

HIL/LHD/ENV/MoEF&CC/407

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 Pakhar (8.09 Ha) Bauxite Mining project of M/s Hindalco Industries Limited, Lohardaga Jharkhand for the period from April 2025 to September 2025.

Ref: Environmental Clearance Letter No. J-11015/135/2006-IA II (M), dated 24th January 2007.

Dear Sir,

With reference to the above, we are submitting herewith the Compliance status report of EC conditions for **Pakhar (8.09 Ha) Bauxite Mining project of M/s Hindalco Industries Limited**, Lohardaga Jharkhand for the period from **April 2025 to September 2025** for your kind perusal please.

The lease details are below:

Lease area (ha)	Production Capacity (MT)	Lease Period
8.09	80000	16.05.1973 to 31.03.2030

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, mescb.cpcb@nic.in, zokolkatta.cpcb@nic.in, ranchijspcb@gmail.com, roranchi47@gmail.com

Hindalco Industries Limited
Mines Division, Court Road, Lohardaga 835302, Jharkhand, India | T: +91 6526 223163
Corporate Office : 6th & 7th Floor, Birla Birla Centurion, Pandurang Budhakar Marg, Worli, Mumbai-400030, India
T: +91 22 66626666/626105555 | F: +91 22 62610400/62610500
Registered Office : 21st Floor, One Unity Center, Senapati Bapat Marg, Prabhadevi, Mumbai - 400013, India
T: +91 22 69477000/69477150 | F: +91 22 69477001/69477090
W: www.hindalco.com | E: hilinvestors@adityabirla.com

Name of the Project : **Pakhar Bauxite Mine (8.09 ha)**
M/s Hindalco Industries Limited

Environment Clearance No. & date : **J-11015/135/2006-IA.II(M), dated 24.01.2007**

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

Specific Conditions: -

Condition i: - All the conditions stipulated by SPCB in their NOC shall be effectively implemented.

Reply: - Implementation of the stipulated conditions in the NOC was fulfilled, after which consent to operate was obtained from time to time while the mine was operational.

Presently, the mine has not been in operation as the winning of bauxite is closed w.e.f. November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition ii: - 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: - Presently, the mine has not been in operation as the winning of bauxite is closed w.e.f. November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

The entire land was acquired in accordance with applicable laws while the mine was operational.

Condition iii: - Mining shall not intersect groundwater. The mine working shall be restricted to ground water table. Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for mining below water table.

Reply: - Presently, the mine has not been in operation as the winning of bauxite is closed w.e.f. November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Shallow depth mining was carried out in the past; therefore, groundwater was not intersected during mining operations while the mine was operational.

Condition iv: - The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operation.

Reply: - No natural water course was obstructed during mining operations in past. Presently, the mine has not been in operation as the winning of bauxite is closed w.e.f. November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

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

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve.

Condition vi: - The waste generated shall be concurrently backfilled in the mined-out area. There shall be no external OB dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forest on six monthly basis.

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. There is no external OB dump in mine lease area.

The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition vii: - Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine working. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after monsoon and maintained properly.

Garland drain (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 setting of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. There is no external OB dump in mine lease area

The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition viii:- Plantation shall be raised in an area of 6.35 ha including a green belt of adequate width by planting the native species around the ML area, roads, reclaimed area etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 1500 plants per ha.

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. All voids are reclaimed and rehabilitated. Water body is also created. Plantation is already done. The entire land is utilized for meaningful purpose. Also, the final mine closure plan has been submitted and approved by Indian Bureau of Mines.

Condition ix: - 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: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. All voids are reclaimed and rehabilitated. Water body is also created. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition x: - 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: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

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

Reply: - Winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

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

Reply: - Winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation.

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

Reply: - Winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation.

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

Reply: - Winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation.

Condition xv: - Consent to operate should be obtained from SPCB prior to start of enhanced production from the mine.

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition xvi: - Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and wastewater generated from mining operations.

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition xvii: - The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered fauna such as Indian Python etc. Spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the Ministry and its Regional Office within 3 months.

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

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

Reply: - Approval letter of Final Mine closure plan duly approved by Indian Bureau of Mines is hereby attached as **Annexure-1**.

General Conditions: -

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

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

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

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines. Data of the same are enclosed herewith as **Annexure 4**.

Condition iii: - Four ambient air quality-monitoring station 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 metrological 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: - Monitoring Reports of Pakhar Plateau is enclosed as **Annexure-2**.

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

Reply: - Monitoring Reports of Pakhar Plateau is enclosed in **Annexure-2**.

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

Reply: - The mine has not been in operation as the winning of bauxite is closed w.e.f November 2014 due to the exhaustion of mineral reserve. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

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

Reply: - Winning of bauxite is closed due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation since Nov 2014. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition vii: - Industrial wastewater (workshops and waste water from the mine) Should be properly collected, treated so as to conform 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: - Winning of bauxite is closed due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation since Nov 2014. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition viii: - Personnel working in dusty areas should wear protective respiratory devices and they should also 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: - Winning of bauxite is closed due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation since Nov 2014. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Condition ix: - 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: - Winning of bauxite is closed due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation since Nov 2014. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines. We have Environment Management Cell for our Pakhar Group of Mines. This cell is looking after Environmental compliance of this Mine also. The copy of the same is attached herewith as **Annexure-3**.

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

Reply: - Winning of bauxite is closed due to the exhaustion of mineral reserve. Therefore, the mine has not been in operation since Nov 2014. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines.

Approval letter of Final Mine closure plan duly approved by IBM is hereby attached as **Annexure-1**.

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

Reply: - Statement of budgetary provision and actual expenses for environmental protection measure is enclosed as **Annexure-5**. The final mine closure plan (FMCP) has been submitted and approved by Indian Bureau of Mines. Now, the Regional Office of MoEF&CC is in Ranchi.

Condition xii: - The Regional Office of this Ministry located at Bhubneshwar 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: - Agreed. However, the mine has not been in operation as the winning of bauxite is closed w.e.f. November 2014 due to the exhaustion of mineral reserve. Now, the Regional Office of MoEF&CC is in Ranchi.

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

Reply: - Already complied. A copy of the clearance letter has already been submitted.

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

Reply: - Already complied. The EC Letter has been submitted to JSPCB for display of same at its Regional office and other government offices.

Condition xv: - The project authorities should advertise at least in two local newspapers widely circulated, one of which locality concerned, within 7days 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](http://envfor.nic.in) and a copy of the same should be forwarded to the Regional Office of this Ministry located Bhubneshwar.

Reply: - Already 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 of the MoEF&CC. Now, the Regional office of MoEF&CC is in Ranchi.

Registered Parcel



**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES**

Telephone: (0651) 2242889
(0651) 2242903
Fax: (0651) 2242903
E-mail: ro.ranchi@ibm.gov.in

No.: RAN/LOH/BX/FMCP-03/2014-15

318-B, Road No.- 3,
Ashok Nagar,
Ranchi - 834 002,
Date: 15/05/2015

To: Shri A. K. Agarwal,
✓ Director cum Nominated Owner
M/s HINDALCO Industries Ltd.,
Court Road, Lohardaga - 835 302 (Jharkhand).

Sub: Approval of Final Mine Closure Plan in respect of PAKHAR Bauxite Mines of M/s HINDALCO Industries Ltd. over an area of 8.09 hectares in village-Pakhar, Lohardaga district of Jharkhand State submitted under Rule 23C of MCDR, 1988.

Ref : Your A.G.M. (Geology) letters no.(1)HIL/LHD/BX/IBM/926(I) Dated 25/09/2014
(2)HIL/LHD/BX/IBM/ Dated 06/04/2015

This office letter no. रांची/लोहरदगा/बाक्साइट/एफ.एम.सी पी.-03/2014-15,दिनांक:13/03/2015

Sir,

In exercise of the powers conferred by the sub-rule 2 of Rule 23C of Mineral Conservation & Development Rules, 1988; I hereby **approve** the above said Final Mine Closure Plan in respect of PAKHAR Bauxite mines of M/s HINDALCO Industries Ltd. over an area of 8.09 hectares in village-Pakhar, Lohardaga district of Jharkhand State, submitted under Rule 23C of MCDR, 1988. This approval is subject to the following conditions: -

- (i) that the Final Mine Closure Plan is approved without prejudice to any other laws applicable to the mine/lease area from time to time whether made by the Central Government, State Government or any other Authority.
- (ii) that this approval of the Final Mine Closure Plan does not, in any way, imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the Mineral Concession Rules, 1960 and any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 and the rules made there under.
- (iii) that the Final Mine Closure Plan is approved without prejudice to any order or direction from any court of competent jurisdiction.
- (iv) that the Regional Office, Indian Bureau of Mines, Ranchi shall be informed after completion of activities of final mine closure as per proposal of the Final Mine Closure Plan.
- (v) that the Yearly report as required under Rule 23E(2) of MCDR, 1988 setting forth the extent of protection and rehabilitation works carried out as envisaged in the approved final mine closure plan and if there is any deviations, reasons thereof shall be submitted before 1st July of every year to the Regional office, Indian Bureau of Mines, Ranchi.

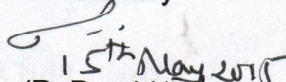
Contd...2

No.: RAN/LOH/BX/FMCP-03/2014-15.

- (iv) The financial assurance submitted for Rs.2,00,000/- (Two lacs only) is valid up to 31/03/2017. A new bank guarantee is to be submitted on or before its expiry i.e. 31/03/2017, if the rehabilitation proposal not completed by the time.

Encl.: One copy of approved
Final Mine Closure Plan.

Yours faithfully


(R. Purohit)

Regional Controller of Mines

Copy forwarded for information to: -

1. **The Director (Mines),**
Directorate of Mines and Geology,
Government of Jharkhand,
Nepal House Area, Doranda,
Ranchi - 834 002. (Jharkhand), along with a copy of approved Final Mine Closure Plan. It is requested to ensure that the determination of aforesaid lease is not accepted unless and until a certificate issued by the Indian Bureau of Mines under Rule 29A (2) of Mineral Concession Rules, 1960 to the effect that protective, reclamation and rehabilitative works as envisaged in the approved Final Mine Closure Plan are carried out.
2. **The Director of Mines Safety**
Ranchi Region
CMPDIL-Campus
3rd Floor, Old Building
Kanke Road, Ranchi-834008
along with a copy of approved Final Mine Closure Plan.
3. **Shri B.K.Mahapatra, RQP,**
HINDALCO Industries Ltd.
Court Road
LOHARDAGA - 835 302.


(R. Purohit)

Regional Controller of Mines



EPIC LabTech Private Limited

Address:-
C/o - R.K. Tripathi, Indraprastha,
Road No. - 3, Bimchi,
Jharkhand - 834003, India

Tel: 0531 4466702
98597 80477
93040 73334
epiclabtech@gmail.com

CIN:-U74999JH2022PTC015585
PAN:-AARCE3810M
GST:-27AARCE3810M1Z5

Accredited by:-
NABL, Accreditation Number TC - 12887
for the following scope:
Certified by:-
ISO 9001:2015 and ISO 45001:2018



Annexure - 2

Unique Lab Report No.	TC1288725000000364	Discipline	Chemical
Report Unique ID	RL0136251638	Group	Atmospheric Pollution
Issue date/time	24.04.2025/ 11:10	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: PAKHAR 115.13 BAUXITE MINES	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/0138	Sample Booking Number	EPIC-251638
Sample(s) Code	251638 (A) (B) (C) (D)	Sample Receipt (D/T)	17.04.2025/ 10:40

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/038
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	14.04.2025/ 09:12	Sampling End (D/T)	15.04.2025/ 07:42
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling			
Weather condition	Clear	Temperature (°C)	26
		Humidity %	48
		Wind direction	260°-80°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14" / 84° 36' 58.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36" / 84° 37' 04.76"

Date(s) of performance of the laboratory activities			
Test start date	17.04.2025/ 11:15	Test completion date	23.04.2025/ 17:30

--Test Result--								
Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-22) 2022	µg/m ³	82.00	80.94	79.92	77.96	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	38.87	36.67	34.81	33.38	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-03) 2023	µg/m ³	07.91	07.37	07.08	07.86	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	24.51	23.51	23.53	26.35	80 (24 hr)
5.	Ozone (O ₃)	IS:5182 (P-08) 2019	µg/m ³	32.65	31.68	30.71	29.74	180 (1 hr)
6.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	48.02	46.75	46.12	44.86	400 (24 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-28) 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 result End--	
Prescribed Limit	Environmental (Protection) Rules-1986, Schedule VII.
Operational Status	Unit was Operational During sampling.

Analysed by - A.K. Das



Checked by
(A.K. Das)
Technical Head

Verified & Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory



EPIC LabTech Private Limited

Address:
C/o - R.R. Trigami, Indrapuri,
Road No - 3, Ranchi,
Jharkhand - 834004, India

☎ 0661-4661552
☎ 98157 86777
☎ 938401 73884
✉ info@epiclabtech.com

CIN: U74900JH2022PTC000645
PAN: AAHCE3310E
GST: 20AAHCE3310E1GK

Accredited by -
National Testing Agency (NTA)
Certified by -
ISO 9001:2015 and ISO 15189:2013

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0138251638	Group	Atmospheric Pollution
Issue date/time	24.04.2025/ 11:10	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 : PAKHAR 115.13 BAUXITE MINES	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 (Scope of Traceability Check)			
Customer Registration No.	EPIC/OTH/0138	Sample Booking Number	EPIC-251638
Sample(s) Code	251638 (A) (B) (C) (D)	Sample Receipt (D/T)	17.04.2025/ 10:40

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)	14.04.2025/ 09:12	Sampling End (D/T)	15.04.2025/ 07:42
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	26	Humidity %	48	Wind direction	260°-80°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.47" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14" / 84° 36' 56.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36" / 84° 37' 04.76"

Date(s) of performance of the laboratory activities			
Test start date	17.04.2025/ 11:15	Test completion date	23.04.2025/ 17:30

--Test Result --

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:5382(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/AM/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

--Test Result End --

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



Checked by
(B.K. Kumar)
Technical Head

Verified & Issued by
(Ankit Das)
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address:
C/o - R.R. Talwar, Indraprasth
Road No. - 1, Kanchi,
Jharkhand - 834001, India

Tel: 9551 466532
95557 88677
93041 3354
epiclabtech@gmail.com

CIN: U74909JH2022PTC09585
PAN: AAHCE385M
GST: 20AAHCE1601M1ZK

Accredited by:
NABL, ISO 15189:2013 Number: NC-1587
Jharkhand State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 14001:2015



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000365	Discipline	Chemical
Report Unique ID	RL0138251639	Group	Atmospheric Pollution
Issue date/time	24.04.2025/ 11:12	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: PAKHAR 115.13 BAUXITE MINES	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
---	--	--

Reference of Quality Management System (Steps of Irrevocability Chain)			
Customer Registration No.	EPIC/OTH/0138	Sample Booking Number	EPIC-251639
Sample(s) Code	251639 (A) (B) (C) (D)	Sample Receipt (D/T)	17.04.2025/ 10:43

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)	15.04.2025/ 10:29	Sampling End (D/T)	16.04.2025/ 07:50
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	26	Humidity %	48	Wind direction	260°-80°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Bunglapart Village	GPS coordinate	22° 32' 42.29"/84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	22° 33' 11.75"/84° 37' 28.48"
S. Location C	Near Uttkarmil Rajkiya Prathamik Vidyalaya Bunglapart Village	GPS coordinate	22° 32' 49.59"/84° 36' 00.39"
S. Location D	Near Uttkarmil Rajkiya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	22° 33' 38.14"/84° 37' 30.33"

Date(s) of performance of the laboratory activities			
Test start date	17.04.2025/ 11:05	Test completion date	23.04.2025/ 17:50

--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/m ³	70.89	72.12	69.96	68.12	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS 5182 (P-24) 2019	µg/m ³	33.49	34.10	32.25	30.98	80(24hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2022	µg/m ³	07.01	07.91	07.05	07.09	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	23.13	24.33	23.26	22.29	80(24 hr)
5.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	27.48	28.45	29.74	27.16	180(1 hr)
6.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	44.23	45.49	43.60	41.70	400(24 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-0.003)	BDL (MDL-0.003)	BDL (MDL-0.004)	BDL (MDL-0.004)	

--Test Result End --

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



Checked by
(S.M. Kaur)
Technical Head

Verified Issue by
(Ankit Das)
Laboratory Head

Authorized Signatory



EPIC LabTech Private Limited

Address:

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

Tel: 0651 408250

0651 785677

01000 710004

epiclabtech@gmail.com

CIN: U74999JH2022PTC010045 Accredited by:-

PAH-4AHC230116

GET-2PAHC2301M128

Test Report Date: 17/04/2025

Certified by:-

ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0136251639	Group	Atmospheric Pollution
Issue date/time	24.04.2025/ 11:12	Sub Group	Ambient Air Quality

Report Issue to			
M/s - HINDALCO INDUSTRIES LIMITED	Contact Person	Mr. Ankit Das	
VILLAGE-COURT ROAD,	Contact Number	+91 9971034775	
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,	Email Id	ankit.das@adityabirla.com	
STATE-JHARKHAND, INDIA 835302	Order Date	31.03.2025/ 10:10	
MONITORING SITE : PAKHAR 115.13 BAUXITE MINES	Order Number	13612313868	

References of Quality Management System (Scope of Accreditation)			
Customer Registration No.	EPIC/OTH/0130	Sample Booking Number	EPIC-251639
Sample(s) Code	251639 (A) (B) (C) (D)	Sample Receipt (D/T)	17.04.2025/ 10:43

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)	15.04.2025/ 10:29	Sampling End (D/T)	16.04.2025/ 07:50
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	26	Humidity %	48	Wind direction	260°-80°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Bunglupart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.46"
S. Location C	Near Utkarmit Rajkiya Prathamik Vidyalaya Bunglupart Village	GPS coordinate	23° 32' 46.59" / 84° 36' 00.39"
S. Location D	Near Utkarmit Rajkiya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities			
Test start date	17.04.2025/ 11:05	Test completion date	23.04.2025/ 17:50

--Test Result --

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS-5182(P-11) 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/APP/01/06	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

--Test Result End --

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



Checked by
(S.R. Kumar)
Technical Head

Verified & Issued by
(Anush Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Accredited by -
 NABL, under the ISO 9001:2015
 Audited by - Bureau Veritas
 Certified by -

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000366	Discipline	Chemical
Report Unique ID	RL0138251640	Group	Water
Issue date/time	24.04.2025/ 11:15	Sub Group	Drinking 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	13612313888
MONITORING SITE- PAKHAR 115.13 BAUXITE MINES		

References of Quality Management Systems (Steps of Traceability Chain)

Customer Registration No.	EPIC/DTH/0138	Sample Booking Number	EPIC-251640
Sample(s) Code	251640	Sample Receipt (D/T)	17.04.2025/ 10:48

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)	15.04.2025/ 12:30	Sampling End (D/T)	15.04.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Conditions during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	48	Wind direction	260°-30°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(x) with GPS coordinate(y)

S. Location A	R.O. Plant	GPS coordinate	23° 32' 24.47" N 84° 36' 30.05" W
---------------	------------	----------------	-----------------------------------

Date(s) of performance of the laboratory activities

Test start date 17.04.2025/ 11:10 Test completion date 23.04.2025/ 13:00

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	-	6.64	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.51	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-15) 2023	mg/l	181.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	38.43	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	96.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	146.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	33.67	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	08.40	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	02.01	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	15.06	50	100

Group - Residues and Contaminants in Water

Sub Group- Trace Metals Elements



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indraprastha
Road No. - 3, Sector-1,
Barkhurd - 834005, India

Tel: 0511-4686202
98157 84677
93949 72024
epiclabtech@gmail.com

CIN: U74999MH2022PTC019685
PIN: 444005
GST: 27AAHCE64196852

Accredited by:
NABL, with certificate number TC - 15437
and scope: Water Pollution Control (WPC)
Certified by:
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000366	Discipline	Chemical
Report Unique ID	RL0138251640	Group	Water
Issue date/time	24.04.2025/ 11:15	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: PAKHAR 115.13 BAUXITE MINES

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

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)	0	15

--Test Result End--

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



Checked by
(E.A. Kumar)
Technical Head

Verified & Issue by
(Anshu Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:

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

Tel: 0651-4668202

98317 86677

93842 73994

epiclabtech@gmail.com

CIN: U74900JH2022PTC00685

PAN: AAHCE33MM

GST: 22AAHCE33MM2K

Accredited by -

ISO/IEC 17025:2018 and ISO 15189:2013

Certified by -

ISO 17025:2018 and ISO 15189:2013

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0138251640	Group	Water
Issue date/time	24.04.2025/ 11:15	Sub Group	Drinking 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: PAKHAR 115.13 BAUXITE MINE			

Reference of Quality Management System (Steps of Traceability Chain)			
Customer Registration No.	EPIC/OTW/0138	Sample Booking Number	EPIC-251640
Sample(s) Code	251640	Sample Receipt (D/T)	17.04.2025/ 10:58

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)	15.04.2025/ 12:30	Sampling End (D/T)	15.04.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling			
Weather condition	Clear	Temperature (°C)	26
		Humidity %	48
		Wind direction	260°-80°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	R.O Plant	GPS coordinate	23° 32' 24.47" N 84° 36' 30.05" E

Date(s) of performance of the laboratory activities			
Test start date	17.04.2025/ 11:10	Test completion date	23.04.2025/ 13:00

-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)	0.3	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

Page 4 of 5

Consent/Notes : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility, at specific environmental conditions as specified required and results relate only to the sample tested as prescribed here & time. 3. The Test report shall not be reproduced full or in part & not be used as proof in the court of law. 4. Any complaint about this report, should be communicated in writing within 7 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 exclusive liability of the laboratory does not exceed the testing and sampling charges. 7. Opinion does not imply endorsement of the tested product by laboratory. 8. Under no circumstances, laboratory accepts any liability for use or misuse of this report. 9. When the results are found not to be as per requirement, the results are marked as "out of spec".

EPIC LabTech Private Limited, ISO 17025:2018 and ISO 15189:2013 Accredited Laboratory, Ranchi, Jharkhand, India



EPIC LabTech Private Limited

Address:-
C/O - S.K. Tripathi (Infrapark),
Road No. - 3, Ranchi,
Jharkhand - 834005, India

☎ 0657 4655333
☎ 98557 86177
☎ 93040 73094
✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC016085, Accredited by:-
PAN:-AANCC38173
GST:-27AAWCS0411M12Z

ISO 9001:2015 and ISO 14001:2015
Certified by:-
ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0138251840	Group	Water
Issue date/time	24.04.2025/ 11:15	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: PAKHAR 115.13 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)	100.0	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 -Pratim Kanori/ Anshu Kanori

Checked by
D.K. Kanori
Technical Head

Verified & Issued by
Anish Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address :

C/O - R.R. Tripathy, Indrapuri
Road No. - 5, Ranchi
Jharkhand - 834005, India

☎ 0661 4049392

☎ 98357 86177

☎ 93043 71094

✉ epiclabtech@gmail.com

CIN-U74999JH2022PTC039685

PAN-AAHCE3873M

GST-20AAHCE3K11M12X

Accredited by :-

Authorized Signatory (Common Seal)

Certified by :-

ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL0138251641	Group	Water
Issue date/time	24.04.2025/ 11:17	Sub Group	Drinking Water

Report Issue to

M/S- HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-I, OHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : PAKHAR 115.13 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/0138	Sample Booking Number	EPIC-251641
Sample(s) Code	251641	Sample Receipt (D/T)	17.04.2025/ 10:50

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/038
Sampling method used	IS : 3025 (Part-3) 1987, R-2003& IS 1622 1981		
Sampling Start (D/T)	15.04.2025/ 12:30	Sampling End (D/T)	15.04.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	48	Wind direction	260°-80°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	R.O Plant	GPS coordinate	23° 32' 24.47" N 84° 38' 30.05" E
---------------	-----------	----------------	-----------------------------------

Date(s) of performance of the laboratory activities

Test start date	17.04.2025/ 11:10	Test completion date	23.04.2025/ 13:00
-----------------	-------------------	----------------------	-------------------

--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. Coll	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 -Pratima Kanari/ Anjali Kanari



Checked by
(R.K. Kanari)
Technical Head

Verified & Issued 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 - 834003), India

☎ 0651-4546303
☎ 98337 86477
☎ 93049 73909
✉ epiclabtech@gmail.com

CIN: U74900HR2022PTC016001
PAN: RAHCE3811M
GST: 33WAHCE3811M024

Accredited by:-
NABL with certificate number 3013387
for Central Water Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000367	Discipline	Chemical
Report Unique ID	RLD138251642	Group	Water
Issue date/time	24.04.2025/ 11:19	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 : PAKHAR 115.13 BAUXITE MINES

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@adnyabiria.com
Order Date 31.03.2025/ 10:10
Order Number 13612313888

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/QTH/D138	Sample Booking Number	EPIC-251642
Sample(s) Code	251642	Sample Receipt (D/T)	17.04.2025/ 10:51

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)	15.04.2025/ 13:40	Sampling End (D/T)	15.04.2025/ 13:50
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	25	Humidity %	48	Wind direction	260°-80°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Uttamit Rajkiya Prathamik Vidyalaya Dumrapant Village	GPS coordinate	23°33' 36.90"/84°37' 27.19"
---------------	--	----------------	-----------------------------

Date(s) of performance of the laboratory activities

Test start date	17.04.2025/ 11:10	Test completion date	23.04.2025/ 13:00
-----------------	-------------------	----------------------	-------------------

--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	-	6.78	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.60	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	276.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	45.33	250	1000
8.	Total Alkalinity(as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	130.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	170.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	40.08	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	13.10	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	03.49	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	17.01	30	100



EPIC LabTech Private Limited

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

Tel: 9851 486433
96337 88677
93049 73864
epiclabtech@gmail.com

CIN: U74999JH000271TC01945
PAN: AAKCE3611M
GST: 20AHCCK3611M1ZK

Accredited by -
NABL, Accreditation Number TC-12887
For Environmental Testing & Control Equip.
Certified by -
ISO 9001:2015 and ISO 45001:2018



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000367	Discipline	Chemical
Report Unique ID	RL0138251642	Group	Water
Issue date/time	24.04.2025/ 11:19	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 : PAKHAR 115.13 BAUXITE MINES

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	LS
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 10500:2023

Operational Status

Unit was Operational During sampling.

Analyzed by -Pratima Kumar/ Anjali Kumar



Checked by
(G.H. 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, Indraprasth,
Road No. - 5, Ramesh,
Barkhanda - 834002, India

☎ 0551 4665552

☎ 98357 88437

☎ 99043 72934

✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC015685

PAN:-AAHC3340M

GST:-21AAHC3340M1Z

Accredited by:-

Indian State Pollution Control Board

Certified by:-

ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0138251642	Group	Water
Issue date/time	24.04.2025/ 11:19	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: PAKHAR 115.13 BAUXITE MINES	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 (State of Traceability Chain)			
Customer Registration No.	EPIC/OTW/0138	Sample Booking Number	EPIC-251642
Sample(s) Code	251642	Sample Receipt (D/T)	17.04.2025/ 10:51

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS: 3026 (Part-1) 1987, R-2003		
Sampling Start (D/T)	15.04.2025/ 13:40	Sampling End (D/T)	15.04.2025/ 13:50
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	26	Humidity %	48	Wind direction	260°-80°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Upkarmit Rajkiya Prathamik Vidyalaya Dumrapari Village	GPS coordinate	23° 33' 36.90"/ 84° 37' 27.19"

Date(s) of performance of the laboratory activities			
Test start date	17.04.2025/ 11:10	Test completion date	23.04.2025/ 13:00

--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.	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



EPIC LabTech Private Limited

Address -
C/o - S.K. Tripathi, Mohapuri,
Ranchi No. - 3, Ranchi,
Jharkhand - 834005, India

REGD. 4664367
REGD. 89477
REGD. 73994
epiclabtech@gmail.com

CIN - U74999JH2022PTC019625
PAN - AARCE3613M
GST - 20AARCE3613M1ZK

Accredited by -
Certified by -
ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0138251642	Group	Water
Issue date/time	24.04.2025/ 11:19	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: PAKHAR 115, 13 BAUXITE MINES

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)	150.0	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.	Endosulfen (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 10500:2012

Operational Status

Unit was Operational During sampling.

Analysed by -Pratim Kumar/ Apshy Kumar



Checked by
(B.N. Kumar)
Technical Head

Verified & Issued by
(Ansh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - E.K. Tripathi, Indrapur,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

☎ 0661-4666192
☎ 98557 80577
☎ 93045 73999
✉ epiclabtech@gmail.com

CIN: U14096(JH2022PTC0119485) Accredited by:-
PAN: AANR2341D4
GST: 20AAACE3873M126
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL0138251643	Group	Water
Issue date/time	24.04.2025/ 11:22	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 : PAKHAR 115.13 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
--	--	--

References of Quality Management System (Steps of Traceability Chain)			
Customer Registration No.	EPIC/OTH/0138	Sample Booking Number	EPIC-251643
Sample(s) Code	251643	Sample Receipt (D/T)	17.04.2025/ 10:51

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 1822 1981		
Sampling Start (D/T)	15.04.2025/ 13:40	Sampling End (D/T)	15.04.2025/ 13:50
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	26	Humidity %	48	Wind direction	260°-80°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Utkarmit Rajkoya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 36.90" / 84° 37' 27.19"

Date(s) of performance of the laboratory activities			
Test start date	17.04.2025/ 11:10	Test completion date	23.04.2025/ 13:00

--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.
Analyzed by -Pratim Kumar/ Anshu Kumar	



Checked by
(E.K. 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, Indraprastha,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

☎ 0657 4885202
☎ 98557 89677
☎ 93043 73834
✉ epiclabtech@gmail.com

CIN - U74900JH2022PTC019825
RAC - AAMCE3813M
GST - 20AAHCE3813M129

Accredited by -
NABL with compliance number JC - 53807
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 14001:2015

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000503	Discipline	Chemical
Report Unique ID	RL0171252011	Group	Atmospheric Pollution
Issue date/time	19.05.2025/ 10:30	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: PAKHAR 115.13 BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email id ankit.das@edityabirla.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/0171	Sample Booking Number	EPIC-252011
Sample(s) Code	252011 (A) (B) (C) (D)	Sample Receipt (D/T)	13.05.2025/ 10:22

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	10.05.2025/ 11:28	Sampling End (D/T)	11.05.2025/ 06:36
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	Clear	Temperature (°C)	27	Humidity %	46	Wind direction	260°-80°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14" / 84° 36' 58.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 08.36" / 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	13.05.2025/ 10:45	Test completion date	18.05.2025/ 10:45
-----------------	-------------------	----------------------	-------------------

--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	77.28	84.57	89.38	82.02	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS-5182 (P-24) 2018	µg/m ³	37.06	42.19	39.18	33.30	80 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS-5182 (P-02) 2023	µg/m ³	10.50	11.14	12.50	08.58	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS-5182 (P-06) 2022	µg/m ³	23.52	25.95	18.62	21.15	80 (24 hr)
5.	Ammonia (NH ₃)	IS-5182 (P-25) 2018	µg/m ³	30.74	32.03	37.21	35.92	400 (24 hr)
6.	Ozone (O ₃)	IS-5182 (P-09) 2019	µg/m ³	26.38	21.39	24.95	27.09	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 - AK Saha	



Reviewed by
(E.K. Kumar)
Technical Head

Issue by
(Ankit 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
GSTIN: 20AAHCE3811M12X

☎ 0657 466331
☎ 0657 86677
☎ 93042 73594
✉ epiclabtech@gmail.com

CIN: U74999JK2022PTC000005 Accredited by:-
RANK-AAHCE3811M
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	RL0171252011	Group	Atmospheric Pollution
Issue date/time	19.05.2025/ 10:30	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 : PAKHAR 115.13 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/0171	Sample Booking Number	EPIC-252011
Sample(s) Code	252011 (A) (B) (C) (D)	Sample Receipt (D/T)	13.05.2025/ 10:22

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/006
Sampling Start (D/T)	10.05.2025/ 11:28	Sampling End (D/T)	11.05.2025/ 06:36
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	Clear	Temperature (°C)	27	Humidity %	46	Wind direction	260°-80°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42"/ 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88"/ 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14"/ 84° 36' 58.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36"/ 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	13.05.2025/ 10:46	Test completion date	18.05.2025/ 10:46
-----------------	-------------------	----------------------	-------------------

-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 VI.
Operational Status Unit was Operational During sampling.
Analysed by - A.K Sinha



Reviewed by
(A.K. Kumar)
Technical Head





EPIC LabTech Private Limited

Address:
C/o - S.K. Tripathi, Indraprasth,
Road No. - 3, Ranchi,
Jharkhand - 834002, India

☎ 0651 4886292
☎ 96357 86477
☎ 96645 73894
✉ epiclabtech@gmail.com

CIN - U14800JH2022PTC018683
PAN - AANHC2861M
GST - 25AANHC2811M1ZK

Accredited by -
NABL with certificate number TL-1386/
Hazardous Waste Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC128872500000504	Discipline	Chemical
Report Unique ID	RL0171252012	Group	Atmospheric Pollution
Issue date/time	19.05.2025/ 10:32	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: PAKHAR 115.13 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 (Stage of Invalidity Date)

Customer Registration No.	EPIC/OTH/0171	Sample Booking Number	EPIC-252012
Sample(s) Code	252012 (A) (B) (C) (D)	Sample Receipt (D/T)	13.05.2025/ 10:30

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.05.2025/ 12:15	Sampling End (D/T)	12.05.2025/ 06:43
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	Clear	Temperature (°C)	27	Humidity %	45	Wind direction	260°-80°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.46"
S. Location C	Near Uttkarnit Rajkiya Prasthnik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.59" / 84° 36' 00.39"
S. Location D	Near Uttkarnit Rajkiya Prasthnik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities

Test start date	13.05.2025/ 10:55	Test completion date	18.05.2025/ 10:50
-----------------	-------------------	----------------------	-------------------

-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	72.49	79.37	74.64	70.33	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS 5182 (P-24) 2019	µg/m³	38.08	36.08	33.99	37.22	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS 5182 (P-02) 2023	µg/m³	07.45	10.21	12.31	11.07	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-06) 2022	µg/m³	24.29	21.83	23.22	26.58	80 (24 hr)
5.	Ammonia (NH ₃)	IS 5182 (P-25) 2018	µg/m³	37.86	40.45	36.24	35.27	400 (24 hr)
6.	Ozone (O ₃)	IS 5182 (P-09) 2019	µg/m³	25.31	30.66	23.88	22.46	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 3.2-1995	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 - A.K. Saha	



Reviewed by
(S.K. Kumar)
Technical Head

Issue by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Jharkhand



EPIC LabTech Private Limited

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

☎ 0651 4884332
☎ 98357 86477
☎ 93340 73854
✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC016685
PAN:-AARCE2813K
GST:-20AAHCE981M12X

Accredited by:-
Bharhadd 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	RL0171252012	Group	Atmospheric Pollution
Issue date/time	19.05.2025/ 10:32	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 : PAKHAR 115.13 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/0171	Sample Booking Number	EPIC-253012
Sample(s) Code	252012 (A) (B) (C) (D)	Sample Receipt (D/T)	13.05.2025/ 10:30

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.05.2025/ 12:15	Sampling End (D/T)	12.05.2025/ 06:43
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	Clear	Temperature (°C)	27	Humidity %	46	Wind direction	260°-80°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.46"
S. Location C	Near Utkarmit Rajkiya Prathamik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.59" / 84° 36' 00.39"
S. Location D	Near Utkarmit Rajkiya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities

Test start date	13.05.2025/ 10:55	Test completion date	18.05.2025/ 10:50
-----------------	-------------------	----------------------	-------------------

-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/AF/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
(B.K. Kumar)
Technical Head





EPIC LabTech Private Limited



Address:-
C/O - R.K. Tripathi, Indraprasth,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

☎ 0651 4445292
☎ 93357 88477
☎ 93349 73344
✉ epiclabtech@gmail.com

CIN - 371995 (NP) 2022 PTC 019485
PAN - AARCE3413M
GST - 30AAHCE381M1U2X

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

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000505	Discipline	Chemical
Report Unique ID	RL0171252013	Group	Atmospheric Pollution
Issue date/time	19.05.2025/ 10:34	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 : PAKHAR 115.13 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 13612213868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0171	Sample Booking Number	EPIC-252013
Sample(s) Code	252013 (A) (B) (C) (D)	Sample Receipt (D/T)	13.05.2025/ 10:34

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	10.05.2025/ 11:28	Sampling End (D/T)	11.05.2025/ 09:38
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 9889:1981 (RA 2020) & CPCB Method S.D.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)	27	Humidity %	46	Wind direction	280°-80°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14" / 84° 36' 58.70"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36" / 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	13.05.2025/ 10:40	Test completion date	18.05.2025/ 10:35
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	L _{eq} (Day time)	IS: 9889:1981	dB (A)	52.9	55.2	48.2	56.2	75
2.	L _{eq} (Night time)	IS: 9889:1981	dB (A)	40.7	38.7	36.4	44.6	70

-Test Results End -

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



Reviewed by
(S.K. Kumar)
Technical Head





EPIC LabTech Private Limited



Address: C/o - R.K. Tripathi, Indraprastha, Road No. - 3, Ranchi, Jharkhand - 834003, India
 Tel: 0651 4688292
 98557 86677
 93043 73934
 epiclabtech@gmail.com

CIN: U74999JH222271PC019685 Accredited by: NABL, Accreditation Number: TC-12887
 PAN: AASHC3651M
 Issuance Date: Pollution Control Board
 Certified by: ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000687	Discipline	Chemical
Report Unique ID	RL0204252415	Group	Atmospheric Pollution
Issue date/time	13.06.2025/ 16:16	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: PAKHAR 115.13 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/0204	Sample Booking Number	EPIC-252415
Sample(s) Code	252415 (A) (B) (C) (D)	Sample Receipt (D/T)	10.06.2025/ 11:07

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/RV036
Sampling Start (D/T)	07.06.2025/ 12:38	Sampling End (D/T)	08.06.2025/ 10:23
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	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	300°-110°
-------------------	-------	------------------	----	------------	----	----------------	-----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block-B, Quarry No. - 6	GPS coordinate	23° 32' 51.14" / 84° 36' 58.70"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36" / 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	10.06.2025/ 11:30	Test completion date	13.06.2025/ 11:10
-----------------	-------------------	----------------------	-------------------

-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	85.71	80.17	83.40	76.01	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	37.91	35.06	36.94	33.15	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-62) 2023	µg/m ³	09.79	10.57	10.18	11.35	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-66) 2022	µg/m ³	22.20	23.25	26.43	24.31	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	50.32	51.30	47.40	45.45	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-69) 2019	µg/m ³	38.72	37.56	35.24	32.91	180(1 hr)
7.	Lead (Pb)	IS:5182(P-32) 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-36) 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 3.2-1009	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 - Archana Kumari



Reviewed by
B.K. Kumar
Technical Head

Issued by
Ajay Singh
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:-
 C/o - K.K. Tripathi, Sonapat,
 Road No. - 3, Ranchi,
 Jharkhand - 834003, India

☎ 0657-4688252
 📞 98357 88677
 📞 93043 73864
 ✉ epiclabtech@gmail.com

☎ 0657-4688252 Accredited by:-
 PAN - AACHCE3611M
 GST - 20AACHCE3611MTX
 Certified by:-
 ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0204252415	Group	Atmospheric Pollution
Issue date/time	13.06.2025/ 16:16	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: PAKHAR 115.13 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/IOTH/0204	Sample Booking Number	EPIC-252415
Sample(s) Code	252415 (A) (B) (C) (D)	Sample Receipt (D/T)	10.06.2025/ 11:07

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	07.06.2025/ 12:38	Sampling End (D/T)	08.06.2025/ 10:23
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	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	300°-110°
-------------------	-------	------------------	----	------------	----	----------------	-----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.- 3	GPS coordinate	23° 32' 24.42" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.- 4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block-B, Quarry No.- 6	GPS coordinate	23° 32' 51.14" / 84° 36' 56.76"
S. Location D	Near Mine Block-B, Quarry No.- 7	GPS coordinate	23° 33' 05.36" / 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	10.06.2025/ 11:30	Test completion date	13.06.2025/ 11:10
-----------------	-------------------	----------------------	-------------------

--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/AR/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 - Archana Gopin



Reviewed by
 (S.K. Kumar)
 Technical Head





EPIC LabTech Private Limited



Address:
C/o - R.A. Tripathi, Indraprastha
Road No. - 5, Ranchi,
Jharkhand - 834005, India

☎ 0651 4663292
☎ 98551 86477
☎ 93245 72994
✉ epiclabtech@gmail.com

CIN - U74999JH2022PTC019483
PAN - AARCE2411M
GST - 20AARCE3601M1Z5

Accredited by -
NABL, with certificate number TC 1381
Facilitating State Pollution Control Board
Certified by -
GO 9037 2015 and TQ 4328 2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000688	Discipline	Chemical
Report Unique ID	RL0204252416	Group	Atmospheric Pollution
Issue date/time	13.06.2025/ 16:19	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 836302
MONITORING SITE: PAKHAR 115.13 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/0204	Sample Booking Number	EPIC-252416
Sample(s) Code	252416 (A) (B) (C) (D)	Sample Receipt (D/T)	10.06.2025/ 11:10

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	08.06.2025/ 12:25	Sampling End (D/T)	09.06.2025/ 09:32
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	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	300°-100°
-------------------	-------	------------------	----	------------	----	----------------	-----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bungalowpart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.48"
S. Location C	Near Uttammit Rajkiya Prasthnik Vidyalaya Bungalowpart Village	GPS coordinate	23° 32' 46.59" / 84° 36' 00.39"
S. Location D	Near Uttammit Rajkiya Prasthnik Vidyalaya Dumriapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities

Test start date	10.06.2025/ 11:15	Test completion date	13.06.2025/ 11:20
-----------------	-------------------	----------------------	-------------------

--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	63.19	65.70	68.01	66.83	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2018	µg/m ³	28.51	26.96	28.87	31.05	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	07.05	08.22	07.44	08.61	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	19.03	17.97	20.06	21.14	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	43.83	45.13	40.58	39.93	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-08) 2019	µg/m ³	27.10	25.94	28.27	30.20	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 - Archana Gormin	



Reviewed by
(E.A. Kumar)
Technical Head

12
27/06/25
13/6/25
Issued by
(Anish Das)
Secretary Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Consentual Note: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility at 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 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 rendered 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. Unless 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".
Abbreviations: - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



EPIC LabTech Private Limited

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

☎ 9551 468293

98357 96677

91049 73984

epiclabtech@gmail.com

CIN - U24999JH2022PTC00685 Accredited by:-

RAN - AACCE3611M

IST - 20AACCE3611M12X

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	RL0204252416	Group	Atmospheric Pollution
Issue date/time	13.06.2025/ 16:19	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: PAKHAR 115.13 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/0204	Sample Booking Number	EPIC-252416
Sample(s) Code	252416 (A) (B) (C) (D)	Sample Receipt (D/T)	10.06.2025/ 11:10

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	06.06.2025/ 12:25	Sampling End (D/T)	09.06.2025/ 09:32
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	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	300°-100°
-------------------	-------	------------------	----	------------	----	----------------	-----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.46"
S. Location C	Near Utkarmit Rajkiya Prathmik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.59" / 84° 36' 00.39"
S. Location D	Near Utkarmit Rajkiya Prathmik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities

Test start date	10.06.2025/ 11:15	Test completion date	13.06.2025/ 11:20
-----------------	-------------------	----------------------	-------------------

-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/AR/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.

Analyzed by - AK Sinha



Reviewed by
(B.K. Kumar)
Technical Head





EPIC LabTech Private Limited

Address:-
 C/o - R.K. Tripathy, Indrapur,
 Road No. - 5, Ranchi,
 Jharkhand - 834006, India
 Contact:- 9551 468292
 98357 86677
 93345 73894
 epiclabtech@gmail.com

CIN:- U74999JH2022PTC016685 Accredited by:-
 PAR:- AARCE2611M
 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	RL0204252417	Group	Atmospheric Pollution
Issue date/time	13.06.2025/ 16:21	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: PAKHAR 115.13 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/0204	Sample Booking Number	EPIC-252417
Sample(s) Code	252417 (A) (B)	Sample Receipt (D/T)	10.06.2025/ 11:11

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D)	07.06.2025	Sampling End (D)	07.06.2025
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 9989-1981 (RA 2020) & CPCB Method S.D.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	300°-110°
-------------------	-------	------------------	----	------------	----	----------------	-----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry No-7	GPS coordinate	23° 33' 06.11" / 84° 37' 06.07"
S. Location B	Near Mine Quarry No-3	GPS coordinate	23° 32' 25.09" / 84° 35' 58.00"

Date(s) of performance of the laboratory activities

Test start date	10.06.2025/ 11:20	Test completion date	13.06.2025/ 15:25
-----------------	-------------------	----------------------	-------------------

--Test Results--

Sl	Test Parameters	Method used	Unit	Results		Limits
				A	B	
1.	L_{eq}	IS: 9989-1981	dB (A)	74.4	72.3	85

--Test Results End--

Prescribed Limit NIOSH - Publication No. 98-128 in 1972, Table 1-1
 Operational Status Unit was Operational During sampling.

Analysed by - AK Sinha



Reviewed by
 (B.R. Kumar)
 Technical Head

13
 13/6/25
 Issued by
 (Ankit 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.
Epiclabtech@gmail.com

☎ 0657 466233
☎ 98557 84677
☎ 93043 72354

CIN:-U74999/JH2022PTC038845 Accredited by:-
HAB, Govt. of India Number: SC-13801
PRN:-AAMCE3871M
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

TC-12887

Accredited Test Certificate

Unique Lab Report No.	TC128672500000840	Discipline	Chemical
Report Unique ID	RL02312528041	Group	Atmospheric Pollution
Issue date/time	14.07.2025/ 12:20	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: PAKHAR 115.13 BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9871034775
Email Id ankit.das@editysbirla.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/0231	Sample Booking Number	EPIC-2528041
Sample(s) Code	2528041 (A) (B) (C) (D)	Sample Receipt (D/T)	09.07.2025/ 11:36

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	06.07.2025/ 12:10	Sampling End (D/T)	07.07.2025/ 09:16
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	Cloudy	Temperature (°C)	26	Humidity %	60	Wind direction	220°-40°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42"/ 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.68"/ 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14"/ 84° 36' 58.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36"/ 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	09.07.2025/ 12:11	Test completion date	14.07.2025/ 11:10
-----------------	-------------------	----------------------	-------------------

-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	84.19	79.46	82.36	75.47	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	36.36	34.25	35.79	31.97	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2022	µg/m ³	08.73	09.07	09.47	10.24	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	22.14	22.04	25.25	23.16	80 (24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	49.30	50.42	46.22	44.26	400 (24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	37.85	36.26	34.35	31.80	180 (1 hr)
7.	Lead (Pb)	IS:5182(P-22):2019	µg/m ³	BDL	BDL	BDL	BDL	1.0 (24 hr)
				(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	
8.	Nickel (Ni)	IS:5182(P-26):2020	ng/m ³	BDL	BDL	BDL	BDL	
				(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	
9.	Arsenic (As)	USEPA IO 3.2:1999	ng/m ³	BDL	BDL	BDL	BDL	
				(MDL-1.8)	(MDL-1.8)	(MDL-1.8)	(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
(S.K. Kumar)
Technical Head

Issue by
(Vishal Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Page 1 of 2

Disclaimer: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility. 3. This report is valid only as method required and results relate only to the sample tested in prescribed Date & time. 4. The Test report shall not be reproduced false in part & can't be used as proof in the court of law. 5. Any complaint about this report should be communicated in writing within 30 days of its issue. 6. Total liability of EPIC LabTech Pvt. Ltd. will be limited to limited 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. Unless no circumstances, laboratory accepts any claims for use or misuse of this report. 9. Where the results are from external parties are marked as "mark".

Abbreviation: - BDL (Below Detectable Limit), MDL (Maximum Detectable Limit), LoQ (Limit of Quantification)



EPIC LabTech Private Limited

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

☎ 0651 4084302
☎ 98337 86477
☎ 93045 73884
✉ epiclabtech@gmail.com

CIN: U74999(JH2022PTC019485)
PAN: AAHCE3811M
GST: 23AAHCE3811M1ZK

Accredited by:-
(rajasthan) State Pollution Control Board
Certified by:-
(ISO 9001:2015 and ISO 45001:2018)

Analysis and Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02312528041	Group	Atmospheric Pollution
Issue date/time	14.07.2025/ 12:20	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: PAKHAR 115.13 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/0231	Sample Booking Number	EPIC-2528041
Sample(s) Code	2528041 (A) (B) (C) (D)	Sample Receipt (D/T)	09.07.2025/ 11:38

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	06.07.2025/ 17:10	Sampling End (D/T)	07.07.2025/ 09:16
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	Cloudy	Temperature (°C)	26	Humidity %	60	Wind direction	220°-40°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14" / 84° 36' 58.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 06.38" / 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	00.07.2025/ 12:11	Test completion date	14.07.2025/ 14:10
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS 5182(F-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(F-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/AN/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.
Analysted by - Vishal Mangaraj



Reviewed by
(S.K. Kumar)
Technical Head





EPIC LabTech Private Limited

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

☎ 9851 468292
☎ 98517 86677
☎ 93043 73964
✉ epiclabtech@gmail.com

CIN - U74999JH2022PTC036883
PAN - AAKCE3611M
GST - 20AAHCE3611M1Z3X

Accredited by -
NABL, with certificate number TC-13887
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000841	Discipline	Chemical
Report Unique ID	RL02312528042	Group	Atmospheric Pollution
Issue date/time	14.07.2025/ 12:22	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: PAKHAR 115.13 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 (Days of Traceability Chain)

Customer Registration No.	EPIC/OTH/0231	Sample Booking Number	EPIC-3528042
Sample(s) Code	2528042 (A) (B) (C) (D)	Sample Receipt (D/T)	09.07.2025/ 11:37

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/038
Sampling Start (D/T)	07.07.2025/ 12:34	Sampling End (D/T)	08.07.2025/ 09:41
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	Cloudy	Temperature (°C)	26	Humidity %	60	Wind direction	220°-40°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.28" / 84° 38' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.76" / 84° 37' 28.46"
S. Location C	Near Utkarmit Rajkiya Prasthnik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.59" / 84° 36' 00.39"
S. Location D	Near Utkarmit Rajkiya Prasthnik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities

Test start date	09.07.2025/ 12:15	Test completion date	14.07.2025/ 11:11
-----------------	-------------------	----------------------	-------------------

-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	62.45	64.38	67.57	65.63	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS 5182 (P-24) 2019	µg/m ³	27.59	26.16	28.07	30.44	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS 5182 (P-02) 2023	µg/m ³	06.82	07.97	07.20	07.95	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-06) 2023	µg/m ³	18.95	16.86	20.00	21.02	80 (24 hr)
5.	Ammonia (NH ₃)	IS 5182 (P-25) 2018	µg/m ³	42.58	44.26	39.78	38.65	400 (24 hr)
6.	Ozone (O ₃)	IS 5182 (P-08) 2019	µg/m ³	26.08	24.81	27.35	29.58	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 2.2:1999	ng/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 Mongra



Reviewed by
(S.K. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Disclaimer: The laboratory accepts responsibility for the content of this report. The test performed at laboratory's permanent facility. The results are valid only for the sample tested in prescribed Date & time. The Test report shall not be reproduced full or in part & can't be used as proof of the report. Any irregularity about this report should be communicated in writing within 10 days of its issue. The Test facility of EPIC LabTech Pvt. Ltd. will be limited to permanent account only. All Hignation are subjected to Recalibration and maximum liability of the laboratory does not cover the testing and sampling charges. The Customer shall not imply endorsement of the tested product by laboratory. Unlike in circumstances, laboratory accepts any caused by use or misuse of this report. When the results are from external provider are marked as "not".
Abbreviations: - BDL (Below Detectable Limit), NDL (Not Detectable Limit), LoQ (Limit of Quantitation).



EPIC LabTech Private Limited

Address:-

C/o - B.K. Tripathi, Indraprasth,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

☎ BEST 4666282

☎ BEST 84477

☎ 93049 72994

✉ epiclabtech@gmail.com

CIN: U74999JH2822PTC015585

PAN: AANCE3811K

GST: 25AANCE3811M2K

Accredited by:-

Pradhan 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	RL02312528042	Group	Atmospheric Pollution
Issue date/time	14.07.2025/ 12:22	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: PAKHAR 115.13 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 (Days of Incumbency Date)

Customer Registration No.	EPIC/OTH/0231	Sample Booking Number	EPIC-2528042
Sample(s) Code	2528042 (A) (B) (C) (D)	Sample Receipt (D/T)	09.07.2025/ 11:37

Sampling References

Type of Industry	EPIC-2528042	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	07.07.2025/ 11:37	Sampling End (D/T)	08.07.2025/ 09:41
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	Cloudy	Temperature (°C)	26	Humidity %	60	Wind direction	220°-40°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.46"
S. Location C	Near Utkarmit Rajkiya Prathamik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.59" / 84° 36' 00.39"
S. Location D	Near Utkarmit Rajkiya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities

Test start date	09.07.2025/ 12:15	Test completion date	14.07.2025/ 11:11
-----------------	-------------------	----------------------	-------------------

-Test Results-

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/AR/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 Mangark



Reviewed by
(B.K. Kumar)
Technical Lead





EPIC LabTech Private Limited

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

☎ 0651 4664292
☎ 98357 86677
☎ 93049 71994
✉ epiclabtech@gmail.com

CRM - U P 4995JH2222PFC01685
NABL - AARCE3811M
SAT - 23AARCE3811M12X

Accredited by -
NABL, lab certificate number IC - 1280
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000642	Discipline	Chemical
Report Unique ID	RL02312528043	Group	Water
Issue date/time	14.07.2025/ 12:24	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: PAKHAR 115.13 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/0231	Sample Booking Number	EPIC-2528043
Sample(s) Code	2528043	Sample Receipt (D/T)	09.07.2025/ 11:38

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	07.07.2025/ 14:10	Sampling End (D/T)	07.07.2025/ 14:30
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)	26	Humidity %	60	Wind direction	220°-40°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	R.O Plant	GPS coordinate	23° 32' 24.47" / 84° 36' 30.05"
---------------	-----------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	09.07.2025/ 12:20	Test completion date	14.07.2025/ 10:00
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	pH value at 25.1°C	IS 3025 (P-11) 2022	-	6.61	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.62	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	180.0	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	37.45	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	94.00	200	500
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	146.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	33.27	75	200
11.	Free Residual Chlorine	IS 3025 (P-36) 1988	mg/l	BOL (PCL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-34/Sec-1) 2022	mg/l	8.00	200	400
13.	Nitrate (as NO ₃)	APHA 4500 N 2023	mg/l	2.03	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BOL (PCL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 5020 Mg E 2023	mg/l	14.09	30	100



EPIC LabTech Private Limited



Address:
C/o - R.K. Tripathi, Indraprastha,
Road No. - 5, Ranchi,
Jharkhand - 834005, India
Phone: 0661 4666387
98337 86477
93043 72894
epiclabtech@gmail.com

CIN: U74999JH2022PTC008685 Accredited by -
NABL with certificate number TC-13807
RAN-AAHCE38175A
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018
GST: 20KAHCE3817MTZK

Analytical Test Certificate

Unique Lab Report No. TC1288725000000842
Report Unique ID RL02312528043
Issue date/time 14.07.2025/ 12:34
Discipline Chemical
Group Water
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: PAKHAR 115.13 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

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

IS 10500:2021
Unit was Operational During sampling.

Analysed by - Vishal Mangaraj



Reviewed by
(R.K. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indraprastha,
Road No. - 5, Barahi,
Jharkhand - 824005, India

☎ 0651 4668282
☎ 98357 86677
☎ 93349 71994
✉ epiclabtech@gmail.com

CIN-U74999JH2022PTC019825
PAN-AAHCE3611M
GST - 20AAHCE3611M1Z5

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

Analysed Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02312528043	Group	Water
Issue date/time	14.07.2025/ 12:24	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 : PAKHAR 115.13 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 Data)

Customer Registration No.	EPIC/OTH/0231	Sample Booking Number	EPIC-2528043
Sample(s) Code	2528043	Sample Receipt (D/T)	09.07.2025/ 11:38

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	07.07.2025/ 14:10	Sampling End (D/T)	07.07.2025/ 14:20
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)	26	Humidity %	60	Wind direction	220°-40°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	R.O Plant	GPS coordinate	23° 32' 24.47" / 84° 36' 30.05"
---------------	-----------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	09.07.2025/ 12:20	Test completion date	14.07.2025/ 10:00
-----------------	-------------------	----------------------	-------------------

--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):2001	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)	2.0	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
15.	Gamma- HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation



EPIC LabTech Private Limited

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

☎ 0651 4666292
📞 98357 99677
📞 93049 73994
✉ epiclabtech@gmail.com

☎ 0651 4666292
☎ 98357 99677
☎ 93049 73994
☎ 93049 73994

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	RL02312528043	Group	Water
Issue date/time	14.07.2025/ 12:24	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: PAKHAR 115.13 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

16. Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BOL(MOL-0.5)	100.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BOL(MOL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BOL(MOL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BOL(MOL-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	BOL(MOL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BOL(MOL-0.05)	0.4	No relaxation

--Test result End--

Prescribed Limit
Operational Status
Analysed by - Vishal Mangaraj

IS 10500:2021
Unit was Operational During sampling

Reviewed by
(S.K. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





EPIC LabTech Private Limited

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

☎ 0651 4666292
☎ 98557 86677
☎ 93049 73994
✉ epiclabtech@gmail.com

CIN - U74999JH2022PVC019685 Accredited by -
Jharkhand State Pollution Control Board
RAM - AAMCE3611M
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02312528044	Group	Water
Issue date/time	14.07.2025/ 12:26	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: PAKHAR 115.13 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/0231	Sample Booking Number	EPIC-2528044
Sample(s) Code	2528044	Sample Receipt (D/T)	09.07.2025/ 11:38

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/RV036
Sampling Start (D/T)	07.07.2025/ 14:10	Sampling End (D/T)	07.07.2025/ 14:20
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)	26	Humidity %	60	Wind direction	220°-40°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	R.O Plant	GPS coordinate	23° 32' 24.47" / 84° 36' 30.05"
---------------	-----------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	09.07.2025/	Test completion date	14.07.2025/ 10:05
-----------------	-------------	----------------------	-------------------

--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 Kumar



Reviewed by
(S.R. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





EPIC LabTech Private Limited



Address:-
C/o - R.K. Tripathi, Indraprastha
Bawli Rd. - 5, Ranchi,
Jharkhand - 834005, India

Tel: 93317 444372
93317 88471
93343 73394
epiclabtech@gmail.com

CIN: U74900JH2022PTC016683
PAN: AAHCE2671M
GST: 20AAHCE2671M1Z8

Accredited by:-
NABL with certificate number TC - 1337
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analysis Test Certificate

Unique Lab Report No.	TC128872500000995	Discipline	Chemical
Report Unique ID	RL02632534001	Group	Atmospheric Pollution
Issue date/time	23.08.2025/ 13:00	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: PAKHAR 115.13 BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@aditysbirla.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/00263	Sample Booking Number	EPIC-2534001
Sample(s) Code	2534001 (A) (B) (C) (D)	Sample Receipt (D/T)	18.08.2025/ 10:13

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	15.08.2025/ 12:11	Sampling End (D/T)	16.08.2025/ 09:19
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42"/ 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88"/ 84° 36' 06.71"
S. Location C	Near Mine Block-B, Quarry No - 6	GPS coordinate	23° 32' 51.14"/ 84° 36' 58.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	22° 33' 05.36"/ 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:33	Test completion date	23.08.2025/ 12:00
-----------------	-------------------	----------------------	-------------------

-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/m³	83.74	78.46	81.36	74.46	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS 5182 (P-24) 2019	µg/m³	35.29	33.47	34.53	31.05	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m³	08.35	08.74	09.14	09.88	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m³	21.09	21.11	24.33	22.16	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m³	48.18	49.30	45.38	43.42	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-08) 2019	µg/m³	36.89	35.30	33.39	30.85	160(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-38) 2020	ng/m³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA IO 3.2:1989	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 - Vishal Mangra



Reviewed by
(B.K. Kumar)
Technical Head

Issued by
(Ajay Singh)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Page 1 of 1

Disclaimer: We, EPIC LabTech, accept responsibility for content of this report. The Test performed at laboratory's premises facility, at specific environmental conditions as mentioned required and results shown only to the sample tested in prescribed Date & time. The Test report shall not be reproduced full or in part & not for legal proceedings in court of law. Any misinterpretation about this report should be communicated in writing within 10 days of its issue. The Testability of EPIC LabTech Pvt. Ltd. will be limited to limited amount only. All disputes are subjected to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. If Operator does not follow endorsement of the tested product by laboratory, Under no circumstances, laboratory accepts any claims or claims of this report. When the results are from external provider are marked as "mark".
Abbreviations - BDL (Below Detection Limit), ND (Not Detectable Limit), LoQ (Limit of Quantification)



EPIC LabTech Private Limited

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

Tel: 0657 4886282
98557 86677
93048 73554
epiclabtech@gmail.com

CIN: U74999JH2022PTC015683
RAN- AAACE5611M
GST: 20AAACE5611M1Z8

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

Analysis Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02632534001	Group	Atmospheric Pollution
Issue date/time	23.08.2025/ 13:00	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: PAKHAR 115.13 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 (Days of Incubability Data)

Customer Registration No.	EPIC/OTH/0263	Sample Booking Number	EPIC-2534001
Sample(s) Code	2534001 (A) (B) (C) (D)	Sample Receipt (D/T)	18.08.2025/ 10:13

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	15.08.2025/ 12:11	Sampling End (D/T)	18.08.2025/ 09:19
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14" / 84° 36' 58.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36" / 84° 37' 04.76"

Data(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:33	Test completion date	23.08.2025/ 12:00
-----------------	-------------------	----------------------	-------------------

-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 Mangra



Reviewed by
(S.K. Kumar)
Technical Feed





EPIC LabTech Private Limited

Address: C/o - R.K. Tripathi, Indraprastha,
Road No. - 3, Ranchi,
Jharkhand - 834005, India
Tel: 0657 466339
98337 46677
93349 73394
epiclabtech@gmail.com

CIN: U74905JH2022PTC019625 Accredited by:-
JALC, with certificate number TC- 0367
RAN- LAHCE3611M
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 43001:2018



Analyst's Test Certificate

Unique Lab Report No.	TC1286725000000996	Discipline	Chemical
Report Unique ID	RL02632534002	Group	Atmospheric Pollution
Issue date/time	23.08.2025/ 12:03	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: PAKHAR 115.13 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 (Days of Traceability Data)

Customer Registration No.	EPIC/OTH/0263	Sample Booking Number	EPIC-2534002
Sample(s) Code	2534002 (A) (B) (C) (D)	Sample Receipt (D/T)	18.08.2025/ 10:14

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	16.08.2025/ 12:16	Sampling End (D/T)	17.08.2025/ 09:50
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°-160°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.40"
S. Location C	Near Utkarmit Rajkiya Prathamik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.59" / 84° 36' 00.39"
S. Location D	Near Utkarmit Rajkiya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:34	Test completion date	23.08.2025/ 12:00
-----------------	-------------------	----------------------	-------------------

-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	61.44	63.40	66.59	64.63	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	26.61	25.17	27.05	29.51	50(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.33	07.44	07.06	07.83	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	17.58	15.50	19.61	20.71	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	42.02	43.70	39.21	38.09	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-08) 2019	µg/m ³	25.76	24.49	27.03	29.26	180(1 hr)
7.	Lead (Pb)	IS:5182(P-22) 2018	µg/m ³	BOL (MDL-0.1)	BOL (MDL-0.1)	BOL (MDL-0.1)	BOL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182(P-26) 2020	ng/m ³	BOL (MDL-0.1)	BOL (MDL-0.1)	BOL (MDL-0.1)	BOL (MDL-0.1)	
9.	Arsenic (As)	USEPA IO 3.2-1989	ng/m ³	BOL (MDL-0.001)	BOL (MDL-0.001)	BOL (MDL-0.001)	BOL (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
(R.K. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory

EPIC LabTech Private Limited

Ranchi, Jharkhand

Page 1 of 2

Contracted Notes: 1. The Laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's premises only. 3. The report is valid only for the sample tested as prescribed Date & time. 4. The Test report shall not be reproduced full or in part without the written permission of the Laboratory. 5. Any complaint about this report should be communicated in writing within 30 days of its issue. 6. Total liability of EPIC LabTech Pvt. Ltd. will be limited to services rendered only. 7. All disputes are subject to the Ranchi Jurisdiction and exclusive 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 liability for use or misuse of this report. 9. When the results are from external provider are marked as "mark".

Abbreviations: BDL, Below Detectable Limit; MDL, Minimum Detectable Limit; LoQ, Limit of Quantitation.



EPIC LabTech Private Limited

Address: C/o - R.K. Tripathi, Indrapuri, Baidi Nagar - 3, Ranchi, Jharkhand - 834005, India
 Phone: 0351-4666352, 98257 86677, 93049 72554, epiclabtech@gmail.com
 CIN: U74900JH2022PTC015685, PAN: AAAPCE2071M, GST: 20AAACE2071M2B
 Accredited by: Rashtriya Jyoti Prakashan Control Board
 Certified by: ISO 9001:2015 and ISO 45001:2018

Amplified Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02632534002	Group	Atmospheric Pollution
Issue date/time	23.08.2025/ 13:03	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: PAKHAR 115.13 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/0263	Sample Booking Number	EPIC-2534002
Sample(s) Code	2534002 (A) (B) (C) (D)	Sample Receipt (D/T)	18.08.2025/ 10:14

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.08.2025/ 12:16	Sampling End (D/T)	17.08.2025/ 09:50
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 26.40"
S. Location C	Near Utkarmit Rajkiya Prathmik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.58" / 84° 36' 00.39"
S. Location D	Near Utkarmit Rajkiya Prathmik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 36.14" / 84° 37' 30.33"

Date(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:34	Test completion date	23.08.2025/ 12:00
-----------------	-------------------	----------------------	-------------------

-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	



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





EPIC LabTech Private Limited



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

Tel: 0651 4566287
98357 86677
93346 71994
epiclabtech@gmail.com

CIN: U74999JH2022PTC059885
PAN: AAHCE3611M
GST: 29AAHCE3611M1Z4

Accredited by:-
NABL with certificate number TC-1587
Jharkhand State Pollution Control Board
Certified up to:-
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000997	Discipline	Chemical
Report Unique ID	RL02632534003	Group	Water
Issue date/time	23.08.2025/ 13:06	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 : PAKHAR 115.13 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/0263	Sample Booking Number	EPIC-2534003
Sample(s) Code	2534003	Sample Receipt (D/T)	18.08.2025/ 10:15

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	15.08.2025/ 16:03	Sampling End (D/T)	15.08.2025/ 16:10
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Utkarmit Rajkiya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 36.90" / 84° 37' 27.19"
---------------	---	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:35	Test completion date	23.08.2025/ 11:15
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	pH value at 25.6°C	IS 3025 (P-11) 2022	-	6.71	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.82	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	10
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	275.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	45.33	200	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	128.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	168.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	39.28	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	13.10	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	03.39	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 2500 Mg E 2023	mg/l	17.01	30	100



EPIC LabTech Private Limited



Address:
C/o - R.K. Tripathi, Indraprastha,
Road No. - 5, Ranchi,
Jharkhand - 834003, India

☎ 0657 4666252
☎ 98357 86677
☎ 93345 71934
✉ epiclabtech@gmail.com

CIN-2749953JH2022PTC019625
RAN-20AACE2611M
GST-29AAHCE2611M12X

Accredited by -
NABL, Lab Certificate Number: TC-12887
Issued Date: 10/06/2022
Valid till -
30/06/2025 and ISO 45001:2018

TC-12887

Analysed / Test Certificate

Unique Lab Report No.	TC1288725000000997	Discipline	Chemical
Report Unique ID	RL02632534003	Group	Water
Issue date/time	23.08.2025/ 13:06	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 : PAKHAR 115.13 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
13612313668

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

IS 10500:2023
Unit was Operational During sampling.

Analysed by - Pappu Kumar



Reviewed by
(B.N. Kumar)
Technical Head

Issued by
(Anshu 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 of specific environmental condition 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 services 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 reward by use or misuse of this report | 8. Where the results are from external provider are marked as " mark |

Abbreviation - BDL, Online Determinable Limits; MDL (Minimum Detectable Limit); LoQ-3 times of Quantitation |



EPIC LabTech Private Limited

Address:-
C/o - R.K. Tripathi, Indrapur,
Road No. - 5, Ranchi,
Jharkhand - 834005, India
☎ 0657 4865332
☎ 98557 86672
☎ 93049 73994
✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC016685 Accredited by -
RML-AAHCE001M
Bachchan Total Education Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018
GST:-20BAHCE001M128

Analysed Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02632534003	Group	Water
Issue date/time	23.08.2025/ 13:06	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 : PAKHAR 115.13 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/0263	Sample Booking Number	EPIC-2534003
Sample(s) Code	2534003	Sample Receipt (D/T)	18.06.2025/ 10:15

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/038
Sampling Start (D/T)	15.08.2025/ 16:03	Sampling End (D/T)	15.08.2025/ 16:10
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Urkarmit Rajkiya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 36.90" / 84° 37' 27.19"
---------------	---	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:35	Test completion date	23.08.2025/ 11:15
-----------------	-------------------	----------------------	-------------------

--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



EPIC LabTech Private Limited

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

☎ 0657 488222
☎ 88557 84877
☎ 93048 73554
✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC018685
PAN:-AAACE2811M
GST:-20AAACE2811M128

Accredited by:-
Bureau of Testing Laboratory Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018

Analysis Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02632534003	Group	Water
Issue date/time	23.08.2025/ 13:06	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 : PAKHAR 115.13 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
13612313668

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)	100.0	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
Analyzed by - Pappa Kumar

IS 10500:2021
Unit was Operational During sampling.




Reviewed by
(R.K. Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2

Disclaimer Notice : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility at specific environmental condition as method required and results relate only to the sample tested in prescribed Date & time. 3. This 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 limited amount only. 6. All disputes are subjected to Ranchi Jurisdiction and jurisdiction 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 for use or misuse of this report. 8. When the results are from external provider are marked as "match".

Abbreviation : BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LxQ (Limit of Quantification)



EPIC LabTech Private Limited

Address: C/o - A.K. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834005, India
Contact: 0657 4663252
98557 86677
933643 73934
epiclabtech@gmail.com

CIN: U74900JH2022PTC019629 Accredited by -
RAC - LAHCE3011M
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analysis Report Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02632534004	Group	Water
Issue date/time	23.08.2025/ 13:09	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: PAKHAR 115.13 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/0263	Sample Booking Number	EPIC-2534004
Sample(s) Code	2534004	Sample Receipt (D/T)	18.08.2025/ 10:15

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	15.08.2025/ 16:03	Sampling End (D/T)	15.08.2025/ 16:10
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Utkarmit Rajkiya Prathmik Vidyalaya Dumragapart Village	GPS coordinate	23° 33' 36.90" / 84° 37' 27.19"
---------------	--	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:36	Test completion date	23.08.2025/ 11:15
-----------------	-------------------	----------------------	-------------------

--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.R. Kumar
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indraprastha,
Road No. - 5, Ranchi,
Jharkhand - 834005, India
epiclabtech@gmail.com

☎ 0657 4644262
☎ 98357 84477
☎ 93043 73994

CRC-UT4888W2222PTC000001
PAN-AAACE2611M
GST-20AAACE3611M1Z3
Accredited by:-
NABL, vide certificate number TC-1587
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 45001:2018



Analytical Test Certificate

Unique Lab Report No.	TC1268725000000998	Discipline	Chemical
Report Unique ID	RL02632534005	Group	Pollution & Environment
Issue date/time	23.08.2025/ 13:12	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 : PAKHAR 115.13 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/0263	Sample Booking Number	EPIC-2534005
Sample(s) Code	2534005	Sample Receipt (D/T)	18.08.2025/ 10:16

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	15.08.2025/ 15:30	Sampling End (D/T)	15.08.2025/ 15:40
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 32' 25.91" / 84° 36' 34.82"
---------------	--------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:36	Test completion date	23.08.2025/ 11:15
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.0°C	IS 3025 (P-11) 2002	-	6.61	6.5-8.5
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2000	mg/l	12.00	-
3.	COD	IS 3025 (P-58) 2006	mg/l	80.00	150.0
4.	OR & Grease	IS 3025 (P-38) 2001	mg/l	BDL(MDL-04)	10.0
5.	Total Suspended Solid	IS 3025 (P-17) 2002	mg/l	42.00	50.0
6.	Phosphate	IS 3025 (P-31/Sec-1) 2002	mg/l	0.58	-
7.	Zinc	APHA 3111 B 2003	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.

Analyzed by - Pappu Kumar



Reviewed by
(G.R. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834005, India
☎ 0657 4665332
☎ 94357 46677
☎ 93345 73834
✉ epiclabtech@gmail.com

CRC - 07698904352271C019885, Accredited by:-
RAN - 8AHC23931M
GST - 20AAHC23931M123
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02632534005	Group	Pollution & Environment
Issue date/time	23.08.2025/ 13:12	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: PAKHAR 115.13 BAUXITE MINE

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@edityabirla.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/0363	Sample Booking Number	EPIC-2534005
Sample(s) Code	2534005	Sample Receipt (D/T)	18.08.2025/ 10:16

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	15.08.2025/ 15:30	Sampling End (D/T)	15.08.2025/ 15:40
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 32' 25.91" / 84° 36' 34.82"
---------------	--------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	18.08.2025/ 10:36	Test completion date	23.08.2025/ 11:15
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Dissolve Solids (TDS)	IS 3025 (P-16) 2023	mg/l	220.00	-
2.	Dissolve Oxygen (DO)	IS 3025 (P-36) 1966	mg/l	0.9	-

-Test result End -

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

Analyzed by - Pappu Kumar



Reviewed by
(R.N. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited



Address: C/o - K.C. Tripathi, Indraprastha Road No. - 5, Ranchi, Jharkhand - 834005, India
 Tel: 0651 4666200
 98357 44677
 93040 72994
epiclabtech@gmail.com

CIN: U74999JH2022PTC019625 Accredited by: NABL and certificate Number TC - 1507
 PAN: AAHCE3611M (Hazardous Waste Pollution Control Board)
 GST: 25AAHCE3611M1C2X Certified by: ISO 9001:2015 and ISO 45001:2018

TC-12887

Analysis Test Certificate

Unique Lab Report No.	TC128872500001178	Discipline	Chemical
Report Unique ID	RL02912537017	Group	Atmospheric Pollution
Issue date/time	13.09.2025/ 17:12	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: PAKHAR 115.13 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 13612313666
--	--	--

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0291	Sample Booking Number	EPIC-2537017
Sample(s) Code	2537017 (A) (B) (C) (D)	Sample Receipt (D/T)	11.09.2025/ 11:14

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	08.09.2025/ 12:12	Sampling End (D/T)	08.09.2025/ 09:30
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/06/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	28	Humidity%	68	Wind direction	0°-180°
-------------------	--------	------------------	----	-----------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42"/ 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88"/ 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 6	GPS coordinate	23° 32' 51.14"/ 84° 36' 58.76"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36"/ 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	11.08.2025/ 11:34	Test completion date	13.09.2025/ 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/m³	57.96	56.91	58.92	59.92	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS 5182 (P-24) 2018	µg/m³	27.75	25.29	26.62	23.79	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS 5182 (P-02) 2023	µg/m³	09.11	10.24	09.44	11.32	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-06) 2022	µg/m³	17.93	18.97	17.83	18.86	80(24 hr)
5.	Ammonia (NH ₃)	IS 5182 (P-25) 2018	µg/m³	24.09	24.37	24.65	24.93	400(24 hr)
6.	Ozone (O ₃)	IS 5182 (P-08) 2019	µg/m³	13.36	13.68	13.99	14.63	100(1 hr)
7.	Lead (Pb)	IS 5182(P-22) 2019	µg/m³	BOL	BOL	BOL	BOL	1.0(24 hr)
				(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	
8.	Nickel (Ni)	IS 5182(P-26) 2020	ng/m³	BOL	BOL	BOL	BOL	
				(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	
9.	Arsenic (As)	USEPA IO 3.2:1999	ng/m³	BOL	BOL	BOL	BOL	
				(MDL-0.001)	(MDL-0.001)	(MDL-0.001)	(MDL-0.001)	

-Test Results End -

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

Analysed by - Vishal Mangraj



Reviewed by
(S.K. Kumar)
Technical Head

Issue by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Page 1 of 1

Commercial Terms: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility at specific methodology/conditions as method required and results relate only to the sample tested by 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 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to amount paid only. 6. All disputes are subjected to local 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 for use or misuse of this report. 8. When the results are from external provider are marked as "mark".

Abbreviation: - BOL (Below Detectable Limit), MDL (Maximum Detectable Limit), LoQ (Limit of Quantification)



EPIC LabTech Private Limited

Address: C/o - R.K. Tripathi, Indraprastha, Sector No. - 5, Ranchi, Jharkhand - 834005, India
GST: 4882201
GSTIN: 20AAHCE381M123
CIN: U74999JH2022PTC006483
Accredited by: Jharkhand State Pollution Control Board
Certified by: ISO 9001:2015 and ISO 45001:2018

Amplified Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02912537017	Group	Atmospheric Pollution
Issue date/time	13.09.2025/ 17:12	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: PAKHAR 115.13 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/0291	Sample Booking Number	EPIC-2537017
Sample(s) Code	2537017 (A) (B) (C) (D)	Sample Receipt (D/T)	11.09.2025/ 11:14

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	08.09.2025/ 12:12	Sampling End (D/T)	09.09.2025/ 09:30
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)	28	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block-B, Quarry No.3	GPS coordinate	23° 32' 24.42" / 84° 36' 00.33"
S. Location B	Near Mine Block-B, Quarry No.4	GPS coordinate	23° 32' 18.88" / 84° 36' 06.71"
S. Location C	Near Mine Block B, Quarry No - 5	GPS coordinate	23° 32' 51.14" / 84° 36' 56.78"
S. Location D	Near Mine Block-B, Quarry No.7	GPS coordinate	23° 33' 05.36" / 84° 37' 04.76"

Date(s) of performance of the laboratory activities

Test start date	11.08.2025/ 11:34	Test completion date	13.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-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/AM/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

-Test Results End -

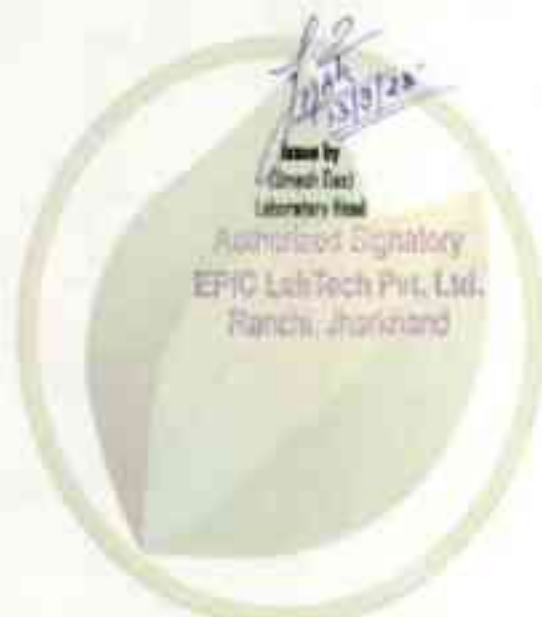
Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VII.

Operational Status: Unit was Operational During sampling.

Analysed by - Vishal Mangra



Reviewed by
(R.K. Kumar)
Technical Head





EPIC LabTech Private Limited



Address: C/o - R.K. Tripathi, HPHNUR, Road No. - 5, Ranchi, Jharkhand - 834005, India
 Tel: 98257 4466332, 98257 846571, 93343 79934
 Email: epiclabtech@gmail.com

CIN: U16599JH2022PTC038885
 PAN: JAAACE2810M
 GST: 25AAHCE3881M124

Accredited by: NABL, ISO 15189:2015 Number: TC-12887
 Validity: 01st July 2025 to 30th June 2028
 Certified to: ISO 15189:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1286725000001179	Discipline	Chemical
Report Unique ID	RL02912537018	Group	Atmospheric Pollution
Issue date/time	13.09.2025/ 17:15	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: PAKHAR 115.13 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/0291	Sample Booking Number	EPIC-2537018
Sample(s) Code	2537018 (A) (B) (C) (D)	Sample Receipt (D/T)	11.09.2025/ 11:15

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	09.09.2025/ 12:17	Sampling End (D/T)	10.09.2025/ 10:14
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.46"
S. Location C	Near Uttamit Rajkisa Prathmik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.58" / 84° 36' 00.39"
S. Location D	Near Uttamit Rajkisa Prathmik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.39"

Date(s) of performance of the laboratory activities

Test start date	11.09.2025/ 11:35	Test completion date	13.09.2025/ 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/m³	63.85	65.45	68.88	66.38	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m³	28.16	27.14	29.43	31.68	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m³	07.44	08.17	08.51	09.59	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-08) 2022	µg/m³	19.64	17.53	21.59	22.53	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m³	24.37	24.09	24.65	24.93	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m³	15.90	16.54	16.86	17.81	180(1 hr)
7.	Lead (Pb)	IS:5182(P-22) 2019	µg/m³	BDL	BDL	BDL	BDL	1.0(24 hr)
				(MDL: 0.1)	(MDL: 0.1)	(MDL: 0.1)	(MDL: 0.1)	
8.	Nickel (Ni)	IS:5182(P-26) 2020	ng/m³	BDL	BDL	BDL	BDL	-
				(MDL: 0.1)	(MDL: 0.1)	(MDL: 0.1)	(MDL: 0.1)	
9.	Arsenic (As)	USEPA HD 3.2:1999	ng/m³	BDL	BDL	BDL	BDL	-
				(MDL: 0.001)	(MDL: 0.001)	(MDL: 0.001)	(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
 (R.K. Kumar)
 Technical Head

Issued by
 (Vishal Mangaraj)
 Laboratory Head

Authorized Signatory
 EPIC LabTech Pvt. Ltd.



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indraprastha
Road No. - 1, Ranchi,
Jharkhand - 834005, India

☎ 0651 4644292
☎ 98557 84677
☎ 93043 12994
✉ epiclabtech@gmail.com

CIN: U74999JH2022PTC05685, Accredited by -

PMK - JAAHCE3611M

ISI - CCAAHCET611M1ZX

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	RL02912537018	Group	Atmospheric Pollution
Issue date/time	13.09.2025/ 17:15	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: PAKHAR 115.13 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/0291	Sample Booking Number	EPIC-2537018
Sample(s) Code	2537018 (A) (B) (C) (D)	Sample Receipt (D/T)	11.09.2025/ 11:15

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	09.09.2025/ 12:17	Sampling End (D/T)	10.09.2025/ 10:14
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/06/2012-13)		
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°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bunglapart Village	GPS coordinate	23° 32' 42.29" / 84° 36' 04.23"
S. Location B	Yatri Shed (Near K-10)	GPS coordinate	23° 33' 11.75" / 84° 37' 28.46"
S. Location C	Near Uttamit Rajkiya Prathamik Vidyalaya Bunglapart Village	GPS coordinate	23° 32' 46.58" / 84° 36' 00.39"
S. Location D	Near Uttamit Rajkiya Prathamik Vidyalaya Dumrapart Village	GPS coordinate	23° 33' 38.14" / 84° 37' 30.30"

Date(s) of performance of the laboratory activities

Test start date	11.09.2025/ 11:35	Test completion date	13.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

--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/ISO/IAQ/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

--Test Results End--

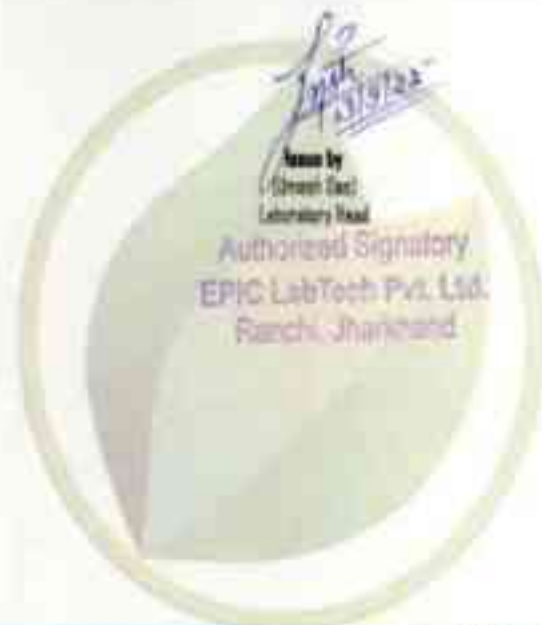
Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj



Reviewed by
(R.K. Kumar)
Technical Head





EPIC LabTech Private Limited



Address:-
C/o - R.K. Tripathi, Indraprastha,
Road No. - 2, Ranchi,
Jharkhand - 834005, India

☎ 0651 466150
☎ 98357 89477
☎ 93045 73994
✉ epiclabtech@gmail.com

CIN:-U74999JH2022PTC015683
PAN:-AAAC1261M
GST:-20AAHCA3601M1Z6

Recognized by -
NABL, Lab. No. 1034775
NABL State Industrial Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001180	Discipline	Chemical
Report Unique ID	RL02912537019	Group	Water
Issue date/time	13.09.2025/ 17:18	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: PAKHAR 115.13 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/0291	Sample Booking Number	EPIC-2537019
Sample(s) Code	2537019	Sample Receipt (D/T)	11.09.2025/11:10

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	08.09.2025/ 15:10	Sampling End (D/T)	08.09.2025/ 15:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS: 3025 (Part-1) 1967, R-2003		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	28	Humidity %	68	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bungalapur Village	GPS coordinate	22° 32' 39.61" N 84° 36' 07.66" E
---------------	-------------------------	----------------	-----------------------------------

Date(s) of performance of the laboratory activities

Test start date	11.09.2025/ 11:36	Test completion date	13.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2002	-	5.93	-
2.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2002	mg/l	25.0	-
3.	Calcium (as Ca)	IS 3025 (P-40) 1981	mg/l	6.41	-

Group - Residues and Contaminants in Water,

Sub Group - Trace Metals Elements

4.	Iron (as Fe)	APHA 3111 B 2003	-	BDL (MDL-0.1)	-
----	--------------	------------------	---	---------------	---

--Test result End--

Operational Status

Unit was Operational During sampling.

Analysed By - Pappu Kumar



[Signature]
Reviewed by
G.R. Kumar
Technical Head





EPIC LabTech Private Limited

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

☎ 0657 4662352
☎ 0657 46677
☎ 0657 19334
✉ epiclabtech@gmail.com

CIN: U74300JH2022PTC016585 (Incorporated by:-)
PAN: AAACE2870M (Panward State Revenue Control Board)
GST: 35AAHCE001M1C6 (Certified by:-)
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02912537019	Group	Water
Issue date/time	13.09.2025/ 17:18	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: PAKHAR 115.13 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/0291	Sample Booking Number	EPIC-2537019
Sample(s) Code	2537019	Sample Receipt (D/T)	11.09.2025/11:16

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	08.09.2025/ 15:10	Sampling End (D/T)	08.09.2025/ 15:20
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)	28	Humidity %	68	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Bungalpart Village	GPS coordinate	23° 32' 39.61" / 84° 38' 07.68"
---------------	-------------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	11.09.2025/ 11:36	Test completion date	14.09.2025/ 10:00
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Dissolve Oxygen (DO)	IS 3025 (P-38) 1989	mg/l	4.8	-
2.	Temperature	IS 3025 (P-09) 1986	°C	24.3	-
3.	BOD (3days at 27°C)	IS 3025 (P-44) 2000	mg/l	2.1	-
4.	COD	IS 3025 (P-50) 2008	mg/l	44.0	-
5.	Total Suspended Solids (TSS)	IS 3025 (P-17) 2022	mg/l	48	-
6.	Oil & Grease	IS 3025 (P38) 2021	mg/l	BDL(MDL-04)	-

Group - Residues and Contaminants in Water,

7.	Aluminum (as Al)	IS 3025 (P-55) 2003	-	BDL (MDL 0.1)	-
----	------------------	---------------------	---	---------------	---

Sub Group - Trace Metals Elements

--Test result End--

Operational Status

Unit was Operational During sampling

Analysed by - Pappu Kumar



Reviewed by
(S.K. Kumar)
Technical Head





EPIC LabTech Private Limited



Address:
C/o - R.K. Tripathi, Indraprastha,
Road No. - 3, Ranchi
Jharkhand - 834005, India
GSTIN: 20AAHCE011M123

Phone: +91 98557 84677
+91 043 73934
Email: epiclabtech@gmail.com

CIN: U74899JH2022PTC019625 Accredited by:
Public use certificate number 20-12827
Jharkhand State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 14001:2015

TC-12887

Analysed Test Certificate

Unique Lab Report No.	TC1288725000001181	Discipline	Chemical
Report Unique ID	RL02912537020	Group	Pollution & Environment
Issue date/time	13.09.2025/ 17:21	Sub Group	Soli/Sediments

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: PAKHAR 115.13 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 (Trace of Traceability Chain)

Customer Registration No.	EPIC/OTH/0291	Sample Booking Number	EPIC-2537020
Sample(s) Code	2537020	Sample Receipt (D/T)	11.09.2025/11:17

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/006
Sampling Start (D/T)	08.09.2025/ 15:30	Sampling End (D/T)	08.09.2025/ 15:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & 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)	28	Humidity %	68	Wind direction	D°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block - B, Quarry No.03	GPS coordinate	23° 32' 24.31" / 84° 36' 09.95"
---------------	-----------------------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	11.09.2025/ 12:00	Test completion date	13.09.2025/ 16:30
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	MAGI 2011	-	6.35	-
2.	Available Phosphorus	MAGI 2011	kg/ha	3.6	-
3.	Available Potassium	MAGI 2011	kg/ha	99.70	-
4.	Organic Carbon	MAGI 2011	%	0.92	-
5.	Electrical Conductivity	MAGI 2011	µS/cm	77.25	-
6.	Magnesium	MAGI 2011	mg/kg	40.32	-
7.	Nitrogen	MAGI 2011	%	0.082	-
8.	Arsenic (as As)	USEPA 3050 B 1996	mg/kg	BDL(MDL-0.006)	-
9.	Cadmium (as Cd)	USEPA 3050 B 1996	mg/kg	0.85	-
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
JEN Kumar
Technical Head





EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indraprasth,
Road No. - 5, Ranchi,
JHARKHAND - 834005, India
☎ 0651 4668282
☎ 0651 864777
☎ 03649 73254
✉ epiclabtech@gmail.com

CIN - U74999JH2022PTC016683 Accredited by -
Rajiv Gandhi State Pollution Control Board
Pollution & Environment
Certified by -
ISO 9001:2015 and ISO 45001:2018

Amplified Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02912537020	Group	Pollution & Environment
Issue date/time	13.09.2025/ 17:21	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: PAKHAR 115.13 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 13612213868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0291	Sample Booking Number	EPIC-2537020
Sample(s) Code	2537020	Sample Receipt (D/T)	11.09.2025/11:17

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	08.09.2025/ 15:30	Sampling End (D/T)	08.09.2025/ 15:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & 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)	28	Humidity %	68	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mine Block - B, Quarry No.03	GPS coordinate	23° 32' 24.31" / 84° 36' 09.95"
---------------	-----------------------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	11.09.2025/ 12:00	Test completion date	13.09.2025/ 16:30
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Chloride (as Cl)	EPIC/LAB/SOP/PE/01/00	%	0.030	-
2.	Mercury (as Hg)	USEPA 3050 B 1996	mg/kg	BOL(MDL-0.005)	-

--Test result End --

Operational Status

Unit was Operational During sampling.

Analysed by - Ishika Singh



Reviewed by
(B.N. Kumar)
Technical Head

Issued by
(Suresh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Annexure 3

Date – 01.05.2025

Office Order

Environmental Cell has been re-constituted for Pakhar Group of Mines (Pakhar – 115.13 ha, Pakhar – 35.12 ha and Pakhar – 8.09 ha Bauxite Mines). This cell consists of the following team members who will ensure compliance with the Environment Acts, Rules & Regulations in respect of the said mines of Hindalco Industries Limited.

1. Mr. Sanjay Kumar (Coordinator)
2. Mr. Chandan Kumar (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.

A handwritten signature in blue ink, appearing to be "Basudev Gangopadhyay", written over a horizontal line.

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)