VL MOEF 006 2025 - 20
November 22, 2025

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

Sub: Submission of Half-Yearly Compliance Report of 2400 MW Thermal Power Plant of Vedanta Limited, Jharsuguda for the period from April 2025 to September 2025

Ref: 1. Environment Clearance letter No. J-13011/3/2007-IA. II (T) dated 7th December, 2007
2. Amended Environment Clearance letter No. J- 13011/3/2007-IA. II (T) dated 12th May, 2008
3. Amended Environment Clearance letter no. J-13011/3/2007-IA. II(T) dated 16th October,2018

Dear 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 the conditions of Environment Clearance and its amendments for 2400 MW Thermal 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.

Thanking You,

Yours Faithfully,
For Vedanta Limited

Dr. Amit Kumar Tyagi
Head- Environment

CC: 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

Enclosed: As above

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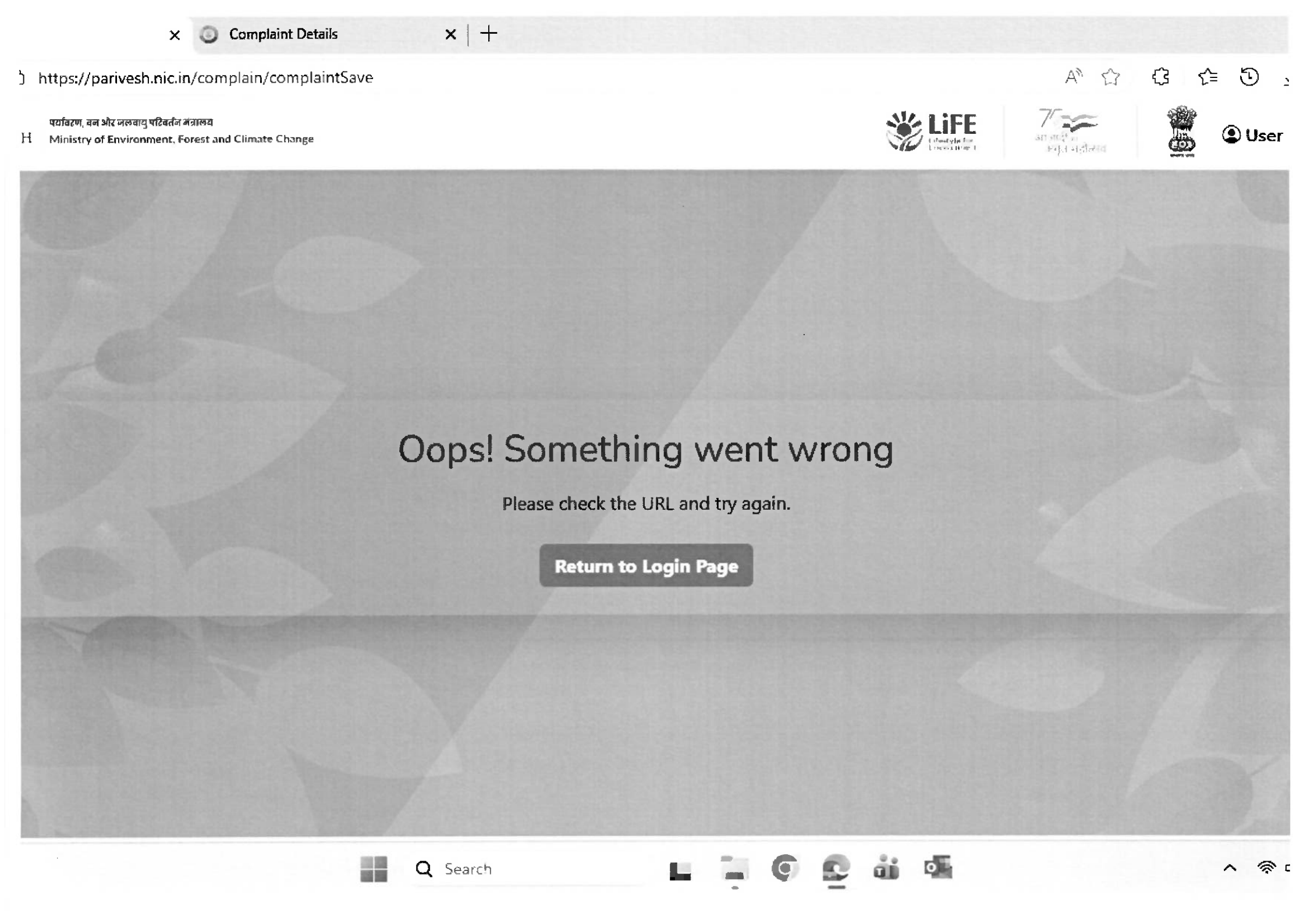
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VEDANTA LIMITED, JHARSUGUDA
THERMAL POWER PLANT (2400 MW)
Compliance Status on Environmental Clearance - MoEF Letter No. J-13011/3/2007-IA-II (T) dated 7th December 2007 and amended Environment Clearance letter No. J- 13011/3/2007-IA. II (T) dated 12th May, 2008 and Amended Environment Clearance Conditions vide letter No. J- 13011/3/2007 IA.II (T) dated 16th October, 2018

Sl.No.	CONDITIONS	COMPLIANCE STATUS
Environmental Clearance- Letter No. J-13011/3/2007-IA-II (T) dated 7th December 2007		
SPECIFIC CONDITIONS		
1.	General Comment	-
2.	General Comment	-
3. (i)	The total land requirement shall not exceed 839.50 acres for all the activities/ facilities of the power project.	The facilities of the power project have been set up within 839.50 acres.
(ii)	Ash and sulphur contents in the coal to be used in the project shall not exceed 41.6% and 0.5% respectively.	From Apr-25 to Sep-25, the average ash in the coal is 41.64 percent and sulphur contents in the coal ranges 0.256 - 0.451 percent, respectively. With respect to this point, please note that there has been a MoEFCC notification dated 21.05.2020 that substituted Rule 3(8) of the Environment (Protection) Rules, 1986 and stated that the TPPs can use coal without any stipulations as to ash content or distance subject to fulfilment of certain conditions. Such conditions include technology solution for emission norms, management of ash pond, safe transportation among others. It is submitted that such conditions are being complied with in letter and spirit. **Notification and Analysis report for period of Apr-25 to Sep-25 is enclosed as Annexure-1a and 1b.**
(iii)	Two bi-flue stack of 275 m height each with exit velocity of not less than 25 m/s shall be provided with continuous online monitoring system.	Two bi-flue stacks of 275 m height each with exit velocity of not less than 25 m/s have been provided with continuous online monitoring system.
(iv)	High efficiency Electrostatic Precipitators (ESPs) with efficiency not less than 99.98% shall be installed so as to ensure that particulate emissions do not exceed 50 mg/Nm^3.	Electrostatic Precipitators (ESPs) with 99.98 percent efficiency followed by bag filters (hybrid ESP) have been installed and the particulate emissions is within 50 mg/Nm^3. **Monitoring Report for the period of Apr-25 to Sep-25 enclosed as Annexure-2.**
(v)	Space provision shall be made for Flue Gas De-sulphurisation (FGD) unit of requisite efficiency of removal of SO_2, if required at a later stage.	As per the notification G.S.R. 465(E). dated 11th July 2025, the FGD system for Sulphur dioxide emission standards shall not be applicable to all Category C thermal power plants subject to ensuring compliance of stack height criteria. As per the criteria mentioned in the notification, we have been falling under category C and are compliant of stack height criteria since inception. So, this condition is not applicable for our Industry. **Notification copy enclosed as Annexure-3**
(vi)	Water requirement shall not exceed 5235 m^3/hr. No ground water shall be extracted for the project at any stage.	Water requirement is within 5235 m^3/hr and from Apr-25 to Sep-25, the water consumption in TPP is in the range of 3122 to 4863 m^3/hr and no ground water is being used for the project. **Specific Water consumption report enclosed as Annexure-4.**

(vii)	Closed Circuit Cooling system with cooling towers shall be provided.	Closed Circuit Cooling system with cooling towers (IDCT) have been provided and an optimum level of COC being maintained during the plant operation. For each unit, one no. of cooling tower of 150 meters height has been provided.
(viii)	For controlling fugitive dust, regular sprinkling of water in the coal handling area and other vulnerable areas of the plant shall be ensured.	Fixed water sprinkling system/Fixed Mist type cannon have been provided all along the coal storage area. Further, Mobile Water tankers/sprinklers have also been deployed round the clock in CHP, ash pond area to arrest airborne emissions. **Photos are enclosed as Annexure-5.**
(ix)	The project authorities should adhere to the provisions stipulated in the fly ash notification of September, 1999 and as amended in August, 2003 in regard to fly ash utilization.	Fly ash is being collected in dry form in silos of capacity-10000 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 30th December 2022, we have declared our all 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 30th March 2023. **Letter enclosed as Annexure-6a.** As per Fly ash notification 2021 and its subsequent amendments, more than 100 percent ash was utilized in FY 2025 and the same is planned for FY 2026 also. 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-6b and Annexure-6c respectively.**
(x)	The ash pond shall be lined with impervious lining to avoid any leaching into groundwater. The ash dyke shall be so designed and strengthened to ensure guard against breaching. Adequate safety measures shall also be taken so that pond ash does not become air borne to cause air pollution in the surrounding areas.	The ash ponds/dykes are constructed/ designed as per the recommendations given in design document. The ash is being transported through High concentration slurry disposal system. Water in the slurry is minimum thereby making the entire mass a rock like structure so that no water is available for leaching into ground and the ash will not get airborne. This method of disposal is such that there will be no pressure on the bunds, making it vulnerable for a breach. Further, proper design of the dyke through reputed consulting firm/institution, appropriate remediation for breach management and communication process followed in case of eventuality. The ash pond has been lined with impervious clay/ HDPE lining to avoid any leaching into ground water. Moreover, piezometric wells have been installed to check the level of water. Further, mobile tankers/ fixed sprinkling system has been provided to arrest the airborne emission if any. **Photos of water sprinkling measures enclosed as Annexure-7.**

(xi)	Project proponent shall commission a study to be undertaken by Wildlife Institute of India, Dehradun to determine the quantum and scale of mitigation measures to offset the impact, if any, on the safety of the elephants and security of their migration areas. The study would have to be completed before starting work at site and the safeguards so suggested shall be implemented by the project. The requisite allocation of funds for the same shall be built into the project cost.	We had approached Wildlife Institute of India, Dehradun to take up the study but they refused to undertake the study, the same was communicated to the Ministry. Based on the committees recommendation the condition was amended to undertake the study through Centre for Ecological Sciences, Indian Institute of Science, Bangalore. The same was communicated to us vide letter No.J- 13011/3/2007-IA.II (T) dated 12th May 2008 and the compliance status of the condition is mentioned in the amended condition 3 (xi). The study has been completed, and the report has been submitted to Director, Project Elephant, MoEFCC, CWLW and PCCF, Govt. of Odisha for necessary vetting. The conclusion of the study is detailed in Chapter 5, Pg.27 and reads as We therefore do not recommend the establishment of any corridor through this virtually nonexistent (or non-viable) habitat in the Sambalpur North Forest Division. We strongly recommend that the overall viability of the Sambalpur Elephant Reserve is strengthened in the Sambalpur South Forest Division. **Report enclosed as Annexure-8a.** 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 the WL-Anukampa and its maintenance condition. **Latest communication and implementation status are enclosed as Annexure-8b.**
(xii)	The District Collector / Revenue Divisional Commissioner shall be informed regarding R&R and all other benefits to be provided by the project proponent and their effective implementation shall have to be overseen by the District Authorities.	The R and R package has been finalized based on the R and R Policy of Odisha incorporating the local additional requirement discussed in the RPDAC meeting chaired by the Revenue Divisional Commissioner and attended by the District Collector and representatives of the affected villagers. The District Collector/District Magistrate and the Administration is overseeing to ensure strict compliance of the commitment. **Status Report enclosed as Annexure-9.**

(xiii)	All the measures suggested by the Wildlife Department, Govt. of Orissa (Chief Wildlife Warden) for this project as contained in their letter no. IWL(c)-FC-370/07/6532 dated 16.10.2007 and any other measure as may be considered necessary for the conservation of wildlife in the area shall be taken up on priority before commissioning the project.	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 the WL-Anukampa and its maintenance condition. **Latest communication and implementation status are enclosed as Annexure-8b.**
(xiv)	Rainwater harvesting should be adopted. Central Groundwater Authority / Board shall be consulted for finalization of appropriate rain water harvesting technology within a period of three months from the date of clearance	As per CGWA guidelines September 2020, the industries falling under hazardous category should not implement any recharge measures within the plant premises. Hence, we have carried out roof top rainwater harvesting structures at our site to utilize the collected/harvested water. **CGWA guidelines enclosed as Annexure-10a.** We have installed 7 nos. of roof top rainwater harvesting structure with a total capacity of more than 10000 m3 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. **Letter enclosed as Annexure-10b.** Moreover, we have completed cleaning and restoration of various community ponds thereby augmenting the capacity for rainwater harvesting in the surrounding villages. **Photos of few ponds are enclosed as Annexure-10c.**
(xv)	Wastewater generated shall be recycled and reused in the plant premises. There shall be no discharge of wastewater outside the plant boundary except during monsoon. Treated effluents conforming to the prescribed standards shall be discharged during the monsoon period	Effluent treatment Plant along with Reverse Osmosis Plant has been installed & under operation. Being a responsible corporate, we are maintaining the ZLD and all treated effluent after conforming to standards is recycled and reused within the plant. **Monitoring Report for the period of Apr-25 to Sep-25 enclosed as Annexure-2.**
(xvi)	Regular monitoring of ground water quality including heavy metals shall be undertaken	Apart from the piezometric bore wells around ash ponds, the ground water monitoring has been undertaken in the surrounding villages like Purna, Siriapali, Badmal,

	around ash dyke and the project area to ascertain the change, if any, in the water quality due to leaching of contaminants from ash disposal area.	Bhurkamunda and Katikela. **Monitoring Report for the period of Apr-25 to Sep-25 enclosed as Annexure-2.**
(xvii)	A greenbelt shall be developed all along the plant and ash pond boundary covering a total area of 322 acres.	33 percent green belt has been developed all along the plant and ash pond area. High potential local species has been planted to attenuate the pollutants as per the CPCB guidelines. Moreover, as a responsible corporate, we have taken up plantation activities in Jharsuguda at various locations. **Green Belt Photos are enclosed as Annexure-11a.** We have taken up a mass plantation drive outside plant premises in an area of approx. 50 acres with 1 lakh saplings under MoEFCC drive-Ek Ped Maa Ke Naam. **Letter enclosed as Annexure-11b.**
(xviii)	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied. First aid and sanitation facilities had been provided to all the drivers and contract workers during the construction phase. Moreover, company has established dedicated First Aid center and Apollo Clinic to cater the employees and workers throughout the year.
(xix)	Leq of Noise level should be limited to 75 dB(A) and regular maintenance of equipment be undertaken. For people working in the high noise areas, personal protection devices should be provided.	Mitigative measures have been provided in high noise level areas like Turbine and Generator to ensure the Leq of noise level less than 75 dB(A) with regular maintenance of equipment. **Monitoring Report for the period of Apr-25 to Sep-25 enclosed as Annexure-2.**
(xx)	Regular monitoring of the ambient air quality shall be carried out in and around the power plant and records maintained. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Quarterly reports shall be submitted to the Regional Office of this Ministry.	We are submitting monitoring reports monthly to OSPCB and quarterly reports are being regularly submitted to the Regional Office of Ministry. **Monitoring Report for the period of Apr-25 to Sep-25 enclosed as Annexure-2** AAQ stations have been fixed in consultation with OSPCB in and around the power plant complex. We had already submitted an application/letter to OSPCB regarding precise location of the AAQMS on dated 22.04.2024, 08.07.2024 and 25.07.2024 along with a report Air Dispersion Modelling for Power and Aluminum Plant, Bhurkamunda, Jharsuguda - to Check the Efficacy of the Existing Ambient Air Quality Network (manual and CAAQMS) by Professor Mukesh Sharma, IIT Kanpur. **Consultation letter enclosed as Annexure-12.**
(xxi)	The project proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned within	Advertisement with information on grant of EC as advised by the Ministry has been released in two local newspapers one in vernacular - The Samaja (Oriya News Paper) dated 17.12.2007 and one in English - The Times of India (English News Paper) dated 17.12.2007. **Advertisement published in the newspapers are enclosed as Annexure-13.**

	seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board/Committee and may also be seen in the Website of the Ministry of Environment and Forests in the http://envfor.nic.in	
(xxii)	A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.	A separate Environment Management Cell with qualified personnel has been set up to monitor compliance of the conditions stipulated. **Organogram enclosed as Annexure-14.**
(xxiii)	Half yearly report on the status of implementation of the conditions and environmental safeguards should be submitted to this Ministry, the Regional Office, CPCB and SPCB.	We are uploading half yearly compliance report along with monitoring data and supporting annexures in the MoEFCC Parivesh Portal and on our website and link of the same is as below. https://vedantaaluminium.com/sustainability/compliance-report-jharsuguda
(xxiv)	Regional Office of the Ministry of Environment & Forests located at Bhubaneswar will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report, Environment Management Plan and the additional information / clarifications submitted subsequently should be forwarded to the Regional Office for their use during monitoring.	Details implementation status of Environment Management Plan is enclosed as **Annexure-15.**
(xxv)	Separate funds should be allocated for implementation of environmental protection measures along with item-wise break-up. These cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and	Separate funds have been allocated for implementation of the Environmental Protection measures and will not be diverted for any other purposes. **Expenditure details are enclosed as Annexure-16.**

	year-wise expenditure should be reported to the Ministry.	
(xxvi)	Full cooperation should be extended to the Scientists/Officers from the Ministry and its Regional Office at Bhubaneswar/ the CPCB / the SPCB during monitoring of the project.	We shall extend full co-operation to the scientists/ officers from the Ministry/ Regional Office/ CPCB and OSPCB who would be monitoring the compliance of Environmental status.
4.	The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.	We will strictly adhere to the stipulations of the Ministry.
5.	The environmental clearance accorded shall be valid for a period of 5 years to the start of production operations by the power plant.	Noted.
6.	In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.	No deviation, alteration, expansion or modernization in the project will be undertaken without prior approval of the Ministry.
7.	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	Noted.
Amended Environment Clearance Conditions vide letter No. J- 13011/3/2007-IA.II(T) dated 12th May, 2008		
1.	General Comment	-
2.	General Comment	-
3(xi)	**Amended Condition:** "Project proponent shall commission a	We had approached Wildlife Institute of India, Dehradun to take up the study but they refused to undertake the

	study to be undertaken by the Centre for Ecological Sciences, Indian Institute of Science, Bangalore regarding the feasibility of developing viable elephant corridors, which may have minimal impact due to the proposed project. The report shall be get vetted by Chief Wildlife Warden, Govt. of Orissa and Director (Project Elephant), Govt. of India. The necessary mitigation measures as may be suggested based on the proposed study shall be implemented by the project proponent along with the State Wildlife Department. The said study should be completed before commissioning of the plant. The implementation of the EMP shall be periodically monitored by a team comprising of Representatives from (i) Indian Institute of Science, Bangalore, (ii) Regional Office of the Ministry at Bhubaneswar and (iii) State Wildlife Department".	study, the same was communicated to the Ministry. Based on the committees recommendation the condition was amended to undertake the study through Centre for Ecological Sciences, Indian Institute of Science, Bangalore. The same was communicated to us vide letter No.J- 13011/3/2007-IA.II (T) dated 12th May 2008 and the compliance status of the condition is mentioned in the amended condition 3 (xi). The study has been completed, and the report has been submitted to Director, Project Elephant, MoEFCC, CWLW and PCCF, Govt. of Odisha for necessary vetting. The conclusion of the study is detailed in Chapter 5, Pg.27 and reads as We therefore do not recommend the establishment of any corridor through this virtually nonexistent (or non-viable) habitat in the Sambalpur North Forest Division. We strongly recommend that the overall viability of the Sambalpur Elephant Reserve is strengthened in the Sambalpur South Forest Division. **Study Report enclosed report as Annexure-8a.** 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 the WL-Anukampa and its maintenance condition. **Latest communication and implementation status are enclosed as Annexure-8b.**
Additional Conditions		
(i)	The site at Sripura village shall only be used for ash disposal for both the phases. Out of the 790 acres of available land, the proponent should carve out 757.3 acres of land as required for the ash pond such that the land so carved out is far away as possible from the river.	Ash ponds at Katikela, Kurebaga and Siriapali have already been developed and are in operation. The ash pond site at Sripura was envisaged along with expansion of power plant which has not been established/constructed for the business decision. The ash pond will be constructed if required as per the amendment of EC No. J- 13011/3/2007-IA.II (T) dated 16th October, 2018 at the permitted sites.

(ii)	The earlier site for the ash pond, which was close to the elephant corridor, shall be abandoned and no activity relating to the power project in any form shall be taken on that site.	The ash pond will be constructed if required as per the amendment of EC No. J- 13011/3/2007-IA. II (T) dated 16th October 2018 at the permitted sites.
Amended Environment Clearance Conditions vide letter No. J- 13011/3/2007-IA.II (T) dated 16th October, 2018		
1.	General Comment	-
2.	General Comment	-
3.	General Comment	-
4.	General Comment	-
5(i)	**Amended Condition:** Ash ponds at village Siriapali in an area of 230 acres and at village Gudigaon in an area of 191.92 ha is permitted.	Noted.
(ii)	Ash pond expansion at Katikela is not permitted and the said area shall be developed as greenbelt.	As per EC amendment dated 16.10.2018 condition we have not carried out any expansion in Katikela ash pond area. Katikela lagoon 2 has been reclaimed, and plantation has also been carried out. **Photos of plantation are enclosed as Annexure-17.**
(iii)	Remediation plan for restoration of Katikela Ash pond near Bhedan river prepared by M/s Tata Consulting Engineers shall be implemented.	Details of activities carried out during the restoration and reclamation work at Katikela lagoon 2 as per TCE recommendation. **Status enclosed as Annexure-18.**
6 (i)	The protection of elephants moving in the area to be ensured along with ensuring safe passage/corridor for the movement of elephants from one habitat to other safely.	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 the WL-Anukampa and its maintenance condition. **Latest communication and implementation status are enclosed as Annexure-8b.**

(ii)	All the protection and conservation activities to be undertaken as per the directions and recommendation of the Chief Wildlife Warden, Odisha and the local officials.	**Latest communication and implementation status are enclosed as Annexure-8b.**

Sl.No.	Terms and Conditions	Status
a.	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. 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).	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
b.	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.	Applicable flue gas emission standards like PM, SO2, NOX and Hg is being monitored regularly. **Monitoring Report for the period of Oct-24 to Nov-25 enclosed as Annexure-2.** As per the notification G.S.R. 465(E). dated 11th July 2025, the FGD system for Sulphur dioxide emission standards shall not be applicable to all Category C thermal power plants subject to ensuring compliance of stack height criteria. As per the criteria mentioned in the notification, we have been falling under category C and are compliant of stack height criteria since inception. So, this condition is not applicable for our Industry. **Notification copy enclosed as Annexure-3.**
c.	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 hall be submitted in the EC compliance report.	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.
d.	Additional ash pond shall not be permitted on account of increase in ash content in the raw coal as due to change	Noted. As per Fly ash notification 2021 and its subsequent amendments, more than 100 percent ash was utilized in FY 2025 and the

	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.	same is planned for FY26 also. 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-6b and Annexure-6c 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/25-26/TR-15603** *Date: 09.10.2025*

VEDANTA LIMITED, JHARSUGUDA
THERMAL POWER PLANT (2400 MW)
Half Yearly Environment Quality Report
(April 2025 – September 2025)

1. Stack Emission:

i. Particulate Matter (mg/Nm^3)

Stack Description	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
TPP - Unit 1	44.6	44.0	43.7	44.5	44.1	43.9
TPP - Unit 2	45.4	44.1	SD	SD	44.7	45.0
TPP - Unit 3	46.5	46.6	46.7	45.6	46.3	46.8
TPP - Unit 4	44.7	43.6	44.6	43.8	44.1	44.5

ii. SO2 (mg/Nm^3)

Stack Description	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
TPP - Unit 1	1356	1342	1344	1350	1348	1354
TPP - Unit 2	1318	1297	SD	SD	1307	1322
TPP - Unit 3	1370	1346	1346	1332	1350	1364
TPP - Unit 4	1349	1344	1344	1286	1333	1328

iii. NOx (mg/Nm^3)

Stack Description	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
TPP - Unit 1	345	347	349	354	348	345
TPP - Unit 2	339	332	SD	SD	335	330
TPP - Unit 3	336	331	334	328	332	326
TPP - Unit 4	353	353	355	330	347	344

iv. Mercury (mg/Nm^3)

Stack Description	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
TPP - Unit 1	0.0076	0.0075	0.0078	0.0081	0.0077	0.0078
TPP - Unit 2	0.0075	0.0076	SD	SD	0.0075	0.0079
TPP - Unit 3	0.0078	0.0077	0.0078	0.0072	0.0076	0.0074
TPP - Unit 4	0.0077	0.0078	0.0080	0.0075	0.0077	0.0075

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Approved by

Ref: **Envlab/25-26/TR-15604** *Date: 09.10.2025*

2. Ambient Air Quality:

i. PM 10 size <10 (µg/m^3)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**100**					
1	Vedanta Township	56.3	56.8	57.1	55.8	57.6	57.2
2	Near Gate No-1	67.2	66.3	67.5	64.0	64.8	62.9
3	Near WTP Clarifier	63.5	62.7	64.1	61.9	63.4	62.1
4	Administrative Office Top	61.8	60.9	60.0	57.9	59.5	58.4
5	In front of Cooling Tower- III	63.1	63.1	63.3	60.9	61.1	60.0
6	Near IPP Office	61.7	60.8	61.2	59.1	61.1	60.2
7	Near CHP ETP building	64.8	65.1	64.7	61.4	62.2	61.1
8	Kurebaga Ash Pond	63.2	63.8	63.8	59.8	60.6	60.3
9	Siriapali Ash Pond	63.0	63.8	65.2	60.3	60.2	60.4
10	Katikela Ash Pond	62.3	63.0	63.1	60.1	60.7	60.3

ii. PM 2.5 size < 2.5 (µg/m^3)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**80**					
1	Vedanta Township	28.6	29.1	28.8	28.0	29.1	28.9
2	Near Gate No-1	33.9	33.4	34.1	32.2	32.7	31.7
3	Near WTP Clarifier	32.2	31.6	32.3	31.1	32.1	31.3
4	Administrative Office Top	31.4	30.7	30.3	29.2	30.1	29.5
5	In front of Cooling Tower- III	31.9	31.9	32.1	30.7	30.9	30.3
6	Near IPP Office	31.2	30.8	30.2	29.9	31.0	30.4
7	Near CHP ETP building	32.7	32.8	34.0	31.0	31.5	30.9
8	Kurebaga Ash Pond	31.9	32.4	32.2	30.2	30.5	30.4
9	Siriapali Ash Pond	31.9	32.3	32.9	30.4	30.4	30.0
10	Katikela Ash Pond	31.8	31.9	31.6	30.2	30.7	30.3

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Ref: **Envlab/25-26/TR-15605** *Date: 09.10.2025*

iii. SO_2 (µg/m³)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**80**					
1	Vedanta Township	17.5	18.1	18.7	17.9	18.9	18.7
2	Near Gate No-1	17.0	17.2	17.6	16.6	17.7	17.3
3	Near WTP Clarifier	15.6	15.7	16.6	15.5	16.9	15.4
4	Administrative Office Top	17.0	18.0	18.1	16.5	16.8	16.3
5	In front of Cooling Tower- III	16.4	16.7	17.2	15.6	16.7	16.2
6	Near IPP Office	17.5	17.6	18.4	16.9	18.2	18.2
7	Near CHP ETP building	18.5	17.5	17.3	15.5	16.7	16.5
8	Kurebaga Ash Pond	22.6	23.8	23.9	21.4	23.7	22.8
9	Siriapali Ash Pond	22.8	23.0	23.5	20.7	22.0	21.7
10	Katikela Ash Pond	23.6	24.0	24.2	22.1	23.0	22.1

Ambient Air Quality: Continued.

iv. NO_2 (µg/m³)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**80**					
1	Vedanta Township	23.7	23.8	23.7	22.0	21.9	22.4
2	Near Gate No-1	25.9	26.1	26.4	24.1	24.6	23.7
3	Near WTP Clarifier	25.3	25.2	24.4	22.1	23.1	23.0
4	Administrative Office Top	25.6	25.7	24.7	22.5	23.8	22.7
5	In front of Cooling Tower- III	23.6	23.3	25.0	21.7	22.4	21.6
6	Near IPP Office	24.8	24.3	24.2	22.1	24.3	23.2
7	Near CHP ETP building	23.8	23.2	23.5	21.8	22.6	22.0
8	Kurebaga Ash Pond	28.0	27.6	28.1	24.6	25.6	25.1
9	Siriapali Ash Pond	30.3	30.9	30.8	24.3	26.2	25.3
10	Katikela Ash Pond	27.8	29.2	30.0	27.1	26.3	25.5

v. CO (mg/m³)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (08 Hours)		**2.0**					
1	Vedanta Township	0.43	0.43	0.44	0.41	0.46	0.45
2	Near Gate No-1	0.63	0.63	0.64	0.59	0.60	0.6
3	Near WTP Clarifier	0.59	0.58	0.59	0.54	0.55	0.54
4	Administrative Office Top	0.53	0.53	0.54	0.52	0.53	0.52
5	In front of Cooling Tower- III	0.49	0.49	0.52	0.51	0.54	0.51
6	Near IPP Office	0.59	0.60	0.61	0.57	0.59	0.56
7	Near CHP ETP building	0.57	0.58	0.60	0.55	0.59	0.59
8	Kurebaga Ash Pond	0.69	0.69	0.65	0.56	0.60	0.59
9	Siriapali Ash Pond	0.68	0.67	0.69	0.60	0.60	0.61
10	Katikela Ash Pond	0.68	0.68	0.67	0.60	0.59	0.58

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Ref: **Envlab/25-26/TR-15606** *Date: 09.10.2025*

Ambient Air Quality: Continued

vi. Pb (µg/m^3)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**1.0**					
1	Vedanta Township	BDL	BDL	BDL	BDL	BDL	BDL
2	Near Gate No-1	0.15	0.16	0.17	0.13	0.15	0.14
3	Near WTP Clarifier	0.16	0.15	0.16	0.14	0.14	0.14
4	Administrative Office Top	BDL	BDL	BDL	BDL	BDL	BDL
5	In front of Cooling Tower- III	0.17	0.17	0.16	0.13	0.14	0.14
6	Near IPP Office	0.16	0.15	0.14	0.12	0.13	0.12
7	Near CHP ETP building	0.17	0.16	0.15	0.14	0.15	0.15
8	Kurebaga Ash Pond	0.15	0.16	0.13	0.12	0.13	0.14
9	Siriapali Ash Pond	0.17	0.17	0.15	0.13	0.15	0.13
10	Katikela Ash Pond	0.16	0.16	0.14	0.13	0.14	0.14

As (ng/m^3)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**06**					
1	Vedanta Township	BDL	BDL	BDL	BDL	BDL	BDL
2	Near Gate No-1	BDL	BDL	BDL	BDL	BDL	BDL
3	Near WTP Clarifier	BDL	BDL	BDL	BDL	BDL	BDL
4	Administrative Office Top	BDL	BDL	BDL	BDL	BDL	BDL
5	In front of Cooling Tower- III	BDL	BDL	BDL	BDL	BDL	BDL
6	Near IPP Office	BDL	BDL	BDL	BDL	BDL	BDL
7	Near CHP ETP building	BDL	BDL	BDL	BDL	BDL	BDL
8	Kurebaga Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL
9	Siriapali Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL
10	Katikela Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL

vii. Ni (ng/m^3)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**20**					
1	Vedanta Township	BDL	BDL	BDL	BDL	BDL	BDL
2	Near Gate No-1	0.15	0.16	0.17	0.14	0.15	0.13
3	Near WTP Clarifier	0.16	0.15	0.17	0.14	0.15	0.14
4	Administrative Office Top	0.16	0.14	0.16	0.14	0.14	0.14
5	In front of Cooling Tower- III	0.16	0.15	0.16	0.12	0.15	0.13
6	Near IPP Office	0.15	0.14	0.12	0.13	0.14	0.12
7	Near CHP ETP building	0.16	0.15	0.18	0.15	0.16	0.14
8	Kurebaga Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL
9	Siriapali Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL
10	Katikela Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL

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viii. BaP (ng/m^3)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**01**					
1	Vedanta Township	0.16	0.15	0.16	0.13	0.14	0.14
2	Near Gate No-1	0.17	0.17	0.15	0.14	0.15	0.14
3	Near WTP Clarifier	0.14	0.15	0.16	0.13	0.15	0.14
4	Administrative Office Top	BDL	BDL	BDL	BDL	BDL	BDL
5	In front of Cooling Tower- III	0.15	0.14	0.15	0.13	0.14	0.13
6	Near IPP Office	0.15	0.14	0.16	0.12	0.13	0.12
7	Near CHP ETP building	BDL	BDL	BDL	BDL	BDL	BDL
8	Kurebaga Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL
9	Siriapali Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL
10	Katikela Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL

ix. Benzene (µg/m^3)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**05**					
1	Vedanta Township	BDL	BDL	BDL	BDL	BDL	BDL
2	Near Gate No-1	0.27	0.26	0.25	0.21	0.23	0.23
3	Near WTP Clarifier	0.26	0.25	0.24	0.22	0.24	0.22
4	Administrative Office Top	0.16	0.15	0.14	0.13	0.14	0.14
5	In front of Cooling Tower- III	0.15	0.14	0.15	0.12	0.15	0.14
6	Near IPP Office	0.15	0.13	0.14	0.12	0.14	0.12
7	Near CHP ETP building	0.17	0.16	0.15	0.13	0.14	0.13
8	Kurebaga Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL
9	Siriapali Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL
10	Katikela Ash Pond	BDL	BDL	BDL	BDL	BDL	BDL

xi. NH_3 (µg/m_3)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (24 Hours)		**400**					
1	Vedanta Township	24.2	24.4	24.5	22.3	22.6	22.3
2	Near Gate No-1	25.2	25.2	25.1	23.5	23.3	23.5
3	Near WTP Clarifier	25.0	24.9	24.2	24.2	24.3	23.6
4	Administrative Office Top	25.6	25.3	24.3	22.6	23.5	23.5
5	In front of Cooling Tower- III	21.9	21.7	21.5	20.7	21.0	21.2
6	Near IPP Office	21.1	21.2	21.2	20.7	21.3	21.0
7	Near CHP ETP building	22.7	22.4	22.3	20.9	21.3	21.5
8	Kurebaga Ash Pond	21.7	20.7	21.2	20.7	21.5	20.9
9	Siriapali Ash Pond	23.2	23.6	23.2	20.7	20.9	20.9
10	Katikela Ash Pond	24.2	23.9	23.8	21.7	21.1	21.4

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15608** ***Date: 09.10.2025***

xii. Ozone (µg/m³)

Sl. No.	Sampling Location	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit (8 Hours)		**100**					
1	Vedanta Township	6.7	6.6	6.9	6.6	6.7	6.4
2	Near Gate No-1	6.7	6.7	7.0	6.7	7.0	6.6
3	Near WTP Clarifier	6.9	6.9	6.8	6.8	6.8	6.4
4	Administrative Office Top	7.3	7.0	6.9	6.5	6.7	6.7
5	In front of Cooling Tower- III	6.6	6.5	6.6	6.3	6.5	6.4
6	Near IPP Office	6.9	7.1	7.2	6.8	7.0	6.6
7	Near CHP ETP building	6.8	6.8	6.7	6.2	6.2	6.2
8	Kurebaga Ash Pond	6.8	7.0	6.9	6.6	6.7	6.4
9	Siriapali Ash Pond	6.8	6.6	6.8	6.2	6.4	6.3
10	Katikela Ash Pond	6.6	6.7	6.9	6.3	6.2	6.1

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15609** *Date: 09.10.2025*

3. Noise:

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

Sl. No.	Sampling Location	Day Time (6.00 a.m. to 10.00 p.m.) Noise level in dB (A)					
		Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit		**75**					
1	Cooling tower pump house	69.6	69.8	69.0	69.3	69.6	69.8
2	Raw water pump house	70.2	70.7	70.1	70.8	71.2	70.9
3	Near Banjari gate	69.8	70.2	69.3	68.9	69.2	68.8
4	Near Main gate	59.6	60.3	61.2	60.7	60.5	60.1
5	Geho pump house	71.9	72.1	71.8	71.2	71.0	71.3
6	Coal Yard Track Hopper	65.3	65.8	66.2	65.6	66.2	65.9
7	Coal Handling plant	65.6	66.2	65.9	66.3	66.8	66.2
8	I.D fan- Near Boiler, Unit-II	70.8	71.1	72.0	72.5	72.2	71.8
9	Chimney area Near Boiler, Unit-II	72.9	72.5	72.8	72.1	72.8	72.3
10	Boiler Feed Pump area Unit-II	74.4	74.0	73.8	74.0	74.1	73.9
11	Turbine Area Unit-II	71.3	70.9	71.7	72.2	73.0	74.1
12	Mill Area Unit-II	72.0	72.5	73.2	73.6	73.5	73.8
13	Compressor House Unit-II	73.9	74.1	74.4	74.5	74.1	74.4
Limit		**55**					
15	Vedanta township	51.4	51.2	51.8	52.6	53.3	53.6

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

Sl. No.	Sampling Location	Night Time (6.00 a.m. to 10.00 p.m.) Noise level in dB (A)					
		Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
Limit		**70**					
1	Cooling tower pump house	61.8	60.6	61.4	61.8	61.2	60.9
2	Raw water pump house	57.4	58.5	59.6	59.9	59.5	58.8
3	Near Banjari gate	63.3	63.4	62.9	63.1	62.9	63.1
4	Near Main gate	60.6	61.2	60.8	58.4	58.8	59.1
5	Geho pump house	64.5	64.8	64.4	66.2	65.6	66.2
6	Coal Yard Track Hopper	57.8	58.1	58.8	59.4	59.8	60.4
7	Coal Handling plant	68.9	69.2	68.9	64.1	63.6	62.9
8	I.D fan- Near Boiler, Unit-II	67.3	66.3	65.5	64.3	64.9	64.1
9	Chimney area Near Boiler, Unit-II	66.2	65.9	65.2	63.9	64.2	63.8
10	Boiler Feed Pump area Unit-II	66.9	66.1	66.9	67.2	66.8	65.7
11	Turbine Area Unit-II	68.5	67.0	67.8	65.6	65.2	64.8
12	Mill Area Unit-II	69.1	68.8	69.1	68.9	69.1	68.8
13	Compressor House Unit-II	65.1	64.8	63.6	64.2	63.9	63.1
Limit		**45**					
15	Vedanta township	41.9	42.2	43.1	44.2	44.5	44.2

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15610** *Date: 09.10.2025*

4. Water:

a) Effluent Treatment Plant (ETP) Outlet:

Parameters	Unit	Limit	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
pH	-	6.5-9.0	7.2	7.22	7.26	7.29	7.26	7.24
TSS	mg/l	100	32	30	31	33	35	32
BOD (5) days at 20 C	mg/l	30	12.8	12.2	12.5	12.8	12.5	12.0
COD	mg/l	250	40	36	39	41	42	43.1

b) Sewage Treatment Plant (STP) Outlet:

Parameters	Unit	Limit	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
pH	mg/l	6.5-9.0	7.15	7.12	7.15	7.17	7.20	7.22
Total Suspended Solids	mg/l	100	31	28	26	25	28	26
BOD	mg/l	30	13.0	12.8	12.4	11.9	12.2	11.8
Fecal Coliform	MPN/100 ml	1000	56	63	70	63	70	63

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15611** ***Date: 09.10.2025***

c) Surface Water:

Sl. No.	Parameter	Unit	SW1					
			Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	10	10	10	15	20	20
2	pH	--	7.51	7.54	7.57	7.49	7.44	7.40
3	DO	mg/l	4.6	4.5	4.4	4.9	4.8	4.6
4	Chloride	mg/l	27.5	23	20	22.5	20.0	22.0
5	Total Dissolved solids	mg/l	322	318	324	338	330	320
6	Suspended solids	mg/l	63	60	63	74	70	65
7	Oil &Grease	mg/l	ND	ND	ND	ND	ND	ND
8	BOD (5) days at 20^0 C	mg/l	2.3	2.4	2.5	2.0	1.8	2.2
9	Arsenic as As	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
10	Lead as Pb	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
11	Cadmium as Cd	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
12	Hexachromium as Cr^{+6}	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
13	Copper as Cu	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
14	Zinc as Zn	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
15	Selenium as Se	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
16	Cyanide as CN	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
17	Fluoride as F	mg/l	0.38	0.36	0.38	0.40	0.35	0.32
18	Sulphate as (SO_4)	mg/l	14.2	13.8	15.2	16.4	15.8	15.4
19	Phenolic compounds as C_6H_5OH	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
20	Iron as Fe	mg/l	0.38	0.36	0.39	0.41	0.40	0.36
21	Nitrate as NO_3	mg/l	2.13	2.10	2.22	2.25	2.15	2.10
22	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND
23	Total Coliform	MPN/100ml	140	110	120	110	140	120

Sampling location: SW1- Banjari Village Pond

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15612** ***Date: 09.10.2025***

Surface Water: Continued.

Sl. No.	Parameter	Unit	SW2					
			Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	15	15	15	20	25	25
2	pH	--	7.27	7.30	7.33	7.28	7.25	7.29
3	DO	mg/l	4.4	4.3	4.2	5.0	5.1	4.8
4	Chloride	mg/l	35	30	28	35	30	32
5	Total Dissolved solids	mg/l	316	326	331	340	335	330
6	Suspended solids	mg/l	65	66	65	75	72	68
7	Oil &Grease	mg/l	ND	ND	ND	ND	ND	ND
8	BOD (5) days at 20^0 C	mg/l	2.2	2.2	2.3	1.8	1.5	2.0
9	Arsenic as As	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
10	Lead as Pb	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
11	Cadmium as Cd	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
12	Hexachromium as Cr^{+6}	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
13	Copper as Cu	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
14	Zinc as Zn	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
15	Selenium as Se	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
16	Cyanide as CN	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
17	Fluoride as F	mg/l	0.36	0.35	0.33	0.38	0.36	0.35
18	Sulphate as (SO_4)	mg/l	14.6	15.5	16.4	17.8	16.8	16.2
19	Phenolic compounds as C_6H_5OH	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
20	Iron as Fe	mg/l	0.32	0.35	0.32	0.35	0.39	0.34
21	Nitrate as NO_3	mg/l	1.68	1.65	1.8	1.96	1.90	1.86
22	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND
23	Total Coliform	MPN/100ml	180	170	180	170	150	170

Sampling location: SW2- Bhurkamunda Village Pond

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15613** ***Date: 09.10.2025***

Surface Water: Continued.

Sl.No.	Parameter	Unit	SW3					
			Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	5	5	10	15	15
2	pH	--	7	7.1	7.13	7.1	7	7.20
3	DO	mg/l	4.6	4.5	4.4	5.1	4.7	4.8
4	Chloride	mg/l	25	28	35	30.0	35	30
5	Total Dissolved solids	mg/l	243	250	262	276	270	260
6	Suspended solids	mg/l	73	75	72	83	75	78
7	Oil &Grease	mg/l	ND	ND	ND	ND	ND	ND
8	BOD (5) days at 20^0 C	mg/l	2.4	2.5	2.6	1.9	1.6	2.2
9	Arsenic as As	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
10	Lead as Pb	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
11	Cadmium as Cd	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
12	Hexachromium as Cr^{+6}	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
13	Copper as Cu	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
14	Zinc as Zn	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
15	Selenium as Se	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
16	Cyanide as CN	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
17	Fluoride as F	mg/l	0.33	0.30	0.28	0.35	0.32	0.34
18	Sulphate as (SO_4)	mg/l	14.4	14.0	14.8	15.5	14	14.5
19	Phenolic compounds as C_6H_5OH	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
20	Iron as Fe	mg/l	0.29	0.32	0.36	0.40	0.38	0.38
21	Nitrate as NO_3	mg/l	1.68	1.61	1.74	1.86	1.80	1.76
22	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND
23	Total Coliform	MPN/100ml	120	120	140	150	170	150

Sampling location: SW3- Banjari Nallah Upstream

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15614** ***Date: 09.10.2025***

Surface Water: Continued.

Sl. No.	Parameter	Unit	SW4					
			Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	10	10	10	15	15	15
2	pH	--	6.96	6.98	6.9	6.81	6.78	6.88
3	DO	mg/l	4.5	4.4	4.3	5.3	5.1	4.7
4	Chloride	mg/l	35	30	35	32.5	27.5	32
5	Total Dissolved solids	mg/l	258	266	278	280	275	271
6	Suspended solids	mg/l	75	72	70	79	78	74
7	Oil &Grease	mg/l	ND	ND	ND	ND	ND	ND
8	BOD (5) days at 20 ^{0}C	mg/l	2.5	2.6	2.7	2.0	1.8	2.3
9	Arsenic as As	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
10	Lead as Pb	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
11	Cadmium as Cd	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
12	Hexachromium as Cr+6	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
13	Copper as Cu	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
14	Zinc as Zn	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
15	Selenium as Se	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
16	Cyanide as CN	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
17	Fluoride as F	mg/l	0.34	0.38	0.40	0.44	0.36	0.38
18	Sulphate as (SO4)	mg/l	15.0	15.5	17.8	18.9	18.2	17.6
19	Phenolic compounds as C6H5OH	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
20	Iron as Fe	mg/l	0.32	0.34	0.38	0.42	0.36	0.39
21	Nitrate as NO3	mg/l	1.79	1.74	1.88	2.1	1.90	1.88
22	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND
23	Total Coliform	MPN/100ml	170	180	180	170	180	180

Sampling location: SW4- Banjari Nallah Downstream

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15615** ***Date: 09.10.2025***

Surface Water: Continued.

Sl. No.	Parameter	Unit	SW5					
			Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	10	10	10	15	20	15
2	pH	--	6.98	6.96	6.95	6.90	6.85	6.87
3	DO	mg/l	4.8	4.7	4.6	5.3	5	5.1
4	Chloride	mg/l	35	33	30	40	35	30
5	Total Dissolved solids	mg/l	189	196	201	215	210	200
6	Suspended solids	mg/l	54	52	55	60	64	61
7	Oil &Grease	mg/l	ND	ND	ND	ND	ND	ND
8	BOD (5) days at 20 ^{0}C	mg/l	2.2	2.3	2.4	1.9	1.7	1.6
9	Arsenic as As	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
10	Lead as Pb	mg/l	0.017	0.018	0.016	0.022	0.02	0.021
11	Cadmium as Cd	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
12	Hexachromium as Cr+6	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
13	Copper as Cu	mg/l	0.018	0.017	0.019	0.022	0.02	0.018
14	Zinc as Zn	mg/l	0.16	0.15	0.14	0.18	0.20	0.18
15	Selenium as Se	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
16	Cyanide as CN	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
17	Fluoride as F	mg/l	0.39	0.38	0.40	0.43	0.36	0.33
18	Sulphate as (SO4)	mg/l	15.6	16.4	17.3	18.6	17.0	16.4
19	Phenolic compounds as C6H5OH	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
20	Iron as Fe	mg/l	0.33	0.35	0.38	0.35	0.36	0.35
21	Nitrate as NO3	mg/l	1.80	1.77	1.82	1.91	1.88	1.8
22	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND
23	Total Coliform	MPN/100ml	150	170	180	210	150	140

Sampling location: SW5- Kharkhari Nallah Upstream

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15616** ***Date: 09.10.2025***

Surface Water: Continued.

Sl. No.	Parameter	Unit	SW6					
			Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	15	15	15	20	25	20
2	pH	--	7.13	7.1	7.13	7.00	6.97	6.95
3	DO	mg/l	4.6	4.5	4.4	5.5	5.4	5.5
4	Chloride	mg/l	40	43	40	45	40	37
5	Total Dissolved solids	mg/l	194	190	193	220	215	206
6	Suspended solids	mg/l	65	66	69	74	70	65
7	Oil &Grease	mg/l	ND	ND	ND	ND	ND	ND
8	BOD (5) days at 20 ^{0}C	mg/l	2.1	2.2	2.3	2.0	1.8	1.7
9	Arsenic as As	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
10	Lead as Pb	mg/l	0.014	0.016	0.019	0.024	0.022	0.020
11	Cadmium as Cd	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
12	Hexachromium as Cr+6	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
13	Copper as Cu	mg/l	0.018	0.019	0.021	0.026	0.024	0.022
14	Zinc as Zn	mg/l	0.18	0.17	0.18	0.19	0.22	0.21
15	Selenium as Se	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
16	Cyanide as CN	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
17	Fluoride as F	mg/l	0.40	0.41	0.43	0.50	0.41	0.38
18	Sulphate as (SO4)	mg/l	16.4	16.8	17.5	19.4	18	17.8
19	Phenolic compounds as C6H5OH	mg/l	BDL	BDL	BDL	BDL	BDL	BDL
20	Iron as Fe	mg/l	0.36	0.37	0.36	0.40	0.38	0.33
21	Nitrate as NO3	mg/l	1.92	1.98	2.08	2.01	2.10	2.00
22	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND
23	Total Coliform	MPN/100ml	200	210	210	220	200	200

Sampling location: SW6- Kharkhari Nallah Downstream

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15617** ***Date: 09.10.2025***

d) Ground Water – Village Area:

Sl. No	Parameter	Unit	Standard as per IS: 10500	GW1		GW2	
				Apr'25	Jul'25	Apr'25	Jul'25
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	7.15	7.11	7.15	7
6	Total Hardness (as CaCO3)	mg/l	200	96	106	96	138
7	Iron (as Fe)	mg/l	1	0.4	0.38	0.4	0.4
8	Chloride (as Cl)	mg/l	250	40	37.5	40	35
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	302	321	302	266
11	Calcium (as Ca)	mg/l	75	32.6	33.1	32.6	35.8
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 (SO4)	mg/l	200	16.2	16.8	16.2	15.8
15	Nitrate (as NO3)	mg/l	45	2.17	2.20	2.17	2.40
16	Fluoride (as F)	mg/l	1	0.32	0.35	0.32	0.28
17	Phenolic compounds (as C6H5OH)	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	0.49	0.47	0.50
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	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 Locations:
GW1-Hand pump of North side of Ash pond, near Siriapali
GW2-Hand pump of East side of Ash pond, near Purna school

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Ref: **Envlab/25-26/TR-15618** ***Date: 09.10.2025***

Ground Water – Village Area Continued.

Sl. No	Parameter	Unit	Standard as per IS: 10500	GW3		GW4	
				Apr'25	Jul'25	Apr'25	Jul'25
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	7.18	7.12	7.19	7.11
6	Total Hardness (as CaCO3)	mg/l	200	140	154	81	96
7	Iron (as Fe)	mg/l	1	0.35	0.37	0.38	0.41
8	Chloride (as Cl)	mg/l	250	35	30	42.5	37.5
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	280	293	246	239
11	Calcium (as Ca)	mg/l	75	38.8	39.6	34.8	35.2
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 (SO4)	mg/l	200	18.9	19.6	13.8	14.8
15	Nitrate (as NO3)	mg/l	45	2.56	2.70	1.32	1.40
16	Fluoride (as F)	mg/l	1	0.31	0.33	0.33	0.37
17	Phenolic compounds (as C6H5OH)	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	0.46	0.48	0.39	0.42
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	65	55	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:

GW3: Hand Pump of West side of Ash pond, Bhagipali Village GW4: Bhurkamunda Village

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Ref: **Envlab/25-26/TR-15619** ***Date: 09.10.2025***

Ground Water – Village Area Continued.

Sl. No	Parameter	Unit	Standard as per IS: 10500	GW5		GW6	
				Apr'25	Jul'25	Apr'25	Jul'25
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	6.89	6.8	6.98	6.92
6	Total Hardness (as CaCO3)	mg/l	200	112	108	106	116
7	Iron (as Fe)	mg/l	1	0.28	0.36	0.35	0.38
8	Chloride (as Cl)	mg/l	250	36.5	40	36	35
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	216	235	281	296
11	Calcium (as Ca)	mg/l	75	35.4	33.1	34.8	35.6
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 (SO4)	mg/l	200	14.4	17.9	17.2	17.8
15	Nitrate (as NO3)	mg/l	45	2.49	2.50	1.80	1.89
16	Fluoride (as F)	mg/l	1	0.29	0.41	0.28	0.36
17	Phenolic compounds (as C6H5OH)	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	0.52	0.65	0.63	0.6
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	60	55	60	55
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	0.028	BDL	BDL	BDL

Sampling location:

GW5: Hand Pump of South side of Ash pond, Katikela Village GW6: Badmal Village

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Ref: **Envlab/25-26/TR-15620** ***Date: 09.10.2025***

Ground Water – Village Area Continued.

Sl. No	Parameter	Unit	Standard as per IS: 10500	GW7		GW8	
				Apr'25	Jul'25	Apr'25	Jul'25
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	7.20	7.15	7.15	7.10
6	Total Hardness (as CaCO3)	mg/l	200	153	168	121	140
7	Iron (as Fe)	mg/l	1	0.36	0.39	0.4	0.42
8	Chloride (as Cl)	mg/l	250	40.0	45	52.5	47.5
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	321	338	294	309
11	Calcium (as Ca)	mg/l	75	46.1	46.8	48.8	49.2
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 (SO4)	mg/l	200	13.4	14.2	16.8	17.5
15	Nitrate (as NO3)	mg/l	45	2.21	2.36	2.3	2.41
16	Fluoride (as F)	mg/l	1	0.25	0.28	0.22	0.25
17	Phenolic compounds (as C6H5OH)	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	0.62	0.65	0.73	0.7
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	40	45	45	35
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL	BDL	BDL

Sampling locations: GW7: Neoheight GW8: Banjari Village

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Ref: **Envlab/25-26/TR-15621** ***Date: 09.10.2025***

Ground Water – Village Area Continued.

Sl. No	Parameter	Unit	Standard as per IS: 10500	GW9	
				Apr'25	Jul'25
1	Colour	Hazen	5	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	1	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.16	7.11
6	Total Hardness (as CaCO3)	mg/l	200	142	156
7	Iron (as Fe)	mg/l	1	0.29	0.33
8	Chloride (as Cl)	mg/l	250	45	40
9	Residual free Chlorine	mg/l	0.2	ND	ND
10	Dissolved solids	mg/l	500	283	297
11	Calcium (as Ca)	mg/l	75	42.3	43.5
12	Copper (as Cu)	mg/l	0.05	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	BDL	BDL
14	Sulphate as (SO4)	mg/l	200	14.6	14.9
15	Nitrate (as NO3)	mg/l	45	1.57	1.60
16	Fluoride (as F)	mg/l	1	0.24	0.3
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.66	0.68
26	Chromium as (Cr+6)	mg/l	0.05	BDL	BDL
27	Mineral oil	mg/l	0.5	ND	ND
28	Alkalinity	mg/l	200	45	40
29	Aluminium as Al	mg/l	0.03	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL

Sampling location: GW9: Sarbahal

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15622** ***Date: 09.10.2025***

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

Sl. No	Parameter	Unit	Standard as per IS:10500	GW1					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.12	7.05	7.11	7.04	7.00	7.12
6	Total Hardness (as $CaCO_3$)	mg/l	200	136	145	152	142	150	147
7	Iron (as Fe)	mg/l	1	0.36	0.35	0.33	0.38	0.37	0.35
8	Chloride (as Cl)	mg/l	250	35	35	30	33	36	35
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	318	326	334	327	330	322
11	Calcium (as Ca)	mg/l	75	36.1	35.7	36.2	36.8	36.4	35.9
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.045	0.042	0.044	0.045	0.041	0.042
14	Sulphate as (SO_4)	mg/l	200	15.2	14.8	15.6	16.2	15.9	16.4
15	Nitrate (as NO_3)	mg/l	45	3.1	2.9	3.2	3.4	3.0	2.8
16	Fluoride (as F)	mg/l	1	0.3	0.33	0.35	0.34	0.32	0.30
17	Phenolic compounds (as C_6H_5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.26	0.28	0.29	0.32	0.3	0.29
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	ND	ND	ND	ND	ND	ND
28	Alkalinity	mg/l	200	40	30	35	40	37	35
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15623** ***Date: 09.10.2025***

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

Sl. No	Parameter	Unit	Standard as per IS:10500	GW2					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	6.98	6.96	6.98	6.9	6.84	6.93
6	Total Hardness (as $CaCO_3$)	mg/l	200	153	161	166	170	165	160
7	Iron (as Fe)	mg/l	1	0.32	0.30	0.34	0.39	0.35	0.32
8	Chloride (as Cl)	mg/l	250	45.0	46	43	40	37	33
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	324	330	328	335	325	319
11	Calcium (as Ca)	mg/l	75	29.7	30.4	31.2	30.9	31.4	30.8
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.048	0.041	0.045	0.048	0.044	0.045
14	Sulphate as (SO_4)	mg/l	200	16.3	16.6	17.3	17.8	16.9	17.3
15	Nitrate (as NO_3)	mg/l	45	2.8	2.6	2.8	2.9	2.5	2.4
16	Fluoride (as F)	mg/l	1	0.32	0.35	0.38	0.36	0.38	0.36
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.3	0.33	0.35	0.36	0.38	0.35
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	ND	ND	ND	ND	ND	ND
28	Alkalinity	mg/l	200	50	45	40	45	40	45
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15624** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Kurebaga Ash Pond Continued

Sl. No	Parameter	Unit	Standard as per IS:10500	GW3					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.23	7.28	7.34	7.28	7.21	7.22
6	Total Hardness (as $CaCO_3$)	mg/l	200	160	166	170	178	175	172
7	Iron (as Fe)	mg/l	1	0.4	0.42	0.4	0.43	0.4	0.38
8	Chloride (as Cl)	mg/l	250	50.0	50	48	45	40	43
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	345	341	350	361	355	348
11	Calcium (as Ca)	mg/l	75	38.8	38.9	39.6	40.3	39.0	37.8
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.05	0.045	0.049	0.051	0.047	0.046
14	Sulphate as (SO_4)	mg/l	200	21.2	20.9	21.8	20.5	20.6	20.1
15	Nitrate (as NO_3)	mg/l	45	3.40	3.1	3.4	3.6	3.5	3.3
16	Fluoride (as F)	mg/l	1	0.35	0.36	0.34	0.38	0.41	0.40
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.35	0.39	0.41	0.42	0.45	0.42
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	ND	ND	ND	ND	ND	ND
28	Alkalinity	mg/l	200	55	50	55	50	45	50
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15625** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Kurebaga Ash Pond Continued

Sl. No	Parameter	Unit	Standard as per IS:10500	GW4					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.14	7.10	7.15	7.11	7.0	7.1
6	Total Hardness (as $CaCO_3$)	mg/l	200	158	149	156	166	160	154
7	Iron (as Fe)	mg/l	1	0.31	0.36	0.35	0.38	0.37	0.36
8	Chloride (as Cl)	mg/l	250	45	45.0	40	42.5	45	40
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	323	325	336	324	320	309
11	Calcium (as Ca)	mg/l	75	37.2	36.8	37.2	37.8	37.0	36.2
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.043	0.046	0.050	0.049	0.045	0.042
14	Sulphate as (SO_4)	mg/l	200	19.6	18.8	19.6	19.9	20.3	18.8
15	Nitrate (as NO_3)	mg/l	45	3.20	3.0	3.2	3.5	3.4	3.2
16	Fluoride (as F)	mg/l	1	0.32	0.31	0.3	0.33	0.35	0.33
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.32	0.35	0.38	0.40	0.35	0.36
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	ND	ND	ND	ND	ND	ND
28	Alkalinity	mg/l	200	55	45	40	45	40	45
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15626** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Katikela Ash Pond

Sl. No	Parameter	Unit	Standard as per IS:10500	GW1					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	6.88	6.91	6.88	6.80	6.72	6.66
6	Total Hardness (as $CaCO_3$)	mg/l	200	90	94	98	106	100	96
7	Iron (as Fe)	mg/l	1	0.36	0.38	0.35	0.39	0.36	0.33
8	Chloride (as Cl)	mg/l	250	45	43	40	45	40	38
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	288	295	300	311	290	281
11	Calcium (as Ca)	mg/l	75	36.6	35.8	36.2	37.9	37.5	36.9
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.045	0.048	0.045	0.044	0.042	0.040
14	Sulphate as (SO_4)	mg/l	200	13.6	14.2	14.8	15.1	14.5	13.9
15	Nitrate (as NO_3)	mg/l	45	1.40	1.38	1.43	1.52	1.46	1.41
16	Fluoride (as F)	mg/l	1	0.35	0.38	0.4	0.37	0.36	0.33
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.39	0.40	0.43	0.42	0.36	0.33
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL
28	Alkalinity	mg/l	200	45	40	35	30	35	30
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	0.034	0.036	0.039	0.034	0.032	0.033

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15627** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Katikela Ash Pond Continued

Sl. No	Parameter	Unit	Standard as per IS:10500	GW2					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.2	7.15	7.1	7.0	6.9	6.94
6	Total Hardness (as $CaCO_3$)	mg/l	200	106	112	116	110	105	100
7	Iron (as Fe)	mg/l	1	0.38	0.41	0.43	0.40	0.35	0.32
8	Chloride (as Cl)	mg/l	250	48	47.5	43	47.5	42.5	40
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	323	315	319	324	310	302
11	Calcium (as Ca)	mg/l	75	40.9	40.8	41.3	40.6	42.4	41.8
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.039	0.035	0.039	0.041	0.038	0.035
14	Sulphate as (SO_4)	mg/l	200	15.9	16.1	15.9	16.8	15.6	15.0
15	Nitrate (as NO_3)	mg/l	45	1.69	1.72	1.8	1.88	1.75	1.72
16	Fluoride (as F)	mg/l	1	0.26	0.25	0.29	0.33	0.35	0.34
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.33	0.36	0.35	0.38	0.39	0.36
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL
28	Alkalinity	mg/l	200	40.0	45.0	40.0	45.0	40.0	45.0
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	0.031	0.033	0.03	0.035	0.032	0.029

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15628** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Katikela Ash Pond Continued

Sl. No	Parameter	Unit	Standard as per IS:10500	GW3					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.11	7.22	7.19	7.11	7	7.1
6	Total Hardness (as $CaCO_3$)	mg/l	200	138	135	141	150	145	138
7	Iron (as Fe)	mg/l	1	0.4	0.42	0.45	0.48	0.46	0.4
8	Chloride (as Cl)	mg/l	250	50	50	53	55	45	43
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	335	328	336	345	330	319
11	Calcium (as Ca)	mg/l	75	43.8	42.5	42.8	43.5	42.5	44.2
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.048	0.05	0.053	0.056	0.055	0.052
14	Sulphate as (SO_4)	mg/l	200	17.2	17.8	18.6	18.2	17.5	16.8
15	Nitrate (as NO_3)	mg/l	45	1.80	1.85	1.91	1.9	1.8	1.75
16	Fluoride (as F)	mg/l	1	0.35	0.38	0.36	0.39	0.37	0.35
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.44	0.45	0.42	0.40	0.42	0.40
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL
28	Alkalinity	mg/l	200	55	56	55	60	50	55
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	0.035	0.038	0.04	0.042	0.040	0.038

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15629** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Katikela Ash Pond Continued

Sl. No	Parameter	Unit	Standard as per IS:10500	GW4					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.18	7.16	7.15	7.08	7.00	6.98
6	Total Hardness (as $CaCO_3$)	mg/l	200	96	92	95	100	90	88
7	Iron (as Fe)	mg/l	1	0.35	0.39	0.38	0.44	0.40	0.38
8	Chloride (as Cl)	mg/l	250	45	37.5	35	40	37	35
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	298	290	296	308	300	297
11	Calcium (as Ca)	mg/l	75	42.5	41.9	42.6	40.0	42.0	41.6
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.04	0.044	0.046	0.042	0.040	0.041
14	Sulphate as (SO_4)	mg/l	200	16.8	17.3	17.8	18	16.9	16.0
15	Nitrate (as NO_3)	mg/l	45	1.63	1.66	1.72	1.68	1.70	1.67
16	Fluoride (as F)	mg/l	1	0.33	0.31	0.35	0.38	0.34	0.31
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.38	0.39	0.41	0.44	0.40	0.38
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL
28	Alkalinity	mg/l	200	50	54	50	55	45	40
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	0.029	0.026	0.029	0.032	0.030	0.025

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15630** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Siriapali Ash Pond Continued

Sl. No	Parameter	Unit	Standard as per IS:10500	GW1					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5	<5	<5	<5	<5	<5
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.16	7.13	7.15	7.11	7.05	7.11
6	Total Hardness (as $CaCO_3$)	mg/l	200	132	140	148	142	145	138
7	Iron (as Fe)	mg/l	1	0.38	0.33	0.36	0.34	0.38	0.32
8	Chloride (as Cl)	mg/l	250	35	32.5	30	32.5	35	30
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	243	251	258	259	250	241
11	Calcium (as Ca)	mg/l	75	32.6	32.6	33.1	34.2	33.5	32.9
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.04	0.043	0.046	0.044	0.040	0.039
14	Sulphate as (SO_4)	mg/l	200	19.8	19.4	19.8	20.0	19	18.6
15	Nitrate (as NO_3)	mg/l	45	2.29	2.34	2.41	2.48	2.45	2.4
16	Fluoride (as F)	mg/l	1	0.28	0.3	0.33	0.32	0.3	0.31
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.26	0.29	0.32	0.28	0.32	0.30
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	ND	ND	ND	ND	ND	ND
28	Alkalinity	mg/l	200	40	35	30	35	30	35
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15631** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Siriapali Ash Pond Continued

Sl. No	Parameter	Unit	Standard as per IS:10500	GW2					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5	<5	<5	<5	<5	<5
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	6.98	6.95	6.91	6.88	6.80	6.86
6	Total Hardness (as $CaCO_3$)	mg/l	200	124	116	122	130	125	120
7	Iron (as Fe)	mg/l	1	0.26	0.25	0.28	0.33	0.30	0.29
8	Chloride (as Cl)	mg/l	250	37.5	30	32.5	37.5	40	35
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	212	220	231	224	238	227
11	Calcium (as Ca)	mg/l	75	28.1	28.1	28.8	29.6	30.1	30.5
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.045	0.048	0.05	0.043	0.039	0.036
14	Sulphate as (SO_4)	mg/l	200	23.6	24.2	23.6	22.9	23.6	22.4
15	Nitrate (as NO_3)	mg/l	45	2.45	2.44	2.49	2.55	2.66	2.59
16	Fluoride (as F)	mg/l	1	0.39	0.35	0.38	0.34	0.39	0.33
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.25	0.22	0.25	0.28	0.3	0.28
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	ND	ND	ND	ND	ND	ND
28	Alkalinity	mg/l	200	50	45	40	38	35	37
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15632** ***Date: 09.10.2025***

Ground Water - Ash Pond Area: Siriapali Ash Pond Continued

Sl. No	Parameter	Unit	Standard as per IS:10500	GW3					
				Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Hazen	5	<5	<5	<5	<5	<5	<5
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity (NTU)	-	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5	pH Value	-	6.5-8.5	7.2	7.24	7.28	7.25	7.21	7.24
6	Total Hardness (as $CaCO_3$)	mg/l	200	140	144	150	154	150	146
7	Iron (as Fe)	mg/l	1	0.36	0.32	0.37	0.39	0.4	0.38
8	Chloride (as Cl)	mg/l	250	42.5	40	37.5	40	45	40
9	Residual free Chlorine	mg/l	0.2	ND	ND	ND	ND	ND	ND
10	Dissolved solids	mg/l	500	250	256	266	278	270	263
11	Calcium (as Ca)	mg/l	75	37.2	37.2	36.9	37.5	35.5	34.8
12	Copper (as Cu)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
13	Manganese (as Mn)	mg/l	0.1	0.042	0.044	0.052	0.046	0.045	0.042
14	Sulphate as (SO_4)	mg/l	200	24.9	25.2	25.8	23.6	23.5	23.9
15	Nitrate (as NO_3)	mg/l	45	2.50	2.56	2.6	2.68	0.27	2.66
16	Fluoride (as F)	mg/l	1	0.40	0.42	0.4	0.38	0.4	0.36
17	Phenolic compounds (as C6H5OH)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
18	Anionic Detergent (as MBAS)	mg/l	0.2	ND	ND	ND	ND	ND	ND
19	Mercury (as Hg)	mg/l	0.001	BDL	BDL	BDL	BDL	BDL	BDL
20	Cadmium (as Cd)	mg/l	0.003	BDL	BDL	BDL	BDL	BDL	BDL
21	Selenium (as Se)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
22	Arsenic (as As)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
23	Cyanide (as CN)	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
24	Lead (as Pb)	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (as Zn)	mg/l	5	0.29	0.31	0.3	0.32	0.35	0.33
26	Chromium as (Cr^{+6})	mg/l	0.05	BDL	BDL	BDL	BDL	BDL	BDL
27	Mineral oil	mg/l	0.5	ND	ND	ND	ND	ND	ND
28	Alkalinity	mg/l	200	55	50	55	50	45	40
29	Aluminium as Al	mg/l	0.03	BDL	BDL	BDL	BDL	BDL	BDL
30	Boron	mg/l	0.5	BDL	BDL	BDL	BDL	BDL	BDL

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

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15633** ***Date: 09.10.2025***

5. Soil Quality:

Sl. No.	Parameters	S-1		S-2		S-3		S-4	
		Apr'25	Jul'25	Apr'25	Jul'25	Apr'25	Jul'25	Apr'25	Jul'25
1	Colour	Brown	Brown	Brown	Brown	Reddish	Reddish	Brown	Brown
2	Type of Soil	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
3	pH	6.39	6.33	6.9	6.85	6.94	6.9	6.88	6.81
4	Texture	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
5	Infiltration Rate (cm/hr)	5.2	6	4.9	5.2	8.1	7.8	5.3	5
6	Bulk Density (gm/cc)	1.41	1.4	1.36	1.35	1.23	1.22	1.61	1.60
7	Porosity %	38.2	38.3	40.3	40.4	53.6	53.7	39.2	39.4
8	Moisture content %	7.6	8.6	8.2	9.5	7.8	8.8	7.2	9.8
9	Fluoride %	0.0081	0.0088	0.0058	0.0062	0.0085	0.0090	0.0062	0.0069
10	Silica as SiO_2 %	28.4	29.1	31.9	32.4	24.1	25.3	28.8	29.6
11	Chloride %	0.079	0.082	0.112	0.12	0.04	0.045	0.101	0.11
12	Sulphate %	0.33	0.36	0.26	0.29	0.28	0.26	0.38	0.39
13	Potassium as K %	0.026	0.029	0.032	0.036	0.038	0.04	0.04	0.044
14	Magnesium as Mg %	0.21	0.23	0.35	0.32	0.28	0.3	0.44	0.45
15	Calcium as Ca%	0.55	0.58	0.68	0.7	0.62	0.66	0.94	0.92
16	Manganese as Mn %	0.39	0.41	0.45	0.48	0.54	0.55	0.36	0.39
17	Iron as Fe%	0.58	0.56	0.66	0.63	0.91	0.88	0.91	0.9
18	Available Organic Carbon %	1.48	1.44	1.22	1.28	2.1	2.3	1.4	1.3
19	Available Nitrogen %	0.078	0.081	0.062	0.066	0.081	0.084	0.095	0.09

Sampling Location:

S1- Raw Water Pump House S2- West of ash pond, Bhagipali

S3- Bhurkamunda village S4- East side of ash pond, Purna

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15634** ***Date: 09.10.2025***

Soil Quality: Continued.

Sl. No.	Parameters	S-5					
		Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Brown	Brown	Brown	Brown	Brown	Brown
2	Type of Soil	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
3	pH	7.10	7.18	7.16	7.13	7.20	7.23
4	Texture	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
5	Infiltration Rate (cm/hr)	7.6	6.8	6.6	7.0	6.1	6.4
6	Bulk Density (gm/cc)	1.78	1.55	1.59	1.83	1.55	1.58
7	Porosity %	32.8	40.8	40	30.9	41.5	41.5
8	Moisture content %	7.1	5.9	6.2	11.6	8	7.9
9	Fluoride %	0.0035	0.0038	0.0040	0.0039	0.0049	0.0047
10	Silica as SiO2%	35.4	35.9	36.1	34.9	37.8	37.2
11	Chloride %	0.038	0.041	0.041	0.041	0.045	0.042
12	Sulphate %	0.42	0.46	0.49	0.48	0.51	0.48
13	Potassium as K %	0.049	0.048	0.05	0.052	0.053	0.052
14	Magnesium as Mg %	0.24	0.35	0.38	0.28	0.4	0.42
15	Calcium as Ca %	0.48	0.58	0.6	0.49	0.63	0.6
16	Manganese as Mn %	0.32	0.36	0.38	0.35	0.42	0.4
17	Iron as Fe %	0.54	0.53	0.55	0.56	0.6	0.57
18	Available Organic Carbon %	2.20	2.16	2.20	2.50	2.28	2.25
19	Available Nitrogen %	0.081	0.086	0.089	0.084	0.091	0.088

Sampling Location: S5- Kurebaga Village

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15635** ***Date: 09.10.2025***

Soil Quality: Continued.

Sl. No.	Parameters	S-6					
		Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Brown	Brown	Brown	Brown	Brown	Brown
2	Type of Soil	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
3	pH	7.15	7.1	7.15	7.12	7.18	7.16
4	Texture	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
5	Infiltration Rate (cm/hr)	7.8	7	7.1	6.9	6.9	6.8
6	Bulk Density (gm/cc)	1.59	1.41	1.48	1.66	1.46	1.44
7	Porosity %	40	46.6	44.1	42.4	41.5	41.5
8	Moisture content %	8.8	6.8	7	10.5	9.1	9
9	Fluoride %	0.0039	0.0044	0.0045	0.0044	0.0049	0.0045
10	Silica as SiO2%	36.3	36.2	36.8	37.2	38	36.9
11	Chloride %	0.036	0.044	0.044	0.039	0.049	0.046
12	Sulphate %	0.52	0.49	0.52	0.55	0.55	0.53
13	Potassium as K%	0.045	0.044	0.047	0.049	0.049	0.047
14	Magnesium as Mg%	0.29	0.3	0.32	0.32	0.36	0.33
15	Calcium as Ca%	0.56	0.60	0.63	0.58	0.68	0.66
16	Manganese as Mn%	0.4	0.44	0.45	0.44	0.49	0.47
17	Iron as Fe%	0.65	0.61	0.63	0.68	0.65	0.62
18	Available Organic Carbon %	1.89	1.9	1.93	1.77	1.9	1.88
19	Available Nitrogen%	0.069	0.075	0.078	0.072	0.085	0.086

Sampling Location: S6- Siriapali Village

Reviewed by

Approved by

Ref: **Envlab/25-26/TR-15636** ***Date: 09.10.2025***

Soil Quality: Continued.

Sl. No.	Parameters	S-7					
		Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25
1	Colour	Brown	Brown	Brown	Brown	Brown	Brown
2	Type of Soil	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
3	pH	6.96	6.95	6.96	6.90	6.9	6.93
4	Texture	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
5	Infiltration Rate (cm/hr)	7.7	7.5	7.3	7	7	7.1
6	Bulk Density (gm/cc)	1.63	1.45	1.5	1.60	1.51	1.53
7	Porosity %	38.5	45	43.4	39.6	44.9	44.9
8	Moisture content %	9.2	7.6	7.8	11.2	8.8	8.6
9	Fluoride %	0.0041	0.0046	0.0048	0.0044	0.0052	0.005
10	Silica as SiO2%	34.2	34.6	35	35.3	36.7	37.1
11	Chloride %	0.04	0.038	0.038	0.043	0.036	0.038
12	Sulphate %	0.38	0.41	0.43	0.41	0.48	0.46
13	Potassium as K%	0.043	0.039	0.041	0.045	0.044	0.045
14	Magnesium as Mg%	0.21	0.29	0.34	0.24	0.35	0.32
15	Calcium as Ca%	0.65	0.56	0.55	0.68	0.59	0.54
16	Manganese as Mn%	0.52	0.45	0.42	0.55	0.45	0.43
17	Iron as Fe%	0.6	0.65	0.66	0.63	0.7	0.67
18	Available Organic Carbon %	1.90	2.22	2.3	1.96	2.42	2.45
19	Available Nitrogen%	0.08	0.079	0.081	0.083	0.088	0.083

Sampling Location: S7 - Katikela Village

Reviewed by

Approved by