is also connected to OSPCB server. Photos are enclosed as Annexure-13. |



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| | continuously monitor gaseous fluoride emissions from pot rooms on real time basis by March, 2023. | |
| xx | Wheel Washing mechanism shall be provided in entry and exit gates with complete water recirculation system. | Operational Wheel washing system has been provided at the main entry/ exit gate with water recirculation system. Moreover, operational wheel washing systems are also provided at Ash Handling Plant and Coal Handling Plant area of CPP and TPP. Since we do not have separate entry and exit from main gate for material movement, so all incoming and outgoing vehicles passes through the existing wheel wash system. Photos are enclosed as Annexure-14. |
| xxi | Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface. | Greening and Paving has been implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface. Moreover, dedicated team has been deployed for carrying out regular maintenance and repairs. |
| B. General conditions | | |
| I. Statutory compliance | | |
| i | The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project. | Noted. |
| II. Air quality monitoring and preservation | | |
| i | The project proponent shall install 24x7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as 4 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. | All the process stacks have been equipped with Continuous Emission Monitoring System (CEMS). Four (4 nos.) of Continuous Ambient Air Quality Monitoring Station has been installed as per the guidelines. All the CEMS and CAAQMS are connected to SPCB and CPCB online servers and are being calibrated from time to time. |



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| ii | The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986. | The source of Fugitive emission in Aluminium industries is from Potroom and we are regularly monitoring the same. Roof monitoring system through cassette method has been installed for fugitive fluoride (gaseous and particulate) monitoring and the same is being carried out by MoEFCC approved and NABL Accredited lab. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2. Moreover, laser-based fluoride monitoring system have been installed in pot room for monitoring of fugitive fluoride and online data transmitted on OSPCB server. |
| iii | The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags. | Leakage Detection and Mechanized bag cleaning facilities have been provided for maintenance of bags. |
| iv | The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash; | Coal, other raw material, and fly ash are being transported and conveyed in covered trucks and railway rakes. Closed Bulkers are used for the Fly ash transportation, which are directly filled pneumatically from Silos and disposed in the nearby Cement Industries. However, transportation of fly ash through closed bulkers is practically not possible except in the case of cement industries due to non-availability of Silo and pneumatic system at receiver/user end. Accordingly, the conditioned fly ash which is being transported in covered trucks are used in nearby Brick manufacturing industries, NHAI Road construction and other sustainable avenues. Further, fly ash is being dispatched through tarpaulin covered Railway wagons to the outside state cement plants for sustainable use. Photos are enclosed as Annexure-15. |
| v | The project proponent shall provide wind shelter fence and chemical spraying on the raw material stockpiles; | The raw material of Aluminium industries is alumina, which comes through BTAP (Bogie Tank wagon for Alumina Powder) rakes and stored pneumatically in the Alumina Silos. The other raw material like coal is also transported in a controlled manner. A concrete boundary wall with additional mitigative measures has also been provided in coal storage area which acts as a wind shelter fence. Further, fixed type mist cannons/sprinklers have been provided at coal handling plant to arrest the emissions and truck mounted mist cannons/water tankers, wheel wash system provided in plant premises. Efforts have also been made to attenuate emissions through green belt, which has been developed all along the plant premises. Photos are enclosed as Annexure-16. |
| vi | Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels. | We have Aluminium Smelter and Power Plant. We do not have cement bagging plants; however, the plant has been designed with proper ventilation systems. |



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| | motor houses, and cement bagging plants. | Ventilation Report submitted vide letter dated 31.01.2025 and again enclosed as Annexure-17. |
| vii | Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly. | We have provided dedicated Mechanical Road sweeping machines (7 Nos. Large and 16 Nos. Small) for housekeeping of the complete plant premises. |
| viii | Adopt measures to recover fluoride gas from electrolytic cells and recycle the same in the process. | Fluoride gas from electrolytic cells is being captured through Fume Treatment Plants installed in Smelter Plants and recycled back into the system. |
| ix | Practice use of low-Sulphur tars for baking anodes. | Low Sulphur tar is being used for making anodes. We are procuring low Sulphur Coal Tar Pitch (CT Pitch) from renowned industries and maintaining, the Sulphur less than 1 percent and supplier submitting the reports from accredited laboratory for the Sulphur content. Accredited laboratory report from the supplier w.r.t. sulphur content is enclosed as Annexure-18. |
| x | Make efforts to increase the life of pot lining through better construction and operating techniques. | We have adopted pre-baked technology with 325/340 KA line current. We are scaling up advanced lining technology using high performance cathode assembly (HPCA) with copper insert collector bars. This technology has been patented by Vedanta. In addition, advanced pot controller system (VPC) is being implemented which is also patented. This initiative helps in maximizing the life of potlining. |
| xi | Design the pot roofs with louvers and roof ventilators. | Louvers with roof ventilators have been provided in the pot rooms. |
| III. Water quality monitoring and preservation | | |
| i | The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 742 (E) dated 30th August 1990 and further amended vide G.S.R 46 (E) dated 3rd February 2006(Aluminium); S.O. 3305 (E) dated 7th December 2015(Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. | Continuous Effluent monitoring systems have already been provided, and Real time data is being transmitted to CPCB and OSPCB servers. |
| ii | The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the | Regular ground water monitoring is being carried out in the plant and adjacent areas through NABL Accredited/MoEFCC approved laboratory, and the data is being submitted to OSPCB and Regional Office |



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| | plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories. | of the Ministry. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2. |
| iii | Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards. | Sewage Treatment Plants are provided for the treatment of domestic wastewater. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2. |
| iv | Garland drains and collection pits shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off. | Garland drains along with settling ponds have been provided in Coal Storage area and Ash Pond areas. Photos are enclosed as Annexure-19. |
| v | Water meters shall be provided at the inlet to all unit processes in the cement plant. | We have Aluminium Smelter and Power Plant. We do not have cement plant; however, water meters have been provided at the inlet of all the unit processes. |
| vi | The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water. | We do not have cement plant in our premises. However, efforts are being taken to minimize water consumption by segregation of used water, practicing cascade use and by recycling treated water in Aluminium Smelter and Captive Power Plant. The details have been submitted in our FY25 Environment Statement. You may please refer to the link given of our company website for further details https://vedantaaluminium.com/sustainability/sustainability-report/ |
| IV. Noise Monitoring & Prevention | | |
| i | Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report. | The overall noise levels are being maintained below the stipulated standards as per EPA Rules, 1989. The ambient noise levels monitored are observed within 52.3 dB(A) to 74.4 dB(A) during daytime and 43.6 dB(A) to 69.6 dB(A) in nighttime. Monitoring Report for the period of Oct-25 to Mar-26 enclosed as Annexure-2. |
| V. Energy conservation measures | | |
| i. | The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases. | This condition is not applicable to our plant as the boiler exit flue gas temperature cannot be reduced further from the design level due to below reasons: <ul style="list-style-type: none"> • The SOx formation due to presence of Sulphur in coal will get condensed with moisture and produce acid which corrode all the metallic structure (Air Pre-heater, duct, ESPs, ID fans etc.) resulting catastrophic failures. • The useful energy available in 138 degrees Celsius is very low and limiting by acid dew point temperature which is 130 degrees Celsius. |
| ii | Provide solar power generation on roof tops of buildings, for solar light system for all common areas, streetlights, parking around project area and maintain the same regularly; | One Rooftop Solar project of 10 KWH implemented in plant premises. Vedanta Aluminium is the first in India to offer low carbon aluminium, branded Restora and Restora Ultra, for its global customer base, many of whom are focused on ensuring the sustainable provenance of their materials. We have procured |



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| | | 1338.82 million units renewable power in FY'25 and 2007.643 million units renewable power in FY'26. This Renewable Power is being used in plant premises for green product manufacturing and for all common areas. Moreover, as a responsible corporate and to enhance green energy utilization in communities areas, we had distributed more than 200 solar streetlights. Photos are enclosed as Annexure-20. |
| iii | Provide LED lights in their offices and residential areas. | LED lights have been provided in the offices as well as residential areas. Photos are enclosed as Annexure-21. |
| VI. Waste management | | |
| i | Used refractories shall be recycled. | As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, Cathode residues including pot lining wastes of Aluminium Smelter falls under hazardous Waste category Schedule I, 11.2 which includes Refractory SPL. We are regularly disposing the Refractory SPL to Re Sustainability TSDF (formerly known as RAMKY TSDF) as per the Hazardous Waste Authorization granted by OSPCB. |
| ii | Oily scum and metallic sludge recovered from ETP shall be mixed, dried, and briquetted and reused. | As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, ETP sludge of Aluminium Smelter comes under hazardous Waste category Schedule I, 35.3 and the same is being disposed off as per the Hazardous Waste Authorization granted by OSPCB. |
| VII. Green belt | | |
| i | The project proponent shall prepare GHG emissions inventory for the plant and shall submit the Programme for reduction of the same including carbon sequestration including plantation. | The GHG inventory for the plant and program for reduction of the same, including carbon sequestration and plantation have been submitted to RO, MOEF office vide letter no. VL/MOEF/006/2024-04 dated 30.03.2024. Study Report enclosed as Annexure-3. Moreover, GHG emissions have been monitored regularly, and the data has been published in the Sustainability Report/TCFD report of the company. You may please refer to the link given of our company website for further details. https://vedantaaluminium.com/sustainability/sustainability-report/ |
| ii | Project proponent shall submit a study report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition | We have engaged a recognized consultant to carry out de-carbonization program study and report submitted to RO, MoEFCC office vide letter no. VL/MOEF/006/2024-04 dated 30.03.2024. Study Report enclosed as Annexure-3. Moreover, GHG emissions have been monitored regularly, and the data has been published in the Sustainability Report/TCFD report of the company. You may please refer the link given of our company website for further details. https://vedantaaluminium.com/sustainability/sustainability-report/ |



M/s. Vedanta Aluminium Metal Limited, Jharsuguda
 Compliance Status on Environment Clearance - Expansion of Aluminium Smelter from 16 LTPA to 18 LTPA and existing 1215 MW CPP vide letter No. F. No. J-11011/29/2007-IA II(I) dated 5th May 2022

| | pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames. | | | | | | | | | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|----------------------|----------------|---------|------|------|-------|---------|------|-------|-------|---------|------|-------|-------|
| VIII. Public hearing and human health issues | | | | | | | | | | | | | | | | | | |
| i | Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented. | Emergency Preparedness Plan based on the Risk Assessment (HIRA) and Disaster Management Plan is being implemented at site. Submission letter enclosed as Annexure-22. | | | | | | | | | | | | | | | | |
| ii | The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms. | Heat stress analysis of workmen of high temperature work zone is being carried out and PPEs like high temperature resistant suits are being provided as per the norms of Factory Act. Report enclosed as Annexure-17. | | | | | | | | | | | | | | | | |
| iii | Occupational health surveillance of the workers shall be done on a regular basis and records maintained. | Occupational Health Surveillance of the workers is being done on a regular basis and records are being maintained. Sample Records are enclosed as Annexure-23. | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Year</th> <th style="width: 25%;">Permanent Employee</th> <th style="width: 25%;">Contractual Employee</th> <th style="width: 35%;">Total Employee</th> </tr> </thead> <tbody> <tr> <td>2023-24</td> <td>2271</td> <td>8513</td> <td>10784</td> </tr> <tr> <td>2024-25</td> <td>2623</td> <td>11327</td> <td>13950</td> </tr> <tr> <td>2025-26</td> <td>3138</td> <td>14234</td> <td>17372</td> </tr> </tbody> </table> | | | Year | Permanent Employee | Contractual Employee | Total Employee | 2023-24 | 2271 | 8513 | 10784 | 2024-25 | 2623 | 11327 | 13950 | 2025-26 | 3138 | 14234 | 17372 |
| Year | Permanent Employee | Contractual Employee | Total Employee | | | | | | | | | | | | | | | |
| 2023-24 | 2271 | 8513 | 10784 | | | | | | | | | | | | | | | |
| 2024-25 | 2623 | 11327 | 13950 | | | | | | | | | | | | | | | |
| 2025-26 | 3138 | 14234 | 17372 | | | | | | | | | | | | | | | |
| IX. Environment management | | | | | | | | | | | | | | | | | | |
| i | The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed. | At Vedanta we are committed to transforming the lives of the communities in our areas of operations and beyond. We look at our role as making the local people participants in the growth process of the organization while we work as facilitators of socio-economic transformation in rural India. Our social development initiatives are structured along the dimensions of Sustainable Livelihood, Women Empowerment, Quality Education, Health, Water and Sanitation, Community Infrastructure, Agriculture, and Sports and Culture. We strive to identify the needs of communities, plan projects and facilitate their execution, working in close partnership with the government, local administrations, NGOs and implementing agencies, as well as the communities themselves. In Vedanta Jharsuguda, we are covering 79 villages in core, periphery and outer periphery area based on socio-economic survey carried out through renowned third party. Geo tagged village wise CSR activities details and CSR Annual Report are enclosed as Annexure-24. | | | | | | | | | | | | | | | | |



M/s. Vedanta Aluminium Metal Limited, Jharsuguda
Compliance Status on Environment Clearance - Expansion of Aluminium Smelter from 16
LTPA to 18 LTPA and existing 1215 MW CPP vide letter No. F. No. J-11011/29/2007-IA II(I)
dated 5th May 2022

| | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ii | The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and /or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report. | The company has a well-defined Environment policy duly approved by Group C.E.O and Board of Directors and also, we have following environment compliance procedures: <ul style="list-style-type: none"> • Comprehensive compliance checklist in place for every unit wherein all the applicable laws and regulations are mapped. • Automated compliance monitoring system in place developed by third party covering over 200 Acts and Rules for every unit. • Timely updation and regular review of the compliance checklist from time to time. Board Resolution and Environment Policy enclosed as Annexure-25. |
| iii | A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization. | Separate Environmental Cell is in place with required qualified personnel and Head of Environment is reporting directly to the Unit Head (CEO). Organogram Enclosed as Annexure-26. |
| X. Miscellaneous | | |
| i | The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently. | The grant of Environment Clearance of the expansion project was published in two widely circulated newspaper. 1. The Samaja - 11th May 2022 (Odia) 2. Orissa Post - 11th May 2022 (English) Advertisement published in the newspapers are enclosed as Annexure-27. |
| ii | The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt. | The copies of the environmental clearance have been submitted to the Heads of local bodies, Panchayats, Municipal Bodies and relevant Govt. Offices vide Letter No. VL/PH/007/2022-001 dated 14.05.2022. Letter enclosed as Annexure-28. |
| iii | The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of | We are uploading half yearly compliance report along with monitoring data and supporting annexures on our website link of the same is as below. |

M/s. Vedanta Aluminium Metal Limited, Jharsuguda
Compliance Status on Environment Clearance - Expansion of Aluminium Smelter from 16
LTPA to 18 LTPA and existing 1215 MW CPP vide letter No. F. No. J-11011/29/2007-IA II(I)
dated 5th May 2022

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| | monitored data on their website and update the same on half-yearly basis. | https://vedantaaluminium.com/sustainability/compliance-report-jharsuguda/ |
| iv | The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company. | We are regularly monitoring all the prescribed parameters in stack and ambient stations. Data of the same is being displayed at main gate and company website also for public view. https://vedantaaluminium.com/sustainability/sustainability-report/ Photos of Main Gate Display Board enclosed as Annexure-29. |
| v | The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal. | We are uploading six-monthly compliance report along with monitoring data and supporting annexures on our website link of the same is as below. And the same is also being uploaded at MoEFCC Parivesh portal. https://vedantaaluminium.com/sustainability/compliance-report-jharsuguda/ |
| vi | The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company. | The environment statement has been submitted to OSPCB on 22.09.2025 and uploaded on company website. https://vedantaaluminium.com/sustainability/compliance-report-jharsuguda/ Environment Statement is enclosed as Annexure-30. |
| vii | The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project. | The expansion project of Aluminium Smelters from 16 LTPA to 18 LTPA was approved by MoEFCC vide EC letter no J-11011/29/2007-IA-II (I) dated 05.05.2022 and OSPCB Consent to Establish (CTE) vide letter no 11767/IND-II-CTE-6607 dated 06.07.2022 and OSPCB renewed Consent to Operate (CTO) vide letter no 6536/IND-I-CON-6079 dated 28.03.2025. We have commenced the land development work as per the Consent to Establish and final approval i.e. Consent to Operate. |
| viii | The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee. | All the commitments and recommendations made in the EIA/EMP report, Public Hearing and during the presentation to the Expert Appraisal Committee are being implemented. Implementation status report enclosed as Annexure-31. |
| ix | No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC). | Noted. |
| x | Concealing factual data or submission of false/fabricated data may result in revocation of this | Noted |



M/s. Vedanta Aluminium Metal Limited, Jharsuguda
 Compliance Status on Environment Clearance - Expansion of Aluminium Smelter from 16
 LTPA to 18 LTPA and existing 1215 MW CPP vide letter No. F. No. J-11011/29/2007-IA II(I)
 dated 5th May 2022

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|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| | environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986. | |
| xi | The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory | Noted |
| xii | The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions. | Noted |
| xiii | The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports. | Noted. Full cooperation will be extended to the Regional Office by furnishing with the requisite data/information/monitoring reports from time to time. |
| xiv | Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010. | Noted. |



| Sl.No. | Terms and Conditions | Status |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a. | <p>Details regarding change in source (location of the source, proposed quantity, distance from the power plant and mode of transportation), quality (Ash, Sulphur, Moisture content and Calorific value) shall be informed to the Ministry and its concerned Regional Office. The quantity of coal transported from each source along with the mode of transportation shall be submitted as part of EC Compliance Report.</p> <ol style="list-style-type: none"> 1. Domestic to Domestic 2. from domestic to domestic (blended with imported coal up to 30% content of imported coal) 3. from imported to imported (blended with domestic coal up to 10% content of domestic coal) 4. from imported to domestic (where the GCV of the domestic coal is of the same grade as of imported coal). | <p>We have procured the coal from the below domestic sources: Source - MCL, NLC, OCPL, and Captive Mine (Jamkhani). Coal Quality details - GCV (Kcal/kg) ARB - Approx 2800 to Approx 3400 Ash - 40 percent to 50 percent Sulphur Content - 0.34 percent to 0.55 percent Total Moisture -11.73 percent to 13.51 percent</p> |
| b. | <p>The applicable flue gas emissions standards for Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen and Mercury shall be complied in line with Ministry's Notification vide S.O. 3305(E) dated 7.12.2015 and subsequent emissions. A progress of implementation and its compliance shall be submitted as part of Compliance Report.</p> | <p>As per the notification G.S.R. 465(E), dated 11th July 2025, the Sulphur dioxide emission standards shall not be applicable to all C Category thermal power plants subject to ensuring compliance of stack height criteria. As per the criteria mentioned in the notification, we are falling under category C and stack height of our powerplants is 275m since the inception of plant. So SO₂ standard has not applicable to our plant. Notification copy enclosed as Annexure-40. The applicable flue gas emission standards like PM, SO₂, NO_x and Hg is being monitored regularly. Monitoring Report for the period of Oct-24 to Nov-25 enclosed as Annexure-2.</p> |
| c. | <p>Ash content in the Coal and Coal transportation is governed by the Ministry's Notification vide S.O. 1561 (E) dated 21.5.2020. As far as possible, Coal transportation shall be done by rail/ conveyor or other eco-friendly modes. However, road transportation is allowed with tarpaulin covered trucks till the railway/ conveyor belt infrastructure is made available. A progress (Physical and financial) of rail connectivity from nearest railway siding or conveyor connectivity to the power plant shall be submitted in the EC compliance report.</p> | <p>Mode of transportation of coal is rail and road with proper mitigative measures. In addition to that we have provided railway infrastructure inside plant premises for unloading of coal with proper mitigative measures.</p> |
| d. | <p>Additional ash pond shall not be permitted on account of increase in ash content in the</p> | <p>Noted.</p> |

| | | |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | raw coal as due to change in coal source including lignite other than the ash pond permitted and specified in the Prior Environmental Clearance. 100% fly ash utilisation is to be achieved within 4 years in accordance with the extant provisions laid down in the Fly ash notifications dated 14.09.1999, 27.08.2003, 3.11.2009 & 25.01.2016, 31.12.2021 and 30.12.2022 as amended from time to time. | As per Fly ash notification 2021 and its subsequent amendments, more than 100 percent ash was utilized in FY 2026. Moreover, continuous efforts have been made to utilize fly ash in different sustainable avenues as per enclosed plan for 100 percent Fly ash utilization/disposal in close coordination with the statutory bodies. Ash Utilization Plan of FY-26 and request letters are enclosed as Annexure-9b and Annexure-9c respectively. |
| e. | In case of exceptional circumstances, project proponents may approach the Ministry for seeking permission to use an emergency ash pond with cogent reasons, if any. | Noted. |
| f. | The details regarding monthly generation, utilisation and disposal of fly ash (including bottom ash) shall be submitted to the Ministry and its Regional Office. | Monthly fly ash utilization report has been uploaded in CPCB portal. |





Ref: Envlab/26-27/TR-02855

Date: 07.05.2026

**VEDANTA LIMITED, JHARSUGUDA
SMELTER & CPP
Half Yearly Environment Quality Report
(October 2025 – March 2026)**

1. Stack Emission:

a) Pot Room Fume Treatment Plant (FTP) Outlet

i. Particulate Matter (mg/Nm³)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|--------------------|-------|--------|--------|--------|--------|--------|--------|-----|-----|-----|
| FTP 1- Pot Line-1 | 100 | 5.5 | 5.2 | 5.0 | 5.2 | 5.0 | 5.3 | 5.0 | 5.5 | 5.2 |
| FTP 2- Pot Line-1 | 100 | 5.1 | 5.2 | 5.4 | 5.5 | 5.6 | 5.2 | 5.1 | 5.6 | 5.3 |
| FTP 3- Pot Line-2 | 100 | 5.4 | 5.5 | 5.1 | 5.0 | 5.2 | 5.0 | 5.0 | 5.5 | 5.2 |
| FTP 4- Pot Line-2 | 100 | 5.4 | 5.6 | 5.5 | 5.3 | 5.1 | 5.5 | 5.1 | 5.6 | 5.4 |
| FTP 5- Pot Line-3 | 100 | 2.2 | 2.3 | 2.5 | 2.6 | 2.8 | 3.0 | 2.2 | 3.0 | 2.6 |
| FTP 6- Pot Line-3 | 100 | 3.0 | 3.1 | 3.3 | 3.0 | 3.2 | 3.5 | 3.0 | 3.5 | 3.2 |
| FTP 7- Pot Line-4 | 100 | 3.5 | 3.2 | 3.0 | 3.2 | 3.0 | 3.1 | 3.0 | 3.5 | 3.2 |
| FTP 8- Pot Line-4 | 100 | 3.2 | 3.5 | 3.6 | 3.5 | 3.2 | 2.9 | 2.9 | 3.6 | 3.3 |
| FTP 9- Pot Line-5 | 100 | 2.8 | 3.0 | 3.2 | 3.4 | 3.3 | 3.4 | 2.8 | 3.4 | 3.2 |
| FTP 10- Pot Line-5 | 100 | 3.1 | 3.3 | 3.1 | 3.4 | 3.1 | 3.2 | 3.1 | 3.4 | 3.2 |
| FTP 11- Pot Line-6 | 100 | 3.2 | 3.1 | 3.2 | 3.5 | 3.6 | 3.5 | 3.1 | 3.6 | 3.4 |
| FTP 12- Pot Line-6 | 30 | 3.6 | 3.5 | 3.2 | 3.3 | 3.5 | 3.3 | 3.2 | 3.6 | 3.4 |

ii. Gaseous Fluoride (mg/Nm³)

| Stack Description | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|--------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| FTP 1- Pot Line-1 | 0.44 | 0.42 | 0.44 | 0.46 | 0.53 | 0.55 | 0.42 | 0.55 | 0.47 |
| FTP 2- Pot Line-1 | 0.45 | 0.41 | 0.42 | 0.45 | 0.42 | 0.46 | 0.41 | 0.46 | 0.44 |
| FTP 3- Pot Line-2 | 0.48 | 0.46 | 0.45 | 0.48 | 0.45 | 0.48 | 0.45 | 0.48 | 0.47 |
| FTP 4- Pot Line-2 | 0.55 | 0.52 | 0.50 | 0.51 | 0.50 | 0.51 | 0.50 | 0.55 | 0.52 |
| FTP 5- Pot Line-3 | 0.56 | 0.55 | 0.58 | 0.60 | 0.62 | 0.60 | 0.55 | 0.62 | 0.59 |
| FTP 6- Pot Line-3 | 0.60 | 0.61 | 0.60 | 0.62 | 0.61 | 0.63 | 0.60 | 0.63 | 0.61 |
| FTP 7- Pot Line-4 | 0.63 | 0.62 | 0.65 | 0.66 | 0.60 | 0.64 | 0.60 | 0.66 | 0.63 |
| FTP 8- Pot Line-4 | 0.57 | 0.59 | 0.55 | 0.59 | 0.62 | 0.65 | 0.55 | 0.65 | 0.60 |
| FTP 9- Pot Line-5 | 0.62 | 0.60 | 0.61 | 0.64 | 0.66 | 0.61 | 0.60 | 0.66 | 0.62 |
| FTP 10- Pot Line-5 | 0.60 | 0.63 | 0.60 | 0.62 | 0.65 | 0.68 | 0.60 | 0.68 | 0.63 |
| FTP 11- Pot Line-6 | 0.61 | 0.62 | 0.64 | 0.65 | 0.60 | 0.66 | 0.60 | 0.66 | 0.63 |
| FTP 12- Pot Line-6 | 0.65 | 0.64 | 0.65 | 0.67 | 0.63 | 0.65 | 0.63 | 0.67 | 0.65 |





Ref: Envlab/26-27/TR- 02856

Date: 07.05.2026

iii. Particulate Fluoride (mg/Nm³)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|--------------------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| FTP 1- Pot Line-1 | 0.65 | 0.058 | 0.055 | 0.053 | 0.056 | 0.058 | 0.055 | 0.053 | 0.058 | 0.056 |
| FTP 2- Pot Line-1 | 0.65 | 0.044 | 0.048 | 0.049 | 0.048 | 0.045 | 0.048 | 0.044 | 0.049 | 0.047 |
| FTP 3- Pot Line-2 | 0.65 | 0.053 | 0.055 | 0.056 | 0.060 | 0.063 | 0.060 | 0.053 | 0.063 | 0.058 |
| FTP 4- Pot Line-2 | 0.65 | 0.056 | 0.059 | 0.058 | 0.059 | 0.056 | 0.059 | 0.056 | 0.059 | 0.058 |
| FTP 5- Pot Line-3 | 0.65 | 0.065 | 0.062 | 0.066 | 0.063 | 0.066 | 0.064 | 0.062 | 0.066 | 0.064 |
| FTP 6- Pot Line-3 | 0.65 | 0.060 | 0.063 | 0.060 | 0.065 | 0.061 | 0.065 | 0.060 | 0.065 | 0.062 |
| FTP 7- Pot Line-4 | 0.65 | 0.058 | 0.055 | 0.058 | 0.059 | 0.057 | 0.055 | 0.055 | 0.059 | 0.057 |
| FTP 8- Pot Line-4 | 0.65 | 0.064 | 0.060 | 0.062 | 0.060 | 0.063 | 0.060 | 0.060 | 0.064 | 0.062 |
| FTP 9- Pot Line-5 | 0.65 | 0.065 | 0.066 | 0.065 | 0.067 | 0.064 | 0.066 | 0.064 | 0.067 | 0.066 |
| FTP 10- Pot Line-5 | 0.65 | 0.059 | 0.057 | 0.059 | 0.054 | 0.055 | 0.054 | 0.054 | 0.059 | 0.056 |
| FTP 11- Pot Line-6 | 0.65 | 0.054 | 0.055 | 0.054 | 0.056 | 0.054 | 0.052 | 0.052 | 0.056 | 0.054 |
| FTP 12- Pot Line-6 | 0.65 | 0.063 | 0.065 | 0.062 | 0.065 | 0.062 | 0.063 | 0.062 | 0.065 | 0.063 |

iv. Total Fluoride (kg/T)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|--------------------|-------|--------|--------|--------|--------|--------|--------|------|------|------|
| FTP 1- Pot Line-1 | 0.30 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.07 | 0.09 | 0.08 |
| FTP 2- Pot Line-1 | 0.30 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.07 | 0.08 | 0.07 |
| FTP 3- Pot Line-2 | 0.30 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| FTP 4- Pot Line-2 | 0.30 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.08 |
| FTP 5- Pot Line-3 | 0.20 | 0.07 | 0.06 | 0.08 | 0.08 | 0.07 | 0.07 | 0.06 | 0.08 | 0.07 |
| FTP 6- Pot Line-3 | 0.20 | 0.08 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.07 | 0.08 | 0.08 |
| FTP 7- Pot Line-4 | 0.20 | 0.08 | 0.07 | 0.07 | 0.08 | 0.07 | 0.07 | 0.07 | 0.08 | 0.07 |
| FTP 8- Pot Line-4 | 0.20 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.07 | 0.08 | 0.07 |
| FTP 9- Pot Line-5 | 0.20 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.07 | 0.08 | 0.07 |
| FTP 10- Pot Line-5 | 0.20 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.08 | 0.07 | 0.08 | 0.08 |
| FTP 11- Pot Line-6 | 0.20 | 0.08 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.07 | 0.09 | 0.08 |
| FTP 12- Pot Line-6 | 0.20 | 0.08 | 0.08 | 0.08 | 0.09 | 0.08 | 0.08 | 0.08 | 0.09 | 0.08 |

b) Bake Oven Fume Treatment Plant (FTP) Outlet

i. Particulate Matter (mg/Nm³)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|-------|--------|--------|--------|--------|--------|--------|-----|-----|-----|
| FTP 1 - Bake Oven | 100 | 5.4 | 5.6 | 5.4 | 5.6 | 5.2 | 5.5 | 5.2 | 5.6 | 5.5 |
| FTP 2 - Bake Oven | 100 | 5.5 | 5.2 | 5.0 | 5.1 | 5.4 | 5.8 | 5.0 | 5.8 | 5.3 |
| FTP-3 - Bake Oven | 100 | 6.0 | 6.1 | 6.2 | 6.0 | 6.1 | 6.0 | 6.0 | 6.2 | 6.1 |
| FTP-4 - Bake Oven | 100 | 5.4 | 5.8 | 5.9 | 5.5 | 5.8 | 6.1 | 5.4 | 6.1 | 5.8 |
| FTP-5 - Bake Oven | 100 | 5.8 | 5.5 | 5.4 | 5.8 | 5.3 | 5.6 | 5.3 | 5.8 | 5.6 |





Ref: Envlab/26-27/TR- 02857

Date: 07.05.2026

ii. Gaseous Fluoride (mg/Nm³)

| Stack Description | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| FTP 1 - Bake Oven | 2.25 | 2.28 | 2.33 | 2.58 | 2.33 | 2.42 | 2.25 | 2.58 | 2.37 |
| FTP 2 - Bake Oven | 2.44 | 2.45 | 2.40 | 2.44 | 2.45 | 2.40 | 2.40 | 2.45 | 2.43 |
| FTP-3 - Bake Oven | 2.60 | 2.56 | 2.59 | 2.56 | 2.40 | 2.58 | 2.40 | 2.60 | 2.55 |
| FTP-4 - Bake Oven | 2.41 | 2.45 | 2.41 | 2.36 | 2.31 | 2.26 | 2.26 | 2.45 | 2.37 |
| FTP-5 - Bake Oven | 2.45 | 2.42 | 2.38 | 2.62 | 2.38 | 2.30 | 2.30 | 2.62 | 2.43 |

iii. Particulate Fluoride (mg/Nm³)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|-------|--------|--------|--------|--------|--------|--------|------|------|------|
| FTP 1 - Bake Oven | 0.65 | 0.56 | 0.58 | 0.40 | 0.59 | 0.55 | 0.52 | 0.40 | 0.59 | 0.53 |
| FTP 2 - Bake Oven | 0.65 | 0.43 | 0.45 | 0.42 | 0.45 | 0.42 | 0.46 | 0.42 | 0.46 | 0.44 |
| FTP-3 - Bake Oven | 0.65 | 0.45 | 0.42 | 0.40 | 0.39 | 0.36 | 0.33 | 0.33 | 0.45 | 0.39 |
| FTP-4 - Bake Oven | 0.65 | 0.42 | 0.43 | 0.45 | 0.42 | 0.40 | 0.44 | 0.40 | 0.45 | 0.43 |
| FTP-5 - Bake Oven | 0.65 | 0.52 | 0.50 | 0.52 | 0.50 | 0.53 | 0.50 | 0.50 | 0.53 | 0.51 |

iv. Total Fluoride (Kg/T)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|-------|--------|--------|--------|--------|--------|--------|------|------|------|
| P 1 - Bake Oven | 0.1 | 0.02 | 0.03 | 0.02 | 0.03 | 0.03 | 0.03 | 0.02 | 0.03 | 0.03 |
| P 2 - Bake Oven | 0.1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| P-3 - Bake Oven | 0.1 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | 0.01 | 0.02 | 0.02 |
| P-4 - Bake Oven | 0.1 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 | 0.02 |
| P-5 - Bake Oven | 0.1 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 |

v. Total PAH (mg/Nm³)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|-------|--------|--------|--------|--------|--------|--------|------|------|------|
| FTP 1 - Bake Oven | 2 | 0.24 | 0.25 | 0.28 | 0.26 | 0.26 | 0.27 | 0.24 | 0.28 | 0.26 |
| FTP 2 - Bake Oven | 2 | 0.25 | 0.22 | 0.24 | 0.25 | 0.25 | 0.24 | 0.22 | 0.25 | 0.24 |
| FTP-3 - Bake Oven | 2 | 0.22 | 0.23 | 0.25 | 0.29 | 0.28 | 0.25 | 0.22 | 0.29 | 0.25 |
| FTP-4 - Bake Oven | 2 | 0.25 | 0.22 | 0.26 | 0.22 | 0.27 | 0.24 | 0.22 | 0.27 | 0.24 |
| FTP-5 - Bake Oven | 2 | 0.25 | 0.24 | 0.26 | 0.24 | 0.27 | 0.26 | 0.24 | 0.27 | 0.25 |





Ref: Envlab/26-27/TR- 02858

Date: 07.05.2026

c) Captive Power Plant (CPP)

i. Particulate Matter (mg/Nm³)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|-------|--------|--------|--------|--------|--------|--------|------|------|------|
| P- Unit 1 | 50 | 41.3 | 42.0 | 41.6 | 42.5 | 42.1 | 41.8 | 41.3 | 42.5 | 41.9 |
| P- Unit 2 | 50 | 46.2 | 45.8 | 44.9 | 44.6 | 44.5 | 44.0 | 44.0 | 46.2 | 45.0 |
| P- Unit 3 | 50 | 46.6 | 46.9 | 46.0 | 45.8 | 45.2 | 45.6 | 45.2 | 46.9 | 46.0 |
| P- Unit 4 | 50 | 45.1 | 44.8 | 45.3 | 46.0 | 45.8 | 46.2 | 44.8 | 46.2 | 45.5 |
| P- Unit 5 | 50 | 44.8 | 45.7 | 46.5 | 46.9 | 46.3 | 45.8 | 44.8 | 46.9 | 46.0 |
| P- Unit 6 | 50 | 45.4 | 46.3 | 46.8 | 45.4 | 45.0 | 44.7 | 44.7 | 46.8 | 45.6 |
| P- Unit 7 | 50 | 42.9 | 43.1 | 44.5 | 47.2 | 46.9 | 47.2 | 42.9 | 47.2 | 45.3 |
| P- Unit 8 | 50 | 44.0 | 44.5 | 42.9 | 43.8 | 43.2 | 42.5 | 42.5 | 44.5 | 43.5 |
| P- Unit 9 | 50 | 45.6 | 45.8 | 46.1 | 45.9 | 44.8 | 44.1 | 44.1 | 46.1 | 45.4 |

ii. SO₂ (mg/Nm³)

| Stack Description | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| P- Unit 1 | 1356 | 1362 | 1354 | 1362 | 1354 | 1328 | 1328 | 1362 | 1353 |
| P- Unit 2 | 1324 | 1344 | 1338 | 1325 | 1316 | 1310 | 1310 | 1344 | 1326 |
| P- Unit 3 | 1350 | 1328 | 1306 | 1312 | 1308 | 1315 | 1306 | 1350 | 1320 |
| P- Unit 4 | 1328 | 1336 | 1328 | 1320 | 1322 | 1334 | 1320 | 1336 | 1328 |
| P- Unit 5 | 1346 | 1340 | 1348 | 1355 | 1364 | 1356 | 1340 | 1364 | 1352 |
| P- Unit 6 | 1332 | 1348 | 1355 | 1364 | 1358 | 1366 | 1332 | 1366 | 1354 |
| P- Unit 7 | 1308 | 1324 | 1386 | 1390 | 1398 | 1402 | 1308 | 1402 | 1368 |
| P- Unit 8 | 1316 | 1320 | 1352 | 1348 | 1356 | 1368 | 1316 | 1368 | 1343 |
| P- Unit 9 | 1345 | 1356 | 1366 | 1356 | 1364 | 1355 | 1345 | 1366 | 1357 |

iii. NO_x (mg/Nm³)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|-------|--------|--------|--------|--------|--------|--------|-----|-----|-----|
| CPP- Unit 1 | 450 | 348 | 342 | 336 | 338 | 321 | 317 | 317 | 348 | 334 |
| CPP- Unit 2 | 450 | 324 | 325 | 320 | 312 | 310 | 315 | 310 | 325 | 318 |
| CPP- Unit 3 | 450 | 360 | 355 | 348 | 353 | 346 | 339 | 339 | 360 | 350 |
| CPP- Unit 4 | 450 | 341 | 348 | 356 | 368 | 372 | 366 | 341 | 372 | 359 |
| CPP- Unit 5 | 450 | 325 | 336 | 329 | 336 | 341 | 335 | 325 | 341 | 334 |
| CPP- Unit 6 | 450 | 336 | 328 | 333 | 321 | 332 | 327 | 321 | 336 | 330 |
| CPP- Unit 7 | 450 | 328 | 334 | 342 | 345 | 354 | 360 | 328 | 360 | 344 |
| CPP- Unit 8 | 450 | 324 | 330 | 325 | 320 | 328 | 334 | 320 | 334 | 327 |
| CPP- Unit 9 | 450 | 360 | 354 | 360 | 355 | 360 | 358 | 354 | 360 | 358 |





Ref: Envlab/26-27/TR- 02859

Date: 07.05.2026

iv. Mercury (mg/Nm³)

| Stack Description | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| CPP- Unit 1 | 0.03 | 0.0082 | 0.0085 | 0.0088 | 0.0090 | 0.0082 | 0.0083 | 0.0082 | 0.0090 | 0.0085 |
| CPP- Unit 2 | 0.03 | 0.0081 | 0.0080 | 0.0082 | 0.0085 | 0.0088 | 0.0085 | 0.0080 | 0.0088 | 0.0084 |
| CPP- Unit 3 | 0.03 | 0.0075 | 0.0078 | 0.0075 | 0.0077 | 0.0078 | 0.0079 | 0.0075 | 0.0079 | 0.0077 |
| CPP- Unit 4 | 0.03 | 0.0069 | 0.0072 | 0.0079 | 0.0078 | 0.0080 | 0.0084 | 0.0069 | 0.0084 | 0.0077 |
| CPP- Unit 5 | 0.03 | 0.0080 | 0.0088 | 0.0086 | 0.0085 | 0.0081 | 0.0080 | 0.0080 | 0.0088 | 0.0083 |
| CPP- Unit 6 | 0.03 | 0.0078 | 0.0075 | 0.0080 | 0.0082 | 0.0079 | 0.0078 | 0.0075 | 0.0082 | 0.0079 |
| CPP- Unit 7 | 0.03 | 0.0079 | 0.0070 | 0.0078 | 0.0071 | 0.0073 | 0.0075 | 0.0070 | 0.0079 | 0.0074 |
| CPP- Unit 8 | 0.03 | 0.0082 | 0.0084 | 0.0085 | 0.0079 | 0.0075 | 0.0072 | 0.0072 | 0.0085 | 0.0080 |
| CPP- Unit 9 | 0.03 | 0.0080 | 0.0083 | 0.0082 | 0.0086 | 0.0080 | 0.0078 | 0.0078 | 0.0086 | 0.0082 |

2. Fugitive Fluoride in Pot rooms

| Fugitive Fluoride: Particulate Fluoride (mg/Nm ³) | | | | | | | | | | |
|---------------------------------------------------------------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| Potroom | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| Room 1 | 1.85 | 0.484 | 0.578 | 0.604 | 0.337 | 0.439 | 0.381 | 0.337 | 0.604 | 0.471 |
| Room 2 | 1.85 | 0.429 | 0.673 | 0.604 | 0.470 | 0.474 | 0.492 | 0.429 | 0.673 | 0.524 |
| Room 3 | 1.85 | 0.411 | 0.574 | 0.584 | 0.492 | 0.446 | 0.337 | 0.337 | 0.584 | 0.474 |
| Room 4 | 1.85 | 0.484 | 0.687 | 0.607 | 0.412 | 0.400 | 0.376 | 0.376 | 0.687 | 0.494 |
| Room 5 | 1.85 | 0.346 | 0.563 | 0.470 | 0.337 | 0.340 | 0.328 | 0.328 | 0.563 | 0.397 |
| Room 6 | 1.85 | 0.290 | 0.480 | 0.489 | 0.356 | 0.357 | 0.391 | 0.290 | 0.489 | 0.394 |
| Room 7 | 1.85 | 0.338 | 0.541 | 0.449 | 0.314 | 0.317 | 0.309 | 0.309 | 0.541 | 0.378 |
| Room 8 | 1.85 | 0.310 | 0.529 | 0.446 | 0.288 | 0.292 | 0.332 | 0.288 | 0.529 | 0.366 |
| Room 9 | 1.85 | 0.347 | 0.450 | 0.473 | 0.262 | 0.359 | 0.311 | 0.262 | 0.473 | 0.367 |
| Room 10 | 1.85 | 0.363 | 0.531 | 0.471 | 0.285 | 0.246 | 0.251 | 0.246 | 0.531 | 0.358 |
| Room 11 | 1.85 | 0.301 | 0.545 | 0.526 | 0.398 | 0.354 | 0.394 | 0.301 | 0.545 | 0.420 |
| Room 12 | 1.85 | 0.366 | 0.532 | 0.437 | 0.322 | 0.283 | 0.267 | 0.267 | 0.532 | 0.368 |

| Fugitive Fluoride: Gaseous Fluoride (mg/Nm ³) | | | | | | | | | | |
|-----------------------------------------------------------|--------|--------|--------|--------|--------|--------|-------|-------|-------|--|
| Potroom | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg | |
| Room 1 | 1.330 | 1.268 | 1.327 | 1.229 | 1.214 | 1.262 | 1.214 | 1.330 | 1.272 | |
| Room 2 | 1.372 | 1.264 | 1.283 | 1.167 | 1.290 | 1.220 | 1.167 | 1.372 | 1.266 | |
| Room 3 | 1.227 | 1.241 | 1.340 | 1.256 | 1.259 | 1.275 | 1.227 | 1.340 | 1.266 | |
| Room 4 | 1.353 | 1.297 | 1.280 | 1.239 | 1.226 | 1.252 | 1.226 | 1.353 | 1.275 | |
| Room 5 | 1.053 | 0.978 | 1.201 | 1.261 | 1.028 | 0.991 | 0.978 | 1.261 | 1.085 | |
| Room 6 | 1.128 | 1.063 | 1.164 | 1.167 | 1.044 | 0.978 | 0.978 | 1.167 | 1.091 | |
| Room 7 | 1.128 | 1.039 | 1.119 | 1.025 | 1.051 | 1.025 | 1.025 | 1.128 | 1.065 | |
| Room 8 | 1.077 | 0.981 | 1.191 | 0.992 | 1.101 | 1.074 | 0.981 | 1.191 | 1.069 | |
| Room 9 | 1.263 | 1.105 | 1.236 | 1.184 | 1.091 | 1.045 | 1.045 | 1.263 | 1.154 | |
| Room 10 | 1.109 | 1.018 | 1.108 | 1.052 | 1.113 | 1.073 | 1.018 | 1.113 | 1.079 | |
| Room 11 | 1.115 | 0.980 | 1.181 | 1.007 | 1.095 | 0.964 | 0.964 | 1.181 | 1.057 | |
| Room 12 | 1.124 | 1.051 | 1.179 | 1.035 | 1.146 | 1.187 | 1.035 | 1.187 | 1.120 | |





Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Ref: Envlab/26-27/TR- 02860

Date: 07.05.2026

| Total Fluoride: Particulate Fluoride (Kg/Mt) | | | | | | | | | |
|----------------------------------------------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| Potroom | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| Room 1 | 0.102 | 0.116 | 0.121 | 0.079 | 0.106 | 0.088 | 0.079 | 0.121 | 0.102 |
| Room 2 | 0.094 | 0.131 | 0.126 | 0.106 | 0.106 | 0.112 | 0.094 | 0.131 | 0.113 |
| Room 3 | 0.093 | 0.122 | 0.113 | 0.105 | 0.100 | 0.080 | 0.080 | 0.122 | 0.102 |
| Room 4 | 0.102 | 0.130 | 0.118 | 0.092 | 0.094 | 0.086 | 0.086 | 0.130 | 0.104 |
| Room 5 | 0.094 | 0.139 | 0.109 | 0.081 | 0.090 | 0.091 | 0.081 | 0.139 | 0.101 |
| Room 6 | 0.076 | 0.118 | 0.112 | 0.091 | 0.096 | 0.109 | 0.076 | 0.118 | 0.100 |
| Room 7 | 0.086 | 0.130 | 0.111 | 0.086 | 0.087 | 0.084 | 0.084 | 0.130 | 0.097 |
| Room 8 | 0.085 | 0.136 | 0.103 | 0.085 | 0.080 | 0.091 | 0.080 | 0.136 | 0.097 |
| Room 9 | 0.083 | 0.109 | 0.107 | 0.070 | 0.096 | 0.089 | 0.070 | 0.109 | 0.092 |
| Room 10 | 0.094 | 0.132 | 0.114 | 0.078 | 0.068 | 0.072 | 0.068 | 0.132 | 0.093 |
| Room 11 | 0.078 | 0.136 | 0.117 | 0.101 | 0.098 | 0.111 | 0.078 | 0.136 | 0.107 |
| Room 12 | 0.092 | 0.126 | 0.099 | 0.089 | 0.077 | 0.071 | 0.071 | 0.126 | 0.092 |

| Total Fluoride: Gaseous Fluoride (Kg/Mt) | | | | | | | | | |
|------------------------------------------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| Potroom | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| Room 1 | 0.279 | 0.255 | 0.265 | 0.289 | 0.292 | 0.292 | 0.255 | 0.292 | 0.279 |
| Room 2 | 0.299 | 0.247 | 0.267 | 0.264 | 0.288 | 0.277 | 0.247 | 0.299 | 0.274 |
| Room 3 | 0.277 | 0.263 | 0.258 | 0.268 | 0.283 | 0.304 | 0.258 | 0.304 | 0.276 |
| Room 4 | 0.286 | 0.245 | 0.250 | 0.278 | 0.289 | 0.287 | 0.245 | 0.289 | 0.273 |
| Room 5 | 0.285 | 0.242 | 0.278 | 0.305 | 0.271 | 0.274 | 0.242 | 0.305 | 0.276 |
| Room 6 | 0.294 | 0.260 | 0.268 | 0.289 | 0.280 | 0.273 | 0.260 | 0.294 | 0.277 |
| Room 7 | 0.288 | 0.250 | 0.275 | 0.281 | 0.288 | 0.279 | 0.250 | 0.288 | 0.277 |
| Room 8 | 0.296 | 0.252 | 0.274 | 0.292 | 0.301 | 0.295 | 0.252 | 0.301 | 0.285 |
| Room 9 | 0.302 | 0.268 | 0.278 | 0.316 | 0.292 | 0.299 | 0.268 | 0.316 | 0.293 |
| Room 10 | 0.288 | 0.252 | 0.269 | 0.288 | 0.307 | 0.308 | 0.252 | 0.308 | 0.285 |
| Room 11 | 0.290 | 0.244 | 0.263 | 0.256 | 0.293 | 0.271 | 0.244 | 0.293 | 0.270 |
| Room 12 | 0.283 | 0.249 | 0.267 | 0.286 | 0.313 | 0.314 | 0.249 | 0.314 | 0.285 |





Ref: Envlab/26-27/TR- 02861

Date: 07.05.2026

| Total Fugitive Fluoride (Kg/Mt) | | | | | | | | | | |
|---------------------------------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| Potroom | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| Room 1 | 0.4 | 0.381 | 0.371 | 0.386 | 0.368 | 0.398 | 0.380 | 0.368 | 0.398 | 0.381 |
| Room 2 | 0.4 | 0.393 | 0.378 | 0.393 | 0.370 | 0.394 | 0.389 | 0.370 | 0.394 | 0.386 |
| Room 3 | 0.4 | 0.370 | 0.385 | 0.371 | 0.373 | 0.383 | 0.384 | 0.370 | 0.385 | 0.378 |
| Room 4 | 0.4 | 0.388 | 0.375 | 0.368 | 0.370 | 0.383 | 0.373 | 0.368 | 0.388 | 0.376 |
| Room 5 | 0.4 | 0.379 | 0.381 | 0.387 | 0.386 | 0.361 | 0.365 | 0.361 | 0.387 | 0.377 |
| Room 6 | 0.4 | 0.370 | 0.378 | 0.380 | 0.389 | 0.376 | 0.382 | 0.370 | 0.389 | 0.379 |
| Room 7 | 0.4 | 0.374 | 0.380 | 0.386 | 0.367 | 0.375 | 0.363 | 0.363 | 0.386 | 0.374 |
| Room 8 | 0.4 | 0.381 | 0.388 | 0.377 | 0.377 | 0.381 | 0.386 | 0.377 | 0.388 | 0.382 |
| Room 9 | 0.4 | 0.385 | 0.377 | 0.385 | 0.386 | 0.388 | 0.388 | 0.377 | 0.388 | 0.385 |
| Room 10 | 0.4 | 0.382 | 0.384 | 0.383 | 0.366 | 0.375 | 0.380 | 0.366 | 0.384 | 0.378 |
| Room 11 | 0.4 | 0.368 | 0.380 | 0.380 | 0.357 | 0.391 | 0.382 | 0.357 | 0.391 | 0.376 |
| Room 12 | 0.4 | 0.375 | 0.375 | 0.366 | 0.375 | 0.390 | 0.385 | 0.366 | 0.390 | 0.378 |

3. Forage Fluoride

| Sl. No. | Location | Forage Fluoride (ppm) | | | | | | | | |
|---------|-------------|-----------------------|--------|--------|--------|--------|--------|------|------|------|
| | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| Limit | | One Month: 40 ppm | | | | | | | | |
| 1. | Gudigaon | 20.6 | 20.1 | 20.5 | 20.2 | 20.5 | 20.1 | 20.1 | 20.6 | 20.3 |
| 2. | Kurebaga | 20.4 | 20.5 | 20.0 | 20.5 | 20.6 | 21.6 | 20.0 | 21.6 | 20.6 |
| 3. | Siriapali | 20.6 | 20.8 | 21.2 | 21.4 | 21.0 | 21.8 | 20.6 | 21.8 | 21.1 |
| 4. | Katapali | 20.4 | 20.2 | 20.4 | 20.8 | 20.1 | 20.9 | 20.1 | 20.9 | 20.5 |
| 5. | Katikela | 20.5 | 20.8 | 20.2 | 20.0 | 20.2 | 21.4 | 20.0 | 21.4 | 20.5 |
| 6. | Burkhamunda | 19.1 | 20.3 | 21.3 | 21.6 | 21.1 | 21.8 | 19.1 | 21.8 | 20.9 |
| 7. | R&R Colony | 20.5 | 21.1 | 21.0 | 20.9 | 20.5 | 20.2 | 20.2 | 21.1 | 20.7 |
| 8. | Tumbakela | 20.9 | 21.2 | 22.1 | 22.4 | 22.2 | 21.6 | 20.9 | 22.4 | 21.7 |
| 9. | Brundamal | 19.7 | 19.8 | 19.5 | 19.8 | 19.5 | 19.9 | 19.5 | 19.9 | 19.7 |
| 10. | Sripura | 20.8 | 20.2 | 20.9 | 20.3 | 19.8 | 20.3 | 19.8 | 20.9 | 20.4 |
| 11. | Ghichimura | 19.5 | 20.6 | 21.2 | 21.5 | 21.3 | 21.1 | 19.5 | 21.5 | 20.9 |
| 12. | Lapanga | 20.2 | 20.5 | 20.8 | 20.1 | 20.2 | 20.5 | 20.1 | 20.8 | 20.4 |
| Average | | 19.7 | 20.6 | 20.1 | 20.5 | 20.2 | 20.5 | 20.1 | 20.1 | 20.6 |





Ref: Envlab/26-27/TR-02862

Date: 07.05.2026

4. Ambient Air Quality:

i. PM₁₀ (µg/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 100 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 59.3 | 60.0 | 59.6 | 61.0 | 60.3 | 60.7 | 59.3 | 61.0 | 60.2 |
| 2 | Near Rectifier of Expansion Pot Room | 57.7 | 57.0 | 56.0 | 60.0 | 58.7 | 58.4 | 56.0 | 60.0 | 58.0 |
| 3 | Near R & R colony | 50.4 | 51.4 | 52.7 | 55.0 | 54.9 | 55.2 | 50.4 | 55.2 | 53.3 |
| 4 | Near China Gate Weigh Bridge | 58.9 | 59.6 | 60.0 | 60.3 | 60.6 | 59.6 | 58.9 | 60.6 | 59.8 |
| 5 | Near Cooling Tower IPP | 60.5 | 60.1 | 60.2 | 61.4 | 61.7 | 62.3 | 60.1 | 62.3 | 61.0 |
| 6 | Near ETP, Smelter-1 | 56.8 | 57.6 | 58.2 | 58.9 | 59.7 | 59.8 | 56.8 | 59.8 | 58.5 |
| 7 | Near Cast House, Smelter-1 | 59.0 | 59.6 | 60.0 | 61.4 | 61.5 | 61.6 | 59.0 | 61.6 | 60.5 |
| 8 | Near Pot Room, Smelter-1 | 60.2 | 60.1 | 60.8 | 60.9 | 61.6 | 63.0 | 60.1 | 63.0 | 61.1 |
| 9 | Near Coal Yard of CPP | 61.7 | 61.6 | 61.9 | 61.8 | 62.0 | 62.4 | 61.6 | 62.4 | 61.9 |
| 10 | Near Cooling Tower of CPP | 60.3 | 60.6 | 60.8 | 62.1 | 63.1 | 63.6 | 60.3 | 63.6 | 61.8 |
| 11 | Kurebaga Ash Pond | 60.2 | 62.1 | 62.0 | 63.5 | 63.9 | 64.4 | 60.2 | 64.4 | 62.7 |
| 12 | Siriapali Ash Pond | 59.9 | 61.0 | 61.5 | 62.3 | 62.8 | 61.4 | 59.9 | 62.8 | 61.5 |
| 13 | Katikela Ash Pond | 59.9 | 59.2 | 59.3 | 61.3 | 62.0 | 61.9 | 59.2 | 62.0 | 60.6 |

ii. PM_{2.5} (µg/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 60 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 30.0 | 30.2 | 30.1 | 30.7 | 30.5 | 31.3 | 30.0 | 31.3 | 30.5 |
| 2 | Near Rectifier of Expansion Pot Room | 29.2 | 28.7 | 28.3 | 30.3 | 30.2 | 29.4 | 28.3 | 30.3 | 29.4 |
| 3 | Near R & R colony | 25.5 | 26.0 | 26.7 | 27.8 | 27.7 | 26.5 | 25.5 | 27.8 | 26.7 |
| 4 | Near China Gate Weigh Bridge | 29.7 | 30.1 | 30.6 | 30.4 | 30.5 | 30.1 | 29.7 | 30.6 | 30.2 |
| 5 | Near Cooling Tower IPP | 30.5 | 30.2 | 30.4 | 31.0 | 31.1 | 31.4 | 30.2 | 31.4 | 30.8 |
| 6 | Near ETP, Smelter-1 | 28.7 | 28.9 | 29.4 | 29.8 | 30.0 | 30.1 | 28.7 | 30.1 | 29.5 |
| 7 | Near Cast House, Smelter-1 | 29.8 | 30.0 | 30.4 | 31.0 | 29.5 | 28.1 | 28.1 | 31.0 | 29.8 |
| 8 | Near Pot Room, Smelter-1 | 30.3 | 30.1 | 30.7 | 30.7 | 31.0 | 31.8 | 30.1 | 31.8 | 30.8 |
| 9 | Near Coal Yard of CPP | 31.6 | 30.9 | 31.3 | 31.3 | 31.2 | 31.5 | 30.9 | 31.6 | 31.3 |
| 10 | Near Cooling Tower of CPP | 30.3 | 30.6 | 30.6 | 31.4 | 31.8 | 32.1 | 30.3 | 32.1 | 31.1 |
| 11 | Kurebaga Ash Pond | 30.4 | 31.4 | 29.9 | 32.1 | 32.2 | 32.5 | 29.9 | 32.5 | 31.4 |
| 12 | Siriapali Ash Pond | 30.2 | 30.8 | 31.0 | 31.4 | 31.6 | 31.7 | 30.2 | 31.7 | 31.1 |
| 13 | Katikela Ash Pond | 30.3 | 29.8 | 30.4 | 31.0 | 31.2 | 31.1 | 29.8 | 31.2 | 30.6 |





Ref: Envlab/26-27/TR-02863

Date: 07.05.2026

iii. SO₂ (µg/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 80 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 20.0 | 20.3 | 21.2 | 22.0 | 21.8 | 21.7 | 20.0 | 22.0 | 21.2 |
| 2 | Near Rectifier of Expansion Pot Room | 22.4 | 22.0 | 22.4 | 23.3 | 22.0 | 21.4 | 21.4 | 23.3 | 22.3 |
| 3 | Near R & R colony | 20.7 | 21.3 | 21.8 | 22.1 | 22.3 | 21.8 | 20.7 | 22.3 | 21.7 |
| 4 | Near China Gate Weigh Bridge | 21.3 | 21.4 | 21.9 | 21.9 | 21.7 | 22.0 | 21.3 | 22.0 | 21.7 |
| 5 | Near Cooling Tower IPP | 18.8 | 19.0 | 20.2 | 21.1 | 21.8 | 22.2 | 18.8 | 22.2 | 20.5 |
| 6 | Near ETP, Smelter-1 | 23.1 | 22.8 | 22.4 | 23.5 | 23.6 | 22.4 | 22.4 | 23.6 | 23.0 |
| 7 | Near Cast House, Smelter-1 | 21.1 | 20.8 | 21.6 | 22.7 | 22.6 | 22.2 | 20.8 | 22.7 | 21.8 |
| 8 | Near Pot Room, Smelter-1 | 23.5 | 23.7 | 24.3 | 23.9 | 24.0 | 24.4 | 23.5 | 24.4 | 24.0 |
| 9 | Near Coal Yard of CPP | 25.9 | 25.5 | 25.7 | 25.9 | 26.1 | 26.5 | 25.5 | 26.5 | 25.9 |
| 10 | Near Cooling Tower of CPP | 22.9 | 23.2 | 23.7 | 23.6 | 23.9 | 23.5 | 22.9 | 23.9 | 23.5 |
| 11 | Kurebaga Ash Pond | 22.9 | 23.0 | 23.3 | 23.7 | 23.4 | 22.9 | 22.9 | 23.7 | 23.2 |
| 12 | Siriapali Ash Pond | 22.3 | 22.6 | 22.9 | 23.4 | 23.5 | 23.7 | 22.3 | 23.7 | 23.1 |
| 13 | Katikela Ash Pond | 21.8 | 21.5 | 22.0 | 22.2 | 22.2 | 22.5 | 21.5 | 22.5 | 22.0 |

v. NO₂ (µg/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 80 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 25.4 | 24.4 | 25.4 | 25.7 | 26.0 | 24.7 | 24.4 | 26.0 | 25.3 |
| 2 | Near Rectifier of Expansion Pot Room | 27.7 | 26.5 | 25.8 | 27.6 | 26.9 | 26.5 | 25.8 | 27.7 | 26.8 |
| 3 | Near R & R colony | 24.4 | 24.7 | 25.3 | 25.7 | 25.5 | 24.7 | 24.4 | 25.7 | 25.1 |
| 4 | Near China Gate Weigh Bridge | 27.6 | 27.2 | 26.9 | 28.1 | 28.0 | 26.6 | 26.6 | 28.1 | 27.4 |
| 5 | Near Cooling Tower IPP | 22.4 | 21.6 | 22.2 | 22.6 | 23.4 | 23.1 | 21.6 | 23.4 | 22.6 |
| 6 | Near ETP, Smelter-1 | 26.4 | 26.2 | 26.9 | 27.9 | 27.8 | 27.2 | 26.2 | 27.9 | 27.1 |
| 7 | Near Cast House, Smelter-1 | 29.4 | 29.2 | 28.3 | 28.0 | 27.4 | 25.7 | 25.7 | 29.4 | 28.0 |
| 8 | Near Pot Room, Smelter-1 | 27.4 | 27.5 | 29.0 | 28.3 | 27.9 | 27.8 | 27.4 | 29.0 | 28.0 |
| 9 | Near Coal Yard of CPP | 30.6 | 30.4 | 31.4 | 31.9 | 31.8 | 31.9 | 30.4 | 31.9 | 31.3 |
| 10 | Near Cooling Tower of CPP | 27.0 | 27.3 | 27.9 | 26.8 | 27.8 | 28.6 | 26.8 | 28.6 | 27.6 |
| 11 | Kurebaga Ash Pond | 25.4 | 25.3 | 26.5 | 27.4 | 27.2 | 26.9 | 25.3 | 27.4 | 26.5 |
| 12 | Siriapali Ash Pond | 25.7 | 26.1 | 26.6 | 26.5 | 26.7 | 27.0 | 25.7 | 27.0 | 26.4 |
| 13 | Katikela Ash Pond | 25.6 | 25.6 | 25.9 | 26.3 | 26.9 | 26.6 | 25.6 | 26.9 | 26.2 |





Ref: Envlab/26-27/TR-02864

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vi. CO (mg/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-----------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (8 Hours) | | 2.0 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 0.57 | 0.55 | 0.59 | 0.60 | 0.58 | 0.56 | 0.55 | 0.60 | 0.58 |
| 2 | Near Rectifier of Expansion Pot Room | 0.53 | 0.53 | 0.56 | 0.54 | 0.55 | 0.53 | 0.53 | 0.56 | 0.54 |
| 3 | Near R & R colony | 0.52 | 0.52 | 0.54 | 0.58 | 0.57 | 0.59 | 0.52 | 0.59 | 0.55 |
| 4 | Near China Gate Weigh Bridge | 0.54 | 0.56 | 0.57 | 0.58 | 0.56 | 0.54 | 0.54 | 0.58 | 0.56 |
| 5 | Near Cooling Tower IPP | 0.55 | 0.54 | 0.56 | 0.59 | 0.58 | 0.60 | 0.54 | 0.60 | 0.57 |
| 6 | Near ETP, Smelter-1 | 0.57 | 0.56 | 0.57 | 0.59 | 0.60 | 0.59 | 0.56 | 0.60 | 0.58 |
| 7 | Near Cast House, Smelter-1 | 0.56 | 0.55 | 0.56 | 0.57 | 0.58 | 0.59 | 0.55 | 0.59 | 0.57 |
| 8 | Near Pot Room, Smelter-1 | 0.58 | 0.57 | 0.60 | 0.58 | 0.59 | 0.58 | 0.57 | 0.60 | 0.58 |
| 9 | Near Coal Yard of CPP | 0.59 | 0.60 | 0.58 | 0.60 | 0.59 | 0.60 | 0.58 | 0.60 | 0.59 |
| 10 | Near Cooling Tower of CPP | 0.60 | 0.60 | 0.59 | 0.62 | 0.61 | 0.63 | 0.59 | 0.63 | 0.61 |
| 11 | Kurebaga Ash Pond | 0.58 | 0.59 | 0.61 | 0.59 | 0.57 | 0.58 | 0.57 | 0.61 | 0.59 |
| 12 | Siriapali Ash Pond | 0.60 | 0.62 | 0.59 | 0.61 | 0.60 | 0.59 | 0.59 | 0.62 | 0.60 |
| 13 | Katikela Ash Pond | 0.62 | 0.61 | 0.60 | 0.62 | 0.61 | 0.60 | 0.60 | 0.62 | 0.61 |

vii. Pb (µg/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 1.0 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 0.12 | 0.13 | 0.14 | 0.15 | 0.14 | 0.13 | 0.12 | 0.15 | 0.14 |
| 2 | Near Rectifier of Expansion Pot Room | 0.15 | 0.13 | 0.15 | 0.14 | 0.16 | 0.13 | 0.13 | 0.16 | 0.14 |
| 3 | Near R & R colony | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4 | Near China Gate Weigh Bridge | 0.14 | 0.15 | 0.16 | 0.15 | 0.13 | 0.16 | 0.13 | 0.16 | 0.15 |
| 5 | Near Cooling Tower IPP | 0.14 | 0.13 | 0.14 | 0.13 | 0.14 | 0.13 | 0.13 | 0.14 | 0.14 |
| 6 | Near ETP, Smelter-1 | 0.15 | 0.14 | 0.15 | 0.16 | 0.14 | 0.13 | 0.13 | 0.16 | 0.15 |
| 7 | Near Cast House, Smelter-1 | 0.14 | 0.15 | 0.16 | 0.15 | 0.16 | 0.14 | 0.14 | 0.16 | 0.15 |
| 8 | Near Pot Room, Smelter-1 | 0.15 | 0.14 | 0.15 | 0.13 | 0.14 | 0.13 | 0.13 | 0.15 | 0.14 |
| 9 | Near Coal Yard of CPP | 0.13 | 0.14 | 0.12 | 0.13 | 0.14 | 0.13 | 0.12 | 0.14 | 0.13 |
| 10 | Near Cooling Tower of CPP | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 11 | Kurebaga Ash Pond | 0.13 | 0.14 | 0.15 | 0.16 | 0.15 | 0.13 | 0.13 | 0.16 | 0.14 |
| 12 | Siriapali Ash Pond | 0.15 | 0.14 | 0.16 | 0.15 | 0.14 | 0.16 | 0.14 | 0.16 | 0.15 |
| 13 | Katikela Ash Pond | 0.14 | 0.15 | 0.16 | 0.14 | 0.15 | 0.13 | 0.13 | 0.16 | 0.15 |





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vii. As (ng/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|-----|-----|-----|
| Limit (24 Hours) | | 06 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 2 | Near Rectifier of Expansion Pot Room | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 3 | Near R & R colony | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4 | Near China Gate Weigh Bridge | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 5 | Near Cooling Tower IPP | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 6 | Near ETP, Smelter-1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 7 | Near Cast House, Smelter-1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 8 | Near Pot Room, Smelter-1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 9 | Near Coal Yard of CPP | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 10 | Near Cooling Tower of CPP | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 11 | Kurebaga Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Siriapali Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Katikela Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

viii. Ni (ng/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 20 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 0.12 | 0.13 | 0.14 | 0.15 | 0.14 | 0.13 | 0.12 | 0.15 | 0.14 |
| 2 | Near Rectifier of Expansion Pot Room | 0.15 | 0.13 | 0.12 | 0.15 | 0.14 | 0.13 | 0.12 | 0.15 | 0.14 |
| 3 | Near R & R colony | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4 | Near China Gate Weigh Bridge | 0.15 | 0.14 | 0.15 | 0.14 | 0.15 | 0.14 | 0.14 | 0.15 | 0.15 |
| 5 | Near Cooling Tower IPP | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.13 | 0.13 | 0.16 | 0.14 |
| 6 | Near ETP, Smelter-1 | 0.14 | 0.15 | 0.16 | 0.15 | 0.17 | 0.14 | 0.14 | 0.17 | 0.15 |
| 7 | Near Cast House, Smelter-1 | 0.14 | 0.13 | 0.14 | 0.15 | 0.14 | 0.14 | 0.13 | 0.15 | 0.14 |
| 8 | Near Pot Room, Smelter-1 | 0.14 | 0.16 | 0.15 | 0.16 | 0.14 | 0.13 | 0.13 | 0.16 | 0.15 |
| 9 | Near Coal Yard of CPP | 0.14 | 0.13 | 0.14 | 0.15 | 0.14 | 0.16 | 0.13 | 0.16 | 0.14 |
| 10 | Near Cooling Tower of CPP | 0.15 | 0.14 | 0.13 | 0.14 | 0.15 | 0.13 | 0.13 | 0.15 | 0.14 |
| 11 | Kurebaga Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Siriapali Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Katikela Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |





Ref: Envlab/26-27/TR-02866

Date: 07.05.2026

ix. BaP (ng/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 01 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.14 | 0.13 | 0.16 | 0.15 |
| 2 | Near Rectifier of Expansion Pot Room | 0.13 | 0.12 | 0.13 | 0.13 | 0.14 | 0.13 | 0.12 | 0.14 | 0.13 |
| 3 | Near R & R colony | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4 | Near China Gate Weigh Bridge | 0.13 | 0.14 | 0.15 | 0.14 | 0.16 | 0.14 | 0.13 | 0.16 | 0.14 |
| 5 | Near Cooling Tower IPP | 0.13 | 0.14 | 0.16 | 0.15 | 0.14 | 0.13 | 0.13 | 0.16 | 0.14 |
| 6 | Near ETP, Smelter-1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 7 | Near Cast House, Smelter-1 | 0.14 | 0.13 | 0.15 | 0.16 | 0.15 | 0.14 | 0.13 | 0.16 | 0.15 |
| 8 | Near Pot Room, Smelter-1 | 0.14 | 0.15 | 0.13 | 0.15 | 0.14 | 0.13 | 0.13 | 0.15 | 0.14 |
| 9 | Near Coal Yard of CPP | 0.14 | 0.13 | 0.15 | 0.14 | 0.16 | 0.15 | 0.13 | 0.16 | 0.15 |
| 10 | Near Cooling Tower of CPP | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 11 | Kurebaga Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Siriapali Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Katikela Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

x. Benzene (µg/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 05 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 0.14 | 0.13 | 0.14 | 0.15 | 0.14 | 0.13 | 0.13 | 0.15 | 0.14 |
| 2 | Near Rectifier of Expansion Pot Room | 0.13 | 0.14 | 0.13 | 0.15 | 0.14 | 0.13 | 0.13 | 0.15 | 0.14 |
| 3 | Near R & R colony | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 4 | Near China Gate Weigh Bridge | 0.14 | 0.12 | 0.15 | 0.14 | 0.16 | 0.15 | 0.12 | 0.16 | 0.14 |
| 5 | Near Cooling Tower IPP | 0.13 | 0.15 | 0.16 | 0.15 | 0.14 | 0.15 | 0.13 | 0.16 | 0.15 |
| 6 | Near ETP, Smelter-1 | 0.12 | 0.14 | 0.15 | 0.14 | 0.15 | 0.13 | 0.12 | 0.15 | 0.14 |
| 7 | Near Cast House, Smelter-1 | 0.13 | 0.14 | 0.16 | 0.15 | 0.14 | 0.13 | 0.13 | 0.16 | 0.14 |
| 8 | Near Pot Room, Smelter-1 | 0.14 | 0.12 | 0.13 | 0.14 | 0.13 | 0.12 | 0.12 | 0.14 | 0.13 |
| 9 | Near Coal Yard of CPP | 0.14 | 0.15 | 0.14 | 0.16 | 0.14 | 0.13 | 0.13 | 0.16 | 0.14 |
| 10 | Near Cooling Tower of CPP | 0.13 | 0.14 | 0.15 | 0.16 | 0.15 | 0.14 | 0.13 | 0.16 | 0.15 |
| 11 | Kurebaga Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Siriapali Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Katikela Ash Pond | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |





Ref: Envlab/26-27/TR-02867

Date: 07.05.2026

xi. NH₃ (µg/m₃)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|------|------|------|
| Limit (24 Hours) | | 400 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 22.3 | 22.4 | 21.7 | 21.5 | 21.3 | 21.1 | 21.1 | 22.4 | 21.7 |
| 2 | Near Rectifier of Expansion Pot Room | 21.7 | 21.6 | 21.6 | 21.7 | 21.8 | 21.4 | 21.4 | 21.8 | 21.6 |
| 3 | Near R & R colony | 20.9 | 21.0 | 20.5 | 20.6 | 21.6 | 21.7 | 20.5 | 21.7 | 21.1 |
| 4 | Near China Gate Weigh Bridge | 21.6 | 21.2 | 21.5 | 21.4 | 21.3 | 21.5 | 21.2 | 21.6 | 21.4 |
| 5 | Near Cooling Tower IPP | 21.3 | 21.4 | 21.5 | 21.3 | 20.3 | 20.4 | 20.3 | 21.5 | 21.0 |
| 6 | Near ETP, Smelter-1 | 23.4 | 24.9 | 24.3 | 24.1 | 23.8 | 23.1 | 23.1 | 24.9 | 23.9 |
| 7 | Near Cast House, Smelter-1 | 22.2 | 22.0 | 22.4 | 22.0 | 21.9 | 21.7 | 21.7 | 22.4 | 22.0 |
| 8 | Near Pot Room, Smelter-1 | 21.7 | 22.5 | 22.3 | 22.1 | 22.2 | 22.3 | 21.7 | 22.5 | 22.2 |
| 9 | Near Coal Yard of CPP | 23.6 | 23.9 | 24.5 | 24.2 | 23.8 | 23.0 | 23.0 | 24.5 | 23.8 |
| 10 | Near Cooling Tower of CPP | 21.0 | 21.2 | 21.6 | 21.5 | 22.1 | 21.9 | 21.0 | 22.1 | 21.6 |
| 11 | Kurebaga Ash Pond | 21.0 | 21.4 | 21.2 | 21.9 | 22.0 | 22.2 | 21.0 | 22.2 | 21.6 |
| 12 | Siriapali Ash Pond | 21.3 | 21.1 | 22.3 | 22.5 | 21.5 | 21.7 | 21.1 | 22.5 | 21.7 |
| 13 | Katikela Ash Pond | 21.0 | 21.7 | 20.4 | 20.6 | 20.5 | 20.7 | 20.4 | 21.7 | 20.8 |

xii. Ozone (µg/m³)

| Sl. No. | Sampling Location | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|-----------------|--------------------------------------|--------|--------|--------|--------|--------|--------|-----|-----|-----|
| Limit (8 Hours) | | 100 | | | | | | | | |
| 1 | Near Carbon Plant, Smelter-1 | 6.3 | 6.2 | 6.5 | 6.5 | 6.6 | 6.4 | 6.2 | 6.6 | 6.4 |
| 2 | Near Rectifier of Expansion Pot Room | 6.4 | 6.2 | 6.4 | 6.5 | 6.3 | 6.5 | 6.2 | 6.5 | 6.4 |
| 3 | Near R & R colony | 6.3 | 6.2 | 6.4 | 6.5 | 6.6 | 6.3 | 6.2 | 6.6 | 6.4 |
| 4 | Near China Gate Weigh Bridge | 6.4 | 6.3 | 6.7 | 6.6 | 6.7 | 6.5 | 6.3 | 6.7 | 6.5 |
| 5 | Near Cooling Tower IPP | 6.8 | 6.3 | 6.8 | 6.6 | 6.5 | 6.3 | 6.3 | 6.8 | 6.6 |
| 6 | Near ETP, Smelter-1 | 5.7 | 6.1 | 6.0 | 6.2 | 6.4 | 6.3 | 5.7 | 6.4 | 6.1 |
| 7 | Near Cast House, Smelter-1 | 6.0 | 6.3 | 6.4 | 6.3 | 6.4 | 6.3 | 6.0 | 6.4 | 6.3 |
| 8 | Near Pot Room, Smelter-1 | 6.7 | 6.5 | 6.8 | 6.6 | 6.9 | 6.7 | 6.5 | 6.9 | 6.7 |
| 9 | Near Coal Yard of CPP | 6.4 | 6.3 | 6.5 | 6.4 | 6.6 | 6.5 | 6.3 | 6.6 | 6.5 |
| 10 | Near Cooling Tower of CPP | 6.7 | 6.5 | 6.8 | 6.5 | 6.3 | 6.5 | 6.3 | 6.8 | 6.6 |
| 11 | Kurebaga Ash Pond | 6.3 | 6.6 | 6.7 | 6.5 | 6.4 | 6.5 | 6.3 | 6.7 | 6.5 |
| 12 | Siriapali Ash Pond | 6.0 | 6.3 | 6.4 | 6.5 | 6.4 | 6.6 | 6.0 | 6.6 | 6.4 |
| 13 | Katikela Ash Pond | 6.2 | 6.2 | 6.4 | 6.3 | 6.4 | 6.5 | 6.2 | 6.5 | 6.3 |





Ref: Envlab/26-27/TR-02868

Date: 07.05.2026

5. Noise:

i. Day Time (6.00 a.m. to 10.00 p.m.)

| Sl. No. | Sampling Location | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|---------|---------------------------|-------|--------|--------|--------|--------|--------|--------|------|------|------|
| 1 | In R & R colony | 55 | 53.6 | 54.0 | 54.5 | 54.1 | 54.3 | 54.0 | 53.6 | 54.5 | 54.1 |
| 2 | Near Boiler of IPP | 75 | 74.4 | 74.5 | 74.0 | 73.8 | 72.9 | 73.1 | 72.9 | 74.5 | 73.8 |
| 3 | In Green Anode Plant | 75 | 73.5 | 72.9 | 73.1 | 72.9 | 73.1 | 73.5 | 72.9 | 73.5 | 73.2 |
| 4 | In Cast house - Smelter 1 | 75 | 72.8 | 72.5 | 72.2 | 71.6 | 72.2 | 71.8 | 71.6 | 72.8 | 72.2 |
| 5 | Near Boiler of CPP | 75 | 73.9 | 73.6 | 73.5 | 73.3 | 73.0 | 73.2 | 73.0 | 73.9 | 73.4 |
| 6 | In Pot Room - Smelter 1 | 75 | 71.8 | 71.5 | 71.1 | 70.8 | 71.1 | 70.6 | 70.6 | 71.8 | 71.2 |

ii. Night Time (10.00 p.m. to 6.00 a.m.)

| Sl. No. | Sampling Location | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|---------|---------------------------|-------|--------|--------|--------|--------|--------|--------|------|------|------|
| 1 | In R & R colony | 45 | 44.0 | 44.2 | 44.5 | 44.3 | 44.6 | 44.2 | 44.0 | 44.6 | 44.3 |
| 2 | Near Boiler of IPP | 70 | 67.5 | 67.9 | 67.6 | 67.1 | 66.9 | 66.3 | 66.3 | 67.9 | 67.2 |
| 3 | In Green Anode Plant | 70 | 66.8 | 66.5 | 66.2 | 65.8 | 65.5 | 65.0 | 65.0 | 66.8 | 66.0 |
| 4 | In Cast house - Smelter 1 | 70 | 65.9 | 64.8 | 64.3 | 64.6 | 64.9 | 64.2 | 64.2 | 65.9 | 64.8 |
| 5 | Near Boiler of CPP | 70 | 68.9 | 69.1 | 68.9 | 69.1 | 68.6 | 67.9 | 67.9 | 69.1 | 68.8 |
| 6 | In Pot Room - Smelter 1 | 70 | 67.2 | 66.8 | 66.0 | 65.4 | 66.3 | 65.8 | 65.4 | 67.2 | 66.3 |





Ref: Envlab/26-27/TR-02869

Date: 07.05.2026

6. Water:

a) Smelter-1 ETP Outlet:

| Sl. No. | Parameters | Unit | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|---------|-----------------------------|------|---------|--------|--------|--------|--------|--------|--------|------|------|------|
| 1 | pH | - | 6.5-9.0 | 7.24 | 7.26 | 7.28 | 7.22 | 7.25 | 7.22 | 7.2 | 7.3 | 7.2 |
| 2 | Total Suspended Solids | mg/l | 100 | 32 | 30 | 32 | 35 | 32 | 30 | 30.0 | 35.0 | 31.8 |
| 3 | Total Dissolved Solids | mg/l | 2100 | 148 | 145 | 141 | 138 | 131 | 127 | 127 | 148 | 138 |
| 4 | BOD (5 days at 20°C) | mg/l | 30 | 13.4 | 12.9 | 12.2 | 12 | 12.5 | 12.2 | 12.0 | 13.4 | 12.5 |
| 5 | COD | mg/l | 250 | 52 | 50 | 48 | 45 | 48 | 45 | 45.0 | 52.0 | 48.0 |
| 6 | Fluoride | mg/l | 1.5 | 0.7 | 0.72 | 0.7 | 0.74 | 0.77 | 0.75 | 0.7 | 0.8 | 0.7 |
| 7 | Oil and Grease | mg/l | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | Hexavalent chromium as Cr+6 | mg/l | 0.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 9 | Total Chromium | mg/l | 2 | 0.040 | 0.036 | 0.033 | 0.036 | 0.033 | 0.032 | 0.0 | 0.0 | 0.0 |
| 10 | Cyanide | mg/l | 0.2 | ND | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 11 | Free ammonia | mg/l | 5 | BDL | ND | ND | ND | ND | ND | ND | ND | ND |
| 12 | Total Nitrogen | mg/l | 100 | 7.2 | 7.0 | 6.9 | 6.6 | 6.2 | 6.0 | 6.0 | 7.2 | 6.7 |

b) Smelter-2 ETP Outlet:

| Sl. No. | Parameters | Unit | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|---------|-----------------------------|------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| 1 | pH | - | 7.30 | 7.30 | 7.33 | 7.38 | 7.39 | 7.36 | 7.31 | 7.3 | 7.4 | 7.3 |
| 2 | Total Suspended Solids | mg/l | 35 | 35 | 32 | 35 | 31 | 33 | 32 | 31.0 | 35.0 | 33.0 |
| 3 | Total Dissolved Solids | mg/l | 285 | 285 | 281 | 278 | 285 | 280 | 275 | 275.0 | 285.0 | 280.7 |
| 4 | BOD (5 days at 20°C) | mg/l | 12.1 | 12.1 | 11.8 | 11.2 | 10.8 | 11.2 | 11 | 10.8 | 12.1 | 11.4 |
| 5 | COD | mg/l | 48 | 48 | 44 | 45 | 42 | 45 | 42 | 42.0 | 48.0 | 44.3 |
| 6 | Fluoride | mg/l | 0.85 | 0.85 | 0.82 | 0.81 | 0.78 | 0.72 | 0.69 | 0.7 | 0.9 | 0.8 |
| 7 | Oil and Grease | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | Hexavalent chromium as Cr+6 | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 9 | Total Chromium | mg/l | 0.043 | 0.043 | 0.045 | 0.048 | 0.045 | 0.042 | 0.041 | 0.0 | 0.0 | 0.0 |
| 10 | Cyanide | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 11 | Free ammonia | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 12 | Total Nitrogen | mg/l | 6.6 | 6.6 | 6.8 | 6.6 | 6.3 | 6.0 | 6.2 | 6.0 | 6.8 | 6.4 |

c) CPP ETP Outlet:

| Sl. No. | Parameters | Unit | Limit | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
|---------|------------------------|------|---------|--------|--------|--------|--------|--------|--------|------|------|------|
| 1 | pH | - | 6.5-9.0 | 7.24 | 7.22 | 7.25 | 7.30 | 7.27 | 7.3 | 7.2 | 7.3 | 7.3 |
| 2 | Suspended Solids | mg/l | 100 | 32 | 30 | 28 | 26 | 28 | 25 | 25 | 32 | 28 |
| 3 | Total Dissolved Solids | mg/l | 2100* | 235 | 236 | 231 | 224 | 233 | 228 | 224 | 236 | 231 |
| 4 | Oil and Grease | mg/l | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 5 | Phosphate | mg/l | 5.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 6 | Chromium | mg/l | 2.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 7 | Copper | mg/l | 3.0 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 8 | Zinc | mg/l | 5.0 | 0.14 | 0.15 | 0.13 | 0.15 | 0.16 | 0.18 | 0.13 | 0.18 | 0.15 |



Sensitivity: Public



Ref: Envlab/26-27/TR- 02870

Date: 07.05.2026

d) Surface Water:

Sampling location: SW1- Upstream of Bheden River

| Sl. No. | Parameter | Unit | SW1 | | | | | | | | |
|---------|--------------------------------------------------------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| 1 | Colour | Hazen | 10 | 10 | 10 | 10 | 10 | 10 | 10.0 | 10.0 | 10.0 |
| 2 | pH | -- | 7.30 | 7.26 | 7.32 | 7.30 | 7.33 | 7.35 | 7.3 | 7.4 | 7.3 |
| 3 | DO | mg/l | 5.1 | 5 | 5.1 | 5 | 4.9 | 4.8 | 4.8 | 5.1 | 5.0 |
| 4 | Chloride | mg/l | 22.5 | 27.5 | 23 | 20 | 25 | 23 | 20.0 | 27.5 | 23.3 |
| 5 | Total Dissolved solids | mg/l | 218 | 209 | 213 | 220 | 216 | 223 | 209 | 223 | 216.5 |
| 6 | Suspended solids | mg/l | 59 | 56 | 54 | 56 | 58 | 60 | 54.0 | 60.0 | 57.2 |
| 7 | Oil & Grease | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | BOD (5) days at 20 ^o C | mg/l | 1.7 | 1.8 | 1.6 | 1.7 | 1.8 | 1.9 | 1.6 | 1.9 | 1.8 |
| 9 | Arsenic as As | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 10 | Lead as Pb | mg/l | 0.029 | 0.025 | 0.028 | 0.026 | 0.024 | 0.025 | 0.0 | 0.0 | 0.0 |
| 11 | Cadmium as Cd | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Hexachromium as Cr ⁺⁶ | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Copper as Cu | mg/l | 0.018 | 0.016 | 0.018 | 0.016 | 0.018 | 0.020 | 0.0 | 0.0 | 0.0 |
| 14 | Zinc as Zn | mg/l | 0.18 | 0.2 | 0.22 | 0.24 | 0.26 | 0.23 | 0.2 | 0.3 | 0.2 |
| 15 | Selenium as Se | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 16 | Cyanide as CN | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 17 | Fluoride as F | mg/l | 0.27 | 0.25 | 0.22 | 0.20 | 0.22 | 0.25 | 0.2 | 0.3 | 0.2 |
| 18 | Sulphate as (SO ₄) | mg/l | 10.8 | 11.6 | 11.2 | 12.8 | 13.4 | 12.5 | 10.8 | 13.4 | 12.1 |
| 19 | Phenolic compounds as C ₆ H ₅ OH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Iron as Fe | mg/l | 0.33 | 0.31 | 0.33 | 0.32 | 0.35 | 0.32 | 0.3 | 0.4 | 0.3 |
| 21 | Nitrate as NO ₃ | mg/l | 1.22 | 1.3 | 1.28 | 1.25 | 1.28 | 1.25 | 1.2 | 1.3 | 1.3 |
| 22 | Anionic Detergents | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 23 | Total Coliform | MPN/100ml | 110 | 120 | 110 | 120 | 110 | 140 | 110.0 | 140.0 | 118.3 |





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(Committed For Better Environment)

Ref: Envlab/26-27/TR- 02871

Date: 07.05.2026

Surface Water: Continued.

Sampling location: SW2- Downstream of Bheden River

| Sl.No. | Parameter | Unit | SW2 | | | | | | | | |
|--------|--------------------------------------------------------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| 1 | Colour | Hazen | 20 | 15 | 15 | 15 | 15 | 15 | 15.0 | 20.0 | 15.8 |
| 2 | pH | -- | 7.41 | 7.45 | 7.41 | 7.44 | 7.45 | 7.4 | 7.4 | 7.5 | 7.4 |
| 3 | DO | mg/l | 5.5 | 5.4 | 5.5 | 5.4 | 5.3 | 5.2 | 5.2 | 5.5 | 5.4 |
| 4 | Chloride | mg/l | 20.0 | 30.0 | 25 | 28 | 28 | 25 | 20.0 | 30.0 | 25.8 |
| 5 | Total Dissolved solids | mg/l | 219 | 215 | 220 | 216 | 223 | 230 | 215.0 | 230.0 | 220.5 |
| 6 | Suspended solids | mg/l | 62 | 60 | 63 | 60 | 63 | 68 | 60.0 | 68.0 | 62.7 |
| 7 | Oil & Grease | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | BOD (5) days at 20 ^o C | mg/l | 1.6 | 1.7 | 1.8 | 1.9 | 2 | 2.1 | 1.6 | 2.1 | 1.9 |
| 9 | Arsenic as As | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 10 | Lead as Pb | mg/l | 0.028 | 0.026 | 0.030 | 0.033 | 0.030 | 0.027 | 0.0 | 0.0 | 0.0 |
| 11 | Cadmium as Cd | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Hexachromium as Cr ⁺⁶ | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Copper as Cu | mg/l | 0.017 | 0.019 | 0.021 | 0.023 | 0.022 | 0.024 | 0.0 | 0.0 | 0.0 |
| 14 | Zinc as Zn | mg/l | 0.2 | 0.22 | 0.2 | 0.23 | 0.22 | 0.2 | 0.2 | 0.2 | 0.2 |
| 15 | Selenium as Se | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 16 | Cyanide as CN | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 17 | Fluoride as F | mg/l | 0.3 | 0.33 | 0.31 | 0.32 | 0.35 | 0.32 | 0.3 | 0.4 | 0.3 |
| 18 | Sulphate as (SO4) | mg/l | 12.4 | 12 | 12.8 | 12.2 | 12.5 | 11.4 | 11.4 | 12.8 | 12.2 |
| 19 | Phenolic compounds as C ₆ H ₅ OH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Iron as Fe | mg/l | 0.41 | 0.43 | 0.42 | 0.4 | 0.41 | 0.4 | 0.4 | 0.4 | 0.4 |
| 21 | Nitrate as NO ₃ | mg/l | 1.34 | 1.41 | 1.39 | 1.35 | 1.33 | 1.30 | 1.3 | 1.4 | 1.4 |
| 22 | Anionic Detergents | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 23 | Total Coliform | MPN/100ml | 140 | 150 | 120 | 150 | 170 | 180 | 120.0 | 180.0 | 151.7 |





Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Ref: Envlab/26-27/TR- 02872

Date: 07.05.2026

Surface Water: Continued.

Sampling location: SW3- Upstream of Kharkhari Nallah

| Sl.No. | Parameter | Unit | SW3 | | | | | | | Min | Max | Avg |
|--------|--------------------------------------------------------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-----|
| | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | | | | |
| 1 | Colour | Hazen | 15 | 10 | 10 | 10 | 10 | 10 | 10.0 | 15.0 | 10.8 | |
| 2 | pH | -- | 6.92 | 6.98 | 6.95 | 6.98 | 6.94 | 6.98 | 6.9 | 7.0 | 7.0 | |
| 3 | DO | mg/l | 5.3 | 5.2 | 5.1 | 5 | 4.9 | 4.8 | 4.8 | 5.3 | 5.1 | |
| 4 | Chloride | mg/l | 25 | 27.5 | 30.0 | 32.5 | 28.5 | 28 | 25.0 | 32.5 | 28.5 | |
| 5 | Total Dissolved solids | mg/l | 212 | 208 | 205 | 212 | 215 | 218 | 205.0 | 218.0 | 211.7 | |
| 6 | Suspended solids | mg/l | 62 | 58 | 55 | 58 | 56 | 60 | 55.0 | 62.0 | 58.2 | |
| 7 | Oil & Grease | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| 8 | BOD (5) days at 20 ⁰ C | mg/l | 1.8 | 1.9 | 1.8 | 1.9 | 2 | 2.1 | 1.8 | 2.1 | 1.9 | |
| 9 | Arsenic as As | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | |
| 10 | Lead as Pb | mg/l | 0.018 | 0.015 | 0.019 | 0.021 | 0.024 | 0.022 | 0.0 | 0.0 | 0.0 | |
| 11 | Cadmium as Cd | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | |
| 12 | Hexachromium as Cr ⁺⁶ | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | |
| 13 | Copper as Cu | mg/l | 0.015 | 0.012 | 0.016 | 0.014 | 0.015 | 0.017 | 0.0 | 0.0 | 0.0 | |
| 14 | Zinc as Zn | mg/l | 0.16 | 0.18 | 0.16 | 0.14 | 0.16 | 0.19 | 0.1 | 0.2 | 0.2 | |
| 15 | Selenium as Se | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | |
| 16 | Cyanide as CN | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | |
| 17 | Fluoride as F | mg/l | 0.31 | 0.33 | 0.29 | 0.32 | 0.31 | 0.29 | 0.3 | 0.3 | 0.3 | |
| 18 | Sulphate as (SO ₄) | mg/l | 15.9 | 15.2 | 14.9 | 14.2 | 14 | 14.8 | 14.0 | 15.9 | 14.8 | |
| 19 | Phenolic compounds as C ₆ H ₅ OH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | |
| 20 | Iron as Fe | mg/l | 0.32 | 0.34 | 0.30 | 0.36 | 0.33 | 0.36 | 0.3 | 0.4 | 0.3 | |
| 21 | Nitrate as NO ₃ | mg/l | 1.77 | 1.69 | 1.66 | 1.40 | 1.45 | 1.44 | 1.4 | 1.8 | 1.6 | |
| 22 | Anionic Detergents | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| 23 | Total Coliform | MPN/100ml | 150 | 150 | 120 | 110 | 120 | 110 | 110.0 | 150.0 | 126.7 | |





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(Committed For Better Environment)

Ref: Envlab/26-27/TR- 02873

Date: 07.05.2026

Surface Water: Continued.

Sampling location: SW4- Downstream of Kharkhari Nalla

| Sl.No. | Parameter | Unit | SW4 | | | | | | | | |
|--------|--------------------------------------------------------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| 1 | Colour | Hazen | 20 | 15 | 15 | 15 | 15 | 15 | 15.0 | 20.0 | 15.8 |
| 2 | pH | -- | 6.98 | 7.00 | 7.1 | 7.14 | 7.12 | 7.22 | 7.0 | 7.2 | 7.1 |
| 3 | DO | mg/l | 5.4 | 5.3 | 5.2 | 5.1 | 5 | 4.9 | 4.9 | 5.4 | 5.2 |
| 4 | Chloride | mg/l | 35.0 | 30.0 | 35.0 | 30.0 | 33.5 | 30.0 | 30.0 | 35.0 | 32.3 |
| 5 | Total Dissolved solids | mg/l | 208 | 213 | 221 | 229 | 221 | 226 | 208.0 | 229.0 | 219.7 |
| 6 | Suspended solids | mg/l | 63 | 67 | 62 | 65 | 68 | 72 | 62.0 | 72.0 | 66.2 |
| 7 | Oil & Grease | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | BOD (5) days at 20 ^o C | mg/l | 1.9 | 1.8 | 1.7 | 1.8 | 1.9 | 2 | 1.7 | 2.0 | 1.9 |
| 9 | Arsenic as As | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 10 | Lead as Pb | mg/l | 0.017 | 0.016 | 0.021 | 0.022 | 0.021 | 0.019 | 0.0 | 0.0 | 0.0 |
| 11 | Cadmium as Cd | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Hexachromium as Cr ⁺⁶ | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Copper as Cu | mg/l | 0.020 | 0.17 | 0.18 | 0.16 | 0.013 | 0.015 | 0.0 | 0.2 | 0.1 |
| 14 | Zinc as Zn | mg/l | 0.18 | 0.20 | 0.23 | 0.25 | 0.24 | 0.22 | 0.2 | 0.3 | 0.2 |
| 15 | Selenium as Se | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 16 | Cyanide as CN | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 17 | Fluoride as F | mg/l | 0.35 | 0.32 | 0.3 | 0.27 | 0.29 | 0.28 | 0.3 | 0.4 | 0.3 |
| 18 | Sulphate as (SO ₄) | mg/l | 18.2 | 17.8 | 18.5 | 18.9 | 19.3 | 19.5 | 17.8 | 19.5 | 18.7 |
| 19 | Phenolic compounds as C ₆ H ₅ OH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Iron as Fe | mg/l | 0.30 | 0.33 | 0.31 | 0.38 | 0.36 | 0.35 | 0.3 | 0.4 | 0.3 |
| 21 | Nitrate as NO ₃ | mg/l | 2.1 | 2.00 | 2.1 | 2.20 | 2.1 | 2.15 | 2.0 | 2.2 | 2.1 |
| 22 | Anionic Detergents | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 23 | Total Coliform | MPN/100ml | 210 | 180 | 150 | 200 | 210 | 200 | 150.0 | 210.0 | 191.7 |





Ref: Envlab/26-27/TR-02874

Date: 07.05.2026

Surface Water: Continued.

Sampling location: SW5- Upstream Hirakud Reservoir

| Sl.No. | Parameter | Unit | SW5 | | | | | | | | |
|--------|--------------------------------------------------------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| 1 | Colour | Hazen | 5 | 5 | 5 | 5 | 5 | 5 | 5.0 | 5.0 | 5.0 |
| 2 | pH | -- | 7.11 | 7.12 | 7.1 | 7.18 | 7.2 | 7.25 | 7.1 | 7.3 | 7.2 |
| 3 | DO | mg/l | 5.8 | 5.7 | 5.8 | 5.7 | 5.6 | 5.5 | 5.5 | 5.8 | 5.7 |
| 4 | Chloride | mg/l | 27.5 | 22.5 | 25.0 | 22.5 | 27.5 | 25.0 | 22.5 | 27.5 | 25.0 |
| 5 | Total Dissolved solids | mg/l | 190 | 195 | 200 | 208 | 213 | 218 | 190.0 | 218.0 | 204.0 |
| 6 | Suspended solids | mg/l | 72 | 68 | 66 | 69 | 65 | 68 | 65.0 | 72.0 | 68.0 |
| 7 | Oil & Grease | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | BOD (5) days at 20 ^o C | mg/l | 1.6 | 1.7 | 1.6 | 1.7 | 1.8 | 1.9 | 1.6 | 1.9 | 1.7 |
| 9 | Arsenic as As | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 10 | Lead as Pb | mg/l | 0.015 | 0.014 | 0.016 | 0.018 | 0.016 | 0.02 | 0.0 | 0.0 | 0.0 |
| 11 | Cadmium as Cd | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Hexachromium as Cr ⁺⁶ | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Copper as Cu | mg/l | 0.017 | 0.015 | 0.012 | 0.014 | 0.012 | 0.014 | 0.0 | 0.0 | 0.0 |
| 14 | Zinc as Zn | mg/l | 0.15 | 0.17 | 0.15 | 0.18 | 0.19 | 0.21 | 0.2 | 0.2 | 0.2 |
| 15 | Selenium as Se | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 16 | Cyanide as CN | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 17 | Fluoride as F | mg/l | 0.34 | 0.31 | 0.32 | 0.35 | 0.36 | 0.31 | 0.3 | 0.4 | 0.3 |
| 18 | Sulphate as (SO ₄) | mg/l | 13.2 | 12.9 | 13.3 | 13.6 | 13.8 | 13.3 | 12.9 | 13.8 | 13.4 |
| 19 | Phenolic compounds as C ₆ H ₅ OH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Iron as Fe | mg/l | 0.35 | 0.38 | 0.35 | 0.36 | 0.39 | 0.37 | 0.4 | 0.4 | 0.4 |
| 21 | Nitrate as NO ₃ | mg/l | 1.68 | 1.70 | 1.50 | 1.43 | 1.46 | 1.42 | 1.4 | 1.7 | 1.5 |
| 22 | Anionic Detergents | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 23 | Total Coliform | MPN/100ml | 150 | 170 | 150 | 180 | 170 | 180 | 150.0 | 180.0 | 166.7 |





Ref: Envlab/26-27/TR-02875

Date: 07.05.2026

Surface Water: Continued.

Sampling location: SW6- Downstream of Hirakud Reservoir

| Sl.No. | Parameter | Unit | SW6 | | | | | | | | |
|--------|--------------------------------------------------------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| 1 | Colour | Hazen | 10 | 10 | 10 | 10 | 10 | 10 | 10.0 | 10.0 | 10.0 |
| 2 | pH | -- | 7.35 | 7.40 | 7.45 | 7.39 | 7.36 | 7.31 | 7.3 | 7.5 | 7.4 |
| 3 | DO | mg/l | 5.5 | 5.4 | 5.5 | 5.4 | 5.3 | 5.2 | 5.2 | 5.5 | 5.4 |
| 4 | Chloride | mg/l | 22.5 | 25.0 | 27.5 | 25.0 | 28.5 | 27.5 | 22.5 | 28.5 | 26.0 |
| 5 | Total Dissolved solids | mg/l | 211 | 206 | 212 | 223 | 230 | 235 | 206.0 | 235.0 | 219.5 |
| 6 | Suspended solids | mg/l | 60 | 58 | 59 | 63 | 66 | 70 | 58.0 | 70.0 | 62.7 |
| 7 | Oil & Grease | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | BOD (5) days at 20 ⁰ C | mg/l | 1.7 | 1.8 | 1.7 | 1.8 | 1.9 | 2 | 1.7 | 2.0 | 1.8 |
| 9 | Arsenic as As | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 10 | Lead as Pb | mg/l | 0.017 | 0.015 | 0.019 | 0.016 | 0.015 | 0.018 | 0.0 | 0.0 | 0.0 |
| 11 | Cadmium as Cd | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Hexachromium as Cr ⁺⁶ | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Copper as Cu | mg/l | 0.014 | 0.012 | 0.016 | 0.019 | 0.018 | 0.02 | 0.0 | 0.0 | 0.0 |
| 14 | Zinc as Zn | mg/l | 0.19 | 0.16 | 0.18 | 0.17 | 0.16 | 0.18 | 0.2 | 0.2 | 0.2 |
| 15 | Selenium as Se | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 16 | Cyanide as CN | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 17 | Fluoride as F | mg/l | 0.35 | 0.32 | 0.33 | 0.3 | 0.32 | 0.3 | 0.3 | 0.4 | 0.3 |
| 18 | Sulphate as (SO ₄) | mg/l | 16.2 | 15.8 | 16.1 | 15.8 | 16.2 | 15.8 | 15.8 | 16.2 | 16.0 |
| 19 | Phenolic compounds as C ₆ H ₅ OH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Iron as Fe | mg/l | 0.37 | 0.38 | 0.36 | 0.34 | 0.36 | 0.32 | 0.3 | 0.4 | 0.4 |
| 21 | Nitrate as NO ₃ | mg/l | 1.8 | 1.85 | 1.75 | 1.69 | 1.74 | 1.70 | 1.7 | 1.9 | 1.8 |
| 22 | Anionic Detergents | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 23 | Total Coliform | MPN/100ml | 200 | 180 | 170 | 200 | 220 | 210 | 170.0 | 220.0 | 196.7 |





Ref: Envlab/26-27/TR- 02876

Date: 07.05.2026

Surface Water: Continued.

Sampling location: SW7- Confluence point near Kherual bridge

| Sl.No. | Parameter | Unit | SW7 | | | | | | | | |
|--------|--------------------------------------------------------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Min | Max | Avg |
| 1 | Colour | Hazen | 15 | 15 | 15 | 15 | 15 | 15 | 15.0 | 15.0 | 15.0 |
| 2 | pH | -- | 7.13 | 7.21 | 7.26 | 7.22 | 7.25 | 7.28 | 7.1 | 7.3 | 7.2 |
| 3 | DO | mg/l | 5.5 | 5.4 | 5.3 | 5.2 | 5.1 | 5.0 | 5.0 | 5.5 | 5.3 |
| 4 | Chloride | mg/l | 30.0 | 35.0 | 30.0 | 25.0 | 27.5 | 25.0 | 25.0 | 35.0 | 28.8 |
| 5 | Total Dissolved solids | mg/l | 206 | 200 | 208 | 216 | 221 | 229 | 200.0 | 229.0 | 213.3 |
| 6 | Suspended solids | mg/l | 68 | 65 | 70 | 72 | 74 | 75 | 65.0 | 75.0 | 70.7 |
| 7 | Oil & Grease | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | BOD (5) days at 20 ^o C | mg/l | 1.6 | 1.7 | 1.6 | 1.7 | 1.8 | 1.9 | 1.6 | 1.9 | 1.7 |
| 9 | Arsenic as As | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 10 | Lead as Pb | mg/l | 0.020 | 0.022 | 0.024 | 0.021 | 0.023 | 0.025 | 0.0 | 0.0 | 0.0 |
| 11 | Cadmium as Cd | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 12 | Hexachromium as Cr ⁺⁶ | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Copper as Cu | mg/l | 0.018 | 0.015 | 0.020 | 0.023 | 0.026 | 0.023 | 0.0 | 0.0 | 0.0 |
| 14 | Zinc as Zn | mg/l | 0.20 | 0.21 | 0.22 | 0.2 | 0.23 | 0.25 | 0.2 | 0.3 | 0.2 |
| 15 | Selenium as Se | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 16 | Cyanide as CN | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 17 | Fluoride as F | mg/l | 0.32 | 0.30 | 0.34 | 0.31 | 0.33 | 0.29 | 0.3 | 0.3 | 0.3 |
| 18 | Sulphate as (SO ₄) | mg/l | 15.9 | 16.4 | 16.8 | 16.3 | 16.5 | 16.2 | 15.9 | 16.8 | 16.4 |
| 19 | Phenolic compounds as C ₆ H ₅ OH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Iron as Fe | mg/l | 0.34 | 0.36 | 0.38 | 0.35 | 0.38 | 0.35 | 0.3 | 0.4 | 0.4 |
| 21 | Nitrate as NO ₃ | mg/l | 1.92 | 1.9 | 1.85 | 1.8 | 1.88 | 1.82 | 1.8 | 1.9 | 1.9 |
| 22 | Anionic Detergents | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 23 | Total Coliform | MPN/100ml | 220 | 210 | 200 | 220 | 240 | 280 | 200.0 | 280.0 | 228.3 |





Ref: Envlab/26-27/TR-02877

Date: 07.05.2026

e) Ground Water - Village Area:

| Sl. No | Parameter | Unit | Standard as per IS: 10500 | GW1 | | GW2 | |
|--------|--------------------------------------------------------|-------|---------------------------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Jan'26 | Oct'25 | Jan'26 |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | 1 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.12 | 7.18 | 7.12 | 7.2 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 140 | 154 | 107 | 112 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.38 | 0.35 | 0.4 | 0.41 |
| 8 | Chloride (as Cl) | mg/l | 250 | 37.5 | 36.6 | 40 | 42.5 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 300 | 313 | 248 | 256 |
| 11 | Calcium (as Ca) | mg/l | 75 | 36.9 | 37.4 | 38.6 | 39.2 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 18.8 | 18 | 13.6 | 14.5 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.23 | 1.28 | 1.26 | 1.3 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.35 | 0.33 | 0.32 | 0.3 |
| 17 | Phenolic compounds as C ₆ H ₅ OH | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.38 | 0.33 | 0.4 | 0.44 |
| 26 | Chromium as (Cr ⁺⁶) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 30 | 35 | 55 | 50 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL |

Sampling Location: GW1 - Gudigaon Village

GW2 - Kurebaga Village





Ref: Envlab/26-27/TR-02878

Date: 07.05.2026

Ground Water - Village Area: Continued.

| Sl. No | Parameter | Unit | Standard as per IS: 10500 | GW3 | | GW4 | |
|--------|--------------------------------------------------------|-------|---------------------------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Jan'26 | Oct'25 | Jan'26 |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | 1 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.22 | 7.29 | 7 | 7.1 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 125 | 136 | 142 | 131 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.35 | 0.33 | 0.42 | 0.40 |
| 8 | Chloride (as Cl) | mg/l | 250 | 35 | 37.5 | 37.5 | 35 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 285 | 291 | 291 | 278 |
| 11 | Calcium (as Ca) | mg/l | 75 | 40.5 | 40.1 | 39.6 | 38.4 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 15.9 | 16.6 | 16.2 | 16.8 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.50 | 1.54 | 1.69 | 1.71 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.26 | 0.22 | 0.35 | 0.32 |
| 17 | Phenolic compounds as C ₆ H ₅ OH | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.42 | 0.45 | 0.36 | 0.32 |
| 26 | Chromium as (Cr ⁺⁶) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 45 | 40 | 40 | 45 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL |

Sampling Location: GW3- Sriapali Village

GW4- Katapali Village





Ref: Envlab/26-27/TR-02879

Date: 07.05.2026

Ground Water - Village Area: Continued.

| Sl. No | Parameter | Unit | Standard as per IS: 10500 | GW5 | | GW6 | |
|--------|--------------------------------------------------------|-------|---------------------------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Jan'26 | Oct'25 | Jan'26 |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | 1 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.2 | 7.31 | 7.1 | 7.11 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 148 | 142 | 90 | 84 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.4 | 0.43 | 0.38 | 0.35 |
| 8 | Chloride (as Cl) | mg/l | 250 | 35 | 30 | 35 | 35 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 248 | 255 | 230 | 224 |
| 11 | Calcium (as Ca) | mg/l | 75 | 43.8 | 42.5 | 34.4 | 35.1 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 15.4 | 14.2 | 14.4 | 13.9 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.68 | 1.65 | 1.35 | 1.29 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.32 | 0.3 | 0.34 | 0.31 |
| 17 | Phenolic compounds as C ₆ H ₅ OH | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.34 | 0.30 | 0.41 | 0.38 |
| 26 | Chromium as (Cr ⁶⁺) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 50 | 55 | 45 | 40 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL |

Sampling Location: GW5- Katikela Village

GW6- Bhurkamunda Village





Ref: Envlab/26-27/TR-02880

Date: 07.05.2026

Ground Water - Village Area: Continued.

| Sl. No | Parameter | Unit | Standard as per IS: 10500 | GW7 | | GW8 | |
|--------|--------------------------------------------------------|-------|---------------------------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Jan'26 | Oct'25 | Jan'26 |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | 1 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.1 | 7.19 | 7.12 | 7.22 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 88 | 79 | 98 | 90 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.32 | 0.3 | 0.42 | 0.45 |
| 8 | Chloride (as Cl) | mg/l | 250 | 42.5 | 47 | 40 | 43 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 207 | 213 | 248 | 252 |
| 11 | Calcium (as Ca) | mg/l | 75 | 31.1 | 29.8 | 32.2 | 32.9 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 14.5 | 15.2 | 16.8 | 16.6 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.55 | 1.51 | 1.51 | 1.47 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.30 | 0.28 | 0.36 | 0.33 |
| 17 | Phenolic compounds as C ₆ H ₅ OH | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.45 | 0.42 | 0.42 | 0.40 |
| 26 | Chromium as (Cr ⁶⁺) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 45 | 40 | 50 | 55 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL |

Sampling Location: GW7- R & R Colony Village

GW8- Tumbakela Village





Ref: Envlab/26-27/TR-02881

Date: 07.05.2026

Ground Water – Village Area: Continued.

| Sl. No | Parameter | Unit | Standard as per IS: 10500 | GW9 | | GW10 | |
|--------|--------------------------------------------------------|-------|---------------------------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Jan'26 | Oct'25 | Jan'26 |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | 1 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.25 | 7.32 | 7.2 | 7.12 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 85 | 78 | 102 | 92 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.33 | 0.38 | 0.33 | 0.3 |
| 8 | Chloride (as Cl) | mg/l | 250 | 45 | 47 | 35 | 37 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 263 | 256 | 281 | 278 |
| 11 | Calcium (as Ca) | mg/l | 75 | 33.6 | 34.1 | 35 | 34.5 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 16.0 | 15.2 | 18.8 | 19.1 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.41 | 1.36 | 1.48 | 1.42 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.40 | 0.43 | 0.33 | 0.35 |
| 17 | Phenolic compounds as C ₆ H ₅ OH | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.47 | 0.45 | 0.42 | 0.44 |
| 26 | Chromium as (Cr ⁺⁶) | mg/l | 0.05 | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 55 | 50 | 55 | 50 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL |

Sampling Location: GW9- Brundamal Village

GW10-Sripura Village





Ref: Envlab/26-27/TR-02882

Date: 07.05.2026

f) Ground Water - Secured Land Fill (SLF) Area:

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW1 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 6.67 | 6.70 | 6.78 | 6.81 | 6.85 | 6.90 | 6.67 | 6.90 | 6.79 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 75 | 72 | 68 | 65 | 68 | 66 | 65.0 | 75.0 | 69.0 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.35 | 0.32 | 0.35 | 0.33 | 0.35 | 0.32 | 0.32 | 0.35 | 0.34 |
| 8 | Chloride (as Cl) | mg/l | 250 | 25 | 22.5 | 20 | 22.5 | 20 | 25 | 20.0 | 25.0 | 22.5 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 244 | 238 | 241 | 248 | 253 | 246 | 238.0 | 253.0 | 245.0 |
| 11 | Calcium (as Ca) | mg/l | 75 | 23.6 | 22.9 | 21.8 | 21.6 | 22.2 | 21.6 | 21.6 | 23.6 | 22.3 |
| 12 | Copper (as Cu) | mg/l | 0.05 | 0.034 | 0.032 | 0.03 | 0.033 | 0.035 | 0.032 | 0.030 | 0.035 | 0.033 |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 12 | 11.7 | 12 | 12.4 | 11.9 | 12.4 | 11.7 | 12.4 | 12.1 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.26 | 1.3 | 1.25 | 1.22 | 1.28 | 1.25 | 1.22 | 1.30 | 1.26 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.35 | 0.31 | 0.33 | 0.31 | 0.32 | 0.33 | 0.31 | 0.35 | 0.33 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.3 | 0.26 | 0.24 | 0.25 | 0.22 | 0.24 | 0.22 | 0.30 | 0.25 |
| 26 | Chromium as (Cr ⁶⁺) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 55 | 50 | 45 | 40 | 45 | 40 | 40.0 | 55.0 | 45.8 |
| 29 | Aluminium as Al | mg/l | 0.03 | 0.025 | 0.021 | 0.024 | 0.025 | 0.022 | 0.025 | 0.021 | 0.025 | 0.024 |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Location GW1 - Secured landfill Bore well (East)



Sample No. P/26/24



Ref: Envlab/26-27/TR- 02883

Date: 07.05.2026

Ground Water - Secured Land Fill (SLF) Area: Continued.

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW2 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 6.92 | 6.95 | 6.9 | 6.92 | 6.90 | 6.93 | 6.90 | 6.95 | 6.92 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 88 | 85 | 80 | 82 | 85 | 80 | 80.0 | 88.0 | 83.3 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.38 | 0.35 | 0.37 | 0.31 | 0.33 | 0.3 | 0.30 | 0.38 | 0.34 |
| 8 | Chloride (as Cl) | mg/l | 250 | 28 | 25 | 22.5 | 25 | 27 | 23 | 22.5 | 27.5 | 24.9 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 250 | 245 | 250 | 262 | 266 | 270 | 245.0 | 270.0 | 257.2 |
| 11 | Calcium (as Ca) | mg/l | 75 | 36.8 | 35.4 | 33.8 | 34.1 | 34.5 | 33.8 | 33.8 | 36.8 | 34.7 |
| 12 | Copper (as Cu) | mg/l | 0.05 | 0.032 | 0.030 | 0.028 | 0.025 | 0.028 | 0.025 | 0.025 | 0.032 | 0.028 |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 13.5 | 13.2 | 13.8 | 13.2 | 13.5 | 13 | 13.0 | 13.8 | 13.4 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.40 | 1.35 | 1.31 | 1.36 | 1.33 | 1.36 | 1.31 | 1.40 | 1.35 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.32 | 0.3 | 0.28 | 0.25 | 0.28 | 0.25 | 0.25 | 0.32 | 0.28 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.32 | 0.30 | 0.32 | 0.34 | 0.35 | 0.32 | 0.30 | 0.35 | 0.33 |
| 26 | Chromium as (Cr ⁺⁶) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 40 | 45 | 40 | 45 | 50 | 45 | 40.0 | 50.0 | 44.2 |
| 29 | Aluminium as Al | mg/l | 0.03 | 0.021 | 0.022 | 0.025 | 0.028 | 0.026 | 0.027 | 0.021 | 0.028 | 0.025 |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Location: GW2 - Secured landfill Bore well (West)





Ref: Envlab/26-27/TR-02884

Date: 07.05.2026

Ground Water - Secured Land Fill (SLF) Area: Continued.

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW3 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.16 | 7.21 | 7.22 | 7.2 | 7.23 | 7.21 | 7.16 | 7.23 | 7.21 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 96 | 92 | 89 | 86 | 90 | 85 | 85.0 | 96.0 | 89.7 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.39 | 0.36 | 0.38 | 0.33 | 0.35 | 0.38 | 0.33 | 0.39 | 0.37 |
| 8 | Chloride (as Cl) | mg/l | 250 | 32 | 30 | 30 | 32.5 | 30 | 32.5 | 30.0 | 32.5 | 31.2 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 321 | 313 | 316 | 320 | 324 | 319 | 313.0 | 324.0 | 318.8 |
| 11 | Calcium (as Ca) | mg/l | 75 | 38.8 | 37 | 35.6 | 35 | 35.6 | 36.2 | 35.0 | 38.8 | 36.4 |
| 12 | Copper (as Cu) | mg/l | 0.05 | 0.04 | 0.036 | 0.033 | 0.031 | 0.035 | 0.036 | 0.031 | 0.040 | 0.035 |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 16.8 | 16.0 | 15.9 | 15.6 | 16 | 15.9 | 15.6 | 16.8 | 16.0 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.43 | 1.4 | 1.36 | 1.38 | 1.41 | 1.45 | 1.36 | 1.45 | 1.41 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.4 | 0.36 | 0.33 | 0.3 | 0.33 | 0.35 | 0.30 | 0.40 | 0.35 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.41 | 0.35 | 0.32 | 0.35 | 0.36 | 0.35 | 0.32 | 0.41 | 0.36 |
| 26 | Chromium as (Cr ^{VI}) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 52 | 55 | 50 | 55 | 55.0 | 55 | 50.0 | 55.0 | 53.7 |
| 29 | Aluminium as Al | mg/l | 0.03 | 0.026 | 0.029 | 0.028 | 0.029 | 0.027 | 0.028 | 0.026 | 0.029 | 0.028 |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Location: GW3 - Secured landfill Bore well (North)





Ref: Envlab/26-27/TR- 02885

Date: 07.05.2026

Ground Water - Secured Land Fill (SLF) Area: Continued.

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW4 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.14 | 7.18 | 7.15 | 7.11 | 7.16 | 7.12 | 7.1 | 7.2 | 7.1 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 88 | 86 | 82 | 79 | 84 | 82 | 79.00 | 88.00 | 83.50 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.34 | 0.32 | 0.36 | 0.32 | 0.34 | 0.36 | 0.3 | 0.4 | 0.3 |
| 8 | Chloride (as Cl) | mg/l | 250 | 30 | 28 | 27.5 | 25 | 26 | 30 | 25.0 | 30.0 | 27.8 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 314 | 309 | 312 | 308 | 312 | 315 | 308.0 | 315.0 | 311.7 |
| 11 | Calcium (as Ca) | mg/l | 75 | 35.4 | 34.8 | 34.2 | 33.5 | 34.1 | 34.4 | 33.500 | 35.400 | 34.400 |
| 12 | Copper (as Cu) | mg/l | 0.05 | 0.038 | 0.035 | 0.032 | 0.03 | 0.034 | 0.035 | 0.0300 | 0.0380 | 0.0340 |
| 13 | Manganese (as Mn) | mg/l | 0.1 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 15.9 | 15.1 | 14.5 | 14.1 | 14.5 | 14.2 | 14.10 | 15.90 | 14.72 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.22 | 1.28 | 1.2 | 1.15 | 1.22 | 1.27 | 1.15 | 1.28 | 1.22 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.33 | 0.31 | 0.29 | 0.27 | 0.3 | 0.32 | 0.2700 | 0.3300 | 0.3033 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.33 | 0.31 | 0.27 | 0.26 | 0.25 | 0.28 | 0.25 | 0.33 | 0.28 |
| 26 | Chromium as (Cr ^{VI}) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 45 | 50 | 55 | 50 | 55 | 50 | 45.0 | 55.0 | 50.8 |
| 29 | Aluminium as Al | mg/l | 0.03 | 0.025 | 0.026 | 0.025 | 0.027 | 0.025 | 0.022 | 0.022 | 0.027 | 0.025 |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Location: GW4 - Secured landfill Bore well (South)





Ref: Envlab/26-27/TR-02886

Date: 07.05.2026

g) Ground Water - Ash Pond Area : Kurebaga Ash Pond

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW1 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.15 | 7.12 | 7.1 | 7.15 | 7.12 | 7.22 | 7.10 | 7.22 | 7.14 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 140 | 136 | 128 | 122 | 130 | 134 | 122.0 | 140.0 | 131.7 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.32 | 0.35 | 0.32 | 0.35 | 0.32 | 0.33 | 0.32 | 0.35 | 0.33 |
| 8 | Chloride (as Cl) | mg/l | 250 | 33 | 35 | 32.5 | 30 | 25 | 27 | 25.0 | 35.0 | 30.3 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 318 | 310 | 302 | 314 | 307 | 318 | 302.0 | 318.0 | 311.5 |
| 11 | Calcium (as Ca) | mg/l | 75 | 34.8 | 33.6 | 32.9 | 33.2 | 32.6 | 33.4 | 32.6 | 34.8 | 33.4 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.040 | 0.042 | 0.039 | 0.043 | 0.045 | 0.046 | 0.039 | 0.046 | 0.043 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 16.2 | 15.9 | 16.4 | 15.7 | 16.2 | 16.2 | 15.7 | 16.4 | 16.1 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 2.6 | 2.5 | 2.2 | 2.4 | 2.5 | 2.1 | 2.1 | 2.6 | 2.4 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.28 | 0.25 | 0.28 | 0.32 | 0.34 | 0.33 | 0.3 | 0.3 | 0.3 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.26 | 0.28 | 0.26 | 0.29 | 0.26 | 0.26 | 0.3 | 0.3 | 0.3 |
| 26 | Chromium as (Cr ⁶⁺) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 32 | 30 | 35 | 30 | 35 | 35 | 30.0 | 35.0 | 32.8 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Locations: Kurebaga Ash Pond GW1 - Bore well (East)





Ref: Envlab/26-27/TR-02887

Date: 07.05.2026

Ground Water - Ash Pond Area: Kurebaga Ash Pond Continued.

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW2 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 6.9 | 6.96 | 6.91 | 6.98 | 6.95 | 6.87 | 6.87 | 6.98 | 6.93 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 156 | 155 | 160 | 156 | 161 | 160 | 155.0 | 161.0 | 158.0 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.3 | 0.27 | 0.25 | 0.26 | 0.28 | 0.27 | 0.25 | 0.30 | 0.27 |
| 8 | Chloride (as Cl) | mg/l | 250 | 30 | 34 | 35 | 37.5 | 35 | 33 | 30.0 | 37.5 | 34.1 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 310 | 302 | 296 | 290 | 299 | 298 | 290.0 | 310.0 | 299.2 |
| 11 | Calcium (as Ca) | mg/l | 75 | 31.2 | 30.9 | 28.9 | 27.6 | 28.8 | 29.5 | 27.6 | 31.2 | 29.5 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.042 | 0.045 | 0.042 | 0.045 | 0.04 | 0.045 | 0.040 | 0.045 | 0.043 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 16.9 | 16.0 | 15.8 | 16.3 | 16.8 | 16.8 | 15.8 | 16.9 | 16.4 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 2.2 | 2.0 | 2.3 | 2.5 | 2.3 | 2.0 | 2.0 | 2.5 | 2.2 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.35 | 0.31 | 0.33 | 0.35 | 0.38 | 0.32 | 0.3 | 0.4 | 0.3 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.33 | 0.30 | 0.31 | 0.33 | 0.35 | 0.3 | 0.3 | 0.4 | 0.3 |
| 26 | Chromium as (Cr ^{VI}) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 40 | 35 | 40 | 45 | 40 | 40 | 35.0 | 45.0 | 40.0 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Locations: Kurebaga Ash Pond GW2 - Bore well (West)





Ref: Envlab/26-27/TR-02888

Date: 07.05.2026

Ground Water - Ash Pond Area: Kurebaga Ash Pond Continued

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW3 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.24 | 7.22 | 7.18 | 7.22 | 7.25 | 7.25 | 7.18 | 7.25 | 7.23 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 169 | 168 | 176 | 184 | 170 | 171 | 168.0 | 184.0 | 173.0 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.35 | 0.36 | 0.33 | 0.36 | 0.35 | 0.34 | 0.33 | 0.36 | 0.35 |
| 8 | Chloride (as Cl) | mg/l | 250 | 45 | 40 | 45 | 42.5 | 45 | 43 | 40.0 | 45.0 | 43.3 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 344 | 340 | 331 | 329 | 335 | 333 | 329.0 | 344.0 | 335.3 |
| 11 | Calcium (as Ca) | mg/l | 75 | 35.6 | 34.8 | 33.6 | 34.2 | 34.9 | 35.2 | 33.6 | 35.6 | 34.7 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.045 | 0.048 | 0.045 | 0.048 | 0.046 | 0.048 | 0.045 | 0.048 | 0.047 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 19.8 | 20.8 | 21.4 | 22 | 21.5 | 21.3 | 19.8 | 22.0 | 21.1 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 3.5 | 3.1 | 3.2 | 3 | 3.2 | 3.5 | 3.0 | 3.5 | 3.3 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.37 | 0.34 | 0.35 | 0.39 | 0.41 | 0.36 | 0.3 | 0.4 | 0.4 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.4 | 0.36 | 0.33 | 0.35 | 0.38 | 0.32 | 0.3 | 0.4 | 0.4 |
| 26 | Chromium as (Cr ⁺⁶) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 45 | 48 | 45 | 50 | 55 | 55 | 45.0 | 55.0 | 49.7 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling location: Kurebaga Ash Pond GW3 - Bore well (North)





Ref: Envlab/26-27/TR-02889

Date: 07.05.2026

Ground Water - Ash Pond Area: Kurebaga Ash Pond Continued

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW4 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.12 | 7.10 | 7.15 | 7.12 | 7.1 | 7.2 | 7.10 | 7.20 | 7.13 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 152 | 150 | 154 | 160 | 156 | 166 | 150.0 | 166.0 | 156.3 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.35 | 0.32 | 0.3 | 0.33 | 0.31 | 0.29 | 0.29 | 0.35 | 0.32 |
| 8 | Chloride (as Cl) | mg/l | 250 | 38 | 36 | 35 | 30 | 35 | 34 | 30.0 | 37.5 | 34.6 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 302 | 309 | 315 | 323 | 328 | 316 | 302.0 | 328.0 | 315.5 |
| 11 | Calcium (as Ca) | mg/l | 75 | 35.5 | 33.6 | 32.5 | 32 | 31.6 | 33.8 | 31.6 | 35.5 | 33.2 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.04 | 0.044 | 0.04 | 0.044 | 0.042 | 0.046 | 0.040 | 0.046 | 0.043 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 18 | 18.4 | 18.8 | 19.6 | 20.2 | 20.5 | 18.0 | 20.5 | 19.3 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 3.0 | 2.8 | 2.5 | 2.9 | 2.80 | 2.7 | 2.5 | 3.0 | 2.8 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.30 | 0.33 | 0.32 | 0.38 | 0.36 | 0.35 | 0.3 | 0.4 | 0.3 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.34 | 0.32 | 0.3 | 0.27 | 0.25 | 0.26 | 0.3 | 0.3 | 0.3 |
| 26 | Chromium as (Cr ^{VI}) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 40 | 45 | 42 | 45 | 40 | 45 | 40.0 | 45.0 | 42.8 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling location: Kurebaga Ash Pond GW4 - Bore well (South)





Ref: Envlab/26-27/TR-02890

Date: 07.05.2026

Ground Water - Ash Pond Area: Katikela Ash Pond

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW1 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 6.70 | 6.77 | 6.82 | 6.89 | 6.92 | 6.87 | 6.70 | 6.92 | 6.83 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 90 | 94 | 90 | 95 | 92 | 90 | 90.0 | 95.0 | 91.8 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.31 | 0.33 | 0.35 | 0.33 | 0.35 | 0.34 | 0.31 | 0.35 | 0.34 |
| 8 | Chloride (as Cl) | mg/l | 250 | 35 | 40 | 37.5 | 30 | 35 | 32.5 | 30.0 | 40.0 | 35.0 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 277 | 281 | 269 | 278 | 283 | 277 | 269.0 | 283.0 | 277.5 |
| 11 | Calcium (as Ca) | mg/l | 75 | 35.6 | 34.4 | 33.6 | 33.9 | 34.5 | 33.6 | 33.6 | 35.6 | 34.3 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.038 | 0.035 | 0.033 | 0.037 | 0.039 | 0.033 | 0.033 | 0.039 | 0.036 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 14.2 | 13.6 | 14.1 | 13.7 | 14.4 | 14 | 13.6 | 14.4 | 14.0 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.44 | 1.5 | 1.47 | 1.44 | 1.47 | 1.42 | 1.4 | 1.5 | 1.5 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.31 | 0.30 | 0.33 | 0.36 | 0.33 | 0.35 | 0.3 | 0.4 | 0.3 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.31 | 0.32 | 0.34 | 0.39 | 0.33 | 0.3 | 0.3 | 0.4 | 0.3 |
| 26 | Chromium as (Cr ⁺⁶) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 28 | Alkalinity | mg/l | 200 | 25 | 33 | 30 | 35 | 30 | 35 | 25.0 | 35.0 | 31.3 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | 0.038 | 0.033 | 0.038 | 0.035 | 0.033 | 0.035 | 0.033 | 0.038 | 0.035 |

Sampling Locations: Katikela Ash Pond GW1 - Bore well (East)





Ref: Envlab/26-27/TR-02891

Date: 07.05.2026

Ground Water - Ash Pond Area: Katikela Ash Pond Continued

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW2 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 6.96 | 6.8 | 6.75 | 6.7 | 6.77 | 6.75 | 6.70 | 6.96 | 6.79 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 104 | 96 | 92 | 90 | 88 | 85 | 85.0 | 104.0 | 92.5 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.34 | 0.32 | 0.3 | 0.36 | 0.32 | 0.3 | 0.30 | 0.36 | 0.32 |
| 8 | Chloride (as Cl) | mg/l | 250 | 43 | 38.5 | 35 | 37.5 | 40 | 35 | 35.0 | 42.5 | 38.1 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 311 | 305 | 311 | 305 | 312 | 307 | 305.0 | 312.0 | 308.5 |
| 11 | Calcium (as Ca) | mg/l | 75 | 42.0 | 40.8 | 41.2 | 40.8 | 40.1 | 41.2 | 40.1 | 42.0 | 41.0 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.039 | 0.036 | 0.038 | 0.040 | 0.042 | 0.045 | 0.036 | 0.045 | 0.040 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 15.4 | 16 | 16.8 | 17.5 | 17 | 16.5 | 15.4 | 17.5 | 16.5 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.78 | 1.81 | 1.77 | 1.82 | 1.9 | 1.86 | 1.8 | 1.9 | 1.8 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.33 | 0.32 | 0.31 | 0.28 | 0.26 | 0.28 | 0.3 | 0.3 | 0.3 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.35 | 0.34 | 0.35 | 0.36 | 0.35 | 0.38 | 0.3 | 0.4 | 0.4 |
| 26 | Chromium as (Cr ⁺⁶) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 28 | Alkalinity | mg/l | 200 | 40 | 35 | 36 | 35 | 40.0 | 37 | 35.0 | 40.0 | 37.2 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | 0.026 | 0.03 | 0.033 | 0.039 | 0.036 | 0.038 | 0.026 | 0.039 | 0.034 |

Sampling Locations: Katikela Ash Pond GW2 - Bore well (West)

Reviewed By

Approved By



Ref: Envlab/26-27/TR-02892

Date: 07.05.2026

Ground Water - Ash Pond Area: Katikela Ash Pond Continued

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW3 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.13 | 7.22 | 7.18 | 7.21 | 7.16 | 7.2 | 7.13 | 7.22 | 7.18 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 135 | 122 | 115 | 121 | 118 | 122 | 115.0 | 135.0 | 122.2 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.41 | 0.36 | 0.37 | 0.4 | 0.43 | 0.41 | 0.36 | 0.43 | 0.40 |
| 8 | Chloride (as Cl) | mg/l | 250 | 45 | 47.5 | 45 | 42 | 45 | 40 | 40.0 | 47.5 | 44.1 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 322 | 316 | 320 | 331 | 326 | 334 | 316.0 | 334.0 | 324.8 |
| 11 | Calcium (as Ca) | mg/l | 75 | 43.6 | 41.5 | 43.9 | 44.5 | 43.6 | 42.2 | 41.5 | 44.5 | 43.2 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.05 | 0.044 | 0.04 | 0.043 | 0.044 | 0.046 | 0.040 | 0.050 | 0.045 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 16.6 | 17.1 | 18.9 | 18.4 | 18.8 | 19.6 | 16.6 | 19.6 | 18.2 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.78 | 1.82 | 1.9 | 1.96 | 1.95 | 1.90 | 1.8 | 2.0 | 1.9 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.35 | 0.38 | 0.35 | 0.38 | 0.38 | 0.36 | 0.4 | 0.4 | 0.4 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.41 | 0.43 | 0.42 | 0.44 | 0.45 | 0.42 | 0.4 | 0.5 | 0.4 |
| 26 | Chromium as (Cr ⁺⁶) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 28 | Alkalinity | mg/l | 200 | 50 | 55 | 50 | 45 | 40 | 45 | 40.0 | 55.0 | 47.5 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | 0.039 | 0.041 | 0.043 | 0.041 | 0.044 | 0.045 | 0.039 | 0.045 | 0.042 |

Sampling location: Katikela Ash Pond GW3 - Bore well (North)



Reviewed By



Approved By



Ref: Envlab/26-27/TR-02893

Date: 07.05.2026

Ground Water - Ash Pond Area: Katikela Ash Pond Continued

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW4 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 6.96 | 6.89 | 6.78 | 6.84 | 6.89 | 6.93 | 6.78 | 6.96 | 6.88 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 85 | 80 | 76 | 82 | 86 | 80 | 76.0 | 86.0 | 81.5 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.36 | 0.35 | 0.34 | 0.38 | 0.39 | 0.37 | 0.34 | 0.39 | 0.37 |
| 8 | Chloride (as Cl) | mg/l | 250 | 38 | 35 | 30 | 35 | 38 | 35 | 30.0 | 37.5 | 35.0 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 290 | 288 | 275 | 284 | 278 | 285 | 275.0 | 290.0 | 283.3 |
| 11 | Calcium (as Ca) | mg/l | 75 | 40.9 | 40.6 | 42.5 | 43.1 | 42.9 | 41.8 | 40.6 | 43.1 | 42.0 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.040 | 0.035 | 0.030 | 0.036 | 0.035 | 0.039 | 0.030 | 0.040 | 0.036 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 16.4 | 16.9 | 17.5 | 18.2 | 17.9 | 18.8 | 16.4 | 18.8 | 17.6 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 1.63 | 1.70 | 1.65 | 1.7 | 1.81 | 1.78 | 1.6 | 1.8 | 1.7 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.32 | 0.35 | 0.31 | 0.34 | 0.37 | 0.33 | 0.3 | 0.4 | 0.3 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.36 | 0.39 | 0.36 | 0.32 | 0.3 | 0.35 | 0.3 | 0.4 | 0.3 |
| 26 | Chromium as (Cr ⁶⁺) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 28 | Alkalinity | mg/l | 200 | 45 | 40 | 45 | 40 | 45 | 40 | 40.0 | 45.0 | 42.5 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | 0.024 | 0.025 | 0.028 | 0.026 | 0.030 | 0.028 | 0.024 | 0.030 | 0.026 |

Sampling location: Katikela Ash Pond GW4 - Bore well (South)





Ref: Envlab/26-27/TR-02894

Date: 07.05.2026

Ground Water - Ash Pond Area: Siriapali Ash Pond Continued

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW1 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5 | <5 | <5 | <5 | <5 | <5 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.14 | 7.18 | 7.12 | 7.15 | 7.20 | 7.28 | 7.12 | 7.28 | 7.18 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 141 | 136 | 132 | 125 | 132 | 127 | 125.0 | 141.0 | 132.2 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.34 | 0.32 | 0.35 | 0.33 | 0.31 | 0.33 | 0.31 | 0.35 | 0.33 |
| 8 | Chloride (as Cl) | mg/l | 250 | 32.5 | 33.1 | 32.6 | 31.9 | 32.8 | 33.4 | 31.9 | 33.4 | 32.7 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 236 | 230 | 221 | 210 | 218 | 224 | 210.0 | 236.0 | 223.2 |
| 11 | Calcium (as Ca) | mg/l | 75 | 32.2 | 31.8 | 32.2 | 31.8 | 32.2 | 31.8 | 31.8 | 32.2 | 32.0 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.033 | 0.035 | 0.032 | 0.036 | 0.038 | 0.033 | 0.032 | 0.038 | 0.035 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 18.4 | 17.9 | 17.2 | 19.8 | 19.4 | 18.6 | 17.2 | 19.8 | 18.6 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 2.44 | 2.35 | 2.31 | 2.26 | 2.22 | 2.17 | 2.2 | 2.4 | 2.3 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.32 | 0.30 | 0.34 | 0.32 | 0.35 | 0.33 | 0.3 | 0.4 | 0.3 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.28 | 0.25 | 0.22 | 0.25 | 0.22 | 0.24 | 0.2 | 0.3 | 0.2 |
| 26 | Chromium as (Cr ⁶⁺) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 30 | 35 | 30 | 35 | 30 | 35 | 30.0 | 35.0 | 32.5 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Locations: Siriapali Ash Pond GW1 - Bore well (East)





Ref: Envlab/26-27/TR-02895

Date: 07.05.2026

Ground Water - Ash Pond Area: Siriapali Ash Pond Continued

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW2 | | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg | |
| 1 | Colour | Hazen | 5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 6.85 | 6.89 | 6.94 | 6.98 | 6.95 | 7 | 6.85 | 7.00 | 6.94 | 6.94 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 122 | 124 | 128 | 134 | 139 | 142 | 122.0 | 142.0 | 131.5 | 131.5 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.26 | 0.28 | 0.29 | 0.33 | 0.35 | 0.34 | 0.26 | 0.35 | 0.31 | 0.31 |
| 8 | Chloride (as Cl) | mg/l | 250 | 30 | 30.6 | 29.8 | 29 | 29.6 | 28.8 | 28.8 | 30.6 | 29.6 | 29.6 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 222 | 220 | 226 | 229 | 236 | 245 | 220.0 | 245.0 | 229.7 | 229.7 |
| 11 | Calcium (as Ca) | mg/l | 75 | 31.6 | 30.6 | 29.8 | 29.2 | 29.7 | 28.6 | 28.6 | 31.6 | 29.9 | 29.9 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.035 | 0.038 | 0.036 | 0.035 | 0.032 | 0.030 | 0.030 | 0.038 | 0.034 | 0.034 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 22 | 21.9 | 20.2 | 21.4 | 20.9 | 21.4 | 20.2 | 22.0 | 21.3 | 21.3 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 2.50 | 2.41 | 2.38 | 2.30 | 2.38 | 2.25 | 2.3 | 2.5 | 2.4 | 2.4 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.30 | 0.32 | 0.35 | 0.34 | 0.32 | 0.30 | 0.3 | 0.4 | 0.3 | 0.3 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.26 | 0.23 | 0.28 | 0.29 | 0.28 | 0.25 | 0.2 | 0.3 | 0.3 | 0.3 |
| 26 | Chromium as (Cr ⁶⁺) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 35 | 38 | 35 | 40 | 35 | 30 | 30.0 | 40.0 | 35.5 | 35.5 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Locations: Siriapali Ash Pond GW2 - Bore well (West)





Ref: Envlab/26-27/TR-02896

Date: 07.05.2026

Ground Water - Ash Pond Area: Siriapali Ash Pond Continued

| Sl. No | Parameter | Unit | Standard as per IS:10500 | GW3 | | | | | | | | |
|--------|----------------------------------------------------------|-------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 | Max | Min | Avg |
| 1 | Colour | Hazen | 5 | <5 | <5 | <5 | <5 | <5 | <5 | <5.0 | <5.0 | <5.0 |
| 2 | Odour | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | - | 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 5 | pH Value | - | 6.5-8.5 | 7.30 | 7.33 | 7.28 | 7.33 | 7.39 | 7.29 | 7.28 | 7.39 | 7.32 |
| 6 | Total Hardness (as CaCO ₃) | mg/l | 200 | 145 | 141 | 136 | 140 | 145 | 153 | 136.0 | 153.0 | 143.3 |
| 7 | Iron (as Fe) | mg/l | 1 | 0.35 | 0.36 | 0.38 | 0.35 | 0.37 | 0.35 | 0.35 | 0.38 | 0.36 |
| 8 | Chloride (as Cl) | mg/l | 250 | 45 | 44.3 | 45 | 43.8 | 42.9 | 41.8 | 41.8 | 45.0 | 43.8 |
| 9 | Residual free Chlorine | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Dissolved solids | mg/l | 500 | 258 | 249 | 245 | 256 | 260 | 266 | 245.0 | 266.0 | 255.7 |
| 11 | Calcium (as Ca) | mg/l | 75 | 33.5 | 32.5 | 32.8 | 32.3 | 33.9 | 34.5 | 32.3 | 34.5 | 33.3 |
| 12 | Copper (as Cu) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 13 | Manganese (as Mn) | mg/l | 0.1 | 0.040 | 0.039 | 0.04 | 0.042 | 0.045 | 0.042 | 0.039 | 0.045 | 0.041 |
| 14 | Sulphate as (SO ₄) | mg/l | 200 | 23.3 | 22.8 | 23.5 | 24.2 | 24.5 | 24.8 | 22.8 | 24.8 | 23.9 |
| 15 | Nitrate (as NO ₃) | mg/l | 45 | 2.61 | 2.56 | 2.4 | 2.44 | 2.53 | 2.46 | 2.4 | 2.6 | 2.5 |
| 16 | Fluoride (as F) | mg/l | 1 | 0.35 | 0.33 | 0.36 | 0.35 | 0.38 | 0.34 | 0.3 | 0.4 | 0.4 |
| 17 | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 18 | Anionic Detergent (as MBAS) | mg/l | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 19 | Mercury (as Hg) | mg/l | 0.001 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 20 | Cadmium (as Cd) | mg/l | 0.003 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 21 | Selenium (as Se) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 22 | Arsenic (as As) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 23 | Cyanide (as CN) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 24 | Lead (as Pb) | mg/l | 0.01 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Zinc (as Zn) | mg/l | 5 | 0.30 | 0.31 | 0.32 | 0.31 | 0.33 | 0.30 | 0.3 | 0.3 | 0.3 |
| 26 | Chromium as (Cr ⁶⁺) | mg/l | 0.05 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 27 | Mineral oil | mg/l | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 28 | Alkalinity | mg/l | 200 | 38 | 42 | 40 | 45 | 40 | 45 | 38.0 | 45.0 | 41.7 |
| 29 | Aluminium as Al | mg/l | 0.03 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 30 | Boron | mg/l | 0.5 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

Sampling Locations: Siriapali Ash Pond GW3 - Bore well (North)





Ref: Envlab/26-27/TR-02897

Date: 07.05.2026

7. Soil Quality:

| Sl. No. | Parameters | S-1 | | S-4 | | S-6 | |
|---------|------------------------------|------------|------------|------------|------------|------------|------------|
| | | Oct'25 | Jan'26 | Oct'25 | Jan'26 | Oct'25 | Jan'26 |
| 1 | Colour | Brown | Brown | Brown | Brown | Reddish | Reddish |
| 2 | Type of Soil | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| 3 | pH | 6.44 | 6.51 | 6.95 | 6.88 | 6.81 | 6.85 |
| 4 | Texture | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam |
| 5 | Infiltration Rate (cm/hr) | 8.1 | 8.5 | 7.2 | 7.8 | 7.9 | 8.1 |
| 6 | Bulk Density (gm/cc) | 1.62 | 1.63 | 1.81 | 1.78 | 1.28 | 1.29 |
| 7 | Porosity % | 41.2 | 41.3 | 31.7 | 31.8 | 51.2 | 51.3 |
| 8 | Moisture content % | 11.2 | 10.8 | 10.5 | 10.1 | 8.5 | 8.1 |
| 9 | Fluoride % | 0.0045 | 0.0042 | 0.0077 | 0.0080 | 0.0088 | 0.009 |
| 10 | Silica as SiO ₂ % | 29.1 | 28.7 | 39.8 | 39.2 | 24.8 | 24.4 |
| 11 | Chloride % | 0.033 | 0.038 | 0.030 | 0.033 | 0.048 | 0.046 |
| 12 | Sulphate % | 0.48 | 0.46 | 0.61 | 0.63 | 0.24 | 0.26 |
| 13 | Potassium as K% | 0.033 | 0.035 | 0.045 | 0.042 | 0.038 | 0.036 |
| 14 | Magnesium as Mg% | 0.33 | 0.35 | 0.32 | 0.3 | 0.33 | 0.36 |
| 15 | Calcium as Ca% | 0.45 | 0.41 | 0.72 | 0.7 | 0.63 | 0.65 |
| 16 | Manganese as Mn% | 0.4 | 0.43 | 0.46 | 0.44 | 0.54 | 0.57 |
| 17 | Iron as Fe% | 0.61 | 0.63 | 0.55 | 0.59 | 0.89 | 0.91 |
| 18 | Available Organic Carbon % | 2.7 | 2.6 | 2.52 | 2.45 | 2.2 | 2.4 |
| 19 | Available Nitrogen% | 0.078 | 0.075 | 0.078 | 0.081 | 0.088 | 0.085 |

Sampling locations: S-1: Gudigaon Village

S-4: Katapali Village

S-6: Bhurkamunda Village





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Ref: Envlab/26-27/TR- 02898

Date: 07.05.2026

Soil Quality: Continued.

| Sl. No. | Parameters | S-2 | | | | | |
|---------|------------------------------|------------|------------|------------|------------|------------|------------|
| | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 |
| 1 | Colour | Brown | Brown | Brown | Brown | Brown | Brown |
| 2 | Type of Soil | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| 3 | pH | 7.11 | 7.25 | 7.22 | 7.00 | 7.12 | 7.15 |
| 4 | Texture | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam |
| 5 | Infiltration Rate (cm/hr) | 7.8 | 6.5 | 6.4 | 8.1 | 6.6 | 6.9 |
| 6 | Bulk Density (gm/cc) | 1.88 | 1.58 | 1.59 | 1.60 | 1.56 | 1.48 |
| 7 | Porosity % | 40.1 | 41.5 | 41.2 | 40.2 | 41.4 | 41.9 |
| 8 | Moisture content % | 11.5 | 7.5 | 7.2 | 11.1 | 6.9 | 6.6 |
| 9 | Fluoride % | 0.0036 | 0.0043 | 0.0045 | 0.0039 | 0.0048 | 0.0046 |
| 10 | Silica as SiO ₂ % | 33.6 | 36.9 | 36.2 | 34.1 | 35.9 | 35 |
| 11 | Chloride % | 0.038 | 0.044 | 0.045 | 0.040 | 0.042 | 0.044 |
| 12 | Sulphate % | 0.46 | 0.46 | 0.44 | 0.45 | 0.48 | 0.46 |
| 13 | Potassium as K% | 0.048 | 0.05 | 0.053 | 0.042 | 0.055 | 0.052 |
| 14 | Magnesium as Mg% | 0.26 | 0.44 | 0.42 | 0.28 | 0.45 | 0.42 |
| 15 | Calcium as Ca% | 0.48 | 0.58 | 0.56 | 0.45 | 0.54 | 0.55 |
| 16 | Manganese as Mn% | 0.38 | 0.42 | 0.45 | 0.35 | 0.42 | 0.4 |
| 17 | Iron as Fe% | 0.54 | 0.54 | 0.51 | 0.58 | 0.48 | 0.45 |
| 18 | Available Organic Carbon % | 2.42 | 2.20 | 2.15 | 2.38 | 2.21 | 2.15 |
| 19 | Available Nitrogen% | 0.082 | 0.09 | 0.093 | 0.08 | 0.095 | 0.098 |

Sampling locations: S-2: Kurebaga Village



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Ref: Envlab/26-27/TR- 02899

Date: 07.05.2026

Soil Quality: Continued.

| Sl. No. | Parameters | S-3 | | | | | |
|---------|------------------------------|------------|------------|------------|------------|------------|------------|
| | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 |
| 1 | Colour | Brown | Brown | Brown | Brown | Brown | Brown |
| 2 | Type of Soil | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| 3 | pH | 7.08 | 7.14 | 7.15 | 7.13 | 7.23 | 7.28 |
| 4 | Texture | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam |
| 5 | Infiltration Rate (cm/hr) | 7.5 | 6.6 | 6.8 | 7.9 | 6.9 | 7.1 |
| 6 | Bulk Density (gm/cc) | 1.71 | 1.44 | 1.45 | 1.72 | 1.42 | 1.36 |
| 7 | Porosity % | 39.4 | 41.5 | 41.4 | 39.6 | 41.5 | 42 |
| 8 | Moisture content % | 9.6 | 8.6 | 8.1 | 9.2 | 7.7 | 7.2 |
| 9 | Fluoride % | 0.0045 | 0.0048 | 0.0046 | 0.0048 | 0.0043 | 0.0045 |
| 10 | Silica as SiO ₂ % | 36.8 | 37.2 | 36.8 | 37.2 | 37.4 | 36.9 |
| 11 | Chloride % | 0.035 | 0.049 | 0.052 | 0.037 | 0.056 | 0.059 |
| 12 | Sulphate % | 0.54 | 0.5 | 0.51 | 0.50 | 0.5 | 0.52 |
| 13 | Potassium as K% | 0.051 | 0.043 | 0.048 | 0.050 | 0.046 | 0.048 |
| 14 | Magnesium as Mg% | 0.3 | 0.31 | 0.33 | 0.32 | 0.36 | 0.33 |
| 15 | Calcium as Ca% | 0.56 | 0.63 | 0.6 | 0.52 | 0.62 | 0.6 |
| 16 | Manganese as Mn% | 0.42 | 0.45 | 0.42 | 0.40 | 0.41 | 0.44 |
| 17 | Iron as Fe% | 0.66 | 0.59 | 0.58 | 0.62 | 0.59 | 0.54 |
| 18 | Available Organic Carbon% | 1.69 | 1.96 | 1.8 | 1.74 | 1.91 | 1.84 |
| 19 | Available Nitrogen% | 0.075 | 0.085 | 0.082 | 0.078 | 0.088 | 0.09 |

Sampling locations: S-3: Siriapali Village





Ref: Envlab/26-27/TR-02900

Date: 07.05.2026

Soil Quality: Continued.

| Sl. No. | Parameters | S-5 | | | | | |
|---------|------------------------------|------------|------------|------------|------------|------------|------------|
| | | Oct'25 | Nov'25 | Dec'25 | Jan'26 | Feb'26 | Mar'26 |
| 1 | Colour | Brown | Brown | Brown | Brown | Brown | Brown |
| 2 | Type of Soil | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| 3 | pH | 6.88 | 6.90 | 6.93 | 6.94 | 6.88 | 6.93 |
| 4 | Texture | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam |
| 5 | Infiltration Rate (cm/hr) | 7.4 | 7.0 | 7.1 | 8 | 7 | 7.8 |
| 6 | Bulk Density (gm/cc) | 1.63 | 1.53 | 1.55 | 1.6 | 1.53 | 1.5 |
| 7 | Porosity % | 42.2 | 44.9 | 44.6 | 41.8 | 44.2 | 43.8 |
| 8 | Moisture content % | 10.9 | 8.1 | 7.8 | 10.2 | 7.5 | 7 |
| 9 | Fluoride % | 0.0042 | 0.0051 | 0.0054 | 0.0045 | 0.0052 | 0.0055 |
| 10 | Silica as SiO ₂ % | 34.0 | 37.4 | 37.8 | 34.5 | 38.1 | 37.8 |
| 11 | Chloride % | 0.041 | 0.035 | 0.038 | 0.044 | 0.033 | 0.035 |
| 12 | Sulphate % | 0.43 | 0.44 | 0.46 | 0.42 | 0.49 | 0.48 |
| 13 | Potassium as K% | 0.048 | 0.042 | 0.045 | 0.051 | 0.048 | 0.045 |
| 14 | Magnesium as Mg% | 0.25 | 0.35 | 0.36 | 0.22 | 0.35 | 0.32 |
| 15 | Calcium as Ca% | 0.66 | 0.51 | 0.54 | 0.63 | 0.55 | 0.52 |
| 16 | Manganese as Mn% | 0.52 | 0.41 | 0.38 | 0.51 | 0.33 | 0.3 |
| 17 | Iron as Fe% | 0.61 | 0.65 | 0.62 | 0.63 | 0.65 | 0.62 |
| 18 | Available Organic Carbon % | 1.90 | 2.3 | 2.1 | 1.86 | 2.14 | 2.2 |
| 19 | Available Nitrogen% | 0.081 | 0.079 | 0.076 | 0.084 | 0.079 | 0.076 |

Sampling locations: S-5: Katikela Village



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Ref: Envlab/26-27/TR- 02901

Date: 07.05.2026

Soil Quality: Continued.

| Sl. No. | Parameters | S-7 | | S-8 | |
|---------|------------------------------|------------|------------|------------|------------|
| | | Oct'25 | Jan'26 | Oct'25 | Jan'26 |
| 1 | Colour | Reddish | Reddish | Brown | Brown |
| 2 | Type of Soil | Neutral | Neutral | Neutral | Neutral |
| 3 | pH | 7.15 | 7.22 | 7.2 | 7.24 |
| 4 | Texture | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam |
| 5 | Infiltration Rate (cm/hr) | 8.2 | 8.3 | 6.8 | 6.9 |
| 6 | Bulk Density (gm/cc) | 1.38 | 1.4 | 1.40 | 1.39 |
| 7 | Porosity % | 48.6 | 48.7 | 40.4 | 40.2 |
| 8 | Moisture content % | 8.4 | 8 | 7.2 | 6.9 |
| 9 | Fluoride % | 0.0065 | 0.0068 | 0.0054 | 0.0055 |
| 10 | Silica as SiO ₂ % | 24.0 | 24.5 | 26.1 | 26.6 |
| 11 | Chloride % | 0.036 | 0.039 | 0.04 | 0.044 |
| 12 | Sulphate % | 0.38 | 0.35 | 0.42 | 0.4 |
| 13 | Potassium as K% | 0.026 | 0.028 | 0.045 | 0.044 |
| 14 | Magnesium as Mg% | 0.28 | 0.29 | 0.31 | 0.32 |
| 15 | Calcium as Ca% | 0.56 | 0.52 | 0.60 | 0.63 |
| 16 | Manganese as Mn% | 0.58 | 0.55 | 0.63 | 0.6 |
| 17 | Iron as Fe% | 0.92 | 0.88 | 0.90 | 0.93 |
| 18 | Available Organic Carbon % | 3.2 | 3 | 4.6 | 4.5 |
| 19 | Available Nitrogen% | 0.094 | 0.09 | 0.086 | 0.088 |

Sampling locations: S-7: R&R Colony

S-8: Tumbakela Village



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Ref: Envlab/26-27/TR- 02902

Date: 07.05.2026

Soil Quality: Continued.

| Sl. No. | Parameters | S-9 | | S-10 | |
|---------|----------------------------|------------|------------|------------|------------|
| | | Oct'25 | Jan'26 | Oct'25 | Jan'26 |
| 1 | Colour | Brown | Brown | Brown | Brown |
| 2 | Type of Soil | Neutral | Neutral | Neutral | Neutral |
| 3 | pH | 6.93 | 6.9 | 6.84 | 6.87 |
| 4 | Texture | Sandy Loam | Sandy Loam | Sandy Loam | Sandy Loam |
| 5 | Infiltration Rate (cm/hr) | 8.3 | 8.5 | 9 | 9.2 |
| 6 | Bulk Density (gm/cc) | 1.65 | 1.66 | 1.51 | 1.5 |
| 7 | Porosity % | 35.4 | 35.5 | 39.6 | 39.4 |
| 8 | Moisture content % | 8.0 | 7.7 | 9.6 | 9.2 |
| 9 | Fluoride % | 0.0073 | 0.0078 | 0.0086 | 0.0088 |
| 10 | | 31.2 | 30.8 | 30.2 | 30.5 |
| 11 | Chloride % | 0.056 | 0.055 | 0.061 | 0.063 |
| 12 | Sulphate % | 0.33 | 0.36 | 0.43 | 0.45 |
| 13 | Potassium as K% | 0.067 | 0.062 | 0.064 | 0.065 |
| 14 | Magnesium as Mg% | 0.33 | 0.3 | 0.25 | 0.28 |
| 15 | Calcium as Ca% | 0.57 | 0.55 | 0.66 | 0.62 |
| 16 | Manganese as Mn% | 0.46 | 0.45 | 0.62 | 0.64 |
| 17 | Iron as Fe% | 0.84 | 0.86 | 0.88 | 0.92 |
| 18 | Available Organic Carbon % | 4.1 | 4 | 4.0 | 3.8 |
| 19 | Available Nitrogen% | 0.092 | 0.096 | 0.091 | 0.095 |

Sampling locations: S-9: Brundamal Village

S-10: Sripura Village

