



HIL/LHD/ENV/MoEF&CC/416

Date: 24th November 2025

To,
The Dy. Director General of Forest (C)
Ministry of Environment, Forests and Climate Changes
2nd Floor, Headquarter-Jharkhand State Housing Board
Harmu Chowk, Ranchi, Jharkhand-834002

Sub: Six Monthly EC Compliance Report for Amtipani (190.95 Ha) Bauxite Mining project of M/s Hindalco Industries Limited, Gumla Jharkhand for the period from April 2025 to September 2025.

Ref: Environmental Clearance letter No. J-11015/241/2005-IA.II (M), dated 14th August 2006.

Dear Sir,

With reference to the above, we are submitting herewith the Compliance status report of EC conditions for **Amtipani (190.95 Ha)** Bauxite mining project of **M/s Hindalco Industries Limited** located in Gumla, Jharkhand for the period from **April 2025 to September 2025** for your kind perusal please.

The lease details are as below:

Lease area (ha)	Production Capacity (MT)	Lease Period
190.95	150000	13.03.2006 to 12.03.2056

Hope you will find the same in order.

Thanking You

Yours faithfully,
For **Hindalco Industries Limited**

Basudev Gangopadhyay
AVP (Planning, Environment & Compliance)

Enclosure: - As Above

CC: ro.ranchi-mef@gov.in, mef@ori.nic.in, mef@nic.in, mef.or@nic.in, mecb.cpcb@nic.in, zokolkatta.cpcb@nic.in, ranchijspcb@gmail.com, roranchi47@gmail.com

Name of the Project : Amtipani Bauxite Mine (190.95 ha)
M/s Hindalco Industries Limited,

Environment Clearance No & date : J - 11015/241/2005-IA. II (M), dated 14.08.2006.

Period of compliance Report : From 1st April 2025 to 30th September 2025

Specific Conditions

Condition 1- All the conditions stipulated by the State Pollution Control Board in their NOC should be effectively implemented.

Reply to Condition 1- Implementations of stipulated conditions in NOC are full filled post which consent to operate has been granted by SPCB from time to time. The existing consent to operate is valid up to 31.12.2025. Productions of bauxite are within limits specified in Consent to Operate.

Condition 2- The mining operations shall not intersect the groundwater table. Prior approval of the MoEF and CGWA shall be obtained for mining below the water table.

Reply to Condition 2- Since shallow depth mining is being carried out, hence there is no intersection with the groundwater table. In future also, working zones will be restricted to above ground water tables. We undertake that no mining is carried out below ground water table and the same status will be maintained in future also. Moreover, we regularly monitor the groundwater table through the installation of a piezometer. A copy of the water level report is attached herewith as **Annexure-1**.

Condition 3- The environmental clearance is subject to approval of the state land use Department, Government of Jharkhand for diversion of agricultural land for non-agricultural use.

Reply to Condition 3- Land acquisition is being carried out with permission of competent authority of State Government, i.e. concerned Deputy Commissioner (D.C.) under CNT Act. The land lease agreement has been made with raiyat (Landowner) after permission of the State Govt with provision of returning the land as per norms set by D.C. The compensation and facilities are being provided as per the norms set in the agreement. Thus, land acquisition has the approval of the State Government.

Condition 4- Topsoil shall be stacked properly with proper slope with adequate measures and should be used for reclamation and rehabilitation of mined out areas.

Reply to Condition 4- Topsoil is being stacked temporally properly with proper slope as and when required for reclamation and rehabilitation. Sequential backfilling and reclamation of mined out area are being exercised for which topsoil is being spread on backfilled area for reclamation. The mining is being

carried out as per the approved mining plan. Monitoring and management of rehabilitated areas is being done through effective supervision. Data pertaining to backfilling is enclosed as **Annexure 4**.



Reclaimed area

Condition 5- The waste generated in the initial period shall be dumped temporarily and backfilled in the mined-out area. There shall be no permanent external OB dump in the project area. Concurrent backfilling should start from the fifth year onwards. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests on six monthly basis.

Reply to Condition 5- Overburden and waste rock are being used for concurrent backfilling, and topsoil is being spread on the backfilled area for reclamation. Currently, there is no OB dump present in the mine lease area. Monitoring and management of rehabilitated areas continues until vegetation becomes self-sustaining through supervision. Data pertaining to backfilling is enclosed as **Annexure 4**. Compliance status is being submitted to MoEF&CC on six monthly basis.

Condition 6- Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil and mineral dump. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after monsoon and maintained properly. Garland drains (size, gradient and length) shall be constructed for mine pit and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.

Reply to Condition 6- To collect & manage rainwater during monsoon, part of mined out area is used as a settling tank for the runoff. Rainwater stored is being used for watering the mine area, roads, green belt development and sprinkling as necessary.

Catch drains, Garland drains of appropriate size are being constructed in both around the mine pit to prevent runoff of water and flow of sediments directly into the agricultural field and water bodies, if applicable.



Retaining wall and siltation pit to prevent solid



Garland drains around

Condition 7- Plantation shall be raised in an area of 79.3 ha including a green belt of adequate width by planting the native species around the ML area, roads, etc. in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1500 plants per ha.

Reply to Condition 7- Progressive plantation of native species is being carried out in and around mining lease, reclaimed area etc. in consultation with local forest department on regular basis During FY 2025-26 till September, a total of 2710 nos. saplings have been planted in the mining premises. Cumulative 21.195 ha areas have been planted till date. In addition to this agricultural activity is going on in reclaimed land with the consent of landowners. The Green belt development programme is in progress with the progress of mining activities.



Plantation and Agricultural activity on reclaimed land and Safety zone

Condition 8- The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.

Reply to Condition 8- A detailed plan to augment groundwater has been prepared, and suitable measures like the creation of water harvesting ponds, etc., are being taken for the augmentation of groundwater in the area, in consultation with the Central Ground Water Board.



Rainwater Harvesting Pond at Mines

Condition 9- Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year - pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board.

Reply to Condition 9- We are not using ground water for mining purposes. Shallow depth mining is being carried out, hence there is no intersection of ground water table during the mining operation at present and in future. A piezometer has been installed for monitoring of ground water level. The ground water level and water quality reports are being sent regular to regional office of Ministry, CGWA and JSPCB. The same is attached herewith as **Annexure 1 & 2**.



Piezometer Installed at Mine

Condition 10- Prior permission from the competent authority should be obtained for the drawl of water from the surface water bodies.

Reply to Condition 10- We are not using any water from natural streams/ ground water for mining operation. Rainwater harvesting ponds with proper fencing have been already constructed in the mine premises. Rainwater harvested during rainy season is being used for sprinkling on haul roads and raising plantation.

However, we have already obtained NOC for extraction of ground water from CGWA/ CGWB for drinking purposes only. The copy of same NOC is attached below.

भारत सरकार कल राशि मंत्रालय कल राशि मंत्रालय केन्द्रीय भूमि जल प्राधिकरण GOVERNMENT OF INDIA MINISTRY OF JAL SHAKTI DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION CENTRAL GROUND WATER AUTHORITY			
भूजल निकाली हेतु अनापत्ति प्रमाण पत्र NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION			
PROJECT NAME: AMTIPANI BAUXITE MINING PROJECT(190.95 HA)			
PROJECT ADDRESS: AMTIPANI BAUXITE MINING PROJECT VILL -KUJAM, CHIRODIH TEHSIL - BISHUNPUR			PIN CODE: 835302
STATE: JHARKHAND	DISTRICT: GUMLA	TOWN/BLOCK: BISHUNPUR	
COMMUNICATION ADDRESS: MINES DIVISION, COURT ROAD ADDRESS OF CGWB REGIONAL OFFICE: 6th & 7th Floor, Lok Nayak Jai Prakash Bhawan, Fraser Road, Dak Bungalow, Patna-800011, Bihar.			
1. NOC NO. NOC/MIN/JH/2025/8240/R-3/3	2. DATE OF ISSUANCE: 16/07/2025		
3. APPLICATION NO. MIN/JH/2025/8240/R-3	4. APPLICATION TYPE: Mining		
5. PROJECT STATUS: Existing Project	5. NOC TYPE: Renew		
7. VALID FROM: 06/09/2025	8. VALID UP TO: 05/09/2027		
9. WATER QUALITY TYPE: Fresh Water	10. AREA TYPE CATEGORY: Safe (GWRE-2024)		

NOC for Ground water Extraction

Condition 11- The project proponent shall monitor the spring discharge on long term basis (at least one major spring) both in terms of quantity and quality of water and records maintained. Six monthly reports should be submitted to the Ministry of Environment and Forests and its Regional Office located at Bhubaneswar.

Reply to Condition 11- Water Monitoring of Spring is being conducted and Analysis report is attached as **Annexure 2**. Six monthly report is being submitted regularly. Now, the Regional office of MoEF&CC is in Ranchi.

Condition 12- Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in the transportation of minerals. The vehicles should be covered with a tarpaulin and shall not be overloaded.

Reply to Condition 12- To keep vehicular emissions under control, vehicles are periodically checked & repaired. All measures are being taken to control vehicular emission. All vehicles are covered with tarpaulins, and non-overloading guidelines are being followed during transportation of mineral. Photograph of Tarpaulin Covered Vehicle is attached below.



Ore Transportation with tarpaulin covered truck.

Condition 13- Drills should either be operated with dust extractors or should be equipped with a water injection system.

Reply to Condition 13- Wet drilling is in practice.



Wet drilling is in practice.

Condition 14- Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.

Reply to Condition 14- Blasting time is fixed during Lunch Time i.e. 1.00 PM -2.00 PM. Controlled blasting method is in practice. Ground vibration study has been conducted periodically. All efforts such as use of Nonel and delay, reduction in charge per delay etc. are being taken to mitigate impact of blasting.

Condition 15- Consent to operate should be obtained from SPCB prior to start of production of mine.

Reply to Condition 15- We have obtained Consent to operate prior to start of production. The existing consent to operate is valid up to 31.12.2025

Condition 16- Sewage treatment plants should be installed for the colony. ETP should also be provided for workshops and wastewater generated from mining operations.

Reply to Condition 16- No wastewater is generated from our mining operation. However, only negligible amount of effluent is being generated from workshop and Oil & grease trap system is already installed for treatment of this effluent. The treated water is in close circuit and being reused for washing of vehicle in the workshop. We are not discharging any wastewater outside the mine lease area.

Furthermore, the quality of this treated water is being monitored regularly and the monitoring report is enclosed herewith as **Annexure 2**. The sewage water from domestic uses is being collected through individual Septic Tank and followed by Soak Pit.



Oil and Grease Trap at Mines

Condition 17- Land ouster and land loser/affected people should be compensated and rehabilitated as per the National Policy on Resettlement and Rehabilitation of project Affected Families (NPRR), 2003

Reply to Condition 17- Land ouster and land loser/affected people are being compensated and rehabilitated as per statute/guidelines.

Condition 18- The higher benches of the excavated void to be converted into water reservoir shall be terraced and afforested to stabilize the slopes. Peripheral fencing shall be done along the excavated area.

Reply to Condition 18- Water reservoir/harvesting pond has been terraced and afforested to stabilize slopes. Peripheral fencing provided along excavated area.

Condition 19- A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

Reply to Condition 19- Mining Plan along with progressive mine closure plan has been approved by Indian Bureau of Mines. Final Mine Closure Plan will be submitted in due time as per applicable guidelines and timelines mentioned in MCDR/IBM guidelines, who are competent authority to approve the same. Based on present resource estimate and peak rated production capacity mentioned in EC, Mining operation is being carried out.

General Conditions

Condition 1- No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.

Reply to Condition 1- Noted

Condition 2- No change in the calendar plan including excavation, quantum of mineral bauxite and waste should be made.

Reply to Condition 2- Calendar plan including excavation, quantum of mineral bauxite and waste is being done as per IBM approved mining scheme and in scientific manner. Data pertaining to excavation, quantum of mineral bauxite etc. are mentioned in report attached as **Annexure 4**.

Condition 3- Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife departments.

Reply to Condition 3- We have prepared Site-Specific Wildlife Conservation Plan (WLCP) in consultation with State Forest Department and obtained approval letter from Principal Chief Conservator of Forest, Wildlife & Chief Wildlife Warden, Jharkhand via Office Order No. 49 dated 02.12.2021 for conservation and protection of flora and fauna in the core and buffer zone for Amtipani Bauxite Mine. A copy of same Approval letter has been submitted to your good office on 21.02.2022.



Site Specific Wildlife Conservation Plan

Condition 4- Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RPM, SPM, SO₂, NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.

Reply to Condition 4- We have already established four ambient air quality monitoring stations in the core zone as well as buffer zone. Monitoring is being carried out and reported to the concerned authorities. Monitoring Report is attached as **Annexure 2**.

Condition 5- Data on ambient air quality (RPM, SPM, SO₂ and NO_x) should be regularly submitted to the Ministry including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.

Reply to Condition 5- Being adhered to. Monitoring Reports for the reporting period are attached as **Annexure-2**. Now, the Regional office of MoEF&CC is in Ranchi.

Condition 6- Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading, and unloading and at transfer points should be provided and properly maintained.

Reply to Condition 6- Mobile water tanker with sprinkling facility has been provided along the haul roads, loading, unloading & at transfer points to suppress the dust generation.



Mobile water tanker for dust suppression

Condition 7- Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.

Reply to Condition 7- Noise monitoring is being done regularly. Workers engaged in the operation of HEMMs, etc., have also been provided with PPEs such as ear plugs and earmuffs. Monitoring of noise level is being conducted at various locations of the work zone area.

Report is attached as **Annexure 2**.

Condition 8- Industrial wastewater (workshop and wastewater from the mine) should be properly collected and treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.

Reply to Condition 8- There is no industrial wastewater generation from mining operation. We are not discharging any wastewater outside the mine lease area. However, negligible amount of wastewater is generated in workshop from washing of vehicles and Oil & grease trap system is already installed for treatment of this effluent. The treated water is in close circuit and being reused for washing of vehicles in the workshop.

Furthermore, the quality of this treated water is monitored regularly and all water parameters are within permissible limits. The monitoring report is attached herewith as **Annexure- 2**.

Photograph of Oil and grease traps is already attached below.



Oil and Grease Trap at Mines

Condition 9- Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

Reply to Condition 9- All the workers have been provided with PPEs including dust masks and dust respirators. Apart from PPEs distribution to all workers, we are also providing adequate safety training and conducting awareness session on Safety and health aspects on a regular basis. Periodical Occupational health surveillance program of the workers is being carried out and records maintained as per statute.

Condition 10- A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the Organization.

Reply to Condition 10- A separate environmental management cell with suitable qualified personnel has been set up under the control of a Senior Executive, who is reporting directly to the Head of the Organization. The same is attached herewith as **Annexure 3**.

Condition 11- The project authorities should inform the Regional Office located at Bhubaneswar regarding the date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

Reply to Condition 11- This is an operating mine, hence provision related to financial closure not applicable. Currently, the Regional Office is in Ranchi.

Condition 12- The funds earmarked for environmental protection measures should be kept in a separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to the Ministry and its Regional Office located at Bhubaneswar.

Reply to Condition 12- Every year, the funds earmarked for environmental protection measures is being budgeted separately and its expenditure is being reported to the Ministry. The copy of the same is attached as **Annexure 5**. Now, the Regional Office of MoEF&CC is in Ranchi.

Condition 13- The project authorities should inform the Regional Office located at Bhubaneswar regarding the date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

Reply to Condition 13- This is an operating mine, hence provision related to financial closure not applicable. Currently, the Regional Office is in Ranchi.

Condition 14- The Regional Office of this Ministry located at Bhubaneshwar 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.

Reply to Condition 14- Noted and Agreed. Currently, the Regional Office of MoEF&CC is in Ranchi.

Condition 15- A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom and suggestion / representation has been received while processing the proposal.

Reply to Condition 15- Complied. A copy of clearance letter has already submitted.

Condition 16- State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.

Reply to Condition 16- Noted. The EC Letter has been submitted to JSPCB for display of same at its Regional office and other government offices.

Condition 17- The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located Bhubaneswar.

Reply to Condition 17- Noted and complied. The information on grant of the EC has been published in two local newspapers. The copy of the advertisement has already been submitted to the Regional Office. Now, the Regional office of MoEF&CC is in Ranchi.

Piezometer Monitoring Report

Mine: Amtipani Bauxite Mine (190.95 Ha)

S No	Month	Ground Water Level (BGL) in meter
1	Apr-25	33.05
2	May-25	33.23
3	Jun-25	33.13
4	Jul-25	33.01
5	Aug-25	32.92
6	Sep-25	32.79



EPIC LabTech Private Limited

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CIN: U74999JH2022PTC019683
RAN: AAHCE3811M
GST: 20AAHCE3811M1Z8

Accredited by -
NABL, acc. certificate Number IC-12887
Environmental Testing Division, Council of India
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Annexure - 2

Unique Lab Report No.	TC1288725000000394	Discipline	Chemical
Report Unique ID	RL0143251711	Group	Atmospheric Pollution
Issue date/time	26.04.2025/ 13:10	Sub Group	Ambient Air Quality

Report Issue to M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person Contact Number Email Id Order Date Order Number	Mr. Ankit Das +91 9971034775 ankit.das@adityabirla.com 31.03.2025/ 10:10 13612313868
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References of Quality Management System (Steps of Traceability Chain)			
Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251711
Sample(s) Code	251711 (A) (B) (C) (D)	Sample Receipt (D/T)	21.04.2025/ 11:18

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	18.04.2025/ 10:56	Sampling End (D/T)	19.04.2025/ 07:25
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02"/84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09"/84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16"/84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12"/84° 15' 34.07"

Date(s) of performance of the laboratory activities			
Test start date	21.04.2025/ 11:45	Test completion date	25.04.2025/ 12:50

--Test Result --

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m3	84.93	74.88	78.83	77.82	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS 5182 (P-24) 2019	µg/m3	46.30	33.43	36.91	35.55	80(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m3	09.94	10.05	08.13	07.86	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m3	25.77	22.50	23.61	22.54	80(24 hr)
5.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m3	38.47	37.83	35.89	34.59	180(1 hr)
6.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m3	53.07	51.18	48.02	46.75	400(24 hr)
7.	Lead (Pb)	IS:5182(P-22) 2019	µg/m3	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182(P-26) 2020	ng/m3	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA IO 3.2:1999	ng/m3	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

--Test Result End --

Prescribed Limit	Environmental (Protection) Rules-1986, Schedule VII.
Operational Status	Unit was Operational During sampling.

Analysed by -A. K. SINHA



Checked by
(B.R. Kumar)
Technical Head

Verified & Issued by
(Umesh Das)
Laboratory Head

Authorized Signatory

Page: 1 of 1

Contractual Status - 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility or specific environment as method required and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 30 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to involved amount only. 6. All disputes are subjected to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Opinion does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any caused by use or misuse of this report. 8. When the results are from external provider are marked as * mark.

Abbreviation - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoD (Limit of Quantitative).



EPIC LabTech Private Limited

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CIN:-U14999JH2022PTC018625
PAN:-AAHCE5811M
GST:-20AAHCE5811M1Z1X

Accredited by:-
Bharatiya Standards Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0143251711	Group	Atmospheric Pollution
Issue date/time	26.04.2025/ 13:10	Sub Group	Ambient Air Quality

Report Issue to M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person Contact Number Email Id Order Date Order Number	Mr. Ankit Das +91 9971034775 ankit.das@adityabirla.com 31.03.2025/ 10:10 13612313868
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References of Quality Management System (Steps of Traceability Chain)			
Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251711
Sample(s) Code	251711 (A) (B) (C) (D)	Sample Receipt (D/T)	21.04.2025/ 11:18

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	18.04.2025/ 10:56	Sampling End (D/T)	19.04.2025/ 07:25
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Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02"/ 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09"/ 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16"/ 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12"/ 84° 15' 34.07"

Date(s) of performance of the laboratory activities			
Test start date	21.04.2025/ 11:45	Test completion date	25.04.2025/ 12:50

--Test Result --

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2008	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.6)	BDL (MDL-1.6)	BDL (MDL-1.6)	BDL (MDL-1.6)	-

--Test Result End --

Prescribed Limit	Environmental (Protection) Rules-1986, Schedule VII
Operational Status	Unit was Operational During sampling.
Analysed by -A.K. SINHA	



Checked by
(B.N. Kumar)
Technical Head

Verified & Issued by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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C/o - R.K. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

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CIN: UT4899142022PTC019423
PAN: AAHCE5611M
GST: 28AAHCE5611M1Z3

Accredited by :-
NABL, with certificate Number TC-13837
Field and Scope: Industrial Control Board
Certified by :-
ISO 9001:2015 and ISO 45001:2018



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000395	Discipline	Chemical
Report Unique ID	RL0143251712	Group	Water
Issue date/time	26.04.2025/ 13:12	Sub Group	Drinking Water

Report Issue to M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person Contact Number Email Id Order Date Order Number	Mr. Ankit Das +91 9971034775 ankit.das@adityabirla.com 31.03.2025/ 10:10 13612313868
---	--	--

References of Quality Management System (Steps of Traceability Chain)			
Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251712
Sample(s) Code	251712	Sample Receipt (D/T)	21.04.2025/ 11:21

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/038
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	18.04.2025/ 11:30	Sampling End (D/T)	18.04.2025/ 11:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near office	GPS coordinate	23° 20' 37.08"/84° 15' 32.28"

Date(s) of performance of the laboratory activities			
Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00

--Test Result --

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 24.6°C	IS 3025 (P-11) 2022	-	6.80	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.37	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	6	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	89.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	18.72	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	50.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	70.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	12.34	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1)2022	mg/l	1.30	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	1.04	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500 Mg E 2023	mg/l	9.52	30	100

Group - Residues and Contaminants in Water

Sub Group- Trace Metals Elements



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Jharkhand - 834005, India

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☎ 03048 73994

✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC018685

PAN:-AANCE3811M

GST:-20AANCE3811M1Z

Accredited by:-

NAAL with certificate Number TC-12887
(Jharkhand State Pollution Control Board)

Certified by:-

ISO 9001:2015 and ISO 45001:2018



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000395	Discipline	Chemical
Report Unique ID	RL0143251712	Group	Water
Issue date/time	26.04.2025/ 13:12	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED

VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 836302

MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person

Mr. Ankit Das

Contact Number

+91 9971034775

Email Id

ankit.das@adityabirla.com

Order Date

31.03.2025/ 10:10

Order Number

13612313868

16. Copper (as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	0.05	1.5
17. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation
18. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation
19. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation
20. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation
21. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation
22. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05
23. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation
24. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.09)	0.1	0.3
25. Zinc (as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	5	15

--Test result End --

Prescribed Limit

IS 10600:2021

Operational Status

Unit was Operational During sampling.

Analysed by -Pratima Kumar/ Anjali Kumar



Checked by
(E.N. Kumar)
Technical Head

Verified & Issued by
(Anish Das)
Laboratory Head

Signature
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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CIN:-U74999JH2022PTC018683
PAN:-AAHCE5611M
GST:-20AAHCE5611M1ZK

Accredited by >
Jharkhand State Pollution Control Board
Certified by >
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0143251712	Group	Water
Issue date/time	26.04.2025/ 13:12	Sub Group	Drinking Water

Report Issue to M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : AMTIPANI BAUXITE MINE	Contact Person Contact Number Email Id Order Date Order Number	Mr. Ankit Das +91 9971034775 ankit.das@adityabirla.com 31.03.2025/ 10:10 13612313868
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References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251712
Sample(s) Code	251712	Sample Receipt (D/T)	21.04.2025/ 11:21

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	18.04.2025/ 11:30	Sampling End (D/T)	18.04.2025/ 11:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near office	GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
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Date(s) of performance of the laboratory activities

Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00
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--Test Result --

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group-Residues and Contaminants in Water				Sub Group-Trace Metals Elements		
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.1	No relaxation
Group-Residues and Contaminants in Water				Sub Group-Pesticides		
6.	Alachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	125.0	No relaxation
12.	Chlopyrifos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	3.0	No relaxation



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CIN - U74999JH2022PTC013685
PAN - AAHCE3811M
GST - 20AAHCE3811M1Z8

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0143251712	Group	Water
Issue date/time	26.04.2025/ 13:12	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@adityabiria.com
31.03.2025/ 10:10
13612313868

15.	Gamma- HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
16.	Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	190.0	No relaxation
17.	Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.3	No relaxation
18.	Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
19.	Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
20.	DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
21.	Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.4	No relaxation

--Test Result End--

Prescribed Limit
Operational Status
Analysed by -Pratima Kumari/ Anjali Kumari

IS 10500:2021
Unit was Operational During sampling.



Checked by
(B.N. Kumar)
Technical Head

Verified & Issue by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:-
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Jharkhand - 834005, India

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CIN: U74999JH2022PTC019681
PAN: AAHCE3811M
GST: 20AAHCE3811M1Z9

Accredited by:-
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL0143251713	Group	Water
Issue date/time	26.04.2025/ 13:14	Sub Group	Drinking Water

Report Issue to

M/S - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@adityabirla.com
31.03.2025/ 10:10
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251713
Sample(s) Code	251713	Sample Receipt (D/T)	21.04.2025/ 11:22

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003& IS 1622 1981		
Sampling Start (D/T)	18.04.2025/ 11:30	Sampling End (D/T)	18.04.2025/ 11:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near office	GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
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Date(s) of performance of the laboratory activities

Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00
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--Test Result --

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185 2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E. Coli	IS 15185 2002	Per 100 ml	Not Detected	

--Test Result End --

Prescribed Limit
Operational Status
Analysed by -Pratna Kumar/ Anjali Kumar

IS 10500:2021
Unit was Operational During sampling.



Checked by
(B.N. Kumar)
Technical Head

Verified & Issue by
(Omesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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CIN - U74999JH2022PTC019685
PAN - AARCE3611M
GST - 20AA-HCE3611M12X

Accredited by:-
NABL, certificate Number TC-12887
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000396	Discipline	Chemical
Report Unique ID	RL0143251714	Group	Water
Issue date/time	26.04.2025/ 13:16	Sub Group	Ground Water

Report Issue to M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person Contact Number Email Id Order Date Order Number	Mr. Ankit Das +91 9971034775 ankit.das@adityabiria.com 31.03.2025/ 10:10 13612313868
---	--	---

References of Quality Management System (Stages of Traceability Chain)			
Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251714
Sample(s) Code	251714	Sample Receipt (D/T)	21.04.2025/ 11:23

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	18.04.2025/ 12:00	Sampling End (D/T)	18.04.2025/ 12:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01" / 84° 15' 30.41"

Date(s) of performance of the laboratory activities			
Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00

--Test Result --

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	7.16	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.41	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	130	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	21.68	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	68	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	98	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	18.44	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1)2022	mg/l	2.90	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	1.99	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500 Mg E 2023	mg/l	12.63	30	100

Group - Residues and Contaminants in Water

Sub Group- Trace Metals Elements



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CIN - U74999JH2022PTC019683
PAN - AAHCE5811M
GST - 20AAHCE5811M1Z3

Accredited by -
NABL, acc. certificate number TC - 12887
Industrial State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000396	Discipline	Chemical
Report Unique ID	RL0143251714	Group	Water
Issue date/time	26.04.2025/ 13:18	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

16. Copper (as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	0.05	1.5
17. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation
18. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation
19. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation
20. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation
21. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation
22. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05
23. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation
24. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.09)	0.1	0.3
25. Zinc (as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	5	15

--Test Result End--

Prescribed Limit IS 10500:2021
Operational Status Unit was Operational During sampling
Analysed by -Pratima Kumar/ Anjali Kumar



[Signature]
Checked by
(E.N. Kumar)
Technical Head

[Signature]
Verified & Issued by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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Jharkhand - 834005, India

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✉ epiclabtech@gmail.com

CIN - U74999JH2022PTC019685 Accredited by -

PAN - AAMCE3011M

GST - 20AA4CE3611M1Z3

Jharkhand State Pollution Control Board

Certified by -

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0143251714	Group	Water
Issue date/time	26.04.2025/ 13:16	Sub Group	Ground Water

Report Issue to MM/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person Contact Number Email Id Order Date Order Number	Mr. Ankit Das +91 9971034775 ankit.das@adityabirla.com 31.03.2025/ 10:10 13612313868
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References of Quality Management System (Steps of Traceability Chain)			
Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251714
Sample(s) Code	251714	Sample Receipt (D/T)	21.04.2025/ 11:23

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	18.04.2025/ 12:00	Sampling End (D/T)	18.04.2025/ 12:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01"/84° 15' 30.41"

Date(s) of performance of the laboratory activities			
Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00

--Test Result --

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group-Residues and Contaminants in Water				Sub Group-Trace Metals Elements		
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.1	No relaxation
Group-Residues and Contaminants in Water				Sub Group-Pesticides		
6.	Alachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	125.0	No relaxation
12.	Chlopyrifos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	3.0	No relaxation



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CIN:-U74900JH2022PTC019685

PAN:-AANICE3611M

GST:-20AANICE3611ML2X

Accredited by:-

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 15001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0143251714	Group	Water
Issue date/time	26.04.2025/ 13:16	Sub Group	Ground Water

Report Issue to

MM/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@adityabirla.com
31.03.2025/ 10:10
13612313868

15.	Gamma- HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
16.	Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	190.0	No relaxation
17.	Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.3	No relaxation
18.	Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
19.	Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
20.	DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
21.	Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.4	No relaxation

--Test Result End --

Prescribed Limit
Operational Status
Analysed by -Pratima Kumari/ Anjali Kumari

IS 10500:2021
Unit was Operational During sampling.



Checked by
(B.N. Kumar)
Technical Head

Verified & Issued by
(Umesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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CTC:-U74999JH2022PTC019683

PAN:-AAHCE3611M

GST:-20AAHCE3611M1ZK

Accredited by:-

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL0143251715	Group	Water
Issue date/time	26.04.2025/ 13:18	Sub Group	Ground Water

Report Issue to		Contact Person	Mr. Ankit Das
M/S - HINDALCO INDUSTRIES LIMITED		Contact Number	+91 9971034775
VILLAGE-COURT ROAD,		Email Id	ankit.das@adityabirla.com
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,		Order Date	31.03.2025/ 10:10
STATE-JHARKHAND,INDIA 835302		Order Number	13612313868
MONITORING SITE : AMTIPANI BAUXITE MINE			

References of Quality Management System (Steps of Traceability Chain)			
Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251715
Sample(s) Code	251715	Sample Receipt (D/T)	21.04.2025/ 11:23

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003& IS 1622 1981		
Sampling Start (D/T)	18.04.2025/ 12:00	Sampling End (D/T)	18.04.2025/ 12:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01"/84° 15' 30.41"

Date(s) of performance of the laboratory activities			
Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00

--Test Result --					
Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185 2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample.
2.	E.Coli	IS 15185 2002	Per 100 ml	Not Detected	

--Test Result End --		
Prescribed Limit	IS 10500:2021	
Operational Status	Unit was Operational During sampling.	
Analysed by -Preetina Kumar/ Anjali Kumari		



Checked by
(B.N. Kumar)
Technical Head

Verified & Issue by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited



Address:-

C/o - R.K. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

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CIN:-U74999JH2022PTC019683

PAN:-AAHCE3611M

GST:-20AAHCE3611M1ZK

Accredited by:-

ISO, vide certificate number TC-12887

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000525	Discipline	Chemical
Report Unique ID	RL0176252035	Group	Atmospheric Pollution
Issue date/time	21.05.2025/ 15:14	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252035
Sample(s) Code	252035 (A) (B) (C) (D)	Sample Receipt (D/T)	16.05.2025/ 10:52

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 11:29	Sampling End (D/T)	15.05.2025/ 08:32
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.26"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:15	Test completion date	20.05.2025/ 12:00
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-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS-5182 (P-23) 2022	µg/m³	82.00	86.98	76.98	89.99	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS 5182 (P-24) 2019	µg/m³	37.86	39.99	33.12	36.94	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS-5182 (P-07) 2023	µg/m³	7.15	10.18	7.77	9.49	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS-5182 (P-06) 2022	µg/m³	1912	23.71	20.31	21.95	80(24 hr)
5.	Ammonia (NH ₃)	IS-5182 (P-25) 2018	µg/m³	40.58	38.64	43.83	47.73	400(24 hr)
6.	Ozone (O ₃)	IS-5182 (P-09) 2019	µg/m³	35.77	32.19	39.34	33.98	180(1 hr)
7.	Lead (Pb)	IS-5182(P-22) 2019	µg/m³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS-5182(P-26) 2020	ng/m³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA IO 3.2-1999	ng/m³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.
Analysed by - AK Senha



Reviewed by
(E.N. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Contractual Notes : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to invoiced amount only. 6. All disputes are subjected to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Opinion does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any liability by use or misuse of this report. 8. When the results are from external provider are marked as * mark. 9. Abbreviation : BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LxQ (Limit of Quantitation).



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CIN - U74999JH2022PTC019683
PAN - AAHCE3611M
GST - 20AAHCE3611M1ZK

Accredited by :-
Jharkhand State Pollution Control Board
Certified by :-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0176252035	Group	Atmospheric Pollution
Issue date/time	21.05.2025/ 15:14	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252035
Sample(s) Code	252035 (A) (B) (C) (D)	Sample Receipt (D/T)	16.05.2025/ 10:52

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 11:29	Sampling End (D/T)	15.05.2025/ 08:32
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:15	Test completion date	20.05.2025/ 12:00
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-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS-5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS-5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - AK Senha



Reviewed by
(E.N. Kumar)
Technical Head





EPIC LabTech Private Limited



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CIN: U74999JH2022PTC019685

PAN: AAHCE3611M

GST: 20AAHCE3611M1ZK

Accredited by:-

NABL, lab certificate number TC-1387

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000526	Discipline	Chemical
Report Unique ID	RL0176252036	Group	Atmospheric Pollution
Issue date/time	21.05.2025/ 15:16	Sub Group	Ambient Noise

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : AMTIPANI BAUXITE MINE	Contact Person Contact Number Email Id Order Date Order Number	Mr. Ankit Das +91 9871034775 ankit.das@adityabirla.com 31.03.2025/ 10:10 13612313868
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References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252036
Sample(s) Code	252036 (A) (B) (C) (D)	Sample Receipt (D/T)	16.05.2025/ 10:55

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 11:29	Sampling End (D/T)	15.05.2025/ 08:32
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS 9989:1981 (RA 2020) & CPCB Method S.O.50 (E) dated 11/01/2010		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:20	Test completion date	20.05.2025/ 12:05
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	L _{eq} (Day time)	IS: 9989:1981	dB (A)	58.8	53.9	49.2	47.0	75
2.	L _{eq} (Night time)	IS: 9989:1981	dB (A)	43.9	41.8	39.8	37.4	70

Prescribed Limit

Environmental (Protection) Rules-1986, Schedule III.

Operational Status

Unit was Operational During sampling.

Analyzed by - A.K. Sinha



Reviewed by
(B.N. Kumar)
Technical Head

Issued by
(Ajay Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:-

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✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC019683

PAN:-AANCE3611M

GST:-20AANCE3611M1ZX

Accredited by:-

NABL vide certificate number TC - 12887
Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000527	Discipline	Chemical
Report Unique ID	RL0176252037	Group	Pollution & Environment
Issue date/time	21.05.2025/ 15:18	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252037
Sample(s) Code	252037	Sample Receipt (D/T)	16.05.2025/ 10:58

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 16:30	Sampling End (D/T)	14.05.2025/ 16:50
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 20' 37.43" / 84° 15' 33.93"
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Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:15	Test completion date	21.05.2025/ 12:30
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.2°C	IS 3025 (P-11) 2022	-	6.55	6.5-8.5
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2000	mg/l	14.00	-
3.	COD	IS 3025 (P-58) 2006	mg/l	64.00	150.0
4.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BDL(MDL-04)	10.0
5.	Total Suspended Solid	IS 3025 (P-17) 2022	mg/l	45.00	50.0
6.	Phosphate	IS 3025 (P-31/Sec-1) 2022	mg/l	0.58	-
7.	Zinc	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	-

--Test result End --

Prescribed Limit Environmental (Protection) Rules-1986, Schedule -1, Serial No. 114.
Operational Status Unit was Operational During sampling.

Analysed by - Anjali Kumari



Reviewed by
(B.N. Kumar)
Technical Head





EPIC LabTech Private Limited

Address:-

C/o - R.K. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

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☎ 98357 88677

☎ 93049 73994

✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC019685

PAN:-AAHCE3611M

GST:-20AAHCE3611M1ZK

Accredited by:-

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0176252037	Group	Pollution & Environment
Issue date/time	21.05.2025/ 15:18	Sub Group	Waste Water (Effluent)

Report Issued to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person	Mr. Ankit Das
Contact Number	+91 9971034775
Email Id	ankit.das@adityabirla.com
Order Date	31.03.2025/ 10:10
Order Number	13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252037
Sample(s) Code	252037	Sample Receipt (D/T)	16.05.2025/ 10:58

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 16:30	Sampling End (D/T)	14.05.2025/ 16:50
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 20' 37.43" / 84° 15' 33.93"
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Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:15	Test completion date	21.05.2025/ 12:30
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Dissolve Solids (TDS)	IS 3025 (P-16) 2023	mg/l	161.00	-
2.	Dissolve Oxygen (DO)	IS 3025 (P-38) 1984	mg/l	1.80	-

--Test result End--

Prescribed Limit Environmental (Protection) Rules-1986, Schedule -1, Serial No. 114,
Operational Status Unit was Operational During sampling.

Analysed by - Anjali Kumari



Reviewed by
(E.K. Kumar)
Technical Head

Issued by
(Umesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited



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Road No. - 3, Ranchi,
Jharkhand - 834005, India

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✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC015683
PAN:-AAXCE5611M
GST:-30AAXCE3611M1Z8

Accredited by:-
NABL, accreditation number NC-12887
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000701	Discipline	Chemical
Report Unique ID	RL0209252429	Group	Atmospheric Pollution
Issue date/time	18.06.2025/ 12:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0209	Sample Booking Number	EPIC-252429
Sample(s) Code	252429 (A) (B) (C) (D)	Sample Receipt (D/T)	13.06.2025/ 10:09

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.06.2025/ 12:34	Sampling End (D/T)	12.06.2025/ 09:48
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	240°-60°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 2 A11	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location D	Mines Near Quarry - 7C 16	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Data(s) of performance of the laboratory activities

Test start date	13.06.2025/ 10:50	Test completion date	17.06.2025/ 11:43
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--Test Results--

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	80.03	84.19	75.15	87.43	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	35.47	38.24	30.48	34.36	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	07.05	09.01	06.26	08.22	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	17.97	22.20	19.03	20.08	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	39.29	37.01	42.21	46.10	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	33.26	31.12	38.27	32.19	180(1 hr)
7.	Lead (Pb)	IS:5182(P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182(P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA IO 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

--Test Results End--

Prescribed Limit	Environmental (Protection) Rules-1986, Schedule VI.
Operational Status	Unit was Operational During sampling.
Analysed by - Archana Gorain	



Reviewed by
(S.N. Kumar)
Technical Head

Issue by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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CIN:-U74999JH2022PTC015685
PAN:-AANCE3611M
GST:-20AAHCE3611M1ZK

Accredited by:-
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0209252429	Group	Atmospheric Pollution
Issue date/time	18.06.2025/ 12:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0209	Sample Booking Number	EPIC-252429
Sample(s) Code	252429 (A) (B) (C) (D)	Sample Receipt (D/T)	13.06.2025/ 10:09

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.06.2025/ 12:34	Sampling End (D/T)	12.06.2025/ 09:48
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	240°-60°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 2 A11	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location D	Mines Near Quarry - 7C 16	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Data(s) of performance of the laboratory activities

Test start date	13.06.2025/ 10:50	Test completion date	17.06.2025/ 11:43
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-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.6)	BDL (MDL-1.6)	BDL (MDL-1.6)	BDL (MDL-1.6)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Archana Gargain



Reviewed by
(B.K. Kumar)
Technical Head





EPIC LabTech Private Limited

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CIN - U74899JH2022PTC019665
PAN - AAKCE3611M
GST - 22AAKCE3611M1ZK

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0209252430	Group	Atmospheric Pollution
Issue date/time	18.06.2025/ 12:32	Sub Group	Work Zone Noise

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE- COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0209	Sample Booking Number	EPIC-252430
Sample(s) Code	252430 (A) (B)	Sample Receipt (D/T)	13.08.2025/ 10:10

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D)	11.06.2025/ 12:34	Sampling End (D)	11.06.2025/ 09:33
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 9989:1981 (RA 2020) & CPCB Method S.O.50 (E) dated 11/01/2010		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	240°-60°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Quarry - 7C16	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location B	Near Mines Quarry 2A11	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Date(s) of performance of the laboratory activities

Test start date	13.06.2025/ 10:25	Test completion date	17.06.2025/ 11:44
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--Test Results--

Sl	Test Parameters	Method used	Unit	Results		Limits
				A	B	
1.	L_{eq}	IS: 9989:1981	dB (A)	73.1	71.3	85

--Test Results End --

Prescribed Limit NIOSH - Publication No. 98-126 in 1972, Table 1-1
Operational Status Unit was Operational During sampling.

Analysed by - A.K. Sinha



Reviewed by
(S.N. Kumar)
Technical Head

Issue By
(Anesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:-

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Jharkhand - 834005, India

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✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC019685

PAN:-AAHCE3611M

GST:-20AAHCE3611M1Z3

Accredited by:-

ISO/IEC 17025:2017

ISO/IEC 17025:2017

ISO/IEC 17025:2017 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000884	Discipline	Chemical
Report Unique ID	RL02362529012	Group	Atmospheric Pollution
Issue date/time	18.07.2025/ 17:25	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabiria.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529012
Sample(s) Code	2529012 (A) (B) (C) (D)	Sample Receipt (D/T)	14.07.2025/ 11:30

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 12:50	Sampling End (D/T)	12.07.2025/ 08:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 2 A11	GPS coordinate	23° 19' 59.00" / 84° 15' 40.02"
S. Location D	Mines Near Quarry - 7C 16	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 11:50	Test completion date	18.07.2025/ 16:00
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--Test Results--

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	76.16	80.19	71.12	83.22	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	32.11	35.31	27.64	30.85	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.49	08.54	05.31	07.78	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	15.77	20.33	18.15	18.20	60(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	36.18	34.50	39.55	44.04	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	30.89	28.50	35.35	29.62	180(1 hr)
7.	Lead (Pb)	IS:5182(P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182(P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA IO 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

--Test Results End--

Prescribed Limit	Environmental (Protection) Rules-1986, Schedule VI.
Operational Status	Unit was Operational During sampling.
Analysed by - Vishal Mangaraj	



Reviewed by
(B.N. Kumar)
Technical Feed

Issue by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Contractual Terms: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility. 3. Test results are valid only for the sample tested in prescribed Date & time. 4. The Test report shall not be reproduced full or in part & can't be used in court of law. 5. Any complaint about this report should be communicated in writing within 10 days of its issue. 6. Total liability of EPIC LabTech Pvt. Ltd. will be limited to insured amount only. 7. All disputes are subjected to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 8. Opinion does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any caused by use or misuse of this report. 9. When the results are from external provider are marked as * mark. 10. Abbreviations: BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



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CIN: U74999JH2022PTC019685
PAN: AAHCE3611M
GST: 20AAHCE3611M1ZK

Accredited by:-
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02362529012	Group	Atmospheric Pollution
Issue date/time	18.07.2025/ 17:25	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE- COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529012
Sample(s) Code	2529012 (A) (B) (C) (D)	Sample Receipt (D/T)	14.07.2025/11:30

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 12:50	Sampling End (D/T)	12.07.2025/ 08:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 2 A11	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location D	Mines Near Quarry - 7C 16	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 11:50	Test completion date	18.07.2025/ 16:00
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-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS-5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS-5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

-Test Results End-

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj



Reviewed by
(B.N. Kumar)
Technical Head





EPIC LabTech Private Limited

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C/o - R.K. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

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CIN: U74999JH2022PTC010685
PAN: AAHCE3613M
GST: 20AAHCE3613M1ZK

Accredited by:-
NABL vide certificate number JC- 13867
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000885	Discipline	Chemical
Report Unique ID	RL02362529013	Group	Water
Issue date/time	18.07.2025/ 17:27	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529013
Sample(s) Code	2529013	Sample Receipt (D/T)	14.07.2025/11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 13:40	Sampling End (D/T)	11.07.2025/ 13:52
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near office	GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
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Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 11:51	Test completion date	18.07.2025/ 14:05
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 25.5°C	IS 3025 (P-11) 2022	-	6.90	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.40	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-06) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	85.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	17.36	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	48.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	68.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	11.89	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1)2022	mg/l	1.24	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	1.00	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500 Mg E 2023	mg/l	9.00	30	100



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CIN:-U74999JH2022PTC015665
FAC:-AAHCE3611M
GST:-20AAHCE3611M1ZK
Accredited by:-
NABL with certificate number JC-12867
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000885	Discipline	Chemical
Report Unique ID	RL02362529013	Group	Water
Issue date/time	18.07.2025/ 17:27	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@adityabirja.com
31.03.2025/ 10:10
13612313868

Group - Residues and Contaminants in Water

Sub Group - Trace Metals Elements

16. Copper (as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	0.05	1.5
17. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation
18. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation
19. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation
20. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation
21. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation
22. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05
23. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation
24. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.09)	0.1	0.3
25. Zinc (as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	5	15

--Test result End--

Prescribed Limit
Operational Status
Analysed by - Vishal Mangraj

IS 10500:2021
Unit was Operational During sampling.



Reviewed by
(E.K. Kumar)
Technical Head

Issued by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2

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Abbreviation - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation). |



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CIN:-U74999JH2022PTC019625

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GST:-20AAHCE3611M1ZK

Accredited by:-

Parkland State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02362529013	Group	Water
Issue date/time	18.07.2025/ 17:27	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529013
Sample(s) Code	2529013	Sample Receipt (D/T)	14-07-2025/11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 13:40	Sampling End (D/T)	11.07.2025/ 13:52
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near office	GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
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Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 11:51	Test completion date	11.07.2025/ 10:30
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--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group-Residues and Contaminants in Water				Sub Group-Trace Metals Elements		
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.1	No relaxation
Group-Residues and Contaminants in Water				Sub Group-Pesticides		
6.	Alachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	125.0	No relaxation
12.	Chlorpyrifos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	3.0	No relaxation



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PAN: AANCE3611M
GST: 20AANCE3611M1ZK

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Analytical Test Certificate

Unique Lab Report No. N/A
Report Unique ID RL02362529013
Issue date/time 18.07.2025/ 17:27

Discipline
Group
Sub Group
Chemical
Water
Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number
Mr. Ankit Das
+91 9971034775
ankit.das@adityabirla.com
31.03.2025/ 10:10
13612313868

15.	Gamma- HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
16.	Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	190.0	No relaxation
17.	Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.3	No relaxation
18.	Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
19.	Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
20.	DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
21.	Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.4	No relaxation

--Test result End--

Prescribed Limit
Operational Status
Analysed by -Vishal Mangraj
IS 10500:2021
Unit was Operational During sampling.



Reviewed by
(E.N. Kumar)
Technical Head

Issued by
(Dinesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





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GST: 20AAHCE3611M1ZK

Accredited by:-
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Certified by:-
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Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02362529014	Group	Water
Issue date/time	18.07.2025/ 17:29	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person	Mr. Ankit Das
Contact Number	+91 9971034775
Email Id	ankit.das@adityabirla.com
Order Date	31.03.2025/ 10:10
Order Number	13612313668

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529014
Sample(s) Code	2529014	Sample Receipt (D/T)	14.07.2025/11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 13:40	Sampling End (D/T)	11.07.2025/ 13:52
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near office	GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
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Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 12:30	Test completion date	18.07.2026/ 16:30
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--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185 2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E.Coli	IS 15185 2002	Per 100 ml	Not Detected	

--Test result End --

Prescribed Limit	IS 10500:2021
Operational Status	Unit was Operational During sampling.
Analysed by - Sujata Kumari	



Reviewed by
(B.K. Kumar)
Technical Head

Issued by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



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PAN:-AAHCE3611M
GST:-30AAHCE3611M1ZK

Accredited by:-
NABL, vide certificate number TC - 12887
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No. TC1288725000001027
Report Unique ID RL02682534047
Issue date/time 26.08.2025/ 12:00

Discipline Chemical
Group Atmospheric Pollution
Sub Group Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No. EPIC/OTH/0268 Sample Booking Number EPIC-2534047
Sample(s) Code 2534047 (A) (B) (C) (D) Sample Receipt (D/T) 21.08.2025/ 10:53

Sampling References

Type of Industry Bauxite Mines Ref. of Sampling Plan EPIC/LAB/R/038
Sampling Start (D/T) 19.08.2025/ 12:51 Sampling End (D/T) 20.08.2025/ 08:40
Mode of Sampling Conducted by Laboratory Sample collected by Mr. Pawan Deep & Bhagat
Sampling method used IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)
Description/condition of sample Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition Cloudy Temperature (°C) 25 Humidity % 70 Wind direction 90°-270°

Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date 21.08.2025/ 11:13 Test completion date 26.08.2025/ 11:00

--Test Results--

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	76.03	79.65	70.98	82.78	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	31.59	35.19	27.47	30.19	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.08	08.11	06.29	07.34	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	14.65	19.14	16.91	16.99	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	34.22	33.66	38.43	40.95	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	24.52	22.93	26.75	24.20	180(1 hr)
7.	Lead (Pb)	IS:5182(P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182(P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA IO 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

--Test Results End--

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj



Reviewed by
(E.N. Kumar)
Technical Head

Issued by
(Omesh Das)
Laboratory Head

Authorized Signatory

Contractual Notes: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility or specific environmental conditions as method required and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & can't be used as evidence in court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to invoiced amount only. 6. All disputes are subjected to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Opinion does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any caused by use or misuse of this report. 8. When the results are from external provider are marked as "mark".

Abbreviation: - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



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GST:-20AAHCE3611M1ZK

Accredited by:-
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534047	Group	Atmospheric Pollution
Issue date/time	26.08.2025/ 12:00	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person	Mr. Ankit Das
Contact Number	+91 9971034775
Email id	ankit.das@adityabirla.com
Order Date	31.03.2025/ 10:10
Order Number	13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534047
Sample(s) Code	2534047 (A) (B) (C) (D)	Sample Receipt (D/T)	21.08.2025/ 10:53

Sampling References

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 12:51	Sampling End (D/T)	20.08.2025/ 06:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	25	Humidity %	70	Wind direction	90°-270°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:13	Test completion date	26.08.2025/ 11:00
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--Test Results--

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

--Test Results End --

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj




Reviewed by
(B.N. Kumar)
Technical Head





EPIC LabTech Private Limited

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CIN:-U74999JH2022PTC019685
PAN:-AAHCE3011M
GST:-20AAHCE3011M1ZK

Accredited by:-
NABL vide certificate Number TC-12867
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018



TC-12867

Analytical Test Certificate

Unique Lab Report No.	TC1286725000001028	Discipline	Chemical
Report Unique ID	RL02682534048	Group	Water
Issue date/time	26.08.2025/ 12:03	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE- COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534048
Sample(s) Code	2534048	Sample Receipt (D/T)	21.08.2025/ 10:57

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 16:05	Sampling End (D/T)	19.08.2025/ 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01" / 84° 15' 30.41"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:15	Test completion date	26.08.2025/ 10:38
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 25.7°C	IS 3025 (P-11) 2022	-	7.57	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.46	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	124.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	20.48	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	65.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	96.384	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	17.64	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1) 2022	mg/l	2.45	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	1.65	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500 Mg E 2023	mg/l	12.1	30	100



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CIN:-U74999JH2022PTC019685
PAN:-AAHCE3611M
GST:-20AAHCE3611MT2X

Accredited by :-
NABL, vide certificate number JC - 12887
Jharkhand State Pollution Control Board
Certified by :-
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No. TC1288725000001028
Report Unique ID RL02682534048
Issue date/time 26.08.2025/ 12:03

Discipline Chemical
Group Water
Sub Group Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabiria.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

Group - Residues and Contaminants in Water,

Sub Group - Trace Metals Elements

16. Copper (as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	0.05	1.5
17. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation
18. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation
19. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation
20. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation
21. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation
22. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05
23. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation
24. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.09)	0.1	0.3
25. Zinc (as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	5	15

--Test result End--

Prescribed Limit
Operational Status
Analysed by - Pappu Kumar

IS 10500:2021
Unit was Operational During sampling.



Reviewed by
(R.K. Kumar)
Technical Head

Issued By
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2

Contractual Notes | 1. The laboratory accepts responsibility for content of this report | 2. Test performed at laboratory's permanent facility at specific environmental condition as without required and results relate only to the sample tested in prescribed Date & time | 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. | 4. Any complaint about this report should be communicated in writing within 30 days of its issue | 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to involved amount only. | 6. All disputes are subjected to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges | 7. Opinion does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any caused by use or misuse of this report. | 8. When the results are from external provider are marked as " mark. |
Abbreviation - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



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CIN:-U74999JH2022PTC016685
PAN:-AAHCE3611M
GST:-30AAHCE3611M1ZV

Accredited by:-
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534048	Group	Water
Issue date/time	26.08.2025/ 12:03	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Stages of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534048
Sample(s) Code	2534048	Sample Receipt (D/T)	21.08.2025/ 10:57

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 16:05	Sampling End (D/T)	19.08.2025/ 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01" / 84° 15' 30.41"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:15	Test completion date	26.08.2025/ 10:38
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group-Residues and Contaminants in Water				Sub Group-Trace Metals Elements		
2.	Aluminum	IS 3025 (P-56):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.1	No relaxation
Group-Residues and Contaminants in Water				Sub Group-Pesticides		
6.	Alachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	125.0	No relaxation
12.	Chlopyrifos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	3.0	No relaxation



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CIN:-U74999JH2022PTC016683
PAN:-AHHCE3611M
GST:-20AAHCE3611M1ZK

Accredited by:-
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534048	Group	Water
Issue date/time	26.08.2025/ 12:03	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE- COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person	Mr. Ankit Das
Contact Number	+91 9971034775
Email Id	ankit.das@adityabirla.com
Order Date	31.03.2025/ 10:10
Order Number	13612313868

15.	Gamma- HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
16.	Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	190.0	No relaxation
17.	Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.3	No relaxation
18.	Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
19.	Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
20.	DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
21.	Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.4	No relaxation

--Test result End --

Prescribed Limit	IS 10500:2021
Operational Status	Unit was Operational During sampling.
Analysed by - Pappu Kumar	




Reviewed by
(B.N. Kumar)
Technical Head


Issued by
(Omesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





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CIN:-U74999/JH2022PTC019683
PAN:-AAHCE3611M
GST:-20AAHCE3611M1ZK

Accredited by:-
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Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02682534049	Group	Water
Issue date/time	26.08.2025/ 12:06	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534049
Sample(s) Code	2534049	Sample Receipt (D/T)	21.08.2025/ 10:57

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 16:05	Sampling End (D/T)	19.08.2025/ 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01" / 84° 15' 30.41"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:15	Test completion date	26.08.2025/ 10:38
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-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185 2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E.Coli	IS 15185 2002	Per 100 ml	Not Detected	

-Test result End -

Prescribed Limit IS 10500:2021
Operational Status Unit was Operational During sampling.
Analysed by - Sujata Kumari



Reviewed by
(B.N. Kumar)
Technical Head

Issued by
(Jyoti Singh)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



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CIN:-U74999JH2022PTC019583

PAN:-AAHCE3611M

GST:-20AAHCE3611M12X

Accredited by:-

NABL with certificate number TC-12887

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001029	Discipline	Chemical
Report Unique ID	RL02682534050	Group	Water
Issue date/time	26.08.2025/ 12:09	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534050
Sample(s) Code	2534050	Sample Receipt (D/T)	21.08.2025/ 11.01

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 14:45	Sampling End (D/T)	19.08.2025/ 14:55
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Khari Part (Spring Water)	GPS coordinate	23° 21' 03.54" / 84° 15' 44.62"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:21	Test completion date	26.08.2025/ 11:25
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	IS 3025 (P-11) 2022	-	6.37	-
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.12	-
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	-
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	-
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	-
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	150.00	-
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	12.31	-
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	30.00	-
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	40.16	-
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	14.43	-
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	-
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1)2022	mg/l	1.70	-
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	1.88	-
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	-



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CIN:-U74999JH2022PTC019683
PAN:-AAHCE3671M
GST:-20AAHCE3671M1Z3

Accredited by:-
NABL with certificate number JC-12667
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001029	Discipline	Chemical
Report Unique ID	RL02682534050	Group	Water
Issue date/time	26.08.2025/ 12:09	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person	Mr. Ankit Das
Contact Number	+91 9971034775
Email Id	ankit.das@adityabirla.com
Order Date	31.03.2025/ 10:10
Order Number	13612313868

Group - Residues and Contaminants in Water,

Sub Group - Trace Metals Elements

15. Copper (as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	-
16. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	-
17. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	-
18. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	-
19. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	-
20. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	-
21. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	-
22. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	-
23. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.09)	-
24. Zinc (as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	-

--Test result End --

Prescribed Limit

Operational Status

Analysed by - Pappu Kumar

Unit was Operational During sampling.

Reviewed by
(B.K. Kumar)
Technical Head

Issued by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2

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Abbreviation - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



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CIN:-U74999JH2022PTC019683

PAN:-AAHCE3611M

GST:-20AAHCE3611M1Z

Accredited by:-

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534050	Group	Water
Issue date/time	26.08.2025/ 12:09	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534050
Sample(s) Code	2534050	Sample Receipt (D/T)	21.08.2025/ 11:01

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 14:45	Sampling End (D/T)	19.08.2025/ 14:55
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Khari Part (Spring Water)	GPS coordinate	23° 21' 03.54"/ 84° 15' 44.62"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:21	Test completion date	26.08.2025/ 11:25
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	-
Group-Residues and Contaminants in Water				Sub Group-Trace Metals Elements	
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	-
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	-
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	-
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	-
Group-Residues and Contaminants in Water				Sub Group-Pesticides	
6.	Alachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	-
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	-
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	-
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
12.	Chlopyrifos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	-
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-



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CIN:-U74999JH2022PTC019685

PAN:-AAHCE5811M

GST:-28AAHCE5811M1ZK

Accredited by:-

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534050	Group	Water
Issue date/time	26.08.2025/ 12:09	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

15.	Gamma- HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
16.	Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
17.	Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	-
18.	Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
19.	Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
20.	DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
21.	Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	-

--Test result End --

Prescribed Limit

Operational Status

Analysed by - Pappu Kumar

Unit was Operational During sampling




Reviewed by
(B.K. Kumar)
Technical Head


Issued by
(Animesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt Ltd.
Ranchi, Jharkhand



Page 2 of 2

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Abbreviation :- BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



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CIN:-U74899JH2022PTC019685
PAN:-AAHCE3611M
GST:-20AAHCE3611M1Z3

Accredited by:-
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02682534051	Group	Water
Issue date/time	26.08.2025/ 12:12	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534051
Sample(s) Code	2534051	Sample Receipt (D/T)	21.08.2025/ 11:02

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 14:45	Sampling End (D/T)	19.08.2025/ 14:55
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Khari Part (Spring Water)	GPS coordinate	23° 21' 03.54" / 84° 15' 44.62"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:21	Test completion date	26.08.2025/ 11:25
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185:2002	Per 100 ml	Not Detected	
2.	E. Coli	IS 15185:2002	Per 100 ml	Not Detected	

--Test result End --

Prescribed Limit

Operational Status

Analysed by - Sujata Kumari

Unit was Operational During sampling.




Reviewed by
(B.N. Kumar)
Technical Head


Issued by
(Umesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



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CIN:-U74999/JH2022PTC019683
PAN:-AAHCE3611M
GST:-20AAHCE3611M1Z8

Accredited by:-
NABL, vide certificate Number TC-12887
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No. TC1288725000001030
Report Unique ID RL02682534052
Issue date/time 26.08.2025/ 12:15

Discipline Chemical
Group Pollution & Environment
Sub Group Waste Water (Effluent)

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13812313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No. EPIC/OTH/0268
Sample(s) Code 2534052

Sample Booking Number EPIC-2534052
Sample Receipt (D/T) 21.08.2025/ 11:03

Sampling References

Type of Industry Bauxite Mines
Sampling Start (D/T) 19.08.2025/ 17:15
Mode of Sampling Conducted by Laboratory
Sampling method used IS: 3025 (Part-1) 1987, R-2003
Description/condition of sample Receipt sample(s) were fit for analysis.

Ref. of Sampling Plan EPIC/LAB/R/036
Sampling End (D/T) 19.08.2025/ 17:20
Sample collected by Mr. Pawan Deep Bhagat & Team

Environmental Condition during sampling

Weather condition Cloudy Temperature (°C) 25 Humidity % 70 Wind direction 90°-270°

Sampling Location(s) with GPS coordinate(s)

S. Location A Work Shop (Outlet) GPS coordinate 23° 20' 37.43" / 84° 15' 33.93"

Date(s) of performance of the laboratory activities

Test start date 21.08.2025/ 11:23 Test completion date 26.08.2025/ 10:38

--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	IS 3025 (P-11) 2022	-	6.89	6.5-8.5
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2000	mg/l	16.0	-
3.	COD	IS 3025 (P-58) 2006	mg/l	68.0	150.0
4.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BDL(MDL-04)	10.0
5.	Total Suspended Solid	IS 3025 (P-17) 2022	mg/l	47.0	-
6.	Phosphate	IS 3025 (P-31/Sec-1) 2022	mg/l	0.55	-
7.	Zinc	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	-

--Test result End --

Prescribed Limit Environmental (Protection) Rules-1986, Schedule I, Serial No. 114
Operational Status Unit was Operational During sampling.

Analysed by - Pappu Kumar



Reviewed by
(B.N. Kumar)
Technical Head

Issued by
(Anish Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



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CIN:-U74999JH2022PTC019683

PAN:-AAHCE3611M

GST:-20AAHCE3611M1ZX

Accredited by:-

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534052	Group	Pollution & Environment
Issue date/time	26.08.2025/ 12:15	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person	Mr. Ankit Das
Contact Number	+91 9971034775
Email Id	ankit.das@adityabirla.com
Order Date	31.03.2025/ 10:10
Order Number	13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534052
Sample(s) Code	2534052	Sample Receipt (D/T)	21.08.2025/ 11:03

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 17:15	Sampling End (D/T)	19.08.2025/ 17:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	25	Humidity %	70	Wind direction	90°-270°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 20' 37.43" / 84° 15' 33.93"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:23	Test completion date	26.08.2025/ 10:38
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Dissolve Solids (TDS)	IS 3025 (P-16) 2023	mg/l	162.00	-
2.	Dissolve Oxygen (DO)	IS 3025 (P-38) 1986	mg/l	1.0	-

--Test result End --

Prescribed Limit	Environmental (Protection) Rules-1986, Schedule I, Serial No. 114
Operational Status	Unit was Operational During sampling.

Analysed by - Pappu Kumar



Reviewed by
(B.N. Kumar)
Technical Head

Issued by
(Omesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



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CIN:-U74999JH2022PTC019685
PAN:-AANCE3611M
GST:-20AANCE3611M12X

Accredited by:-
NABL with certificate number TC-12887
Hazardous Waste Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No. TC1288725000001199
Report Unique ID RL02962538004
Issue date/time 18.09.2025/17:09

Discipline Chemical
Group Atmospheric Pollution
Sub Group Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No. EPIC/OTH/0296 Sample Booking Number EPIC-2538004
Sample(s) Code 2538004 (A) (B) (C) (D) Sample Receipt (D/T) 15.09.2025/ 10:42

Sampling References

Type of Industry Bauxite Mines Ref. of Sampling Plan EPIC/LAB/R/036
Sampling Start (D/T) 12.09.2025/ 13:00 Sampling End (D/T) 13.09.2025/ 09:10
Mode of Sampling Conducted by Laboratory Sample collected by Mr. Pawan Deep & Bhagat & team
Sampling method used IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)
Description/condition of sample Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition Cloudy Temperature (°C) 26 Humidity % 64 Wind direction 0°-180°

Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date 15.09.2025/ 11:02 Test completion date 18.09.2025/ 16:00

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS-5182 (P-23) 2022	µg/m ³	56.96	59.08	52.85	54.95	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS 5182 (P-24) 2019	µg/m ³	22.27	25.33	26.32	29.91	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS-5182 (P-02) 2023	µg/m ³	07.27	08.87	06.84	08.85	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS-5182 (P-06) 2022	µg/m ³	16.83	17.92	16.77	18.99	80(24 hr)
5.	Ammonia (NH ₃)	IS-5182 (P-25) 2018	µg/m ³	25.52	25.80	26.65	26.93	400(24 hr)
6.	Ozone (O ₃)	IS-5182 (P-08) 2019	µg/m ³	13.69	14.01	14.97	15.60	180(1 hr)
7.	Lead (Pb)	IS-5182(P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS-5182(P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	
9.	Arsenic (As)	USEPA IO 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analyzed by - Vishal Mangaraj



Reviewed by
(S.K. Kumar)
Technical Head

Issue by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Page 1 of 1

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Abbreviation:- BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



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CIN:-U74999JH2022PTC019685 Accredited by:-
Jharkhand State Pollution Control Board
PAN:-AAHCE3611M Certified by:-
ISO 9001:2015 and ISO 45001:2018
GST:-20AAHCE3611MT2X

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02962538004	Group	Atmospheric Pollution
Issue date/time	18.09.2025/17:09	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538004
Sample(s) Code	2538004 (A) (B) (C) (D)	Sample Receipt (D/T)	15.09.2025/ 10:42

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 13:00	Sampling End (D/T)	20.08.2025/ 09:10
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:02	Test completion date	18.09.2025/ 16:00
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--Test Results--

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

--Test Results End --

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj



Reviewed by
(R.N. Kumar)
Technical Head





EPIC LabTech Private Limited

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CIN: U74999/JH2022PTC019685
PAN: AAHCE3611M
GST: 20AAHCE3611M1ZK

Accredited by -
NABL vide certificate number JC - 13687
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001200	Discipline	Chemical
Report Unique ID	RL02962538005	Group	Pollution & Environment
Issue date/time	18-09-2025/17:12	Sub Group	Soil/Sediments

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE- COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person	Mr. Ankit Das
Contact Number	+91 9971034775
Email id	ankit.das@adityabirla.com
Order Date	31.03.2025/ 10:10
Order Number	13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538005
Sample(s) Code	2538005	Sample Receipt (D/T)	15.09.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	12.09.2025/ 16:10	Sampling End (D/T)	12.09.2025/ 16:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	EPIC/LAB/SOP/PE/01/00		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mines Near Quarry - IF	GPS coordinate	23° 20' 48.80" / 84° 15' 23.50"
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Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:35	Test completion date	18.09.2025/ 15:45
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	MAGI 2011	-	6.02	-
2.	Available Phosphorus	MAGI 2011	Kg/ha	11.00	-
3.	Available Potassium	MAGI 2011	Kg/ha	130.00	-
4.	Organic Carbon	MAGI 2011	%	1.66	-
5.	Electrical Conductivity	MAGI 2011	µs/cm	121.0	-
6.	Magnesium	MAGI 2011	mg/kg	62.06	-
7.	Nitrogen	MAGI 2011	%	0.14	-
8.	Arsenic (as As)	USEPA 3050 B 1996	mg/kg	BDL(MDL-0.005)	-
9.	Cadmium (as Cd)	USEPA 3050 B 1996	mg/kg	0.90	-
10.	Selenium (as Se)	USEPA 3050 B 1996	mg/kg	BDL(MDL-0.006)	-

--Test result End --

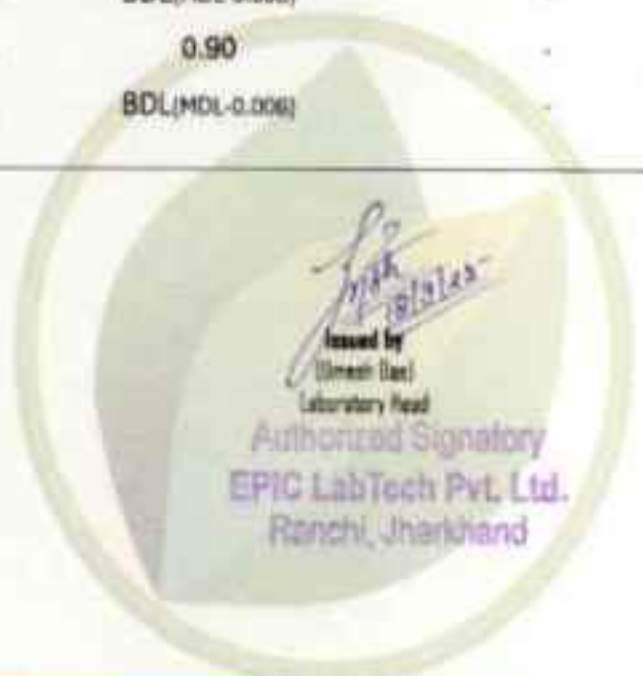
Operational Status

Unit was Operational During sampling.

Analysed by - Ishika Singh



Reviewed by
(E.N. Kumar)
Technical Head





EPIC LabTech Private Limited

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CIN:-U74999JH2022PTC019685

PAN:-AAHCE3811M

GST:-20AAHCE3811M12X

Accredited by:-

Jharkhand State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02962538005	Group	Pollution & Environment
Issue date/time	18-09-2025/17:12	Sub Group	Soil/Sediments

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Scope of Traceability Chain)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538005
Sample(s) Code	2538005	Sample Receipt (D/T)	15.09.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	12.09.2025/ 16:10	Sampling End (D/T)	12.09.2025/ 16:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	EPIC/LAB/SOP/PE/01/00		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mines Near Quarry - IF	GPS coordinate	23° 20' 48.80" / 84° 15' 23.50"
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Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:35	Test completion date	18.09.2025/ 15:45
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--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Chloride (as Cl)	EPIC/LAB/SOP/PE/01/00	mg/kg	0.062	-
2.	Mercury (as Hg)	USEPA 3050 B 1996	mg/kg	BDL(MDL-0.005)	-

--Test result End--

Operational Status Unit was Operational During sampling.

Analysed by - Ishika Singh



Reviewed by
(E.N. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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CIN:-U74999JH2022PTC019683
PAN:-AANCE3611M
GST:-20AAHCE3411A12X

Accredited by -
NABL, with certificate Number TC- 12867
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



Analytical Test Certificate

Unique Lab Report No. TC1286725000001201
Report Unique ID RL02962538006
Issue date/time 18-09-2025/17:15

Discipline Chemical
Group Water
Sub Group Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10
Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No. EPIC/OTH/0296
Sample(s) Code 2538006
Sample Booking Number EPIC-2538006
Sample Receipt (D/T) 15.09.2025/ 10:43

Sampling References

Type of Industry Bauxite Mines
Sampling Start (D/T) 12.09.2025/ 15:25
Mode of Sampling Conducted by Laboratory
Sampling method used IS : 3025 (Part-1) 1987, R-2003
Description/condition of sample Receipt sample(s) were fit for analysis.
Ref. of Sampling Plan EPIC/LAB/R/036
Sampling End (D/T) 12.09.2025/ 15:35
Sample collected by Mr. Pawan Deep Bhagat & Team

Environmental Condition during sampling

Weather condition Cloudy Temperature (°C) 26 Humidity % 64 Wind direction 0°-180°

Sampling Location(s) with GPS coordinate(s)

S. Location A Mines Near Quarry - 76
GPS coordinate 23° 20' 12.28" / 84° 15' 33.32"

Date(s) of performance of the laboratory activities

Test start date 15.09.2025/ 11:03
Test completion date 18.09.2025/ 15:10

--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.21	-
2.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	4270.00	-
3.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	28.00	-
Group - Residues and Contaminants in Water,			Sub Group - Trace Metals Elements		
4.	Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	-

--Test result End --

Operational Status Unit was Operational During sampling.

Analysed by - Pappu Kumar



Reviewed by
(R.K. Kumar)
Technical Head





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CIN - U74999JH2022PTC018685
PAN - AAMCE3611M
GST - 20AAMCE3611MT2X

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02962538006	Group	Water
Issue date/time	18-09-2025/17:15	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person	Mr. Ankit Das
Contact Number	+91 9971034775
Email Id	ankit.das@adityabirla.com
Order Date	31.03.2025/ 10:10
Order Number	13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538006
Sample(s) Code	2538006	Sample Receipt (D/T)	15.09.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	12.09.2025/ 15:25	Sampling End (D/T)	12.09.2025/ 15:35
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mines Near Quarry - 76	GPS coordinate	23° 20' 12.28" / 84° 15' 33.32"
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Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:03	Test completion date	18.09.2025/ 15:10
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Dissolve Oxygen (DO)	IS 3025 (P-38) 1989	mg/l	2.0	-
2.	Temperature	IS 3025 (P-00) 1986	°C	26.1	-
3.	BOD (3days at 27°C)	IS 3025 (P-44) 2000	mg/l	8.4	-
4.	COD	IS 3025 (P-58) 2006	mg/l	34.0	-
5.	Total Suspended Solids (TSS)	IS 3025 (P-17) 2022	mg/l	22.00	-
6.	Oil & Grease	IS 3025 (P39) 2021	mg/l	BDL(MDL-04)	-

Group - Residues and Contaminants in Water,

7.	Aluminium (as Al)	IS 3025 (P-55) 2003	mg/l	BDL(MDL-0.1)	-
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Sub Group - Trace Metals Elements

--Test result End--

Operational Status

Unit was Operational During sampling.

Analysed by - Pappu Kumar



[Signature]
Reviewed by
(R.K. Kumar)
Technical Head





Annexure 3

Date – 01.11.2025

Office Order

Environmental Cell has been re-constituted for Amtipani Bauxite Mine (Area 190.95 Ha) comprising below mentioned team members. The team will ensure compliance with the Environment Acts, Rules & Regulations in respect of the said mines of Hindalco Industries Limited.

1. Mr. Yogendra Lilhare (Coordinator)
2. Mr. Susovan Samanta (Geologist)
3. Mr. Girija Tamrakar (Environment Engineer)
4. Mr. Anand Prakash Tiwari (Environment Engineer)

The Undersigned is the in charge of above Environment Management Cell constituted for the purpose of ensuring compliances of environmental acts, rules and regulations for the above mines.

Basudev Gangopadhyay
AVP (Planning, Environment & Compliance)

Annexure 4

Production, Mined Out, Back Filled and Over Burden removal from April 2025 to September 2025								
S No	Name of the Mines	Mining lease area (ha)	Production Capacity (MT)*	Lease Period*	Production (MT)	Mined out area (ha)	Backfilled area (ha)	Over burden (Cu.M)
1	Bagru Bauxite Mine	75.41	85000	22.01.1974 to 31.03.2030	NIL	NIL	NIL	NIL
2	Bhusar Bauxite Mine	65.31	280000	11.07.1981 to 31.03.2030	79390	0.21	0.45	87427.68
3	Hisri (New) Bauxite Mine	14.55	100000	19.07.1981 to 31.03.2030	41829	0.11	0.23	13246.30
4	Pakhar (8.09) Bauxite Mine	8.09	80000	16.05.1973 to 31.03.2030	NIL	NIL	NIL	NIL
5	Pakhar (35.12) Bauxite Mine	35.12	200000	17.04.1975 to 31.03.2030	NIL	NIL	NIL	NIL
6	Pakhar (115.13) Bauxite Mine	115.13	300000	19.07.1996 to 31.03.2030	124975	1.58	0.50	153576.56
7	Sherangdag-A Bauxite Mine	155.81	260000	16.10.1974 to 31.03.2030	500	0.03	0.01	0.00
8	Serangdag-B Bauxite Mine	77.89	100000	04.10.1978 to 31.03.2030	57100	2.01	1.60	70755.24
9	Jalim & Sanai Bauxite Mine	12.14	50000	16.10.1974 to 31.03.2030	8547	0.13	0.10	8842.10
10	Gurdari Bauxite Mine	584.19	325000	23.03.1985 to 22.03.2035	94470	4.30	3.31	125642.99
11	Kujam - I Bauxite Mine	80.87	150000	13.03.2006 to 12.03.2056	NIL	NIL	NIL	NIL
12	Kujam - II Bauxite Mine	157.38	300000	24.03.2006 to 23.03.2056	63140	1.67	0.51	56988.56
13	Amtipani Bauxite Mine	190.95	150000	13.03.2006 to 12.03.2056	93765	3.168	1.21	209999.64

Annexure 4

Minerals & Minerals Limited								
14	Pakhar (109.507) Bauxite Mine	109.507	280000	26.07.2008 to 25.07.2058	100280	1.630	0.72	175833.99
15	Pakhar (15.58) Bauxite Mine	15.58	60000	28.04.1965 to 31.03.2030	NIL	NIL	NIL	NIL
16	Bimarla Bauxite Mine	134.526	300000	18.07.2009 to 17.07.2059	77100	0.849	0.30	62788.97
17	Amtipani Chirodih Bauxite Mine	130.01	450000	11.01.2017 to 10.01.2067	157400	5.320	4.600	218030.43

*Static information about the mines included in the above table



Basudev Gangopadhyay
AVP (Planning, Environment and Compliance)

Annexure-5

BREAK UP THE COST OF ENVIRONMENTAL MEASURES DURING THE YEAR 2025-26

The composite cost during the year 2025-26 for environmental protection & pollution control by Jharkhand Mines division of M/s Hindalco Industries Ltd & M/s Minerals & Minerals Ltd for implementation of the suggested measures in EC at our all the operating mines in the state of Jharkhand-namely Bagru (75.41 ha), Hisri New (14.55 ha), Bhusar (65.31 ha), Pakhar (115.13 ha), Pakhars (109.507 ha), Pakhar (15.58 ha), Pakhar (8.09 ha), Pakhar (35.12 ha), Sherangdag (155.81 ha), Serangdag (77.89 ha), Jalim & Sanai (12.14 ha), Bimarla Bauxite Mines (134.526 ha), Gurdari (584.19 ha), Amtipani (190.95 ha), Kujam I (80.87 ha) Kujam II (157.38 ha), and Amtipani Chirodih (130.01 ha) Bauxite mines.

S. No	Description	Budget (in Rupees) FY 2025-26 (From Apr'25 to Sep'25)	Actual (in Rupees) FY 2025-26 (From Apr'25 to Sep'25)
1	Pollution Control and Environmental Monitoring	1,71,00,000	59,45,184
2	Reclamation/ Back filing & Rehabilitation**	2,04,00,000	1,19,00,000
3	Green belt, Plantation & Water sprinkling arrangement	1,20,00,000	42,73,045
4	Rural Development	7,92,00,000	2,59,84,599

**Part of OB removed cost



Basudev Gangopadhyay
AVP (Planning, Environment & Compliance)