

HIL/ENV/GP-IV/5/EC/2023-24/I/251

24th November 2023

To, The Integrated Regional Office, Ministry of Environment Forests & Climate Change (MoEF & CC) Aranya Bhawan, North Block, Sector – 19, Naya Raipur, Atal Nagar, Chhattisgarh, 492002

Subject: Half Yearly EC Compliance Report for 1 MTPA Underground Captive Coal Mine, Gare Palma IV/5 Coal Mine of M/s Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh.

Respected Sir,

This has reference to the Environment Clearance Letter no. -J-11015/8/1998-IA -II. (M) dated 16.04.2015 (Transferred in favour of HIL). We are submitting herewith the Half Yearly EC Compliance Report along with Environmental Monitoring Reports for the period from **April 2023 to September 2023** for your kind perusal please.

The receipt of the report may kindly be acknowledged.

Yours faithfully, For Hindalco Industries Limited,

(Mine Agent- Gare Palma Coal Mines) Encl.: As Above.

- CC.: 1. Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, Raipur Chhattisgarh.
 - 2. Regional Officer, Chhattisgarh Environment Conservation Board, TV tower Road, Raigarh (CG).
 - 3. Member Secretary, CPCB Parivesh Bhawan, East Arjun Nagar Delhi 110032
 - The Regional Director, Regional Directorate (Central), Bhopal, Central Pollution Control Board (MoEF&CC, GOI), "Parivesh Bhawan" Paryavaran Parishar, E–5, Arera Colony, Bhopal (MP), 462016
 - 5. The Director (Monitoring Cell), Ministry of Environment, Forest & Climate Change, IPB, Aliganj, Jorbagh Road, New Delhi 110003

Hindalco Industries Limited

Gare Palma Mines (1V/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh T: +91 7762 228212, Website : www.hindalco.com E mail ; hindalco@adityabirla.com Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India T: + 912266917000 | Fax: + 912266917001 Corporate ID No: L27020MH1958PLC011238

COMPLIANCE REPORT

Compliance Report on conditions of Environment Clearance for Gare-Palma IV/5 Underground Captive Coal Mine of production capacity 1.0 MTPA Transfer by Ministry of Environment, Forests & Climate Change vide letter no. J-11015/ 8/1998-IA. II (M) Dated: - 16th April 2015

| Sr. No. | Conditions | Status |
|------------|--|--------|
| 1 | Any change in scope of work will attract the provisions of Environment Protection Act (EPA), 1986 and Environmental Impact Assessment Notification, 2006 in conjunction with the subsequent amendments/circulars. | Noted. |
| 2 | All conditions stipulated in the EC letter No.J-11015/8/1998-IA.II (M) dated 31 st August, 2000 shall remain unchanged. | Noted. |
| 3 | The successful bidder shall be liable, if any, for any act of violation of the EPA 1986/EIA Notification 2006/subsequent amendments and circulars which it has inherited during the transfer. | Noted. |
| 4 | Successful bidder shall be liable for compliance of all court directions, if any. | Noted. |

Compliance Report on conditions of Environment Clearance for Gare-Palma IV/5 Underground Captive Coal Mine of production capacity 1.0 MTPA by Ministry of Environment, Forests & Climate Change vide letter no. J-11015/8/98-IA. II (M) Dated: - 31st August 2000 for.

| Sr. No. | Conditions | Status |
|------------|--|---|
| A | A. Specific Conditions | |
| i | Regular Monitoring of subsidence movement on the surface over working areas and impact on water bodies/ vegetation/ structures/ surroundings should be continued till movement ceases completely. In case of observation of any high rates of subsidence movement, appropriate measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clayey soil/ suitable material. | The method of mining at Gare Palma IV/5 coal mine is Bord & Pillar. Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural pattern, water bodies, vegetation, structure, roads and surroundings is being done by internal experts. During the observation no subsidence movement has been observed. In future, if any subsidence movement is found, appropriate effective corrective measures will be taken to avoid loss of life and material. Cracks will be effectively plugged with ballast and clayey soil/suitable material if observed. The subsidence study has already been carried out for working panel by CSIR – Central Institute of Mining & Fuel Research Dhanbad in May 2019 for GP IV/5 Coal mines. |
| ii | Adequate underground barrier should be left in consultation with the Director General of Mines & Safety (DGMS). Depillaring should also be carried out after taking approval from DGMS. | Adequate underground barrier as required are being maintained between the working face and the river in consultation with DGMS and also at other places whenever required. Depillaring operation was not carried out. |

| iii | Garland drains should be constructed around the waste rock and ore stockpiles to prevent surface run-off. | Garland drain has been constructed around the coal stock yard to prevent the surface run-off. We would like to inform you that the Gare Palma IV/5 Coal mine is not in operation since long. As the mine is not doable due to technical reasons it has been surrendered in 2020 itself. Accordingly, Hindalco Industries Limited has applied for termination of the mining lease of Gare Palma IV/5 coal mine to the government. A copy of the above application on termination of the mining lease of Gare Palma IV/5 Coal Mine to the State Government/ Ministry of Coal, Government of India, is attached as <u>Annexure -1</u> for ready reference. |
|------|---|--|
| iv | A Green Belt of adequate width should be raised by planting the local species along the mine boundary, Waste rock dumps, ore stockpile, ventilation fan road and in selected open areas in consultation with local DFO/ Agriculture Department. Density of tree should be at least 2500 plants per ha. | Plantation in mines area is being done. At present 52604 nos. of trees have been planted within the Mine boundary and other places. Native species planted are Neem, Mahua, Jamun, Mango, Guava, Imli, Drumstick, Teak, Shivan / Ghamar, Sisham, Sirus, Bamboo, Peltafarm, Nilgiri, Amla, Saptaparni, Kathal, kassod tree, Arjuna & Kachnar etc. in consultation with DFO. Plantation has been carried out @2500 per hectare and will also be ensured in future. Plantation details enclosed as <u>Annexure –2.</u> |
| V | Compensation to the 14 land losers from whom private land will be acquired should be paid as per the state government norms. | Compensation to the 14 land losers has been paid by the company. |
| vi | The project authority should conduct a subsidence estimation study and submit the report to the Ministry within six months. | Subsidence estimation study report has been submitted to the Ministry by Prior allottee. |
| vii | dams "at the sites proposed by the State Ground Water Department in their report, while undertaking the proposed mining. The construction of the check dams should be carried out in consultation with Ground water survey department, Government of MP and should have necessary financial provision and technical expertise, which should be communicated to the MoEF and CGWB. | As per requirement the check dam site will be constructed in consultation with state forest department and Ground water survey department, Government of Chhattisgarh and will be communicated to MOEF& CC and CGWB. |
| viii | Regular monitoring of the Ground water level and quality should be carried out by establishing a network of existing wells and constructing new Piezometer during the mining operation. The interval of monitoring should be four times a year- Pre monsoon (April to May), Monsoon (August), Post Monsoon (November) and winter (January). The data thus collected may be sent regularly to MoEF and CGWB for information. | Being Complied. Regular monitoring of groundwater level and quality of the area is being carried out by establishing a network of existing wells/Piezometers. The Ground water level (from April 2023 to September 2023) and quality Monitoring report of Pre-Monsoon (May) and Monsoon (August) is attached as <u>Annexure No</u> <u>3.</u> |

| | | 1 |
|-------|---|---|
| ix | Digital processing of the entire lease area using remote sensing technique should be regularly once in three years for monitoring land use pattern and report submitted to MoEF and its regional office. | Quarterly monitoring report of Ground Water Level (from April 2023 to June 2023) and (from July 2023 to September 2023) & GW Quality Monitoring for the month of May 2023 (Pre- Monsoon) and August 2023 (Monsoon) has been submitted to MoEF & CC, CPCB and CECB on quarterly within one month of monitoring basis. A copy of same is attached as <u>Annexure No. – 4.</u> Report on Assessment of Land Use / Land Cover using High Resolution Satellite Imagery for the GP Mine IV/5 Coal Mine was carried out by IndiGEO Consultants, Bangalore in the month of December 2022 and the report was submitted to your good office dated 11 January 2023. |
| x | A detailed mine decommissioning plan should be submitted to the MoEF, five years in advance for approval. | Detailed mine decommissioning plan will be submitted to the Ministry of Environment and forests, five years in advance for approval as applicable. |
| B. Ge | eneral Conditions | |
| i | No change in mining technology and scope of working should be made without prior approval of the MoEF. | Noted and being complied. |
| ii | No change in the calendar plan including excavation, quantum of mineral coal and waste should be made. | Noted. |
| 111 | Four ambient air quality stations should be established in the core zone as well as the buffer zone for RPM, SPM, SO2, NOx & CO Monitoring. Location of stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. | Four ambient air quality monitoring stations (Core Zone) & Four ambient air quality monitoring stations (Buffer Zone) have been established and regular monitoring of environmental quality parameters are being carried out. Reports are being periodically furnished to CECB/CPCB/MoEF & CC. Copy of AAQ Monitoring Report from the period April 2023 to September 2023 is enclosed as <u>Annexure –5.</u> |
| iv | Data of ambient air quality (RPM, SPM, SO2, NOx & CO) should be regularly submitted to the Ministry including its Regional Office at Bhopal and the State Pollution Control Board & Central Pollution Control Board once in six months. | Four ambient air quality monitoring stations (Core Zone) & Four ambient air quality monitoring stations (Buffer Zone) have been established and regular monitoring is being carried out. Reports are being periodically furnished to |
| | | CECB/CPCB/MoEF & CC. Copy of AAQ Monitoring Report from the period April 2023 to September 2023 is enclosed above. |
| v | Drill should be wet operated or with dust | Copy of AAQ Monitoring Report from the period |

| vi | Fugitive dust emission from all the sources should be controlled regularly monitored and the data recorded properly. Water spraying arrangement on haul roads, Wagons loading, dump trucks (loading and unloading) should be provided and properly maintained. | Fugitive dust emission from all the sources is being monitored regularly. Fugitive dust emission report is attached as Annexure – 6A. Fixed type water sprinkler has been provided at all along the roads and loading points and engaged truck mounted water sprinkling system to control the fugitive dust emission. Photographs of fixed type of water sprinklers & |
|------|--|--|
| | | truck mounted water sprinkling system at GP IV/5 Coal Mines is attached as Annexure – 6B. |
| Vii | Adequate measures should be taken for control of noise levels below 85dB in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM etc. should be provided with ear plugs/ muffs | Earmuffs/plugs have been provided to all workers engaged in blasting and drilling operations, operations of HEMM etc. The Noise monitoring report for the period from April 2023 to September 2023 is enclosed as <u>Annexure - 7</u> . |
| Viii | Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19.05.1993 and 31.12.1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents into the pond. | We have constructed 05 Nos. of settling pond & 02 nos of ETP (Capacity 200 m3 / Hr Each) along with Lamella clarifier with chemical dosing arrangement for the treatment of mine seepage water, the treated water is being used for spraying / sprinkling on mines roads and also for greenbelt development inside the mine premises & remaining treated water from ETP is being distributed to the nearby villagers for irrigation & agriculture purpose (other than drinking). |
| | | The treated water quality is maintained well within the prescribed standards all the time. |
| | | Analysis reports (Inlet & Outlet) are being periodically furnished to CECB/CPCB/MoEF & CC, carried out through CECB & MoEF & CC approved & NABL accredited Laboratory. |
| | | Copy of Analysis Report (ETP Inlet & Outlet) for the period from April 2023 to September 2023 is attached as <u>Annexure – 8.</u> |
| | | Photograph of Treatment Facility at GP IV/5 Coal Mines is attached as <u>Annexure – 8A.</u> |
| | | HIL also provided the Sewage Treatment Plant of capacity 50 m3/day at Kondkel to treat the domestic wastewater generated from Toilets, bathroom etc. |

| | | Copy of Analysis Report (Inlet & Outlet of STP) for the period from April 2023 to September 2023 is attached as <u>Annexure – 9.</u> Photograph of Sewage Treatment Plant installed at GP IV/5 Coal Mines (Kondkel) is attached as <u>Annexure – 9A.</u> |
|------|---|---|
| | | Treated water from the Water treatment plant (Kondkel) is being released to nearby village (Kondkel) for drinking purpose twice a day X 7 for 02 hours at each shift (6 am to 8 am and 4 pm to 6 pm). |
| | | Copy of Analysis Report for the period from April 2023 to September 2023 is enclosed above. |
| ix | Acid mine water if any has to be treated and disposed off after conforming to the standards prescribed by the competent authority. | There is no acid mine water. HIL has provided ETP (Capacity 200 m3 / Hr Each) along with Lamella clarifier with chemical dosing arrangement for the treatment of mine seepage water and the analysis report of treated water quality are being periodically furnished to CECB/CPCB/MoEF & CC. |
| x | Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board | We have engaged CECB & MoEF&CC approved and NABL accredited Laboratory i.e. M/s Ultimate Envirolytical Solutions Raipur to carried out the mine environmental quality parameters monitoring. |
| | | Approval letter of Monitoring Agency from CECB Raipur, MoEF&CC & NABL accredited Laboratory certificates are attached as <u>Annexure No. – 10.</u> |
| xi | Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to coal dust and take corrective measures if needed. | Personnel working in dusty areas wearing protective respiratory devices and HIL provides the adequate training and information on safety and health aspects. Occupational health surveillance program of the workers is being undertaken periodically to observe any contraction due to exposure to coal dust and corrective measures are being taken accordingly. |
| xii | 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. | A separate Environmental Management Department is functioning at Coal Mine under the direct control of a senior executive. EMD organization Chart is attached as <u>Annexure</u> <u>No. – 10A</u> |
| xiii | 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 Ministry. | The funds earmarked for environmental protection measures have been budgeted separately and have not been diverted for other purposes. Environmental Expenditure details from April 2023 to September 2023 is enclosed as Annexure – 11. |

| xiv | The Regional Office of this ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities should extent full co-operation to the officer (s) of the Regional Office by furnishing the requisite data information / monitoring reports. | Now Raipur, Integrated Regional Office is looking EC monitoring & compliances. Full co – operation has been extended to Regional Officer by furnishing requisite data information / monitoring reports. |
|------|--|---|
| XV | A copy of the clearance letter will be marked to concerned Panchayat/ local NGO if any from whom suggestion / representation has been received while processing the proposal | Complied by Prior Allottee. |
| xvi | State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's office for 30 days | Complied by Prior Allottee. |
| xvii | The project authorities should advertise at least two local newspapers widely circulated around the project one of which shall be in vernacular language of the locality concerned informing that the project has been accorded environmental clearance and the copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the MoEF at http:/envfor.nic.in | Complied by Prior Allottee. |

Annexure-1



Ref: HIL/GP IV5/2020-21/239

Date: 20th November 2020

- Secretary, Department of Mineral Resources, Government of Chhattisgarh, Mantralaya, Naya Raipur, Chhattisgarh.
- Director, Department of Mines & Geology, Government of Chhattisgarh, Indravati Bhawan, Mantralaya, Naya Raipur, Chhattisgarh.
- Collector, Raigarh, Raigarh, Chhattisgarh.

Dear Sirs,

To

Subject: Notice of Termination of Mining Lease dated 16.10.2015 in respect of Gare Palma IV /5 coal mine, under Clause 4 of Part VIII of the Mining Lease and Rule 29 of the Mineral Concession Rules, 1960

We, Hindalco Industries Limited ('HIL'), being the lessee / holder of Mining Lease dated 16.10.2015 in respect of Gare Palma IV / 5 coal mine, at Tamnar Tehsil, Raigarh District, Chhattisgarh, comprising an area of 829.82 Ha, ("Mining Lease") bring to your notice as under:

- The Mining Lease was executed by the State Government of Chhattisgarh in favor of HIL on 16.10.2015 pursuant to vesting order dated 23.03.2015 issued by the Central Government under the Coal Mines (Special Provisions) Act, 2015.
- 2. As you are aware, the Gare Palma IV/5 mine was an operational mine at the time of deallocation by the Hon'ble Supreme Court vide judgments dated 25.08.2014 and 24.09.2014 in WP (Crl.) No. 120/2012. HIL had bid for the mine to ensure consistent supply of coal from GP IV/5 to its end-use plants, i.e. captive power plants feeding power to aluminium smelters at Aditya Aluminium, Lapanga and Hirakud. As aluminium smelters are continuous process plants, they require uninterrupted supply of power.
- 3. The Prior Allottee (M/s. Monnet Ispat Ltd.) had extracted 85,73,104 tonnes of coal from the total coal reserves during its tenure from 2004 till the date of de-allocation in 2015. At the time of bidding for the mine, we believed, bona fide, that the development of the mine could be continued in the same manner as undertaken by the Prior Allottee to yield production of 1 MT

Hindalco Industries Limited

Gare Palma Mines (IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Taimnar Dist: Raigarh- 496107 , Chhattisgarh T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirta.com Registered Office : Ahura Centre, 1st Floor. B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India



1

annually as per the capacity granted in the Environment Clearance ("EC") dated 31.08.2000. Our understanding was based, inter-alia, on the information contained in the mine dossier made available to us at the time of auction, the stipulations made in the mining plan approved by Ministry of Coal, Govt of India, and the production data of the Prior Allottee.

- 4. After the mine was vested upon us, we came across several unforeseen challenges in operationalizing the mine. Despite such challenges, due to our *bona fide* and best possible efforts, we could commence operations in 2016-2017. It is now well documented that the transfer of statutory permissions to us took more than the anticipated time. The High Court of Chhattisgarh vide order dated 18.02.2020 in Hindalco Industries Ltd. Vs. Union of India & Ors. bearing No. WP (227) No. 647/2019 has held that such delay in transfer of permissions rendered it impossible for HIL to commence operations prior to 2016-2017.
- 5. We have conducted mining operations at the Gare Palma IV/5 coal mine strictly in accordance with the terms and conditions of the Mining Lease. We have adhered to highest standards of safety of our mine workers, while pursuing the objective of ensuring optimum coal production as per the capacity granted by EC dated 31.08.2000.
- 6. Due to our bona fide efforts and best practices, we achieved peak rated capacity of 1 MTPA during the very first year of production, i.e., FY 2016-17. Since FY 2017-2018 however, we have been facing considerable technical challenges which have rendered the continuation of mining operations unviable, unfeasible and unsustainable, thereby, defying the very purpose of securing the mine.
- Following is a brief summary of the challenges being faced in the mine:
 - (i) The Gare Palma IV/5 mine has only three workable seams as per the approved mining plan, viz., Seam I, Seam II and Seam III. Of these, Seam I is geologically occurring in patches and therefore not consistently workable.
 - (ii) Seam II is the most important Seam as it has workable thickness throughout the sub block. However, major portion of Seam II had already been developed by the Prior Allottee by the conventional bord and pillar method and is now standing on pillars.
 - (iii) Seam III was partly developed by Prior Allottee by the conventional bord and pillar method and has now been further developed by HIL.
 - (iv) A major portion of the coal reserves is locked underneath the pillars and could ideally have been extracted by de-pillaring however, the same is technically impossible on account of constraints which are enumerated below.
 - (v) The Forest Clearance granted by Ministry of Environment, Forest and Climate Change, prohibits de-pillaring in Seam III in multiple sectors of the mining lease area. Seam III being on top of Seam II and Seam I, such prohibition from de-pillaring in Seam III also poses challenges in de-pillaring Seam II and Seam I as the same can cause subsidence of Seam III.

2

- (vi) Since the mine was developed by conventional bord and pillar underground method of mining, steel roof bolts of 1.8 m length and Steel W-straps have been installed at a distance of 1 m all along the mine to support the roof for which deployment of continuous miners is very difficult. De-pillaring using the caving method or gallery blasting method, though recommended in the mining plan, is also not possible as it involves caving the thick seams which would cause subsidence on the surface, resulting in violation of Forest Clearance granted with respect to the mine. Gallery Blasting method is also discouraged by DGMS presently due to safety concerns.
- (vii) The only option available to us to operate the mine without causing subsidence of overhead seams was by using the de-pillaring and stowing method. However, the experience gained from the depillaring of two panels using this method has shown that despite our best efforts, this method is extremely unproductive in the existing geo-technical conditions, and is therefore not a sustainable method for this mine. Further, the surface features like village and forest make implementation of this method impossible on sustainable basis.
- 8. As it was clear that reliance solely upon de-pillaring with caving or stowing is not feasible, on 28.12.2017, we approached the apex expert agency of the country, namely Central Institute of Mining & Fuel Research ("CIMFR"), an agency of Government of India, for guidance on alternate approaches to achieve the scheduled production. After detailed study, vide its report dated 23.04.2018, CIMFR proposed a partial extraction method called 'Wide Stall' method of mining. However, the implementation of wide stall method was rejected by DGMS vide its letter dated 05.09.2018 due to safety concerns. DGMS's letter dated 05.09.2018 is enclosed as Annexure A.
- 9. We approached CIMFR once again seeking a way forward. After further detailed technical assessment as elaborated in its report dated 11.09.2020, CIMFR has categorically opined that Coal extraction of 1 MTPA from Gare Palma IV/5 coal mine, as mentioned in the approved mining plan, is impossible to achieve in the current facts and circumstances. A copy of CIMFR's report dated 11.09.2020 is enclosed as Annexure B.
- 10. The perusal of the facts mentioned above would clearly reveal that HIL has explored all possible alternatives to find a solution to carry-on the mining operations to sustainably produce 1 MTPA with emphasis on safety of people employed, safety of surface features including forest and conservation of coal under the Extant law and DGMS guidelines. However, operations in the GP IV/5 mine have been rendered impossible due to the constraints enumerated above.
- 11. In view of the above facts and circumstances, we have no other option but to exercise our right to terminate the Mining Lease under Clause 4 of Part VIII of the Mining Lease and Rule 29 of the Mineral Concession Rules, 1960. Please note that the Mining Lease shall stand determined and terminated upon expiry of the notice period prescribed under the said provisions.
- 12. You are aware that we have diligently discharged our obligations under the Mining Lease and applicable laws regarding payment of statutory dues, including royalties, Monthly Payments, E&D cess, contribution to DMF, NMET etc. to the Government of Chhattisgarh from time to

3

time. Details of coal production and linked statutory payments made by HIL to the Government of Chhattisgarh from commencement of mining operations in 2015 till date, totaling to INR 909,59,84,097 are annexed herewith as Annexure C.

- 13. Further, we have incurred an amount of INR 8,40,054 as Demarcation of Mining Lease boundary for execution of Mining Lease. We have has also made payment towards Net Present Value of forest land falling under the mining lease area, as demanded by the State Government of Chhattisgarh, to the tune of INR 14,52,75,873 as Annexure D.
- 14. Details of expenditure incurred by us towards establishment of mine related infrastructure, including plant, machinery and structures to enable mining operations at the GP IV/5 coal mine since 2015 till date, to the tune of INR 181,64,83,736 are annexed herewith as Annexure E.
- 15. Details of water rates paid by us in respect of GP IV/5 coal mine since 2015 till date, to the tune of INR 4,80,721 are annexed herewith as Annexure F.
- 16. We would be happy to offer the mine infrastructure established by us in the mine for purchase to the State Government in terms of Clause 5 of Part IX read with Clause 20 of Part VII of the Mining Lease and await your notification in this regard.

Thanking You.

Yours sincerely, For Hindalco Industries Limited,

(Authorized Signatory)

Copy to:

Nominated Authority, Ministry of Coal, Government of India, New Delhi.

Annexure-2

Plantation details of Gare Palma IV/5 Under Ground Coal Mine of M/s Hindalco Industries Limited

| | Year wise plantation detail of Gare Palma IV/5 Coal Mine | | | | | |
|-----------|--|-------------------------------------|----------------------|--------------------------------|--|---|
| Year | Location | No. of Tree Planted (Approx.) | Survival Rate (%) | Number of Plant Survived | Area Covered in Plantation (hectare) | Sapling Details |
| Upto 2015 | | 30000 | 82.00 | 24600 | 9.84 | |
| 2016 | | 2000 | 85.00 | 1700 | 0.68 | Neem, Mahua, Jamun, Mango, Guava, Imli, |
| 2017 | Cast | 5000 | 80.00 | 4000 | 1.60 | |
| 2018 | Coal | 5000 | 92.00 | 4600 | 1.84 | |
| 2019 | mine | 5000 | 93.00 | 4650 | 1.86 | |
| 2020 | lease | 1100 | 95.00 | 1045 | 0.42 | Drumstick, Teak, |
| 2021 | area | 1504 | 91.00 | 1369 | 0.55 | Shivan / Ghamar, Sisham, Sirus, |
| 2022 | | 2500 | 95.00 | 2375 | 0.95 | Bamboo, Peltafarm |
| 2023 | | 500 | 100.00 | 500 | 0.20 | Nilgiri, Amla etc |
| Total | | 52604 | 90.33 | 44839 | 17.9 | |

Plantation Photographs of Gare Palma IV/5 Under Ground Coal Mine of M/s Hindalco Industries Limited



















Photographs of Plantation of Gare Palma IV/5 Under Ground Coal Mine of M/s Hindalco Industries Limited for FY 2023-2024







Annexure-3

Ground Water Level Monitoring Report in and around the Coal Mine Area (From April 2023 to June 2023)

| Sr. | Location | Types of | | In Meters | |
|-----|---|--------------------|--|--|--|
| No. | | Structure | Ground Water level (BGL) Apr' 2023 | Ground Water level (BGL) May' 2023 | Ground Water level (BGL) Jun' 2023 |
| 1 | Near Security Gate, Bankheta | Borewell / AWLR | 12.85 | 13.14 | 13.40 |
| 2 | Near Mines office, Banjikhol | Borewell / AWLR | 27.30 | 28.10 | 28.75 |
| 3 | Near Mines office, Milupara | Borewell / AWLR | 13.11 | 13.55 | 13.83 |
| 4 | Near Staff Quarter, Milupara | Borewell / AWLR | 8.49 | 8.74 | 8.60 |
| 5 | Near PHC – HIL, Milupara Village | Dugwell | 6.22 | 6.33 | 4.42 |
| 6 | Near Primary School, Sakta Village | Dugwell | 3.51 | 3.59 | 2.91 |
| 7 | Near Primary School, Sidarpara Village | Dugwell | 9.27 | 9.51 | 6.55 |
| 8 | Near Primary School, Beljor Village | Dugwell | 6.95 | 7.15 | 7.10 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of | The Customer | REPORT NO | UES/TR/23-24/0126 | 3 | |
|---|--------------|--------------------------------|--------------------------------------|---|--|
| то, | | LAB REF NO | UES/23-24/W/02506 | | |
| HINDALCO INDUSTR | | DATE OF SAMPLING | 20/05/2023 | | |
| GARE PALMA - IV/4, VILLAGE - BANKHET | | DATE OF RECEIPT | 22/05/2023 | | |
| POST -MILUPARA, | | DATE OF REPORT | | | |
| DISTT RAIGARH (C. | .G.) 496107. | DATE OF ANALYSIS | | | |
| | S | AMPLE DETAILS | | | |
| SAMPLE TYPE | GROUND WATER | ORDER /REFERENCE: | P.O.13552310211, DATED:07.09.2022 | | |
| CUSTMER SAMPLE ID NEAR MAIN SECURITY GATE BANKHETA MINE (PIEZOMETER) AWLR | | SAMPLE CONDITION AT RECEIPT | OK | | |
| PACKING OF SAMPLE 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN SEALED 1 L X 1 NO. GLASS BOTTLE | | SAMPLE COLLECTED BY | CHEMIST | | |
| IS:3025 (PART I):1987 RA SAMPLING PROCEDURE 2003; APHA 23RD ED. 2012, 1060-B, 1-39 1-39 | | QUANTITY RECEIVED | 5 LTR | | |

Report No.01263

| SR. | PARAMETER | | TEST REPORT | AS PER IS | 10500:2012 | |
|-----|---|--------|---|---------------------|------------------|-----------|
| NO. | | UNIT | METHOD OF TEST | Acceptable Limit | Permissible | RESULT |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рН | - | APHA 23 nd Ed.2012,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 6.93 |
| 5 | Turbidity | NTU | APHA 23 nd Ed.2012,2130-B,2-13 | 1 | 5 | 1.34 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | - | 156.3 |
| 7 | Residual Chlorine | mg/Lit | APHA 23 nd Ed.2012,4500-CI-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 23 nd Ed.2012,2540- B, 2- 64 | - | - | 96.1 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 93.5 |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 nd Ed.2012,2540- D, 2- 66 | - | - | 2.6 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 44.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | - 64.0 |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,3500-Ca-B, 3-67 | - | - | 40.0 |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,3500-Mg-B, 3-84 | - | - | 24.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 nd Ed.2012,3500-Ca-B, 3-67 | 75 | 200 | 16.03 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 nd Ed.2012,3500-Mg-B, 3-84 | 30 | 100 | 5.83 |
| 17 | Chloride (as CI) | mg/Lit | APHA 23 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 13.9 |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 nd Ed.2012,4500-SO ₄ -E, 4-190 | 200 | 400 | 16.6 |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 nd Ed.2012,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 0.36 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.01263

| | | | TEST REPORT | | | |
|-------|--|-------------------|---|------------------------|----------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL |
| 23 | Boron (as B) | mg/Lit | APHA 23 nd Ed.2012,4500–B-B, 4- 25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.07 |
| 26 | Manganese (as Mn) | mg/Lit | | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 nd Ed.2012,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 nd Ed.2012,3500-Cd, 3- 105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 nd Ed.2012,3112-B, 3-23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23 nd Ed.2012,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 nd Ed.2012,3114-C, 3-38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 nd Ed.2012,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | | - | N.D. |
| Micro | biological Analysis | - | | | L | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | Shall not be any 100 n | | Absent |
| 2 | Faecal Coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be any 100 n | | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be o | detectable in | Absent |
| esti | cides | - | L | any 100m | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.01263

| SR. | PARAMETER | | | AS PER IS | 10500:2012 | |
|-----|--------------------|------|-------------------|---------------------|----------------------|--------|
| NO. | | | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 0 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3 | 30 | |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0. | 3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 0 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | - | |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.0 |)3 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 |)3 | N.D. |

Note: mg/lit.: milligram per liter, N.D.: Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. ×

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only. >

26/05/23

REVIEWED BY

ubhajee

AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

of the test report-

Format No. : UES/FORM/09



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cu. | stomer | REP | PORT NO | UES/ | S/TR/23-24/01264 | | | |
|---------------------------|--|--------|-----------------|-------------------|---|----------------|--|--|
| TO, HINDALCO INDU | STRIES LIMITED, | LAF | BREF NO | UES/ | UES/23-24/W/02507 20/05/2023 22/05/2023 26/05/2023 | | | |
| GARE PALMA - I | And a second sec | DAT | TE OF SAMPLING | 20/0 | | | | |
| VILLAGE - BANK | 75 | DAI | TE OF RECEIPT | 22/0 | | | | |
| POST -MILUPAR | Α, | DAI | E OF REPORT | 26/0 | | | | |
| DISTT RAIGAR | H (C.G.) 496107. | DAI | E OF ANALYSIS | START: 22/05/2023 | | END:26/05/2023 | | |
| | | SAMI | PLE DETAILS | | | | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFERENC | æ: | P.O.135523102 DATED:07.09.2 | | | |
| CUSTMER SAMPLE ID | NEAR MINE OFFICE - BANJ MINE (PIEZOMETER) AWLR | IKHOL | SAMPLE CONDITIC | ON AT | OK | | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLLECTE | D BY | CHEMIST | | | |
| SAMPLING PROCEDURE | IS:3025(PART I):1987 RA APHA 22ND ED. 2012, 106 | | QUANTITY RECEIV | ED | 5 LTR | | | |

Report No.01264

| SR. | | | | AS PER IS | 10500:2012 | | |
|-----|---|--------|---|---------------------|----------------------|-----------|--|
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT | |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 | |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | |
| 3 | Taste | _ | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | |
| 4 | pH | - | APHA 23 nd Ed.2012,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.23 | |
| 5 | Turbidity | NTU | APHA 23 nd Ed.2012,2130-B,2-13 | 1 | 5 | 1.21 | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | - | 189.2 | |
| 7 | Residual Chlorine | mg/Lit | APHA 23 nd Ed.2012,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. | |
| 8 | Total Solid | mg/Lit | APHA 23 nd Ed.2012,2540- B, 2- 64 | - | - | 115.2 | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 113.0 | |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 nd Ed.2012,2540- D, 2- 66 | - 297 | | 2.2 | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 56.0 | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 82.0 | |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,3500-Ca-B, 3-67 | - | - | 46.0 | |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,3500-Mg-B, 3-84 | - | - | 36.0 | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 nd Ed.2012,3500-Ca-B, 3-67 | 75 | 200 | 18.44 | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 nd Ed.2012,3500-Mg-B, 3-84 | 30 | 100 | 8.75 | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 nd Ed.2012,4500-Cl-B, 4-72 | 250 | 1000 | 17.9 | |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 nd Ed.2012,4500-SO ₄ -E, 4-190 | 200 | 400 | 26.41 | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 nd Ed.2012,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 2.38 | |
| 20 | Phosphate (as P) | mg/Lit | APHA 23nd Ed.2012,4500-P-C, 4-153 | - | - | N.D. | |
| 21 | Sodium (as Na) | mg/Lit | APHA 23nd Ed.2012,3500-Na-B, 3-97 | - | - | 9.1 | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.01264

| | | | TEST REPORT | and the other sectors. | | |
|--------|--|-------------------|---|---------------------------|------------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL |
| 22 | Potassium (as K) | mg/Lit | APHA 23 nd Ed.2012,3500-K-B, 3-87 | - | - | 0.32 |
| 23 | Boron (as B) | mg/Lit | APHA 23 nd Ed.2012,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 nd Ed.2012,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.08 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3-18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 nd Ed.2012,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3-18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 nd Ed.2012,3500-Cd, 3- | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 nd Ed.2012,3112-B, 3-23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23 nd Ed.2012,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 nd Ed.2012,3114-C, 3-38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 nd Ed.2012,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - 1997 | - | N.D. |
| Micro | biological Analysis | L | | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | Shall not be de 100 ml | tectable in any sample | Absent |
| 2 | Faecal Coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be de 100 ml | | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be de 100ml | tectable in any | Absent |
| Pestic | cides | | Leanna | 1001111 | sample | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | - | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.0 | 01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.01264

| | | | TEST REPORT | | | | |
|-----|--------------------|------|-------------------|---------------------|----------------------|-------|--|
| SR. | | | | AS PER IS | 10500:2012 | | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL | |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0. | 04 | N.D. | |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. | |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0. | .4 | N.D. | |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0. | .4 | N.D. | |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | | L | N.D. | |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | | |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | | N.D. | |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. | |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | | N.D. | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | - | | |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3 | 0 | N.D. | |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | D | N.D. | |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | | N.D. | |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0. | 3 | N.D. | |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | | N.D. | |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 0 | N.D. | |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | - | | |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.0 |)3 | N.D. | |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 |)3 | N.D. | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.





For ULTIMATE ENVIROLYTICAL SOLUTIONS

ubhajeet

AUTHORIZED SIGNATORY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cu | stomer | REPO | ORT NO | UES/TR/23-24 | 1/01 | 281 |
|--------------------------------------|---|--------|--------------------------------|---------------------------------|-------|---------------------|
| то, | | LAB | REF NO | UES/23-24/W/02524 20/05/2023 | | |
| HINDALCO INDUSTR | | DATI | E OF SAMPLING | | | |
| GARE PALMA - IV/5, | | DATI | OF RECEIPT | 22/05/2023 | | |
| U/G COAL MINE, VILL BLOCK-TAMNAR. | AGE - MILUPARA, | DATI | OF REPORT | 26/05/2023 | | |
| DISTT RAIGARH (C | .G.) 496107 | DATE | TE OF ANALYSIS START: 22/0 | | 023 | END: 26/05/2023 |
| | | SAMPI | E DETAILS | | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFER | RENCE : | VEI | RBAL COMMUNICATION. |
| CUSTMER SAMPLE ID | NEAR MILUPARA MINES (PIEZOMETER -AWLR | OFFICE | SAMPLE CONDITION AT RECEIPT | | ок | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLLE | CTED BY | СШ | emist |
| SAMPLING PROCEDURE | TS: 3025 (PART T): 1987 PA 2003: | | | EIVED | 5 LTR | |

REPORT NO.01281

| | | | TEST REPORT | | | |
|-----|--|----------|---|-----------------------|-------------------|-----------|
| SR. | | | | AS PER I | S 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | 100 - A. | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92 | <mark>6.5-</mark> 8.5 | No Relaxation | 7.21 |
| 5 | Turbidity | NTU | APHA 22 nd Ed.2012,2130-B,2-13 | 1 | 5 | 2.78 |
| 6 | Electrical Conductivity | μS/cm | IS 3025(part-14):1984, RA 2013 | - | - | 276.6 |
| 7 | Residual Chlorine | mg/Lit | APHA 22 nd Ed.2012,4500-Cl-G,4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 22 nd Ed.2012,2540- B, 2- 64 | <mark>.</mark> | - | 175.6 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 167.2 |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2- 66 | - | - | 8.4 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 42.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 70.0 |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca-B, 3-67 | - | - | 38.0 |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg-B, 3-84 | | - | 32.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca-B, 3-67 | 75 | 200 | 15.23 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg-B, 3-84 | 30 | 100 | 7.77 |
| 17 | Chloride (as CI) | mg/Lit | APHA 22 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 20.9 |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 22 nd Ed.2012,4500-SO4- | 200 | 400 | 17.2 |



PEPOPT NO 01291

Pesticides

HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|-------|--|----------------|---|---------------------|--------------------------------|--------|
| SR. | | | | AS PER I | S 10500:2012 | 34477 |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL |
| | | | E,4-190 | | | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 3.3 |
| 20 | Phosphate (as P) | mg/Lit | APHA 22nd Ed.2012,4500-P-C, 4-153 | - | - | N.D. |
| 20 | Sodium (as Na) | mg/Lit | APHA 22ndEd.2012,3500-Na-B, 3-97 | - | - | 8.4 |
| 21 | Potassium (as K) | mg/Lit | APHA 22 nd Ed.2012,3500-K-B, 3- 87 | - | - | 0.32 |
| 22 - | Boron (as B) | mg/Lit | APHA 22 nd Ed.2012,4500-B-B, 4- 25 | 0.5 | 1.0 | N.D. |
| 23 | Iron (as Fe) | mg/Lit | APHA 22 nd Ed.2012,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 24 | Fluoride (as F) | mg/Lit | APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.21 |
| 25 | Manganese (as Mn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | 0.3 | N.D. |
| 26 | Lead (as Pb) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 27 | Nickel (as Ni) | mg/Lit | APHA 22 nd Ed.2012,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 28 | Zinc (as Zn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 5 | 15 | N.D. |
| 29 | Copper (as Cu) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 30 | Cadmium (as Cd) | mg/Lit | APHA 22 nd Ed.2012,3500-Cd,3- 105 | 0.003 | No Relaxation | N.D. |
| 31 | Mercury (as Hg) | mg/Lit | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.001 | No Relaxation | N.D. |
| 32 | Arsenic (as As) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 33 | Selenium (as Se) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.01 | No Relaxation | N.D. |
| 34 | Chromium (as Cr) | mg/Lit | APHA 22 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 35 | Anionic Detergent (as MBAS) | mg/Lit | APHA 22 nd Ed.2012,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 36 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 22 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 37 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 22 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 38 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 39 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - | - | N.D. |
| 1icro | biological Analysis | | | | L | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | detectable in any nl sample | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be o | detectable in any nl sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be o | detectable in any | Absent |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPOR | RT . | | |
|-----|------------------------|-----------|-------------------|---------------------|-------------------|--------|
| SR. | | | | AS PER I | S 10500:2012 | |
| NO. | PARAMETER | ETER UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | | 0.01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | | 0.04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | | 0.04 | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 12 | Endosulfansulphat e | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | | 30 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | | 2 | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | | 30 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | | 20 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | | 0.3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | | 190 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | | 0.03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | | 0.03 | N.D. |

REMARKS: RESULTS ARE AS ABOVE Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only

Rell 26/05/23

REVIEWED BY

ForULTIMATE ENVIROLYTICAL SOLUTIONS

sharee

AUTHORIZED SIGNATORY



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cu | stomer | REPO | RT NO | UES/TR/23-2 | 4/01 | 280 | |
|-----------------------------------|---|-----------------------|---------------------------------|---------------------|---------------------|-----------------------------|--|
| то, | | LAB REF NO UES/23-24/ | | | N/02523 | | |
| HINDALCO INDUSTR | | DATE | OF SAMPLING | s 18/05/2023 | | | |
| GARE PALMA - IV/5, | | DATE | OF RECEIPT | 19/05/2023 | | | |
| U/G COAL MINE,VILL | AGE – MILUPARA, | DATE | OF REPORT | F REPORT 23/05/2023 | | | |
| BLOCK-TAMNAR, DISTT RAIGARH (C | .G.) 496107 | DATE | DATE OF ANALYSIS START: 19/05/2 | | 2023 END:23/05/2023 | | |
| | | SAMP. | LE DETAILS | | | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFERE | NCE : | P.0. | .13552310212,DATED:07.09.20 | |
| CUSTMER SAMPLE ID | STAFF QUARTER- MILUPARA PIEZOMETER (AWLR) | | SAMPLE CONDIT | ION AT RECEIPT | ок | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLLEC | TED BY | CHEN | MIST | |
| SAMPLING PROCEDURE | IS:3025(PART I):1987 RA 20 APHA 22ND ED. 2012, 1060-E | 317 Steril | QUANTITY RECE | IVED | 5 L1 | IR | |

REPORT NO. 01280

| | | | TEST REPORT | | | | |
|-----|---|--------|---|---------------------|-----------------------------------|--------------|--|
| SR. | | | | | LE LIMIT FOR R (IS 10500:2012) | Bert The Los | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT | |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 | |
| 2 | Odour | - | IS 3025:(part-5) | Agreeable | Agreeable | Agreeable | |
| 3 | Taste | - | IS 3025:(part-8) | Agreeable | Agreeable | Agreeable | |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 6.99 | |
| 5 | Turbidity | NTU | APHA 22 nd Ed.2012,2130-B,2-13 | 1 | 5 | 0.76 | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | | 221.0 | |
| 7 | Residual Chlorine | mg/Lit | APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. | |
| 8 | Total Solid | mg/Lit | APHA 22 nd Ed.2012,2540- B, 2- 64 | | | 140.7 | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 132.6 | |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2- 66 | - | - | 8.1 | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 42.0 | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 92.0 | |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca-B, 3-67 | - | 1.7. | 60.0 | |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg-B, 3-84 | - | | 82.0 | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca-B, 3-67 | 75 | 200 | 22.04 | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg-B, 3-84 | 30 | 100 | 7.29 | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 22 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 25.9 | |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 22 nd Ed.2012,4500-SO ₄ - E,4-190 | 200 | 400 | 28.2 | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122 | 45 | No Relaxation | 0.74 | |
| 20 | Phosphate (as P) | mg/Lit | APHA 22nd Ed.2012,4500-P-C, 4-153 | - | - | N.D. | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|--------|--|---------------------------|---|---------------------|----------------------------|--------|
| SR. | PARAMETER | UNIT | METHOD OF TEST | DRINKING WAT | ER (IS 10500:2012) | RESUL |
| NO. | | | | Acceptable Limit | Permissible limit | |
| 21 | Sodium (as Na) | mg/Lit | APHA 22ndEd.2012,3500-Na-B, 3-97 | - | - | 6.2 |
| 22 | Potassium (as K) | mg/Lit | APHA 22 nd Ed.2012,3500-K-B, 3- 87 | - | - | 3.7 |
| 23 | Boron (as B) | mg/Lit | APHA 22 nd Ed.2012,4500-B-B, 4- 25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 22 nd Ed.2012,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.19 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 22 nd Ed.2012,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 22 nd Ed.2012,3500-Cd, 3- 0.003 | | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 22 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 22 nd Ed.2012,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 22 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 22 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | | Relaxation | |
| licrob | iological Analysis | | 10 0020 (101005)(1951) 101 2005 | | - | N.D. |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | detectable in ml sample | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be | detectable in ml sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be | detectable in nl sample | Absent |
| estici | des | Lumman and a state of the | | ully 1001 | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | | 01 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| 01280 |
|-------|
| |

| | | | TEST REPORT | | | |
|------------|--------------------|------|-------------------|--|----------------------|--------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | ACCEPTABLE LIMIT FOR DRINKING WATER (IS 10500:2012) | | |
| | | | | Acceptable | Permissible limit | RESULT |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 30 | | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 20 | | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0.3 | | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 190 | | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.03 | | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.03 | | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.

Rech 23/05/23



For ULTIMATE ENVIROLYTICAL SOLUTIONS subhaje

REVIEWED BY

AUTHORIZED SIGNATORY

----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The | Customer | REPORT NO | UES/TR/23-24/01282 | | |
|---|--|-----------------------|--|---------------------------|--|
| то, | | LAB REF NO | UES/23-24/W/02525 | | |
| HINDALCO INDUSTRI | ES LIMITED, | DATE OF SAMPLING | 19/05/2023 20/05/2023 24/05/2023 | | |
| GARE PALMA - IV/5, I | MILUPARA | DATE OF RECEIPT | | | |
| U/G COAL MINE, VILL | AGE – MILUPARA, | DATE OF REPORT | | | |
| BLOCK-TAMNAR, DISTT RAIGARH (C. | G.) 496107 | DATE OF ANALYSIS STAR | | 20/05/2023 END:24/05/2023 | |
| | S | AMPLE DETAILS | a land | | |
| SAMPLE TYPE | GROUND WATER | ORDER /REFERE | ENCE : | VERBAL COMMUNICATION. | |
| CUSTMER SAMPLE ID | MILUPARA VILLAGE NEAR PHC- HIL (DUGWELL) | SAMPLE CONDIT | TION AT | ОК | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN SEA 1 L X 1 NO. GLASS BOTTLE | LED SAMPLE COLLEC | CTED BY | CHEMIST | |
| SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39 | | CHIANTITY RECT | CIVED | 5 LTR | |

REPORT NO.01282

| TEST REPORT | | | | | | | |
|-------------|---|--------|--|----------------------|----------------------|-----------|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS 10500:2012 | | | |
| | | | | Acceptable Limit | Permissible limit | RESULT | |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 | |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.51 | |
| 5 | Turbidity | NTU | APHA 22 nd Ed.2012,2130-B,2-13 | 1 | 5 | 1.78 | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | 7 | 243.3 | |
| 7 | Residual Chlorine | mg/Lit | APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. | |
| 8 | Total Solid | mg/Lit | APHA 22 nd Ed.2012,2540- B, 2- 64 | - | - | 154.6 | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 146.0 | |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2- 66 | - | - | 8.6 | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 48.0 | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 108.0 | |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B,3-67 | - | ÷. | 52.0 | |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B,3-84 | - | | 56.0 | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B,3-67 | 75 | 200 | 20.84 | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg-B, 3-84 | 30 | 100 | 13.60 | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 22 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000. | 39.9 | |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 22 nd Ed.2012,4500-SO ₄ - E, 4-190 | 200 | 400 | 24.9 | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122 | 45 | No Relaxation | 2.6 | |
| 20 | Phosphate (as P) | mg/Lit | APHA 22ndEd.2012,4500-P-C, 4-153 | - | - | N.D. | |
| 21 | Sodium (as Na) | mg/Lit | APHA 22nd Ed.2012,3500-Na- B, 3-97 | - | - | 6.8 | |
| 22 | Potassium (as K) | mg/Lit | APHA 22 nd Ed.2012,3500-K-B, 3-87 | | | 2.31 | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| REPORT | NO. | 01282 |
|--------|-----|-------|
| | | |

| | | | | AS PER IS | 10500:2012 | THE PL |
|------------|--|---------------------|--|---|----------------------------------|----------------------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 23 | Boron (as B) | mg/Lit | APHA 22 nd Ed.2012,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 22 nd Ed.2012,3111-B,3- 18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.14 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.1 | 0.3 | 0.08 |
| 27 | Lead (as Pb) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 22 nd Ed.2012,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | 18 APHA 22 nd Ed.2012,3111-B, 3- | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | 18 APHA 22 nd Ed.2012,3500-Cd, 3- | 0.003 | No | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | 105 APHA 22 nd Ed.2012,3112-B, 3- | 0.001 | Relaxation No | N.D. |
| 33 | | mg/Lit | 23 APHA 22 nd Ed.2012,3114-C, 3- | 0.01 | Relaxation 0.05 | N.D. |
| | Arsenic (as As) | and all the second | 38 APHA 22 nd Ed.2012,3114-C, 3- | | 0.05 No | |
| 34 | Selenium (as Se) | mg/Lit | 38 APHA 22 nd Ed.2012,3500-Cr-B, | 0.01 | Relaxation No | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | 3-69 | 0.05 | Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 22 nd Ed.2012,5540-C, 5- 53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C ₆ H ₅ OH) | mg/Lit | APHA 22 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 22 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA | - | - | N.D. |
| Micro | biological Analysis | fam. and the second | | Contraction of the second second | energie en energie and en en ele | and the second state |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | etectable in any I sample | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | | etectable in any I sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | | etectable in any sample | Absent |
| Pesti | cides | 100/14 | ly an aray in a mean and a second of the second | | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | n - I - Carlon Carlon Carlon - I - Carlon - Carl | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0 | .01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0 | .04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0 | .04 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

REPORT NO.01282

| SR. | | 6 | | AS PER IS | | | |
|-----|--------------------|----------------|-------------------|----------------|---------------------|----------------------|--------|
| NO. | PARAMETER | PARAMETER UNIT | | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. | |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. | |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0 | .4 | N.D. | |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | | 1 | N.D. | |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. | |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 30 | N.D. | |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | | 2 | N.D. | |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | - | N.D. | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | - | N.D. | |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3 | 30 | N.D. | |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 20 | N.D. | |
| 21 | Atrazine | µg/L | US EPA 532-2000 | | 2 | N.D. | |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0 | .3 | N.D. | |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | - | N.D. | |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 90 | N.D. | |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | | N.D. | |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0. | 03 | N.D. | |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0. | 03 | N.D. | |

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.

Rech 24/05/23 **REVIEWED BY**

----End of the test report---

ForULTIMATE ENVIROLYTICAL SOLUTIONS Lhajee

AUTHORIZED SIGNATORY



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The | Customer | REPO | ORT NO | UES/TR/2 | 3-24/01 | 283 | |
|---|---|-------------------|--------------------------|-------------|-------------------|--|--|
| то, | | LAB | REF NO | UES/23-24 | UES/23-24/W/02526 | | |
| HINDALCO INDUSTR | | DATE | E OF SAMPLING | 19/05/202 | 23 | | |
| GARE PALMA - IV/5, | | DATE | E OF RECEIPT | 20/05/202 | 23 | | |
| U/G COAL MINE, VILL | AGE – MILUPARA, | DATE | E OF REPORT | 24/05/202 | 23 | and the second | |
| BLOCK-TAMNAR, DISTT RAIGARH (C | G.) 496107 | DATE | E OF ANALYSIS | START: 20/0 | 05/2023 | END: 24/05/2023 | |
| A TOTAL A | | SAMPI | E DETAILS | | 144 T | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFERE | NCE : | VERBA | L COMMUNICATION. | |
| CUSTMER SAMPLE ID | NEAR PRIMARY SCHOOL VILLAGE (PIEZOMETER | SAKTA DUGWELL) | SAMPLE CONDIT RECEIPT | ION AT | ОК | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLLEC | TED BY | CHEMI | ST | |
| SAMPLING PROCEDURE IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012,1060-B,1-39 | | | QUANTITY RECE | IVED | 5 LTR | | |

REPORT NO.01283

| | TEST REPORT | | | | | | | | |
|-----|---|--------|---|---------------------|----------------------|-----------|--|--|--|
| SR. | | | 1. 发生器等于 3. 经营业 | AS PER IS | | | | | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT | | | |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 | | | |
| 2 | Odour | | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | | | |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | | | |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92 | 6.5-8.5 | NoRelaxati on | 7.44 | | | |
| 5 | Turbidity | NTU | APHA 22 nd Ed.2012,2130-B,2-13 | 1 | 5 | 1.19 | | | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | - | 314.6 | | | |
| 7 | Residual Chlorine | mg/Lit | APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. | | | |
| 8 | Total Solid | mg/Lit | APHA 22 nd Ed.2012,2540- B, 2- 64 | - (0)) | - | 194.0 | | | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 188.8 | | | |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2- 66 | - | - | 5.2 | | | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 60.0 | | | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 96.0 | | | |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B,3-67 | - | - | 58.0 | | | |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B,3-84 | - | - | 38.0 | | | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B,3-67 | 75 | 200 | 23.24 | | | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg-B, 3-84 | 30 | 100 | 9.23 | | | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 22 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 22.9 | | | |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 22 nd Ed.2012,4500–SO ₄ -E, 4-190 | 200 | 400 | 28.8 | | | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122 | 45 | NoRelaxati on | 4.27 | | | |
| 20 | Phosphate (as P) | mg/Lit | APHA 22ndEd.2012,4500-P-C, 4-153 | - | - | N.D. | | | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

REPORT NO. 01283

| | | | TEST REPORT | | | |
|-------|--|-------------------|---|-----------------------------|----------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL |
| 23 | Boron (as B) | mg/Lit | APHA 22 nd Ed.2012,4500-B-B, 4- 25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 22 nd Ed.2012,3111-B,3-18 | 0.3 | NoRelaxati on | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.17 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | 0.3 | 0.08 |
| 27 | Lead (as Pb) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.01 | NoRelaxati | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 22 nd Ed.2012,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 22 nd Ed.2012,3500-Cd, 3- 105 | 0.003 | NoRelaxati on | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.001 | NoRelaxati on | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.01 | NoRelaxati on | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 22 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | NoRelaxati | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 22 nd Ed.2012,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 22 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 22 nd Ed.2012,6440-6-93 | 0.0001 | NoRelaxati on | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - | - | N.D. |
| Micro | biological Analysis | 1 | | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | Shall not be o any 100 m | | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be o any 100 m | detectable in | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be o any 100m | letectable in | Absent |
| Pesti | cides | | | <u>uny 100m</u> | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.0 | 1 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.0 | 4 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.0 | 4 | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0,4 | 4 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

REPORT NO. 01283

| | | | TEST REPORT | | | | |
|-----|--------------------|------|-------------------|---------------------|----------------------|--------|--|
| SR. | | | | AS PER IS 1 | AS PER IS 10500:2012 | | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible | RESULT | |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. | |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0.4 | 1 | N.D. | |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | | N.D. | |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | | N.D. | |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | | N.D. | |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. | |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | | N.D. | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | | N.D. | |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 30 | | N.D. | |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 20 | | N.D. | |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | | N.D. | |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0.3 | | N.D. | |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | - | | N.D. | |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 190 |) | N.D. | |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | - | N.D. | |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.03 | 3 | N.D. | |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.03 | | N.D. | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above jest(s) only. 2

ForULTIMATE ENVIROLYTICAL SOLUTIONS Rell 24/05/23 bhajee **REVIEWED BY** AUTHORIZED SIGNATORY of the test report-End



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cus | tomer | | REPORT NO | UES/TR/23-24/01265 | | |
|--|--|--------|------------------------|--------------------------------------|----------------|--|
| то, | | | LAB REF NO | UES/23-24/W/02508 | | |
| HINDALCO INDUST | RIES LIMITED, | | DATE OF SAMPLING | 19/05/2023 | | |
| GARE PALMA - IV/4 | 4, COAL MINE, VILLAGI | Ε- | DATE OF RECEIPT | 20/05/2023 | | |
| BANKHETA, POST | -MILUPARA, | | DATE OF REPORT | 24/05/2023 | | |
| DISTT RAIGARH | (C.G.) 496107. | | DATE OF ANALYSIS | START:20/05/2023 | END:24/05/2023 | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFERENCE: | P.O.13552310211, DATED:07.09.2022 | | |
| CUSTMER SAMPLE ID | NEAR PRIMARY SCHOOL - SIDARPARA VILLAGE, | | SAMPLE CONDITION | DATED:07.09.2022 OK | | |
| | (PIEZOMETER - DUGWELL |) | | | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLLECTED BY | CHEMIST | | |
| IS: 3025 (PART I): 1987 RA SAMPLING PROCEDURE 2003; APHA 23RD ED. 2012, 1060-B, 1-39 | | | QUANTITY RECEIVED | 5 LTR | | |

Report No.01265

| | | | TEST REPORT | | Werner Land | | |
|-----|---|-------------|---|---------------------|----------------------|-----------|--|
| SR. | | | | AS PER IS | 10500:2012 | | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT | |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1.0 | |
| 2 | Odour | | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | |
| 4 | pH | 1 8- | APHA 23 nd Ed.2012,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.41 | |
| 5 | Turbidity | NTU | APHA 23 nd Ed.2012,2130-B,2-13 | 1 | 5 | 0.68 | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | - | 280.4 | |
| 7 | Residual Chlorine | mg/Lit | APHA 23 nd Ed.2012,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. | |
| 8 | Total Solid | mg/Lit | APHA 23 nd Ed.2012,2540- B, 2- 64 | | - | 171.1 | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 168.2 | |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 nd Ed.2012,2540- D, 2- 66 | - | - | 2.9 | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 90.0 | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 116.0 | |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,3500-Ca-B, 3-67 | - | - | 78.0 | |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,3500-Mg-B, 3-84 | - | - | 38.0 | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 nd Ed.2012,3500-Ca-B, 3-67 | 75 | 200 | 31.26 | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 nd Ed.2012,3500-Mg-B, 3-84 | 30 | 100 | 9.23 | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 20.9 | |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 nd Ed.2012,4500-SO ₄ -E, 4-190 | 200 | 400 | 21.4 | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 nd Ed.2012,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 0.72 | |
| 20 | Phosphate (as P) | mg/Lit | APHA 23nd Ed.2012,4500-P-C, 4-153 | - | - | N.D. | |
| 21 | Sodium (as Na) | mg/Lit | APHA 23nd Ed.2012,3500-Na-B, 3-97 | - | - | 13.34 | |
| 22 | Potassium (as K) | mg/Lit | APHA 23 nd Ed.2012,3500-K-B, 3-87 | - | - | 0.75 | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.01265

| | | | TEST REPORT | | | |
|------------|---|-------------------|---|-----------------------------|---------------------------|--------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable | 10500:2012 Permissible | RESUL |
| 23 | Boron (as B) | mg/Lit | APHA 23 nd Ed.2012,4500-B-B, 4-25 | Limit 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.14 |
| 26 | Manganese (as Mn) | mg/Lit | ADUA 2200 Ed 2012 2111 D 2 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | ADUA 2200 Ed 2012 2111 D 2 | 0.01 | No | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 nd Ed.2012,3500-Ni, 3- 108 | 0.02 | Relaxation No | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3- 18 | 5 | Relaxation 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3- 18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 nd Ed.2012,3500-Cd, 3- 105 | 0.003 | No | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 nd Ed.2012,3112-B, 3- | 0.001 | Relaxation No | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23 nd Ed.2012,3114-C, 3- | 0.01 | Relaxation 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | 38 APHA 23 nd Ed.2012,3114-C, 3- | 0.01 | No | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | 38 APHA 23 nd Ed.2012,3500-Cr-B, | 0.05 | Relaxation No | |
| 36 | Anionic Detergent | mg/Lit | 3-69 APHA 23 nd Ed.2012,5540-C, 5- | | Relaxation | N.D. |
| 37 | (as MBAS) Phenolic Compound | | 53 APHA 23 nd Ed.2012,5540-B & C, | 0.2 | 1.0 | N.D. |
| | (as C ₆ H₅OH) Poly-nuclear Aromatic | mg/Lit | 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Hydrocarbon (PAH) | µg/Lit | APHA 23 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - 30 | - | N.D. |
| 1icro | biological Analysis | | | ana section | L | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | Shall not be de 100 ml | | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be def 100 ml | | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be det 100ml s | tectable in any | Absent |
| esti | cides | | 1 | | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | 1 | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | - 1 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.0 | | |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.01265

| | | | TEST REPORT | | | | |
|-----|--------------------|----------------|-------------------|----------------|----------------------|----------------------|--------|
| SR. | | | | AS PER IS 1 | AS PER IS 10500:2012 | | |
| NO. | PARAMETER | PARAMETER UNIT | | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0. | 4 | N.D. | |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0. | 4 | N.D. | |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0. | 4 | N.D. | |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | | N.D. | |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | | N.D. | |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3(| 0 | N.D. | |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. | |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | | N.D. | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | | N.D. | |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3(|) | N.D. | |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 20 |) | N.D. | |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | | N.D. | |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0.3 | 3 | N.D. | |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | - | | N.D. | |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 0 | N.D. | |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | | N.D. | |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.0 | 3 | N.D. | |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 | 3 | N.D. | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

24/05/23

REVIEWED BY



Subhajee

AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Gu | stomer | REPO | RT NO | UES/TR/23-24/0 | 1266 | | |
|---|--|-------------|-----------------------------|----------------|------------------------|--------------|--|
| то, | | LAB | REF NO | UES/23-24/W/02 | UES/23-24/W/02509 | | |
| HINDALCO INDUS | DATE | OF SAMPLING | 19/05/2023 | | | | |
| GARE PALMA - IV/ | DATE | OF RECEIPT | 20/05/2023 | | | | |
| BANKHETA, POST | DATE | OF REPORT | 24/05/2023 | | | | |
| DISTT RAIGARH | DATE OF ANALYSIS | | START:20/05/2023 | | END:24/05/2023 | | |
| SAMPLE TYPE | GROUND WATER | | E DETAILS | NCE: | P.O. | 13552310211, | |
| | | | SAMPLE CONDITION AT RECEIPT | | DATED:07.09.2022 OK | | |
| CUSTMER SAMPLE ID | NEAR PRIMARY SCHOOL - BELL VILLAGE (PIEZOMETER - DUGW | | | | | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE 5 L X 1 NO. GLASS BOTTLE | D | SAMPLE COLLEC | TED BY | CHEN | 11ST | |
| SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39 | | | QUANTITY RECEIVED | | 5 LTR | | |

Report No.01266

| | | | TEST REPORT | | | |
|-----|---|----------------|---|-----------|------------------|-----------|
| SR. | PARAMETER UNIT | | | AS PER IS | 10500:2012 | |
| NO. | | METHOD OF TEST | Acceptable Permissible Limit limit | | RESULT | |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 |
| 2 | Odour | | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рH | - | APHA 23 nd Ed.2012,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.36 |
| 5 | Turbidity | NTU | APHA 23 nd Ed.2012,2130-B,2-13 | 1 | 5 | 0.62 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | - | 289.9 |
| 7 | Residual Chlorine | mg/Lit | APHA 23 nd Ed.2012,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 23 nd Ed.2012,2540- B, 2- 64 | | - | 176.5 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 173.9 |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 nd Ed.2012,2540- D, 2- 66 | - 48B | - | 2.6 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 102.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 118.0 |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,3500-Ca-B, 3-67 | - | - | 78.0 |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 nd Ed.2012,3500-Mg-B, 3-84 | - | - | 40.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 nd Ed.2012,3500-Ca-B, 3-67 | 75 | 200 | 31.26 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 nd Ed.2012,3500-Mg-B, 3-84 | 30 | 100 | 9.72 |
| 17 | Chloride (as CI) | mg/Lit | APHA 23 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 22.9 |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 nd Ed.2012,4500-SO ₄ -E, 4-190 | 200 | 400 | 23.84 |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 nd Ed.2012,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 1.31 |
| 20 | Phosphate (as P) | mg/Lit | APHA 23nd Ed.2012,4500-P-C, 4-153 | - | - | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 23nd Ed.2012,3500-Na-B, 3-97 | - | - | 7.78 |
| 22 | Potassium (as K) | mg/Lit | APHA 23 nd Ed.2012,3500-K-B, 3-87 | - | - | 0.62 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.01266

| 0.000 | | | TEST REPORT | | | |
|-------|--|----------------|---|-----------------------|----------------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 23 | Boron (as B) | mg/Lit | APHA 23 nd Ed.2012,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 nd Ed.2012,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.14 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3- 18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 nd Ed.2012,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3- 18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 nd Ed.2012,3111-B, 3- | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | 18 APHA 23 nd Ed.2012,3500-Cd, 3- | 0.003 | No | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | 105 APHA 23 nd Ed.2012,3112-B, 3- | 0.001 | Relaxation No | |
| 33 | Arsenic (as As) | mg/Lit | 23 APHA 23 nd Ed.2012,3114-C, 3- | | Relaxation | N.D. |
| 34 | | | 38 APHA 23 nd Ed.2012,3114-C, 3- | 0.01 | 0.05 No | N.D. |
| | Selenium (as Se) | mg/Lit | 38 APHA 23 nd Ed.2012,3500-Cr-B, | 0.01 | Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | 3-69 | 0.05 No Relaxation | | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 nd Ed.2012,5540-C, 5- 53 | 0.2 1.0 | | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 nd Ed.2012,5540-B & C, 5-47 | 0.001 0.002 | | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - 592 | - | N.D. |
| Micro | biological Analysis | | 2003 | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | detectable in nl sample | Absent |
| 2 | Faecal Coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be | detectable in nl sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be | detectable in nl sample | Absent |
| Pesti | cides | | | uny 1001 | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.0 |)1 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.01266

| | | | TEST REPORT | | | |
|-----|--------------------------|----------------|---------------------|---|--|------|
| SR. | PARAMETER UNIT | | | AS PER IS | 10500:2012 | |
| NO. | | METHOD OF TEST | Acceptable Limit | | | |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0. | .4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 0 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | 2 | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | - | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | - | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3 | 0 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0. | 3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | - 120 | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 0 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.0 | 03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 | | N.D. |
| | Note: mg/lit.: milligram | per liter, N.D | Not Detected. | In the second | Law Street Stree | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

Hech 24/05/23 **REVIEWED BY**



ubhajee

AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

-----End of the test report-

| Ground Water Level Monitoring Report in and around the Coal Mine Area |
|---|
| (From Jul 2023 to Sep 2023) |

| Sr. No. | Location | Types of Structure | | In Meters | |
|------------|--|-----------------------|--|--|--|
| | | Structure | Ground Water level (BGL) Jul 2023 | Ground Water level (BGL) Aug 2023 | Ground Water level (BGL) Sep 2023 |
| 1 | Bankheta (Near HIL Office) | Borewell/ AWLR | 12.07 | 10.60 | 9.15 |
| 2 | Banjikhol (Near Office) | Borewell/ AWLR | 28.37 | 26.64 | 26.29 |
| 3 | Milupara (Near Office) | Borewell/ AWLR | 12.75 | 10.09 | 8.09 |
| 4 | HIL Staff Quarter | Borewell/ AWLR | 5.63 | 4.43 | 4.07 |
| 5 | Milupara Village (PHC-HIL) | Dugwell | 4.40 | 1.77 | 0.42 |
| 6 | Sakta Village (Near Primary School) | Dugwell | 2.92 | 1.86 | 1.24 |
| 7 | Sidarpara Village (Near Primary School) | Dugwell | 6.33 | 4.95 | 3.53 |
| 8 | Beljor Village | Dugwell | 5.20 | 4.33 | 3.13 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cus | ntomer | REPORT NO | UES/TR/23-24/0384 | 9 | | |
|--|---|-----------------------------|--------------------------------------|----------------|--|--|
| TO, HINDALCO INDUSTR | EC I MITED | LAB REF NO | UES/23-24/W/07324 | | | |
| GARE PALMA - IV/4, | | DATE OF SAMPLING | 24/08/2023 | | | |
| VILLAGE - BANKHET | | DATE OF RECEIPT | 25/08/2023 | | | |
| POST -MILUPARA, | 40 % | DATE OF REPORT | 31/08/2023 | | | |
| DISTT RAIGARH (C | G.) 496107. | DATE OF ANALYSIS | START: 25/08/2023 | END:29/08/2023 | | |
| | S | AMPLE DETAILS | | | | |
| SAMPLE TYPE | GROUND WATER | ORDER /REFERENCE: | P.O.13552310211, DATED:07.09.2022 | | | |
| CUSTMER SAMPLE ID | NEAR MAIN SECURITY GATE BANKHETA MINE (PIEZOMETER) AWLR | SAMPLE CONDITION AT RECEIPT | OK | | | |
| PACKING OF SAMPLE 3 L X 1 NO. PVC CAN 1 L X 1 NO. FVC CAN 1 L X 1 NO. GLASS BOTTLE 1 L X 1 NO. GLASS BOTTLE | | SAMPLE COLLECTED BY | CHEMIST | | | |
| SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APHA 23RD ED. 2012, 1060-B, 1-39 | | QUANTITY RECEIVED | 5 LTR | | | |

Report No.03849

| | | | TEST REPORT | | | |
|-----|---|--------|---|---------------------|----------------------|-----------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рН | - | APHA 23 rd Ed.2017,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 6.82 |
| 5 | Turbidity | NTU | APHA 23rd Ed.2017,2130-B,2-13 | 1 | 5 | 1.27 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - 33 | - | 144.8 |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed.2017,4500-CI-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed.2017,2540- B, 2- 64 | - | | 89.18 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 86.88 |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 rd Ed.2017,2540- D, 2- 66 | | - | 2.3 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 38.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,2340-C, 2- 44,45 | 200 | 600 | 56.0 |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,3500-Ca-B, 3-67 | - | - | 36.0 |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,3500-Mg-B, 3-84 | - | - | 20.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed.2017,3500-Ca-B, 3-67 | 75 | 200 | 14.42 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed.2017,3500-Mg-B, 3-84 | 30 | 100 | 4.86 |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed.2017,4500-CI-B, 4-72 | 250 | 1000 | 11.9 |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 rd Ed.2017,4500-SO ₄ -E, 4-190 | 200 | 400 | 14.13 |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed.2017,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 0.31 |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed.2017,4500-P-C, 4- 153 | - | - | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed.2017,3500–Na-B, 3-97 | - | - | 8.79 |
| 22 | Potassium (as K) | mg/Lit | APHA 23 rd Ed.2017,3500-K-B, 3- 87 | | - | 0.45 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|-------|--|--|---|---------------------------------|----------------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed.2017,4500-B-B, 4- 25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 rd Ed.2017,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed.2017,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.05 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed.2017,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed.2017,3500-Cd, 3- 105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 rd Ed.2017,3112-B, 3-23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23 rd Ed.2017,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 rd Ed.2017,3114-C, 3-38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 rd Ed.2017,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 rd Ed.2017,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 rd Ed.2017,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23rd Ed.2017,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - | - | N.D. |
| Micro | biological Analysis | L | | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | The second second second second | detectable in ml sample | Absent |
| 2 | Faecal Coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | | detectable in ml sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be | detectable in ml sample | Absent |
| Pesti | cides | an a | | <u> </u> | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0. | .01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0. | 04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0. | 04 | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | TEST REPORT | | | | | | | | | | |
|-----|--------------------|-------------------------------|-------------------|--|--------|--|--|--|--|--|--|
| SR. | PARAMETER | PARAMETER UNIT METHOD OF TEST | | AS PER IS 10500:2012 Acceptable Permissible | RESULT | | | | | | |
| NO. | | | | Limit limit | | | | | | | |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | N.D. | | | | | | |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0.4 | N.D. | | | | | | |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | N.D. | | | | | | |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | N.D. | | | | | | |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | N.D. | | | | | | |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | N.D. | | | | | | |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | N.D. | | | | | | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | N.D. | | | | | | |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 30 | N.D. | | | | | | |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | . 20 | N.D. | | | | | | |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | N.D. | | | | | | |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0.3 | N.D. | | | | | | |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | N.D. | | | | | | |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 190 | N.D. | | | | | | |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | N.D, | | | | | | |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.03 | N.D. | | | | | | |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.03 | N.D. | | | | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

Þ

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. D

This is for information as the party has asked for above test(s) only.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS ha

AUTHORIZED SIGNATORY

-End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cu | stomer | REP | PORT NO | UES/ | TR/23-24/0385 | 0 | | |
|--------------------------|--|--------|----------------------------|-------|--------------------------------|----------------|--|--|
| TO, | INDALCO INDUSTRIES LIMITED, | | | UES/ | UES/23-24/W/07325 | | | |
| GARE PALMA - IN | Compared and the second s | DAT | E OF SAMPLING | 24/0 | 8/2023 | | | |
| VILLAGE - BANK | and the second se | DAT | E OF RECEIPT | 25/0 | 25/08/2023 | | | |
| POST -MILUPARA | λ, | DAT | E OF REPORT | 31/0 | 8/2023 | | | |
| DISTT RAIGAR | H (C.G.) 496107. | DAT | E OF ANALYSIS | STAF | T:25/08/2023 | END:29/08/2023 | | |
| | | SAME | LE DETAILS | | | | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFERENC | ce : | P.O.135523102 DATED:07.09.2 | | | |
| CUSTMER SAMPLE ID | NEAR MINE OFFICE - BANJ MINE (PIEZOMETER) AWLR | IKHOL | SAMPLE CONDITIC RECEIPT | ON AT | OK | | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLLECT | ED BY | CHEMIST | | | |
| SAMPLING PROCEDURE | QUANTITY RECEIV | TED | 5 LTR | | | | | |

Report No.03850

| | | | TEST REPORT | | | |
|-----|---|--------|---|---------------------|----------------------|-----------|
| SR. | | 10.00 | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | pH | | APHA 23 rd Ed.2017,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.11 |
| 5 | Turbidity | NTU | APHA 23 rd Ed.2017,2130-B,2-13 | 1 | 5 | 1.16 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | | - | 173.7 |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed.2017,4500-CI-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed.2017,2540- B, 2- 64 | l - Stall | - | 106.22 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 104.21 |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 rd Ed.2017,2540- D, 2- 66 | | - | 2.0 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 52.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,2340-C, 2- 44,45 | 200 | 600 | 72.0 |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,3500-Ca-B, 3-67 | - | - | 42.0 |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,3500-Mg-B, 3-84 | - | - | 30 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed.2017,3500-Ca-B, 3-67 | 75 | 200 | 16.83 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed.2017,3500-Mg-B, 3-84 | 30 | 100 | 7.29 |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed.2017,4500-CI-B, 4-72 | 250 | 1000 | 15.2 |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 rd Ed.2017,4500-SO ₄ -E, 4-190 | 200 | 400 | 23.8 |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed.2017,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 2.12 |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed.2017,4500-P-C, 4- 153 | - | - | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed.2017,3500-Na-B, 3-97 | | | 8.8 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|-------|--|-------------------|---|---|------------------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 22 | Potassium (as K) | mg/Lit | APHA 23 rd Ed.2017,3500-K-B, 3- 87 | - | - | 0.27 |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed.2017,4500-B-B, 4- 25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 rd Ed.2017,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed.2017,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.05 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed.2017,3500-Ni, 3- | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed.2017,3500-Cd, 3- 105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 rd Ed.2017 <mark>,3112-B</mark> , 3-23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23 rd Ed.2017,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 rd Ed.2017,3114-C, 3-38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 rd Ed.2017,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 rd Ed.2017,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 rd Ed.2017,5540-B & C, | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23 rd Ed.2017,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - | - | N.D. |
| licro | biological Analysis | 1 | 2005 | L | L | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | etectable in any I sample | Absent |
| 2 | Faecal Coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | | etectable in any I sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be de | etectable in any sample | Absent |
| estic | ides | 100111 | | IOOIIII | sample | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0. | 01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | for the second | 04 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | | |
|-----|--------------------|------|---------------------------------|---------------------|----------------------|-------|--|
| SR. | PARAMETER | | | AS PER IS | AS PER IS 10500:2012 | | |
| NO. | | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL | |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0. | 04 | N.D. | |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. | |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. | |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0 | .4 | N.D. | |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | | 1 | N.D. | |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. | |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | | N.D. | |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. | |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | <u> </u> | N.D. | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | - | N.D. | |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3 | 0 | N.D. | |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. | |
| 21 | Atrazine | µg/L | US EPA 532-2000 | | 2 | N.D. | |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0 | .3 | N.D. | |
| 23 | Methyl paraxone | µg/L | US EPA 814 <mark>1A-1994</mark> | | - | N.D. | |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 90 | N.D. | |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | l del | -Childred | N.D. | |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0. | 03 | N.D. | |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0. | 03 | N.D. | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

P

- The report for publication, arbitration or as legal dispute is forbidden. D Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.
- This is for information as the party has asked for above test(s) only. 32

REVIEWED BY



For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cu | stomer | REPO | RT NO | UES/TR/23-24/ | 038 | 185 | |
|--|---|------------------|-------------------------|-----------------|---------------|--------------------|--|
| то, | | LAB REF NO UES/2 | | | 23-24/W/07399 | | |
| HINDALCO INDUSTR | DALCO INDUSTRIES LIMITED, | | | 24/08/2023 | | | |
| GARE PALMA - IV/5, | | DATE | OF RECEIPT | 25/08/2023 | | | |
| U/G COAL MINE, VILL | AGE - MILUPARA, | DATE | OF REPORT | 31/08/2023 | | | |
| BLOCK-TAMNAR, DISTT RAIGARH (C | .G.) 496107 | DATE | OF ANALYSIS | START:25/08/202 | 23 | END: 29/08/2023 | |
| | | SAMPL | E DETAILS | | | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFER | RENCE : | VER | BAL COMMUNICATION. | |
| CUSTMER SAMPLE ID | NEAR MILUPARA MINES C PIEZOMETER -AWLR | OFFICE | SAMPLE CONDI RECEIPT | ITION AT | ок | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLL | ECTED BY | CHE | MIST | |
| AMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39 | | QUANTITY REC | CEIVED | 5 L | TR | | |

| RT NO | |
|-------|--|
| | |
| | |
| | |
| | |

| | | | TEST REPORT | | | | |
|------------|--|--------------------|--|---------------------|-------------------|-----------|--|
| | | | | AS PER I | S 10500:2012 | | |
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT | |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 | |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | |
| 3 | Taste | 1983 - 1983 | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | |
| 4 | рН | - | APHA 23 rd Ed. 2017,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.32 | |
| 5 | Turbidity | NTU | APHA 23rd Ed. 2017,2130-B,2-13 | 1 | 5 | 2.61 | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | - | 288.3 | |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed. 2017,4500-Cl-G,4 - 69 | 0.2 | 1 | N.D. | |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed. 2017,2540- B, 2- 64 | - | - | 179.6 | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 172.0 | |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 rd Ed. 2017,2540- D, 2- 66 | | - | 7.6 | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 44.0 | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,2340-C, 2- 44,45 | 200 | 600 | 78.0 | |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca-B, 3-67 | - | - | 56.0 | |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg-B, 3-84 | - | - | 22.0 | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca-B, 3-67 | 75 | 200 | 22.44 | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg-B, 3-84 | 30 | 100 | 5.35 | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed. 2017,4500-Cl-B, 4-72 | 250 | 1000 | 21.9 | |
| 18 | Sulphate (as SO₄) | mg/Lit | APHA 23 rd Ed. 2017,4500-SO ₄ - E,4-190 | 200 | 400 | 19.3 | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed. 2017,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 3.6 | |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | - | - | N.D. | |
| 20 | Sodium (as Na) | mg/Lit | APHA 23rd Ed. 2017,3500-Na-B, | - | | 8.9 | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------------|--|----------------|---|--|---|--------|
| | | | | AS PER | IS 10500:2012 | |
| SR. NO, | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| | | | 3-97 | | | |
| 21 | Potassium (as K) | mg/Lit | APHA 23 rd Ed. 2017,3500-K-B, 3-87 | | - | 0.35 |
| 22 | Boron (as B) | mg/Lit | APHA 23 rd Ed. 2017,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 23 | Iron (as Fe) | mg/Lit | APHA 23rd Ed. 2017,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 24 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed. 2017,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.32 |
| 25 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.1 | 0.3 | N.D. |
| 26 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 27 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 28 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 5 | 15 | N.D. |
| 29 | Copper (as Cu) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.05 | 1.5 | N.D. |
| 30 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cd,3- 105 | 0.003 | No Relaxation | N.D. |
| 31 | Mercury (as Hg) | mg/Lit | APHA 23 rd Ed. 2017,3112-B, 3- 23 | 017,3112-B, 3- 0.001 No Relaxation | | N.D. |
| 32 | Arsenic (as As) | mg/Lit | APHA 23 rd Ed. 2017,3114-C, 3- 38 | 0.01 | 0.05 | N.D. |
| 33 | Selenium (as Se) | mg/Lit | APHA 23 rd Ed. 2017,3114-C, 3- 38 0.01 No Relaxation | | N.D. | |
| 34 | Chromium (as Cr) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cr-B, 0.05 No Relaxation | | N.D. | |
| 35 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 rd Ed. 2017,5540-C, 5- 53 | 0.2 | 1.0 | N.D. |
| 36 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 rd Ed. 2017,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 37 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23 rd Ed. 2017,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 38 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 39 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - | - | N.D. |
| Micr | obiological Analysis | 3 | | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | e detectable in any ml sample | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be | e detectable in any ml sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be | e detectable in any ml sample | Absent |
| Pest | icides | 1 200111 | | | ana | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |

RESULT

N.D.



REPORT NO. 03885

HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

Acceptable

Limit

AS PER IS 10500:2012

2

Permissible limit

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

TEST REPORT SR. PARAMETER UNIT METHOD OF TEST NO. Gamma-HCH 6 µg/L US EPA 508-1995 (Lindane) -Alpha HCU 110/1 LIC EDA 508-1005

| | | | 1 | | |
|----|------------------------|------|-------------------|------|------|
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.04 | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | N.D. |
| 12 | Endosulfansulphat e | µg/L | US EPA 508-1995 | 0.4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 30 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 20 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0.3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 190 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.03 | N.D. |

Note: mg/lit.: milligram per liter, N.D. - Not Detected

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 1 Sdays after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only 5

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cus | stomer | REPOI | RT NO | UES/TR/23-2 | 4/03 | 884 |
|--|--|-------------------------|-----------------------------|-------------|-----------------------------|-----|
| то, | | LAB 1 | REF NO UES/23-24/W/07398 | | | |
| HINDALCO INDUSTR | | DATE | OF SAMPLING | 24/08/2023 | | |
| GARE PALMA - IV/5, I | | DATE | OF RECEIPT | 25/08/2023 | | |
| U/G COAL MINE,VILL | AGE – MILUPARA, | DATE | OF REPORT | 31/08/2023 | | |
| BLOCK-TAMNAR, DISTT RAIGARH (C | DATE | OF ANALYSIS | START: 25/08/2 | 2023 | END:29/08/2023 | |
| | | SAMP | LE DETAILS | | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFERE | INCE : | P.O.13552310212, DATED:07.0 | |
| CUSTMER SAMPLE ID | STAFF QUARTER- MILUPARA PIEZOMETER (AWLR) | | SAMPLE CONDITION AT RECEIPT | | ОК | |
| PACKING OF SAMPLE A L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE BOTTLE | | SAMPLE COLLEC | SAMPLE COLLECTED BY CHEMIST | | MIST | |
| SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39 | | QUANTITY RECEIVED 5 LTR | | TR | | |

| | | | TEST REPORT | | | |
|------------|---|--------|--|---|---|-----------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | In the second | LE LIMIT FOR R (IS 10500:2012) Permissible limit | RESULT |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 |
| 2 | Odour | . – | IS 3025:(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | IS 3025:(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | pH | | APHA 23 rd Ed. 2017,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.11 |
| 5 | Turbidity | NTU | APHA 23 rd Ed. 2017,2130-B,2-13 | 1 | - 5 | 0.82 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | | - | 242.0 |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed. 2017,4500-CI-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed. 2017,2540- B, 2- 64 | - 3123 | - | 143.4 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 135.0 |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 rd Ed. 2017,2540- D, 2- 66 | | | 8.4 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 600 | | 44.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,2340-C, 2- 44,45 | 200 600 | | 98.0 |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca-B, 3-67 | - | - | 72.0 |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg-B, 3-84 | - | - | 26.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca-B, 3-67 | 75 | 200 | 28.86 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg-B, 3-84 | 30 | 100 | 6.31 |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed. 2017,4500-CI-B, 4-72 | 250 | 1000 | 28.9 |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 rd Ed. 2017,4500-SO ₄ - E,4-190 | 200 | 400 | 30.1 |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed. 2017,4500-NO ₃ - B,4-122 | 45 | No Relaxation | 0.66 |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed. 2017,4500-P-C, 4- 153 | - | - | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed. 2017,3500-Na-B, 3-97 | - | - | 6.9 |
| 22 | Potassium (as K) | mg/Lit | APHA 23rd Ed. 2017,3500-K-B, | - | | 3.1 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------------|--|----------------|--|-------------|------------------------------|--------|
| | | | | | | |
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable | Permissible limit | RESULT |
| | | | 3-87 | | | |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed. 2017,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 rd Ed. 2017,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed. 2017,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.19 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3-18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3-18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23rd Ed. 2017,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cd, 3- 105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23rd Ed. 2017,3112-B, 3-23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 rd Ed. 2017,3114-C, 3-38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 rd Ed. 2017,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C ₆ H ₅ OH) | mg/Lit | APHA 23 rd Ed. 2017,5540-B & C, 5-47 | 0.001 0.002 | | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23 rd Ed. 2017,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - 330 | - | N.D. |
| Microb | biological Analysis | | | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | e detectable in ml sample | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | | e detectable in ml sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | | e detectable in ml sample | Absent |
| Pestic | ides | | | | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0 | .01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0 | .04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0 | .04 | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | (| 0.4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | • | 0.4 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------------|--------------------|------|-------------------|---|--|--------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | ACCEPTABL DRINKING WATE Acceptable Limit | The second s | RESULT |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0. | .4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 0 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | | 2 | |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | 9 | | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3 | 0 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | de denseed 0 . | .3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 90 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | - 12A | N.D. |
| 26 | Aldrin | µg/L | US'EPA 508- 1995 | 0.0 | 03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 | 03 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The | Customer | REPO | DRT NO | UES/TR/2 | 3-24/03 | 886 | | |
|---|--|---------------|--------------------------|------------|----------------------|-----|--|--|
| то, | LAB REF NO | | | | UES/23-24/W/07400 | | | |
| HINDALCO INDUSTRI | ES LIMITED, | DATE | OF SAMPLING | 24/08/2023 | | | | |
| GARE PALMA - IV/5, I | MILUPARA | DATE | OF RECEIPT | 25/08/20 | 23 | | | |
| U/G COAL MINE, VILL | AGE - MILUPARA, | DATE | OF REPORT | 31/08/2023 | | | | |
| BLOCK-TAMNAR, DISTT RAIGARH (C. | DATE | E OF ANALYSIS | START:25 | /08/2023 | END:29/08/2023 | | | |
| | | SAMPL | E DETAILS | | | | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFERE | NCE : | VERBAL COMMUNICATION | | | |
| CUSTMER SAMPLE ID | MILUPARA VILLAGE NEAR P. HIL (DUGWELL) | нс- | SAMPLE CONDIT RECEIPT | ION AT | OK | | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLLEC | TED BY | CHEMI | ST | | |
| SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39 | | | QUANTITY RECE | IVED | 5 LTR | | | |

| | | | TEST REPORT | | | | |
|------------|---|-----------------------------|---|---------------------|----------------------|-----------|--|
| | | | | AS PER IS | 10500:2012 | | |
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT | |
| 1 | Colour | lour Hazen IS:3025:(Part-4) | | 5 | 15 | <1 | |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | |
| 4 | рН | - | APHA 23 rd Ed. 2017,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.58 | |
| 5 | Turbidity | NTU | APHA 23 rd Ed. 2017,2130-B,2- 13 | 1 | 5 | 1.82 | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - 8 | | 262.4 | |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed. 2017,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. | |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed. 2017,2540- B, 2- 64 | - 52 | - | 157.6 | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 150.0 | |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 rd Ed. 2017,2540- D, 2- 66 | - 8 | - | 7.6 | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 50.0 | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,2340-C, 2- 44,45 | 200 | 600 | 114.0 | |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca- B,3-67 | - | 1.05 | 62.0 | |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg- B,3-84 | - | - | 52.0 | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca- B,3-67 | 75 | 200 | 24.85 | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg- B, 3-84 | 30 | 100 | 12.64 | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed. 2017,4500-CI-B, 4-72 | 250 | 1000 | 41.9 | |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 rd Ed. 2017,4500-SO ₄ - E, 4-190 | 200 | 400 | 23.2 | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed. 2017,4500-NO ₃ - B,4-122 | 45 | No Relaxation | 2.6 | |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | - | - | N.D. | |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed. 2017,3500-Na-B, 3-97 | - | - | 7.6 | |
| 22 | Potassium (as K) | mg/Lit | APHA 23 rd Ed. 2017,3500-K-B, 3-87 | - | | 2.44 | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------------|--|-------------------|--|---------------------|--------------------------------|-----------|
| | | | | AS PER IS | 10500:2012 | - Pagella |
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible | RESUL |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed. 2017,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 rd Ed. 2017,3111-B,3- 18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed. 2017,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.14 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.1 | 0.3 | 0.06 |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cd, 3-105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23rd Ed. 2017,3112-B, 3- | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | 23 APHA 23 rd Ed. 2017,3114-C, 3- | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | 38 APHA 23 rd Ed. 2017,3114-C, 3- | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | 38 APHA 23 rd Ed. 2017,3500-Cr-B, | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent | mg/Lit | 3-69 APHA 23 rd Ed. 2017,5540-C, 5- | 0.2 | 1.0 | N.D. |
| | (as MBAS) Phenolic Compound | | 53 APHA 23 rd Ed. 2017,5540-B & | 0.001 | 0.002 | N.D. |
| 37 | (as C ₆ H ₅ OH) Poly-nuclear Aromatic | mg/Lit | C, 5-47 | | No | |
| 38 | Hydrocarbon (PAH) | µg/Lit | APHA 23 rd Ed. 2017,6440-6-93 | 0.0001 | Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - | - | N.D. |
| Micro | biological Analysis | | | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | letectable in any nl sample | Absen |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | | letectable in any Il sample | Absen |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be o | letectable in any I sample | Absen |
| Pesti | cides | i <u>roonii</u> | denotation and an and an an an and an an | ., | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0 | 0.01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0 | 0.04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | C |).04 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPOR | Т | | |
|------------|--------------------|------|-------------------|------------|------------------------------------|-------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable | 10500:2012 Permissible limit | RESUL |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 30 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | - | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3 | 30 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 20 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0 | .3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 1 | 90 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0. | 03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0. | 03 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only.

3 **REVIEWED BY**

AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The | Customer | REPO | DRT NO | UES/TR/2 | 23-24/03 | 887 | | |
|---|---|-----------------|--------------------------|----------------|----------------|-----------------|--|--|
| то, | | LAB | REF NO | EF NO UES/23-2 | | 24/W/07401 | | |
| HINDALCO INDUSTRI | NDALCO INDUSTRIES LIMITED, DATE RE PALMA – IV/5, MILUPARA DATE | | | 24/08/20 | 023 | | | |
| GARE PALMA - IV/5, I | | | | 25/08/20 | 023 | | | |
| U/G COAL MINE, VILL | AGE – MILUPARA, | DATE | OF REPORT | 31/08/20 | 023 | | | |
| BLOCK-TAMNAR, DISTT RAIGARH (C. | DATE | OF ANALYSIS | START:25 | /08/2023 | END:29/08/2023 | | | |
| | | SAMPL | E DETAILS | | | | | |
| SAMPLE TYPE | GROUND WATER | | ORDER /REFERE | INCE : | VERBA | L COMMUNICATION | | |
| CUSTMER SAMPLE ID | NEAR PRIMARY SCHOOL - S VILLAGE (PIEZOMETER - D | AKTA UGWELL) | SAMPLE CONDIT RECEIPT | 'ION AT | OK | | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | SAMPLE COLLEC | TED BY | CHEMI | ST | | |
| SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39 | | | QUANTITY RECEIVED | | 5 LTR | | | |

REPORT NO.03887

| | | | TEST REPORT | AS PER IS | 10500:2012 | |
|------------|---|--------|--|---------------------|----------------------|-----------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 |
| 2 | Odour | | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рН | | APHA 23 rd Ed. 2017,4500-H ⁺ -B, 4-92 | 6.5-8.5 | NoRelaxati on | 7.51 |
| 5 | Turbidity | NTU | APHA 23rd Ed. 2017,2130-B,2-13 | 1 | 5 | 1.26 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | | Nessie- | 328.4 |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed. 2017,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed. 2017,2540- B, 2- | | - | 197.8 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 192.0 |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 rd Ed. 2017,2540- D, 2- 66 | - 39 | - | 5.8 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 62.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,2340-C, 2- 44,45 | 200 | 600 | 104.0 |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca- B,3-67 | - | - | 64.0 |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg- B,3-84 | - | - | 40.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca- B,3-67 | 75 | 200 | 25.65 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg-B, 3-84 | 30 | 100 | 9.72 |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed. 2017,4500-CI-B, 4-72 | 250 | 1000 | 20.9 |
| 18 | Sulphate (as SO₄) | mg/Lit | APHA 23 rd Ed. 2017,4500-SO₄-E, 4-190 | 200 | 400 | 26.4 |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed. 2017,4500-NO ₃ - B,4-122 | 45 | NoRelaxati on | 4.36 |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | - | - | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed. 2017,3500-Na-B, 3-97 | - | - | 21.4 |
| 22 | Potassium (as K) | mg/Lit | APHA 23 rd Ed. 2017,3500-K-B, 3-87 | - | - | 3.28 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|-------|--|-------------------|--|-----------------------------|----------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed. 2017,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 rd Ed. 2017,3111-B,3-18 | 0.3 | NoRelaxati | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed. 2017,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.13 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.1 | 0.3 | 0.07 |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.01 | NoRelaxati | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23rd Ed. 2017,3500-Cd, 3- | 0.003 | NoRelaxati | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | 105 APHA 23 rd Ed. 2017,3112-B, 3- 23 | 0.001 | on NoRelaxati | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23rd Ed. 2017,3114-C, 3- | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | 38 APHA 23 rd Ed. 2017,3114-C, 3- | 0.01 | NoRelaxati | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | 38 APHA 23 rd Ed. 2017,3500-Cr-B, | 0.05 | on NoRelaxati | N.D. |
| 36 | Anionic Detergent | mg/Lit | 3-69 APHA 23 rd Ed. 2017,5540-C, 5- | 0.2 | on 1.0 | N.D. |
| | (as MBAS) Phenolic Compound | | 53 APHA 23 rd Ed. 2017,5540-B & C, | | | |
| 37 | (as C ₆ H ₅ OH) Poly-nuclear Aromatic | mg/Lit | 5-47 | 0.001 | 0.002 NoRelaxati | N.D. |
| 38 | Hydrocarbon (PAH) | µg/Lit | APHA 23 rd Ed. 2017,6440-6-93 | 0.0001 | on | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | | - | N.D. |
| Micro | biological Analysis | | | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | Shall not be any 100 n | | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be o any 100 m | | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be o any 100m | detectable in | Absent |
| Pesti | cides | | | | Ch7 | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.0 |)1 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.0 | | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

REPORT NO. 03887

| SR. | | | | AS PER IS 10500:2012 | |
|-----|--------------------|------|-------------------|---------------------------------------|--------|
| NO. | PARAMETER | | METHOD OF TEST | Acceptable Permissible Limit limit | RESULT |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0.4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 30 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 20 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0.3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 190 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.03 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS rafee **REVIEWED BY AUTHORIZED SIGNATORY**

End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cus | tomer | REPORT NO | UES/TR/23-24/03851 | | | |
|--|---|--------------------------------|--------------------------------------|-------------------|--|--|
| то, | | LAB REF NO | UES/23-24/W/07326 | UES/23-24/W/07326 | | |
| HINDALCO INDUST | RIES LIMITED, | DATE OF SAMPLING | 24/08/2023 | | | |
| GARE PALMA - IV/4 | , COAL MINE, VILLAGE - | DATE OF RECEIPT | 25/08/2023 | | | |
| BANKHETA, POST | MILUPARA, | DATE OF REPORT | 31/08/2023 | | | |
| DISTT RAIGARH | (C.G.) 496107. | DATE OF ANALYSIS | START:25/08/2023 | END:29/08/2023 | | |
| | | SAMPLE DETAILS | | | | |
| SAMPLE TYPE | GROUND WATER | ORDER /REFERENCE: | P.O.13552310211, DATED:07.09.2022 | | | |
| CUSTMER SAMPLE ID | NEAR PRIMARY SCHOOL - SIDARPARA VILLAGE, (PIEZOMETER - DUGWELL) | SAMPLE CONDITION AT RECEIPT | ок | | | |
| PACKING OF SAMPLE 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTLE L X 1 NO. GLASS BOTLE | | LED SAMPLE COLLECTED BY | CHEMIST | | | |
| SAMPLING PROCEDURE | IS:3025(PART I):1987 RA 2003; APHA 23RD ED. 2012 1060-B, 1-39 | , QUANTITY RECEIVED | 5 LTR | | | |

Report No.03851

| | | | TEST REPORT | | | |
|-----|---|--------|---|---------------------|----------------------|-----------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1.0 |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рН | - | APHA 23 rd Ed.2017,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.30 |
| 5 | Turbidity | NTU | APHA 23 rd Ed.2017,2130-B,2-13 | 1 | 5 | 0.59 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | | - | 267.9 |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed.2017,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed.2017,2540- B, 2- 64 | - (451) | | 163.34 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 160.74 |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 rd Ed.2017,2540- D, 2- 66 | | - | 2.6 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 84.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,2340-C, 2- 44,45 | 200 | 600 | 112.0 |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,3500-Ca-B, 3-67 | 2 | - | 76.0 |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,3500-Mg-B, 3-84 | - | - | 36.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed.2017,3500-Ca-B, 3-67 | 75 | 200 | 30.46 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed.2017,3500-Mg-B, 3-84 | 30 | 100 | 8.74 |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed.2017,4500-CI-B, 4-72 | 250 | 1000 | 18.9 |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 rd Ed.2017,4500-SO ₄ -E, 4-190 | 200 | 400 | 20.2 |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed.2017,4500–NO ₃ -B, 4-122 | 45 | No Relaxation | 0.61 |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed.2017,4500-P-C, 4- 153 | - | - | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed.2017,3500-Na-B, 3-97 | - | - | 11.62 |
| 22 | Potassium (as K) | mg/Lit | APHA 23rd Ed.2017,3500-K-B, 3- | - | (E) | 0.67 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|-------|--|-------------------|---|---|------------------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESUL |
| | | | 87 | | | |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed.2017,4500-B-B, 4- 25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23rd Ed.2017,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed.2017,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.12 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23rd Ed.2017,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed.2017,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed.2017,3500-Cd, 3- 105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 rd Ed.2017,3112-B, 3-23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23rd Ed.2017,3114-C, 3-38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 rd Ed.2017,3114-C, 3-38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 rd Ed.2017,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 rd Ed.2017,5540-C, 5-53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 rd Ed.2017,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23rd Ed.2017,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | - 1 | - | N.D. |
| Micro | biological Analysis | | 4 | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | | etectable in any I sample | Absent |
| 2 | Faecal coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | | etectable in any I sample | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | | etectable in any I sample | Absent |
| Pesti | cides | | สีการการการการการการการการการการการการการก | Anno 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0 | .01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0 | .04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0 | .04 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | Mer Praise in | |
|-----|--------------------|------|-------------------|---------------------|----------------------|--------|
| SR. | | | | AS PER IS | 10500:2012 | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0. | 4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0. | .4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0. | 4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | L | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 3 | 0 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0. | 3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | , 19 | 90 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | · | | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.0 | 03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 | 03 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

AA Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cu | stomer | REPORT NO | UES/TR/23-24, | UES/TR/23-24/03944 UES/23-24/W/07504 | | | |
|--|---|------------------|---------------------------|---|---|--|--|
| TO, | | LAB REF NO | UES/23-24/W/ | | | | |
| HINDALCO INDUST | RIES LIMITED, | DATE OF SAMPLING | 24/08/2023 | 24/08/2023 | | | |
| GARE PALMA - IV/4 | 4, COAL MINE, VILLAGE - | DATE OF RECEIPT | 25/08/2023 | | *************************************** | | |
| BANKHETA, POST | -MILUPARA, | DATE OF REPORT | DATE OF REPORT 31/08/2023 | | | | |
| DISTT RAIGARH | (C.G.) 496107. | DATE OF ANALYSIS | 2023 END:29/08/202 | | | | |
| SAMPLE TYPE | GROUND WATER | ORDER /REFER | ENCE : | | 13552310211, D:07.09.2022 | | |
| SAMPLE TYPE | GROUND WATER | ORDER /REFER | ENCE : | | 이 같은 것 같은 것은 바람이 있는 것 같아? | | |
| CUSTMER SAMPLE ID | NEAR PRIMARY SCHOOL - BELJO VILLAGE (PIEZOMETER - DUGWI | SAMPLE CONDI | TION AT RECEIPT | OK | - 0000 | | |
| PACKING OF SAMPLE | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN SEALEL 1 L X 1 NO. GLASS BOTTLE | SAMPLE COLLE | CTED BY | CHEM | IST | | |
| SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 200 APHA 22ND ED. 2012, 1060-B, | | OUDNITTY DEC | QUANTITY RECEIVED | | 5 LTR | | |

Report No.03944

| | | | TEST REPORT | | | | |
|-----|---|--------|---|---------------------|----------------------|---------------------|--|
| SR. | | | | AS PER IS | 10500:2012 | | |
| NO. | PARAMETER | UNIT | METHOD OF TEST | Acceptable Limit | Permissible limit | RESULT | |
| 1 | Colour | Hazen | IS:3025:(Part-4) | 5 | 15 | <1 | |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | |
| 4 | рН | - | APHA 23 rd Ed.2017,4500-H ⁺ -B, 4-92 | 6.5-8.5 | No Relaxation | 7.22 | |
| 5 | Turbidity | NTU | APHA 23rd Ed.2017,2130-B,2-13 | 1 | 5 | 0.57 | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | - | - | 276.7 | |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed.2017,4500-Cl-G, 4 - 69 | 0.2 | 1 | N.D. | |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed.2017,2540- B, 2- 64 | - | - | 168.32 | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 166.02 | |
| 10 | Total Suspended Solids | mg/Lit | APHA 23 rd Ed.2017,2540- D, 2- 66 | - 1 | | 2.3 | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 94.0 | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,2340-C, 2- 44,45 | 200 | 600 | 110.0 | |
| 13 | Calcium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,3500-Ca-B, 3-67 | - | - | 74.0 | |
| 14 | Magnesium Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed.2017,3500-Mg-B, 3-84 | - 1 | - | 36.0 | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed.2017,3500-Ca-B, 3-67 | 75 | 200 | 29.65 | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed.2017,3500-Mg-B, 3-84 | 30 | 100 | 8.75 | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed.2017,4500-Cl-B, 4-72 | 250 | 1000 | 20.9 | |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 23 rd Ed.2017,4500-SO ₄ -E, 4-190 | 200 | 400 | 21.98 | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed.2017,4500-NO ₃ -B, 4-122 | 45 | No Relaxation | 1. <mark>1</mark> 2 | |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed.2017,4500-P-C, 4- 153 | - | - | N.D. | |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed.2017,3500-Na-B, 3-97 | - | - | 7.13 | |
| 22 | Potassium (as K) | mg/Lit | APHA 23rd Ed.2017,3500-K-B, | - | | 0.51 | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------------|--|----------------|---|---|----------------------|--------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS 10500:2012 | | |
| | | | | Acceptable Limit | Permissible limit | RESUL |
| | | | 3-87 | | | |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed.2017,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 rd Ed.2017,3111-B,3-18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed.2017,4500-F-B &D, 4-84 & 87 | 1 | 1.5 | 0.13 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23rd Ed.2017,3111-B, 3-18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed.2017,3500-Ni, 3- 108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed.2017,3111-B, 3-18 | 5 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23rd Ed.2017,3111-B, 3-18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed.2017,3500-Cd, 3- 105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 rd Ed.2017,3112-B, 3-23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23 rd Ed.2017,3114-C, 3- 38 | 0.01 | 0.05 | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 rd Ed.2017,3114-C, 3- 38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 rd Ed.2017,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 rd Ed.2017,5540-C, 5- 53 | 0.2 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 rd Ed.2017,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23 rd Ed.2017,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003 | 1 | - | N.D. |
| Micro | biological Analysis | | 1 2003 | | <u>.</u> | |
| 1 | Total Coliforms | MPN/ 100 ML | IS:1622:1981: RA:2019 | Shall not be detectable in any 100 ml sample | | Absent |
| 2 | Faecal Coliform | MPN/ 100ml | IS:1622:1981: RA:2019 | Shall not be detectable in any 100 ml sample | | Absent |
| 3 | E. Coli | MPN/ 100ml | IS:1622:1981:RA:2019 | Shall not be detectable in any 100 ml sample | | Absent |
| Pesti | cides | 100111 | 1 | any 100 | in sumple | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.01 | | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0. | 04 | N.D. |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

| TEST REPORT | | | | | | | | | | |
|-------------|--------------------|------|-------------------|----------------------|----------------------|--------|--|--|--|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS 10500:2012 | | | | | | |
| | | | | Acceptable Limit | Permissible limit | RESULT | | | | |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. | | | | |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. | | | | |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. | | | | |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0.4 | | N.D. | | | | |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | | N.D. | | | | |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | | N.D. | | | | |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | | N.D. | | | | |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. | | | | |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | | N.D. | | | | |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | | N.D. | | | | |
| 19 | 2,4-D | µg/L | US EPA 515.1-1995 | 30 | | N.D. | | | | |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 20 | | N.D. | | | | |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | | N.D. | | | | |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0.3 | | N.D. | | | | |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | - | | N.D. | | | | |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 190 | | N.D. | | | | |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | | N.D. | | | | |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.03 | | N.D. | | | | |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 |)3 | N.D. | | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

2

The report for publication, arbitration or as legal dispute is forbidden.

A Test sample will be retained for15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS 31108 **REVIEWED BY** AUTHORIZED SIGNATORY

-End of the test report---

Annexure-4



Letter No.: HIL/EC/GP-IV/5 -Q1/2023-24/126

12TH July, 2023

The Integrated Regional Office, Ministry of Environment Forests & Climate Change (MoEF & CC) Aranya Bhawan, North Block, Sector – 19, Naya Raipur, Atal Nagar, Chhattisgarh, 492002

Sub.: Compliance of condition no. viii of Environment Clearance Letter no. – J-11015/ 8/1998-IA. II (M) Dated: - 31st August 2000 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity.

Ref.: Environment Clearance Letter no. - letter no. J-11015/ 8/1998-IA. II (M) Dated: - 31st August 2000.

Dear Sir,

With reference to above subject, we are submitting herewith the quarterly monitoring report of Ground Water Level (from Apr'2023 to Jun'2023) & GW Quality for the month of May 2023 – Pre Monsoon Season of Gare Palma IV/5 Coal Mines, Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh.

Thanking you,

Yours faithfully,

Govind Kumar (Mine Agent – Gare Palma Mines) Hindalco Industries Limited

Encl: As above



- CC: 1) Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas, Bhawan, Raipur, Chhattisgarh.
 - 2) Regional Officer, Chhattisgarh Environment Conservation Board, TV tower Road, Raigarh (CG).
 - 3) The Regional Director, Regional Directorate (Central), Bhopal Central Pollution Control Board (MoEF & CC, GOI), "Parivesh Bhawan" Paryavaran Parishar, E 5, Arera Colony, Bhopal (MP), 462016
 - 4) The Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, 2nd Floor, LK Corporate and Logistic Park, Dumartarai, Raipur-492015
 - 5) Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi 110011

Hindalco Industries Limited

Gare Palma Mines (1V/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh T; +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India T: + 912266917000 | Fax: + 912266917001 Corporate ID No: L27020MH1958PLC011238



HIL/EC/GP-IV/5-Q2/2023-24/212

11th October, 2023

The Integrated Regional Office, Ministry of Environment Forests & Climate Change (MoEF & CC) Aranya Bhawan, North Block, Sector – 19, Naya Raipur, Atal Nagar, Chhattisgarh, 492002

Sub.: Compliance of condition no. viii of Environment Clearance Letter no. – J-11015/ 8/1998-IA. II (M) Dated: - 31st August 2000 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity.

Ref.: Environment Clearance Letter no. - letter no. J-11015/ 8/1998-IA. II (M) Dated: - 31st August 2000.

Dear Sir,

With reference to above subject, we are submitting herewith the quarterly monitoring report of Ground Water Level (from Jul'2023 to Sep'2023) & Ground Water Quality for the month of August 2023 – Monsoon Season of Gare Palma IV/5 Under Ground Coal Mines, Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh.

Thanking you,

Yours faithfully,

(Asst. Vice President – Gare Palma Coal Mines) Hindalco Industries Limited



Encl: As above

- CC: 1)[©] Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas, Bhawan, Raipur, Chhattisgarh.
 - 2) Regional Officer, Chhattisgarh Environment Conservation Board, TV tower Road, Raigarh (CG).
 - The Regional Director, Regional Directorate (Central), Bhopal Central Pollution Control Board (MoEF & CC, GOI), "Parivesh Bhawan" Paryavaran Parishar, E 5, Arera Colony, Bhopal (MP), 462016
 - 4) The Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, 2nd Floor, LK Corporate and Logistic Park, Dumartarai, Raipur-492015
 - 5) Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi – 110011

Hindalco Industries Limited

Gare Palma Mines (1V/4 & IV/5), VIII & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh T: +917762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andherl (East) , Mumbai 400093, India T: + 912266917000 | Fax: + 912266917001 Corporate ID No: L27020MH1958PLC011238

Annexure-5

AAQM Report – Core Zone



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo | mer | REPORT NO | UES/TR/23-24/0557 | 1 | |
|---|---|-----------------------------|--|---|--|
| то, | | LAB REF NO | UES/23-24/AAQM/01 | 365-01372 | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 03/04/2023 to 27/ | /04/2023 | |
| | | DATE OF RECEIPT | 04/04/2023 to 28/04/2023 02/05/2023 | | |
| | | DATE OF REPORT | | | |
| | | DATE OF ANALYSIS | START:04/04/2023 END:30/04/2 | | |
| and the second second | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09.2022 | | |
| SAMPLING LOCATION | MAIN OFFICE AREA, MILUPAL | RA | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | damanta - teneraria esta en arresta esta anticana antica | *************************************** | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 SO2: 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard |
|---|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|
| Date of Sampling | ΡM ₁₀ μg/m ³ | PM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 03.04.2023 | 68 | 34 | 18 | 26 | 0.80 | N.D. |
| 06.04.2023 | 64 | 33 | 17 | 25 | 0.78 | N.D. |
| 10.04.2023 | 64 | 31 | 16 | 24 | 0.67 | N.D. |
| 13.04.2023 | 63 | 29 | 17 | 24 | 0.89 | N.D. |
| 17.04.2023 | 63 | 30 | 16 ' | 25 | 0.70 | N.D. |
| 20.04.2023 | 67 | 29 | 18 | 24 | 0.51 | N.D. |
| 24.04.2023 | 65 | 32 | 17 | 25 | 0.73 | N.D. |
| 27.04.2023 | 69 | 30 | 16 | 24 | 0.64 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise and This is for information as the party has asked for above test(s) only.



-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo | mer | REPORT NO | UES/TR/23-24/0903 | 3 | |
|---|--|---|--|--|--|
| | TRICCI MUTCH CARE | LAB REF NO | UES/23-24/AAQM/02082-02089 | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 01/05/2023 to 26/05/2023 02/05/2023 to 27/05/2023 | | |
| | | DATE OF RECEIPT | | | |
| | | DATE OF REPORT | 31/05/2023 START:02/05/2023 END:30/05/2023 | | |
| | | DATE OF ANALYSIS | | | |
| | | SAMPLE DETAILS | | State of the second | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09.2022 | | |
| SAMPLING LOCATION | MAIN OFFICE AREA, MILUPAL | RA | | en ander ander ander and a second state of the | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | ukaanaa aanaa a | Land and the second | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 SO2: 30MLX1 NO. PVC BOTTI RUBBER BLADDER: 1X1 NO. | NO., FILTER PAPER (PM2 LE, NO2: 30MLX1 NO. PVC | 2.5): 1X1 NO. C BOTTLE | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | |
|--|---|-------------------|--|--|
| Parameter | Method Reference | NAAQM Standard | | |
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | |
| Mercury (Hg) | EPA Method IO-5 | | | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------|--------------------------|-------------------------|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | Ρ <mark>Μ</mark> _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 01.05.2023 | 70 | 35 | 20 | 27 | 0.82 | N.D. |
| 05.05.2023 | 67 | 34 | 19 | 26 | 0.80 | N.D. |
| 08.05.2023 | 66 | 32 | 18 | 25 | 0.69 | N.D. |
| 12.05.2023 | 65 | 30 | 19 | 26 | 0.91 | N.D. |
| 15.05.2023 | 65 | 31 | 18 | 24 | 0.75 | N.D. |
| 19.05.2023 | 69 | 30 | 20 | 25 | 0.55 | N.D. |
| 22.05.2023 | 68 | 33 | 19 | 27 | 0.77 | N.D. |
| 26.05.2023 | 71 | 31 | 18 | 26 | 0.68 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
 This is for information as the party has asked for above test(s) only.



-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo | mer | REPORT NO | UES/TR/23-24/0201 | LO | |
|--|---|-----------------------------|--|---|--|
| то, | | LAB REF NO | UES/23-24/AAQM/04362-04369 | | |
| | TRIES LIMITED, GARE | DATE OF SAMPLING | 02/06/2023 to 30/ | /06/2023 | |
| PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT | 03/06/2023 to 01/07/2023 | | |
| | | DATE OF REPORT | 04/07/2023 START:03/06/2023 END:04/07/202 | | |
| | | DATE OF ANALYSIS | | | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09.2022 | | |
| SAMPLING LOCATION | MAIN OFFICE AREA, MILUPAL | RA | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | - III - III - IIII - IIIII - IIIII - IIII - | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 NO., FILTER PAPER (PM2.5): 1X1 NO. SO2: 30MLX1 NO. PVC BOTTLE, NO2: 30MLX1 NO <mark>. P</mark> VC BOTTLE RUBBER BLADDER: 1X1 NO. | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | |
|---|---|-------|--|--|
| Parameter | Method Reference | NAAQM | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | |
| Mercury (Hg) | EPA Method IO-5 | | | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|------------|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | РМ _{2.5} µg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m |
| 02.06.2023 | 68 | 34 | 19 | 26 | 0.80 | N.D. |
| 05.06.2023 | 66 | 33 | 18 | 25 | 0.73 | N.D. |
| 09.06.2023 | 65 | 31 | 17 | 24 | 0.58 | N.D. |
| 12.06.2023 | 64 | 29 | 18 | 25 | 0.84 | N.D. |
| 16.06.2023 | 63 | 30 | 17 | 23 | 0.63 | N.D. |
| 19.06.2023 | 68 | 29 | 19 | 24 | 0.41 | N.D. |
| 23.06.2023 | 51 | 27 | 16 | 24 | 0.67 | N.D. |
| 30.06.2023 | 62 | 28 | 17 | 25 | 0.56 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unles

IRC



-End of the test report.....

custome



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo | mer | REPORT NO | UES/TR/23-24/0305 | 54 | |
|---|--|-----------------------------|--|----------|--|
| то, | | LAB REF NO | UES/23-24/AAQM/05854-05861 | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 03/07/2023 to 28, | /07/2023 | |
| | | DATE OF RECEIPT | 04/07/2023 to 29/07/2023 31/07/2023 | | |
| | | DATE OF REPORT | | | |
| | | DATE OF ANALYSIS | START:04/07/2023 END:31/07/2 | | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09.2022 | | |
| SAMPLING LOCATION | MAIN OFFICE AREA, MILUPAL | RA | | | |
| DURATION OF SAMPLING | 24 HOURS SAMPLE COLLECTED BY LABORATORY CHEM | | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 NO., FILTER PAPER (PM2.5): 1X1 NO. SO2: 30MLX1 NO. PVC BOTTLE, NO2: 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO. | | | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard |
|---|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019CPCBGuidelinesVolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------|--------------------------|-------------------------|
| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ |
| 03.07.2023 | 45 | 26 | 16 | 23 | 0.70 | N.D. |
| 07.07.2023 | 47 | 28 | 17 | 24 | 0.62 | N.D. |
| 10.07.2023 | 43 | 23 | 15 | 22 | 0.47 | N.D. |
| 14.07.2023 | . 44 | 26 | 17 | 22 | 0.73 | N.D. |
| 17.07.2023 | 47 | 23 | 15 | 24 | 0.53 | N.D. |
| 21.07.2023 | 42 | 24 | 17 | 23 | 0.32 | N.D. |
| 24.07.2023 | 44 | 26 | 16 | 25 | 0.51 | N.D. |
| 28.07.2023 | 44 | 26 | 18 | 21 | 0.44 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden Test sample will be retained for 15 days after issue of test report unle This is for information as the party has asked for above test(s) only.



For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

REVIEWED BY

End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custon | mor | REPORT NO | UES/TR/23-24/0386 | 55 |
|---|--|-----------------------------|--|---------|
| то, | | LAB REF NO | UES/23-24/AAQM/07340-7347 | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 03/08/2023 to 28/ | 08/2023 |
| | | DATE OF RECEIPT | 04/08/2023 to 29/08/2023 31/08/2023 | |
| | | DATE OF REPORT | | |
| | | DATE OF ANALYSIS | START:04/08/2023 END:31/08/20 | |
| | | SAMPLE DETAILS | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09.2022 | |
| SAMPLING LOCATION | MAIN OFFICE AREA, MILUPAL | RA | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 NO., FILTER PAPER (PM2.5): 1X1 NO. SO2: 30MLX1 NO. PVC BOTTLE, NO2: 30MLX1 NO. PVC BOTTLE BURBER BLADDER: 1X1 NO. | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|---|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019CPCBGuidelinesVolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------|--------------------------|-------------------------|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ | |
| 03.08.2023 | 40 | 24 | 19 | 22 | 0.64 | N.D. | |
| 07.08.2023 | 39 | 28 | 16 | 22 | 0.41 | N.D. | |
| 11.08.2023 | 38 | 29 | 17 | 26 | 0.26 | N.D. | |
| 14.08.2023 | 40 | 25 | 16 | 26 | 0.57 | N.D. | |
| 18.08.2023 | 43 | 27 | 19 | 26 | 0.34 | N.D. | |
| 21.08.2023 | 42 | 29 | 15 | 26 | 0.26 | N.D. | |
| 25.08.2023 | 41 | 25 | 18 | 25 | 0.37 | N.D. | |
| 28.08.2023 | 44 | 27 | 16 | 24 | 0.21 | N.D. | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
 This is for information as the party has asked for above test(s) only.

102



REVIEWED BY

-----End of the test report.....

For ULTIMATE ENVIROLYTICAL SOLUTIONS

shapee

AUTHORIZED SIGNATORY



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo | nner | REPORT NO | UES/TR/23-24/04671 UES/23-24/AAQM/08578-08585 | | |
|---|--|--|--|-----------------|--|
| | TRIES LIMITED CARE | LAB REF NO | | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 01/09/2023 to 25, | /09/2023 | |
| | | DATE OF RECEIPT | 02/09/2023 to 26/09/2023 27/09/2023 | | |
| | | DATE OF REPORT | | | |
| | | DATE OF ANALYSIS | START:02/09/2023 | END:27/09/2023 | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & P.O.13552310212, DATED:07.09.20. | | ATED:07.09.2022 | |
| SAMPLING LOCATION | MAIN OFFICE AREA, MILUPAN | RA. | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PMI0): 1X1 SO2: 30MLX1 NO. PVC BOTTI RUBBER BLADDER: 1X1 NO. | NO., FILTER PAPER (PM2 E, NO2: 30MLX1 NO. PVC | 2.5): 1X1 NO. C BOTTLE | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|---|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019CPCBGuidelinesVolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------|--------------------------|-------------------------|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | РМ _{2.5} µg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ² |
| 01.09.2023 | 44 | 24 | 19 | 27 | 0.51 | N.D. |
| 04.09.2023 | 44 | 24 | 16 | 26 | 0.34 | N.D. |
| 08.09.2023 | 42 | 24 | 22 | 28 | 0.22 | N.D. |
| 11.09.2023 | 44 | 24 | 20 | 26 | 0.41 | N.D. |
| 15.09.2023 | 44 | 24 | 17 | 26 | 0.20 | N.D. |
| 19.09.2023 | 44 | 25 | 22 | 27 | 0.18 | N.D. |
| 22.09.2023 | 38 | 27 | 18 | 28 | 0.25 | N.D. |
| 25.09.2023 | 41 | 29 | 22 | 24 | 0.16 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.

Ber-27/09/23

REVIEWED BY



ForULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custom | ner | REPORT NO | UES/TR/23-24/055 | /0558 | | |
|---|---|-----------------------------|-------------------|--------------------------|--|--|
| то, | | LAB REF NO | UES/23-24/AAQM/0 | ES/23-24/AAQM/01373-1380 | | |
| | RIES LIMITED, GARE | DATE OF SAMPLING | 03/04/2023 to 27 | /04/2023 | | |
| PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT | 04/04/2023 to 28 | /04/2023 | | |
| | | DATE OF REPORT | 02/05/2023 | | | |
| | | DATE OF ANALYSIS | START: 04/04/2023 | END: 30/04/2023 | | |
| | | SAMPLE DETAILS | | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212 | ,DATED:07.09.2022 | | |
| SAMPLING LOCATION | HIL STAFF QUARTER, MILUN | PARA | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEM | IST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | | | |

| Parameter | Method Reference | NAAQM Standard |
|---|--|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO2) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Ha) | EPA Method IO-5 | |

| TES | DE | DA | DT |
|-----|----|----|-----------|
| IC | RE | FU | NI |

| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|
| 03.04.2023 | 63 | 33 | 18 | 25 | 0.53 | N.D. |
| 06.04.2023 | 63 | 33 | 17 | 26 | 0.79 | N.D. |
| 10.04.2023 | 67 | 30 | 16 | 25 | 0.87 | N.D. |
| 13.04.2023 | 65 | 33 | 16 | 25 | 0.43 | N.D. |
| 17.04.2023 | 69 | 31 | 17 | 24 | 0.54 | N.D. |
| 20.04.2023 | 69 | 35 | 18 | 26 | 0.81 | N.D. |
| 24.04.2023 | 68 | 33 | 17 | 26 | 0.72 | N.D. |
| 27.04.2023 | 64 | 35 | 16 | 24 | 0.63 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless other This is for information as the party has asked for above test(s) on the test of the second second second second wise agreed with customer.



-End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custor | ner | REPORT NO | UES/TR/23-24/0904 UES/23-24/AAQM/02090-02097 | | |
|--|--|--|---|--|--|
| TO, | | LAB REF NO | | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 01/05/2023 to 26 | 5/05/2023 | |
| | | DATE OF RECEIPT | 02/05/2023 to 27 | /05/2023 | |
| | | DATE OF REPORT | DATE OF REPORT 31/05/2023 | | |
| | | DATE OF ANALYSIS START: 02/05/2023 | | END: 30/05/2023 | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212 | ,DATED:07.09.2022 | |
| SAMPLING LOCATION | HIL STAFF QUARTER, MILUF | 'ARA | | 900 (900 900) a Barta da manana manana mangan sa | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEM | IST | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | nishini soomaani in prosenta in 1999 (1994) 1994 - 1997 - 1997 (1994) | ana adama ana ana ana ana ana ana ana ana ana | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO. | | | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard |
|--|---|-------------------|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO2) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|
| Date of Sampling | РМ ₁₀ µg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 01.05.2023 | 65 | 34 | 19 | 26 | 0.64 | N.D. |
| 05.05.2023 | 67 | 35 | 18 | 27 | 0.81 | N.D. |
| 08.05.2023 | 69 | 31 | 17 | 26 | 0.94 | N.D. |
| 12.05.2023 | 67 | 34 | 18 | 24 | 0.52 | N.D. |
| 15.05.2023 | 71 | 32 | 19 | 25 | 0.60 | N.D. |
| 19.05.2023 | 72 | 36 | 20 | 27 | 0.96 | N.D. |
| 22.05.2023 | 70 | 34 | 19 | 26 | 0.88 | N.D. |
| 26.05.2023 | 66 | 36 | 18 | _ 25 | 0.72 | N.D. |

Terms & conditions

* The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

- This is for information as the party has asked for above test(s) only:

| | A SAMAGAR RING E | For ULTIMATE ENVIROLYTICAL SOLUTION |
|-------------|------------------|-------------------------------------|
| Bell | 新 (五) 新 | Q theiraf |
| 31/05/23 | | Subhogeet |
| REVIEWED BY | 1 4 100 GS | AUTHORIZED SIGNATORY |

-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custon | ner | REPORT NO | UES/TR/23-24/02011 UES/23-24/AAQM/04370-04377 | | |
|--|---|-----------------------------|--|--|--|
| то, | | LAB REF NO | | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 02/06/2023 to 30 |)/06/2023 | |
| | | DATE OF RECEIPT | 03/06/2023 to 01 | /07/2023 | |
| | | DATE OF REPORT | 04/07/2023 | | |
| | | DATE OF ANALYSIS | START:03/06/2023 END:04/07/202 | | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212 | ,DATED:07.09.2022 | |
| SAMPLING LOCATION | HIL STAFF QUARTER, MILUF | ARA | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEM | IST | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | ninan (mata-daharinan asaran an asaran dari kasarina dari yengen | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|---|--|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Pa <mark>rt 24):</mark> 2019 CPCB Guidelines VolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|--|
| Date of Sampling | РМ ₁₀ µg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | |
| 02.06.2023 | 64 | 34 | 18 | 25 | 0.41 | N.D. | |
| 05.06.2023 | 66 | 33 | 17 | 26 | 0.73 | N.D. | |
| 09.06.2023 | 68 | 30 | 16 | 27 | 0.82 | N.D. | |
| 12.06.2023 | 66 | 33 | 17 | 25 | 0.45 | N.D. | |
| 16.06.2023 | 70 | 31 | 18 | 24 | 0.56 | N.D. | |
| 19.06.2023 | 71 | 35 | 19 | 26 | 0.85 | N.D. | |
| 23.06.2023 | 50 | 26 | 15 | 23 | 0.73 | N.D. | |
| 30.06.2023 | 63 | 27 | 17 | 24 | 0.61 | N.D. | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only



-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custon | ner | REPORT NO | UES/TR/23-24/03055 | | |
|---|---|-----------------------------|---------------------------------|-------------------|--|
| TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | LAB REF NO | UES/23-24/AAQM/05862-05869 | | |
| | | DATE OF SAMPLING | 03/07/2023 to 28 | /07/2023 | |
| | | DATE OF RECEIPT | 04/07/2023 to 29 | 0/07/2023 | |
| | | DATE OF REPORT | 31/07/2023 | | |
| | | DATE OF ANALYSIS | START: 04/07/2023 END: 31/07/20 | | |
| | Contraction of the second second | SAMPLE DETAILS | | Star L. Star | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212 | ,DATED:07.09.2022 | |
| SAMPLING LOCATION | HIL STAFF QUARTER, MILUF | PARA | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEM | IIST | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | n | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|--|---|-----|--|--|--|--|
| Parameter Method Reference | | | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019CPCBGuidelinesVolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method 10-5 | | | | | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|
| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 03.07.2023 | 47 | 28 | 17 | 22 | 0.32 | N.D. |
| 07.07.2023 | 42 | 27 | 18 | 23 | 0.65 | N.D. |
| 10.07.2023 | 47 | 25 | 15 | 22 | 0.70 | N.D. |
| 14.07.2023 | 43 | 29 | 17 | 26 | 0.35 | N.D. |
| 17.07.2023 | 43 | 26 | 16 | 24 | 0.41 | N.D. |
| 21.07.2023 | 43 | 29 | 15 | 25 | 0.71 | N.D. |
| 24.07.2023 | 45 | 28 | 17 | 22 | 0.63 | N.D. |
| 28.07.2023 | 43 | 27 | 14 | 23 | 0.54 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.

Rdu 31/07/23

REVIEWED BY



For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custon | ner | REPORT NO | UES/TR/23-24/03866 | | | |
|--|---|-----------------------------|------------------------------------|-----------------|--|--|
| то, | | LAB REF NO | UES/23-24/AAQM/07348-07355 | | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 03/08/2023 to 28 | /08/2023 | | |
| | | DATE OF RECEIPT | 04/08/2023 to 29 | /08/2023 | | |
| | | DATE OF REPORT 31/08/2023 | | | | |
| | | DATE OF ANALYSIS | START:04/08/2023 | END: 31/08/2023 | | |
| | | SAMPLE DETAILS | | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | & P.O.13552310212, DATED:07.09.202 | | | |
| SAMPLING LOCATION | HIL STAFF QUARTER, MILUF | YARA | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEM | IST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|---|--|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019CPCBGuidelinesVolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------|--------------------------|-------------------------|
| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡΜ _{2.5} μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ |
| 03.08.2023 | 39 | 27 | 15 | 23 | 0.14 | N.D. |
| 07.08.2023 | 39 | 28 | 21 | 25 | 0.46 | N.D. |
| 11.08.2023 | 41 | 24 | 15 | 25 | 0.54 | N.D. |
| 14.08.2023 | 39 | 27 | 20 | 23 | 0.18 | N.D. |
| 18.08.2023 | 42 | 28 | 21 | 22 | 0.22 | N.D. |
| 21.08.2023 | 43 | 24 | 21 | 26 | 0.59 | N.D. |
| 25.08.2023 | 41 | 29 | 15 | 25 | 0.40 | N.D. |
| 28.08.2023 | 42 | 30 | 21 | 24 | 0.36 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

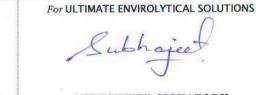
Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

REVIEWED BY



AUTHORIZED SIGNATORY

-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custor TO , | ner | REPORT NO | UES/TR/23-24/04672 | | |
|--|--|-----------------------------|---------------------------------------|--------------------------|--|
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | LAB REF NO | UES/23-24/AAQM/08586-08593 | | |
| | | DATE OF SAMPLING | 01/09/2023 to 25 | 5/09/2023 | |
| | | DATE OF RECEIPT | 02/09/2023 to 26 | 5/09/2023 | |
| | | DATE OF REPORT | 27/09/2023 | | |
| | | DATE OF ANALYSIS | START:02/09/2023 | END:27/09/2023 | |
| | | SAMPLE DETAILS | and all and a second | Reference and the second | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212 | ,DATED:07.09.2022 | |
| SAMPLING LOCATION | HIL STAFF QUARTER, MILUP | ARA | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | · · · · · · · · · · · · · · · · · · · | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO. | | | ********* | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | |
|---|--|-------------------|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019CPCBGuidelinesVolI | 60 | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------|--------------------------|-------------------------|
| Date of Sampling | РМ ₁₀ µg/m ³ | ΡΜ _{2.5} μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ |
| 01.09.2023 | 38 | 28 | 18 | 28 | 0.09 | N.D. |
| 04.09.2023 | 38 | 25 | 20 | 26 . | 0.31 | N.D. |
| 08.09.2023 | 38 | 28 | 21 | 28 | 0.42 | N.D. |
| 11.09.2023 | 44 | 27 | 17 | 25 | 0.11 | N.D. |
| 15.09.2023 | 38 | 29 | 16 | 26 | 0.18 | N.D. |
| 19.09.2023 | 38 | 28 | 16 | 26 | 0.42 | N.D. |
| 22.09.2023 | 41 | 27 | 15 | 25 | 0.34 | N.D. |
| 25.09.2023 | 44 | 24 | 17 | 24 | 0.26 | N.D. |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. ×

This is for information as the party has asked for above test(s) only.



End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custom | ster | REPORT NO | UES/TR/23-24/0559 | | |
|--|---|--|------------------------------|----------------|--|
| то, | | LAB REF NO | UES/23-24/AAQM/0 | 1381-1388 | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 03/04/2023 to 27 | /04/2023 | |
| | | DATE OF RECEIPT | 04/04/2023 to 28 | /04/2023 | |
| | | DATE OF REPORT | 02/05/2023 | | |
| | | DATE OF ANALYSIS | START: 04/04/2023 END: 30/04 | | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DA | TED:07.09.2022 | |
| SAMPLING LOCATION | HIL COLONY, KONDKEL | . Kalenne in the second s | | | |
| DURATION OF SAMPLING | 24 HOURS SAMPLE COLLECTED BY | | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | | |

| Parameter | Method Reference | NAAQM Standard |
|---|--|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|
| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 03.04.2023 | 64 | 30 | 17 | 24 | 0.65 | N.D. |
| 06.04.2023 | 65 | 33 | 18 | 24 | 0.72 | N.D. |
| 10.04.2023 | 68 | 34 | 17 | 25 | 0.81 | N.D. |
| 13.04.2023 | 69 | 29 | 16 | 24 | 0.66 | N.D. |
| 17.04.2023 | 69 | 35 | 16 | 25 | 0.43 | N.D. |
| 20.04.2023 | 64 | 32 | 18 | 24 | 0.51 | N.D. |
| 24.04.2023 | 65 | 31 | 17 | 26 | 0.84 | N.D. |
| 27.04.2023 | 64 | 35 | 16 | 24 | 0.56 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed will This is for information as the party has asked for above test(s) only. customet





AUTHORIZED SIGNATORY

--End of the test report.....

4.0



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custon | ner | REPORT NO | UES/TR/23-24/0905 | | |
|--|--|---|---|--|--|
| то, | | LAB REF NO | UES/23-24/AAQM/02098-02105 | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 01/05/2023 to 26 | /05/2023 | |
| | | DATE OF RECEIPT | 02/05/2023 to 27 | /05/2023 | |
| | | DATE OF REPORT | 31/05/2023 | | |
| | | DATE OF ANALYSIS | START:02/05/2023 | END: 30/05/2023 | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | R REF. NO. P.O.13552310212, DATED:07.09.202 | | |
| SAMPLING LOCATION | HIL COLONY, KONDKEL | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | a decisión a companya a | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO. | | | annan an a | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring NAAQM Parameter **Method Reference** Standard Particulate Matter size less IS 5182 (Part 23): 2006 & CPCB 100 than 10 microns (PM10) Guidelines Vol.-I Particulate Matter size less IS 5182 (Part 24): 2019 CPCB Guidelines Vol.-I 60 than 2.5 microns (PM2.5) IS 5182 (Part 2): 2001, RA 2006 & Sulphur Dioxide (SO2) 80 CPCB Guidelines Vol.-I IS 5182 (Part 6): 2006 & CPCB Nitrogen Dioxide (NO₂) 80 Guidelines Vol.-I

IS 5182(Part 10):1999, RA 2003

Mercury (Hg) EPA Method IO-5 **TEST REPORT** Date of PM2.5 **SO**₂ **PM**₁₀ NO₂ **CO*** Hq Sampling $\mu g/m^3$ $\mu g/m^3$ ng/m³ $\mu g/m^3$ µg/m³ mg/m^3 01.05.2023 66 31 18 25 0.74 N.D. 05.05.2023 67 34 19 24 0.82 N.D. 08.05.2023 70 35 18 26 0.96 N.D. 12.05.2023 69 30 17 25 0.71 N.D. 15.05.2023 71 36 19 24 0.53 N.D. 19.05.2023 66 34 17 25 0.60 N.D. 22.05.2023 67 33 27 18 0.92 N.D. 26.05.2023 66 32 17 25 0.65 N.D. Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

Carbon Monoxide (CO)*

The report for publication, arbitration or as legal dispute is forbidden

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.



-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custor | ner | REPORT NO | UES/TR/23-24/020 | UES/TR/23-24/02012 | | |
|--|---|-----------------------------|-----------------------------------|--------------------|--|--|
| то, | | LAB REF NO | UES/23-24/AAQM/04378-04385 | | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 02/06/2023 to 30 | /06/2023 | | |
| | | DATE OF RECEIPT | 03/06/2023 to 01 | /07/2023 | | |
| | | DATE OF REPORT | 04/07/2023 | | | |
| | | DATE OF ANALYSIS | START:03/06/2023 | END:04/07/2023 | | |
| a series and the series and | | SAMPLE DETAILS | | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09.2022 | | | |
| SAMPLING LOCATION | HIL COLONY, KONDKEL | | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard |
|---|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

TEST REPORT

| Date of Sampling | PM ₁₀ µg/m ³ | PM _{2.5} µg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|
| 02.06.2023 | 65 | 32 | 17 | 24 | 0.63 | N.D. |
| 05.06.2023 | 66 | 33 - | 18 | 23 | 0.71 | N.D. |
| 09.06.2023 | 69 | 34 | 19 | 25 | 0.84 | N.D. |
| 12.06.2023 | 68 | 31 | 18 | 24 | 0.67 | N.D. |
| 16.06.2023 | 70 | 35 | 17 | 23 | 0.46 | N.D. |
| 19.06.2023 | 65 | 33 | 18 | 26 | 0.58 | N.D. |
| 23.06.2023 | 52 | 28 | 15 | 22 | 0.84 | N.D. |
| 30.06.2023 | 64 | 30 | 16 | 23 | 0.53 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.



-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Parameter | | Method F | Reference | NAAQM | |
|---|---|-----------------------------|---------------------------|-----------------|--|
| Test Me | thod and NAAQM Sta | andard for Ambie | ent Air Quality M | Ionitoring | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING LOCATION | HIL COLONY, KONDKEL | | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DA | TED:07.09.2022 | |
| | | SAMPLE DETAILS | | | |
| DISTT RAIGARH | (C.G.) 496107 | DATE OF ANALYSIS | START:04/07/2023 | END: 31/07/2023 | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, | | DATE OF REPORT | 31/07/2023 | | |
| | | DATE OF RECEIPT | 04/07/2023 to 29 | /07/2023 | |
| | | DATE OF SAMPLING | 03/07/2023 to 28 | /07/2023 | |
| TO, | DIES LIMITED CAPE | LAB REF NO | UES/23-24/AAQM/05870-5877 | | |
| Name & Address Of The Custor | ner | REPORT NO | UES/TR/23-24/030 | '03056 | |

| Parameter | Method Reference | Standard |
|---|---|----------|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 03.07.2023 | 44 | 28 | 15 | 22 | 0.51 | N.D. |
| 07.07.2023 | 43 | 25 | 19 | 23 | 0.65 | N.D. |
| 10.07.2023 | 46 | 29 | 15 | 21 | 0.72 | N.D. |
| 14.07.2023 | 42 | 26 | 14 | 25 | 0.56 | N.D. |
| 17.07.2023 | 42 | 27 | 17 | 26 | 0.31 | N.D. |
| 21.07.2023 | 42 | 24 | 15 | 23 | 0.46 | N.D. |
| 24.07.2023 | 43 | 24 | 16 | 24 | 0.73 | N.D. |
| 28.07.2023 | 47 | 25 | 19 | 20 | 0.41 | N.D. |

 Terms & conditions

 * The report for publication, arbitration or as legal dispute is forbidden.

 * Test sample will be retained for 15 days after issue of test report unless other.

 * This is for information as the party has asked for above test(s) only.

31/07/23 **REVIEWED BY**



For ULTIMATE ENVIROLYTICAL SOLUTIONS AUTHORIZED SIGNATORY

End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custon | ner | REPORT NO | 67 | | |
|---|---|---|--|-----------------|--|
| то, | | LAB REF NO | UES/23-24/AAQM/0 | 7356-7383 | |
| | RIES LIMITED, GARE | DATE OF SAMPLING | 03/08/2023 to 28 | /08/2023 | |
| PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT | 04/08/2023 to 29 | /08/2023 | |
| | | DATE OF REPORT | 31/08/2023 | | |
| | | DATE OF ANALYSIS | START:04/08/2023 | END: 31/08/2023 | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09.2022 | | |
| SAMPLING LOCATION | HIL COLONY, KONDKEL | - Lease control of the second s | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | NO., FILTER PAPER (PI LE, NO ₂ : 30MLX1 NO. P | M _{2.5}): 1X1 NO. VC BOTTLE | | |

| Parameter | Method Reference | NAAQM Standard |
|--|--|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxi <mark>d</mark> e (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡΜ _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | |
| 03.08.2023 | 40 | 25 | 17 | 22 | 0.31 | N.D. | |
| 07.08.2023 | 42 | 26 | 16 | 26 | 0.46 | N.D. | |
| 11.08.2023 | 41 | 24 | 19 | 23 | 0.53 | N.D. | |
| 14.08.2023 | 44 | 25 | 19 | 24 | 0.34 | N.D. | |
| 18.08.2023 | 39 | 29 | 16 | 22 | 0.14 | N.D. | |
| 21.08.2023 | 38 | 30 | 17 | 23 | 0.20 | N.D. | |
| 25.08.2023 | 41 | 24 | 16 | 23 | 0.53 | Ν.Ο. | |
| 28.08.2023 | 38 | 24 | 17 | 23 | 0.25 | N.D. | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS abhajee 3 **REVIEWED BY** AUTHORIZED SIGNATORY End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custor | ner | REPORT NO | 73 | | | |
|---|--|---|---------------------|----------------------------|--|--|
| | RIES LIMITED, GARE | LAB REF NO | UES/23-24/AAQM/0 | UES/23-24/AAQM/08594-08601 | | |
| | | DATE OF SAMPLING | 01/09/2023 to 25 | /09/2023 | | |
| PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT | 02/09/2023 to 26 | /09/2023 | | |
| | | DATE OF REPORT | 27/09/2023 | | | |
| | | DATE OF ANALYSIS | START:02/09/2023 | END:27/09/2023 | | |
| | | SAMPLE DETAILS | | AP IN IN | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DA | TED:07.09.2022 | | |
| SAMPLING LOCATION | HIL COLONY, KONDKEL | | | | | |
| DURATION OF SAMPLING | 24 HOURS | 1 HOURS SAMPLE COLLECTED LABORATORY CHEMIST | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO. | | | | | |

| Parameter | Method Reference | NAAQM Standard |
|---|--|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡΜ _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 01.09.2023 | 41 | 24 | 16 | 26 | 0.21 | N.D. |
| 04.09.2023 | 44 | 25 | 17 | 25 | 0.32 | N.D. |
| 08.09.2023 | 42 | 26 | 20 | 26 | 0.43 | N.D. |
| 11.09.2023 | 41 | 28 | 16 | 25 | 0.22 | N.D. |
| 15.09.2023 | 41 | 24 | 18 | 24 | 0.09 | N.D. |
| 19.09.2023 | 39 | 29 | 21 | 24 | 0.15 | N.D. |
| 22.09.2023 | 39 | 25 | 17 | 26 | 0.43 | N.D. |
| 25.09.2023 | 40 | 27 | 15 | 28 | 0.17 | N.D. |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.



End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custor | ner | REPORT NO | UES/TR/23-24/0560 UES/23-24/AAQM/01389-1396 | | |
|--|---|---|---|--------------------|--|
| то, | | LAB REF NO | | | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 03/04/2023 to 27 | /04/2023 | |
| | | DATE OF RECEIPT | 04/04/2023 to 28 | /04/2023 | |
| | | DATE OF REPORT | ATE OF REPORT 02/05/2023 | | |
| | | DATE OF ANALYSIS | START:04/04/2023 | END: 30/04/2023 | |
| | | SAMPLE DETAILS | | Contraction of the | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212,D | ATED:07.09.2022 | |
| SAMPLING LOCATION | ETP AREA, KONDKEL | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | าง สั้นกระบบสระบบสระบบสระบบสระบบสระบบสระบบสระบบ | agonateron on constraint and constraint of the second second second second second second second second second s | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | · [19] 20 · [19] · [19] 20 · [10] 20 · [10] 20 · [10] 20 · [10] 2 | | | |

| Parameter | Method Reference | NAAQM Standard |
|---|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 03.04.2023 | 64 | 29 | 18 | 2.5 | 0.58 | N.D. |
| 06.04.2023 | 63 | 31 | 16 | 26 | 0.61 | N.D. |
| 10.04.2023 | 67 | 30 | 18 | 25 | 0.53 | N.D. |
| 13.04.2023 | 62 | 32 | 16 | 24 | 0.63 | N.D. |
| 17.04.2023 | 68 | 32 | 17 | 26 | 0.70 | N.D. |
| 20.04.2023 | 67 | 34 | 16 | 24 | 0.85 | N.D. |
| 24.04.2023 | 66 | 32 | 18 | 25 | 0.76 | N.D. |
| 27.04.2023 | 69 | 34 | 17 | 24 | 0.44 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions



End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo | mer | REPORT NO | UES/TR/23-24/090 | ES/TR/23-24/0906 | | |
|---|--|---|---|--|--|--|
| TO, | | LAB REF NO | UES/23-24/AAQM/02106-2113 | | | |
| | RIES LIMITED, GARE | DATE OF SAMPLING | 01/05/2023 to 26 | 5/05/2023 | | |
| PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT | 02/05/2023 to 27 | /05/2023 | | |
| | | DATE OF REPORT | 31/05/2023 | | | |
| | | DATE OF ANALYSIS | START:02/05/2023 | END: 30/05/2023 | | |
| | the second s | SAMPLE DETAILS | | l and the second | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DA | TED:07.09.2022 | | |
| SAMPLING LOCATION | ETP AREA, KONDKEL | and an an and an and an an an and an and an and an and an | - Alexandra and a second and a second and a second s | 19900 - 066 - 06 - 16 - 16 - 17 - 18 - 18 | | |
| DURATION OF SAMPLING | 24 HOURS | LABORATORY CHEMISI | 1 | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | nalonum | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTTI RUBBER BLADDER: 1X1 NO. | | | | | |

| Parameter | Method Reference | NAAQM Standard |
|--|---|-------------------|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM2,5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------|--------------------------------------|--------------------------|-------------------------|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | РМ _{2.5} µg/m ³ | SO₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | |
| 01.05.2023 | 66 | 30 | 19 | 26 | 0.63 | N.D. | |
| 05.05.2023 | 65 | 32 | 17 | 27 | 0.75 | N.D. | |
| 08.05.2023 | 69 | 31 | 19 | 26 | 0.61 | N.D. | |
| 12.05.2023 | 64 | 33 | 18 | 25 | 0.72 | N.D. | |
| 15.05.2023 | 70 | 30 | 16 | 27 | 0.84 | N.D. | |
| 19.05.2023 | 69 | 35 | 17 | 26 | 0.90 | N.D. | |
| 22.05.2023 | 68 | 34 | 19 | 24 | 0.81 | N.D. | |
| 26.05.2023 | 71 | 33 | 18 | 25 | 0.52 | N.D. | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.







AUTHORIZED SIGNATORY

-End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custor | ner | REPORT NO | UES/TR/23-24/02013 | | |
|--|--|---|---|---|--|
| то, | | LAB REF NO | UES/23-24/AAQM/0 | 24/AAQM/04386-04393 | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 02/06/2023 to 30 | /06/2023 | |
| | | DATE OF RECEIPT | 03/06/2023 to 01/07/2023 04/07/2023 START:03/06/2023 END:04/07/2023 | | |
| | | DATE OF REPORT | | | |
| | | DATE OF ANALYSIS | | | |
| and the second second | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212,D# | ATED:07.09.2022 | |
| SAMPLING LOCATION | ETP AREA, KONDKEL | - 10, 000 - 100 - 100 000 000 00 - 00 - | | on an | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | C | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | -E | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 NO., FILTER PAPER (PM25): 1X1 NO. SO2: 30MLX1 NO. PVC BOTTLE, NO2: 30MLX1 NO. PVC BOTTLE RUBBER BLADER: 1X1 NO. | | | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard |
|--|--|-------------------|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

TEST REPORT

| Date of Sampling | ΡM ₁₀ μg/m ³ | PM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ μg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|
| 02.06.2023 | 65 | 29 | 18 | 25 | 0.51 | N.D. |
| 05.06.2023 | 64 | 31 | 20 | 26 | 0.63 | N.D. |
| 09.06.2023 | 68 | 30 | 18 | 25 | 0.52 | N.D. |
| 12.06.2023 | 63 | 32 | 19 | 24 | 0.69 | N.D. |
| 16.06.2023 | 69 | 29 | 17 | 26 | 0.78 | N.D. |
| 19.06.2023 | 68 | 34 | 18 | 25 | 0.86 | N.D. |
| 23.06.2023 | 50 | 26 | 16 | 22 | 0.74 | N.D. |
| 30.06.2023 | 70 | 32 | 17 | 23 | 0.41 | N.D. |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 1.5 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

| REVIEWED BY | 1 0 m | AUTHORIZED SIGNATORY |
|--------------------|------------------------|-------------------------------------|
| 04/07/23 | To a stand | Subhogeet |
| Bell | | P 11 P |
| | And Standard and Stand | For ULTIMATE ENVIROLYTICAL SOLUTION |

-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo | mer | REPORT NO | UES/TR/23-24/03057 | | |
|------------------------------------|--|-----------------------------|--------------------------------------|-----------------|--|
| TO, | | LAB REF NO UES/23-24/AAQM/ | | 05878-05885 | |
| | TRIES LIMITED, GARE | DATE OF SAMPLING | 03/07/2023 to 28 | 3/07/2023 | |
| PALMA - IV/5, MIL | | DATE OF RECEIPT | 04/07/2023 to 29 | 0/07/2023 | |
| MINE, VILLAGE - M BLOCK-TAMNAR, | ILUPARA, | DATE OF REPORT 31/07/2023 | | | |
| DISTT RAIGARH (C.G.) 496107 | | DATE OF ANALYSIS | START:04/07/2023 | END: 31/07/2023 | |
| a second status and a second | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212,DA | ATED:07.09.2022 | |
| SAMPLING LOCATION | ETP AREA, KONDKEL | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | P. 1 | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | alpennon-mennennonnennennennennennen | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO. | | | | |

| Parameter | Method Reference | NAAQM Standard |
|---|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
| 03.07.2023 | 43 | 27 | 19 | 25 | 0.43 | N.D. |
| 07.07.2023 | 42 | 25 | 20 | 22 | 0.51 | N.D. |
| 10.07.2023 | 45 | 24 | 15 | 23 | 0.46 | N.D. |
| 14.07.2023 | 44 | 27 | 19 | 24 | 0.58 | N.D. |
| 17.07.2023 | 44 | 23 | 17 | 25 | 0.64 | N.D. |
| 21.07.2023 | 44 | 26 | 19 | 21 | 0.72 | N.D. |
| 24.07.2023 | 44 | 24 | 16 | 23 | 0.65 | N.D. |
| 28.07.2023 | 43 | 26 | 18 | 22 | 0.38 | N.D. |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless of This is for information as the party has asked for above test(s) only.

31/07/23

REVIEWED BY



For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-----End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo | ner | REPORT NO | UES/TR/23-24/038 | 168 | |
|--|--|-----------------------------|----------------------------|--|--|
| то, | | LAB REF NO | UES/23-24/AAQM/07364-07371 | | |
| | RIES LIMITED, GARE | DATE OF SAMPLING | 03/08/2023 to 28 | 3/08/2023 | |
| PALMA - IV/5, MIL | | DATE OF RECEIPT | 04/08/2023 to 29 | /08/2023 | |
| MINE, VILLAGE - M | ILUPARA, | DATE OF REPORT | 31/08/2023 | | |
| BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF ANALYSIS | IS START:04/08/2023 END:: | | |
| | | SAMPLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DA | ATED:07.09.2022 | |
| SAMPLING LOCATION | ETP AREA, KONDKEL | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | LABORATORY CHEMIST | 7 | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO. | | | 20000000000000000000000000000000000000 | |

| Parameter | Method Reference | NAAQM Standard |
|--|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| Date of Sampling | PM ₁₀ µg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|
| 03.08.2023 | 40 | 27 | 16 | 22 | 0.21 | N.D. |
| 07.08.2023 | 42 | 25 | 15 | 23 | 0.33 | N.D. |
| 11.08.2023 | 44 | 29 | 19 | 24 | 0.27 | N.D. |
| 14.08.2023 | 43 | 24 | 20 | 23 | 0.34 | N.D. |
| 18.08.2023 | 39 | 26 | 15 | 26 | 0.46 | N.D. |
| 21.08.2023 | 45 | 25 | 21 | 22 | 0.55 | N.D. |
| 25.08.2023 | 43 | 29 | 21 | 22 | 0.42 | N.D. |
| 28.08.2023 | 41 | 24 | 21 | 26 | 0.17 | N.D. |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

mation as the party has asked for above test(s) only

REVIEWED BY



For ULTIMATE ENVIROLYTICAL SOLUTIONS bha

AUTHORIZED SIGNATORY



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custor | ner | REPORT NO | UES/TR/23-24/046 | 674 |
|---|---|---|--|---------------------------------------|
| TO, | | LAB REF NO | LAB REF NO UES/23-24/AAQM/08602-8 DATE OF SAMPLING 01/09/2023 to 25/09/20 | |
| | RIES LIMITED, GARE | DATE OF SAMPLING | | |
| PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT | DATE OF RECEIPT 02/09/2023 to 26/09/202 DATE OF REPORT 27/09/2023 | |
| | | DATE OF REPORT | | |
| | | DATE OF ANALYSIS | START:02/09/2023 | END:27/09/2023 |
| trans the second | A Contraction of the second | SAMPLE DETAILS | The second s | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09.2022 | |
| SAMPLING LOCATION | ETP AREA, KONDKEL | KONDKEL | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY LABORATORY CHEM | | · · · · · · · · · · · · · · · · · · · |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | |
| SAMPLE QUANTITY/PACKING | | (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. D. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE B: 1X1 NO | | |
| Test Me | thod and NAAQM St | andard for Ambier | nt Air Quality M | onitoring |
| Parameter | | Method Reference | | NAAQM Standard |
| Particulate Matter : than 10 microns (PM | (o) Guide | 182 (Part 23): 2006 & CPCB elines VolI | | 100 |
| Particulate Matter s than 2.5 microns (PM | | 182 (Part 24): 2019CP | CBGuidelines Vol | -I 60 |
| Sulphur Dioxide (SO ₂ | | 82 (Part 2): 2001, R Guidelines VolI | A 2006 & | 80 |
| Nitrogon Diswide (N | IS 51 | 82 (Part 6): 2006 & | CPCB | |

| Sulphur Dioxide (SO ₂) | CPCB Guidelines VolI | 80 |
|-------------------------------------|--|-------|
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4 - 0 |
| Mercury (Hg) | EPA Method IO-5 | |

| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|
| 01.09.2023 | 42 | 28 | 18 | 26 | 0.10 | N.D. |
| 04.09.2023 | 42 | 28 | 17 | 25 | 0.27 | N.D. |
| 08.09.2023 | 38 | 25 | 18 | 26 | 0.19 | N.D. |
| 11.09.2023 | 39 | 25 | 21 | 27 | 0.28 | N.D. |
| 15.09.2023 | 44 | 26 | 15 | 26 | 0.32 | N.D. |
| 19.09.2023 | 44 | 25 | 20 | 28 | 0.46 | N.D. |
| 22.09.2023 | 41 | 25 | 19 | 28 | 0.35 | N.D. |
| 25.09.2023 | 43 | 26 | 15 | 26 | 0.12 | N.D. |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with custon

This is for information as the party has asked for above test(s) only



End of the test report.....

AAQM Report – Buffer Zone



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT | NO | UES/TR/23-24/0530 | | | |
|---|--|---|--|--|--------------------------------|----------|-------------------------------|
| | | LAB REF NO | | UES/23-24/AAQM/01283-01290 | | | |
| | | DATE OF | SAMPLING | 03/04/2023 to 2 | 7/04/2023 | | |
| | | DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | 04/04/2023 to 28/04/2023 02/05/2023 | | | |
| | | | | | | | START:04/04/2023 END:30/04/20 |
| | | | | | | SAMPLE I | DETAILS |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | | CUSTOMER RE | F NO C DATE | .13552310211, ED:07.09.2022 | | |
| SAMPLING LOCATION | OFFICE AREA, BANJIKH | OL | o Annon - rogenzonis et e nadem set en | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE | COLLECTED BY | LABORATORY CHEMIS | T | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO. | | | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | | |
|---|---|-------------------|--|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | | |
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 03.04.2023 | 68 | 35 | 17 | 26 | 0.51 | N.D. | | |
| 06.04.2023 | 64 | 31 | 16 | 25 | 0.64 | N.D. | | |
| 10.04.2023 | 69 | 33 | 15 | 26 | 0.89 | N.D. | | |
| 13.04.2023 | 66 | 33 | 16 | 27 | 0.73 | N.D. | | |
| 17.04.2023 | 65 | 35 | 17 | 25 | 0.66 | N.D. | | |
| 20.04.2023 | 69 | 32 | 18 | 26 | 0.80 | N.D. | | |
| 24.04.2023 | 62 | 34 | 15 | 24 | 0.55 | N.D. | | |
| 27.04.2023 | 64 | 29 | 14 | 23 | 0.43 | N.D. | | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise a This is for information as the party has asked for above test(s) only (IROLY).







End of the test report-

AN ISO : 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY

d with customer



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | UES/TR/23-24/0881 UES/23-24/AAQM/02006-02013 01/05/2023 to 26/05/2023 02/05/2023 to 27/05/2023 31/05/2023 | | |
|--|--|--|-------------|---|------|------------------------------|
| DISTT RAIGARH | (C.G.) 496107 | SAMPLE I | | START:02/05/2 | 2023 | END: 30/05/2023 |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | | CUSTOMER RE | R REF. NO. & DATE | | 13552310211, D:07.09.2022 |
| SAMPLING LOCATION | OFFICE AREA, BANJIKHC | DL | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFEREN | ICE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1 SO ₂ : 30MLX1 NO. PVC B RUBBER BLADDER: 1X1 N | OTTLE, NO2: 3 | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | |
|---|---|-------------------|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | | | |
| Sulphur Díoxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ μg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 01.05.2023 | 70 | 36 | 18 | 27 | 0.63 | N.D. | | |
| 05.05.2023 | 66 | 32 | 17 | 26 | 0.74 | N.D. | | |
| 08.05.2023 | 71 | 34 | 16 | 27 | 0.90 | N.D. | | |
| 12.05.2023 | 68 | 33 | 17 | 28 | 0.81 | N.D. | | |
| 15.05.2023 | 67 | 36 | 18 | 26 | 0.72 | N.D. | | |
| 19.05.2023 | 72 | 33 | 19 | 27 | 0.93 | N.D. | | |
| 22.05.2023 | 65 | 35 | 16 | 25 | 0.64 | N.D. | | |
| 26.05.2023 | 67 | 31 | 15 | 24 | 0.56 | N.D. | | |

Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT | REPORT NO | | UES/TR/23-24/01988 | | |
|---|--|---|---------------------------------|--|--------------------|------------------------------|------------|
| | | LAB REF NO DATE OF SAMPLING - DATE OF RECEIPT | | UES/23-24/AAQM/04286-04293 - 02/06/2023 to 30/06/2023 | | | |
| | | | | | | | |
| | | | | DATE OF | DATE OF REPORT | | 04/07/2023 |
| | | DATE OF ANALYSIS | | START:03/06/2023 END:0 | | END:04/07/2023 | |
| | | | | SAMPLE I | DETAILS | 1-1-2- 1-2 | |
| MONITORING FOR | AMBIENT AIR QUALITY | MONITORING | CUSTOMER RE | F. NO. & DATE | | 13552310211, D:07.09.2022 | |
| SAMPLING LOCATION | OFFICE AREA, BANJIKH | OL | | and a second | | 0.07.09.2022 | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED BY | | LABORATORY CHEMIST | | • | |
| SAMPLING PROCEDURE | AS PER METHOD REFERE | NCE | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): SO ₂ : 30MLX1 NO. PVC H RUBBER BLADDER: 1X1 | BOTTLE, NO2: 3 | ER PAPER (PM2. OMLX1 NO. PVC | 5): 1X1 NO. BOTTLE | ***** | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard |
|--|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

TEST REPORT

| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ |
|---------------------|---------------------------------------|--|--------------------------------------|--------------|--------------------------|-------------------------|
| 02.06.2023 | 69 | 35 | 17 | 26 | 0.58 | N.D. |
| 05.06.2023 | 67 | 30 | 16 | 25 | 0.71 | N.D. |
| 09.06.2023 | 70 | 32 | 15 | 26 | 0.82 | N.D. |
| 12.06.2023 | 69 | 31 | 16 | 27 | 0.70 | N.D. |
| 16.06.2023 | 68 | 35 | 18 | 25 | 0.62 | N.D. |
| 19.06.2023 | 71 | 32 | 17 | 26 | 0.81 | N.D. |
| 23.06.2023 | 50 | 26 | 13 | 21 | 0.53 | N.D. |
| 30.06.2023 | 58 | 30 | 14 | 22 | 0.48 | N.D. |

arks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise ac

This is for information as the party has asked for above test(s) on the second s





AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | LAB REP DATE OF DATE OF DATE OF | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | UES/TR/23-24/03032 UES/23-24/AAQM/05778-05785 03/07/2023 to 28/07/2023 04/07/2023 to 29/07/2023 31/07/2023 START:04/07/2023 END:31/07/2023 | | |
|---|--|---|--|-----------------------|---|-----------------|--|
| | (0.0.) 490107 | SAMPLE I | | | .025 | END: 31/07/2023 | |
| MONITORING FOR | AMBIENT AIR QUALITY | MONITORING | CUSTOMER REF. NO. & DATE | | P.O.13552310211, DATED:07.09.2022 | | |
| SAMPLING LOCATION | OFFICE AREA, BANJIK | HOL | | | DAIL | 10:07.09.2022 | |
| DURATION OF SAMPLING | 24 HOURS | 100 minutestantes | COLLECTED BY | LABORATORY CH | TEMTS | | |
| SAMPLING PROCEDURE | AS PER METHOD REFER | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): SO ₂ : 30MLX1 NO. PVC RUBBER BLADDER: 1X1 | BOTTLE, NO2: 3 | ER PAPER (PM ₂ OMLX1 NO. PVC | 5): 1X1 NO. BOTTLE | | ntanot | |

| Test Method and NAAQM Standard for | Ambient Air Quality Monitoring |
|------------------------------------|--------------------------------|
|------------------------------------|--------------------------------|

| Parameter | Method Reference | NAAQM | |
|---|---|-------|--|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | |
| Nitro <mark>gen Di</mark> oxide (<mark>N</mark> O ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | |
| Mercury (Hg) | EPA Method IO-5 | 4.0 | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 03.07.2023 | 47 | 28 | 13 | 24 | 0.41 | N.D. | | |
| 07.07.2023 | 44 | 27 | 17 | 22 | 0.52 | N.D. | | |
| 10.07.2023 | 42 | 24 | 13 | 21 | 0.60 | N.D. | | |
| 14.07.2023 | 42 | 26 | 15 | 20 | 0.57 | N.D. | | |
| 17.07.2023 | 44 | 25 | 16 | 21 | 0.59 | N.D. | | |
| 21.07.2023 | 42 | 26 | 17 | 19 | 0.64 | N.D. | | |
| 24.07.2023 | 42 | 25 | 16 | 19 | 0.49 | N.D. | | |
| 28.07.2023 | 42 | 26 | 15 | 25 | 0.38 | N.D. | | |

Terms & conditions

d with customer

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless This is for information as the party has asked for above test(s) only. OLYTIC

Ret 31/07/23 **REVIEWED BY**



For ULTIMATE ENVIROLYTICAL SOLUTIONS bha

AUTHORIZED SIGNATORY

-End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | UES/TR/23-24/03828 UES/23-24/AAQM/07254-07261 | | | | | | |
|---|--|--|----------------------|--|---------------------|-------------------------|---------|--|----------------------------|--|
| | | | | | | | | 03/08/2023 to 28/08/2023 04/08/2023 to 29/08/2023 | | |
| | | | | 31/08/2023 START:04/08/2023 END:31/08/ | | | | | | |
| | | | | | | END: 31/08/2023 | | | | |
| | | | | | | SAMPLE | DETAILS | | 1-#15-0- | |
| | | | | MONITORING FOR | AMBIENT AIR QUALITY | CTICTOMED DEE NO C DATE | | | 3552310211, :07.09.2022 | |
| SAMPLING LOCATION | OFFICE AREA, BANJIKH | IOL | | | | | | | | |
| DURATION OF SAMPLING | 24 HOURS | COLLECTED BY | Y LABORATORY CHEMIST | | | | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO. | | | | | | | | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard | |
|---|---|-------------------|--|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | |
| Mercury (Hg) | EPA Method IO-5 | | |

| TEST REPORT | | | | | | | |
|---------------------|---------------------------------------|----------------------------|--------------|--------------------------------------|--------------------------|-------------------------|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡΜ2.5 μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | |
| 03.08.2023 | 38 | 24 | 15 | 26 | 0.48 | N.D. | |
| 07.08.2023 | 44 | 25 | 18 | 22 | 0.56 | N.D. | |
| 11.08.2023 | 43 | 26 | 18 | 22 | 0.64 | N.D. | |
| 14.08.2023 | 41 | 29 | 21 | 25 | 0.50 | N.D. | |
| 18.08.2023 | 43 | 25 | 15 | 25 | 0.61 | N.D. | |
| 21.08.2023 | 38 | 27 | 18 | 25 | 0.58 | N.D. | |
| 25.08.2023 | 38 | 26 | 15 | 26 | 0.42 | N.D. | |
| 28.08.2023 | 39 | 29 | 16 | 24 | 0.31 | N.D. | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) g





For ULTIMATE ENVIROLYTICAL SOLUTIONS AUTHORIZED SIGNATORY

1

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT | REPORT NO | | UES/TR/23-24/04648 | | | |
|---|--|---|--------------------------|--|--------------------------------------|----------|--|-------------|
| | | LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | UES/23-24/AAQM/08500-08507 | | | | |
| | | | | 01/09/2023 to 25/09/2023 02/09/2023 to 26/09/2023 | | | | |
| | | | | | | | 27/09/2023 START:02/09/2023 END:27/09 | |
| | | | | END:27/09/2023 | | | | |
| | | | | | | SAMPLE I | DETAILS | State State |
| MONITORING FOR | AMBIENT AIR QUALITY | MONITORING | CUSTOMER REF. NO. & DATE | | P.O.13552310211, DATED:07.09.2022 | | | |
| SAMPLING LOCATION | OFFICE AREA, BANJIKH | OL | | | | | | |
| DURATION OF SAMPLING | SAMPLE COLLECTED BY LABORATORY CHEMIST | | | P. | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERE | NCE | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 NO., FILTER PAPER (PM2.5): 1X1 NO. SO2: 30MLX1 NO. PVC BOTTLE, NO2: 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO. | | | | | | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard | |
|---|---|-------------------|--|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | |
| Mercury (Hg) | EPA Method IO-5 | | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡΜ _{2.5} μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 01.09.2023 | 41 | 25 | 17 | 26 | 0.39 | N.D. | | |
| 04.09.2023 | 43 | 24 | 22 | 26 | 0.44 | N.D. | | |
| 08.09.2023 | 43 | 26 | 18 | 26 | 0.52 | N.D. | | |
| 11.09.2023 | 39 | 27 | 16 | 25 | 0.43 | N.D. | | |
| 15.09.2023 | 39 | 28 | 18 | 24 | 0.54 | N.D. | | |
| 19.09.2023 | 44 | 29 | 21 | 27 | 0.47 | N.D. | | |
| 22.09.2023 | 43 | 27 | 20 | 24 | 0.31 | N.D. | | |
| 25.09.2023 | 41 | 29 | 15 | 26 | 0.22 | N.D. | | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Fest sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | 31 01291-01298 7/04/2023 8/04/2023 END: 30/04/2023 | | |
|---|---|--|--|-------|----------------------------------|
| MONITORING FOR | SAME AMBIENT AIR QUALITY MONITORIN | PLE DETAILS | NO. & DATE | | D.13552310211, TED:07.09.2022 |
| SAMPLING LOCATION | ETP AREA, BANJIKHOL | | | DAI | ED.07.09.2022 |
| DURATION OF SAMPLING | 24 HOURS | BY LABORATORY CHEMIST | | EMIST | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 NO., SO ₂ : 30MLX1 NO. PVC BOTTLE, N RUBBER BLADDER: 1X1 NO. | | | | |

| Test Method | and NAAOM | Standard for | Ambient Air C | Duality M | Ionitorina |
|-------------|-----------|--------------|---------------|-----------|------------|
| | | | | | |

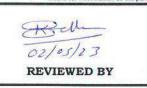
| Parameter | Method Reference | NAAQM Standard |
|--|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

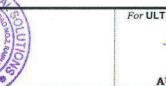
| TEST REPORT | | | | | | | |
|---------------------|------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|--|
| Date of Sampling | Ρ Μ 10 μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | |
| 03.04.2023 | 68 | 29 | 16 | 23 | 0.63 | N.D. | |
| 06.04.2023 | 66 | 34 | 17 | 24 | 0.74 | N.D. | |
| 10.04.2023 | 69 | 35 | 16 | 25 | 0.81 | N.D. | |
| 13.04.2023 | 68 | 33 | 18 | 24 | 0.67 | N.D. | |
| 17.04.2023 | 67 | 31 | 17 | 26 | 0.55 | N.D. | |
| 20.04.2023 | 65 | 32 | 18 | 25 | 0.62 | N.D. | |
| 24.04.2023 | 63 | 29 | 16 | 23 | 0.56 | N.D. | |
| 27.04.2023 | 69 | 35 | 14 | 22 | 0.41 | N.D. | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidated Test sample will be retained for 15 days after issue of test report where burkes are This is for information as the party has asked for above tended with a chall Ren ed with customer.







End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | UES/TR/23-24/0882 UES/23-24/AAQM/02014-02021 01/05/2023 to 26/05/2023 02/05/2023 to 27/05/2023 31/05/2023 START:02/05/2023 END:30/05/2023 | | |
|---|---|--|--|---------------------|---------------------------------|
| | SAMP | LE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORIN | G CUSTOMER REF. | NO. & DATE | 10.000 (10.000) | 0.13552310211, ED:07.09.2022 |
| SAMPLING LOCATION | ETP AREA, BANJIKHOL | | | and a second second | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED H | Y LABORATO | EMIST | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | netondoor-rijnin-rijn | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM16): 1X1 NO., SO2: 30MLX1 NO. PVC BOTTLE, N RUBBER BLADDER: 1X1 NO. | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | |
|--|--|-------------------|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCBGuidelines VolI | 60 | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | |

| TEST REPORT | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | |
| 01.05.2023 | 70 | 30 | 17 | 24 | 0.71 | N.D. | |
| 05.05.2023 | 68 | 35 | 18 | 25 | 0.82 | N.D. | |
| 08.05.2023 | 71 | 36 | 17 | 26 | 0.90 | N.D. | |
| 12.05.2023 | 72 | 34 | 19 | 25 | 0.74 | N.D. | |
| 15.05.2023 | 69 | 32 | 18 | 27 | 0.62 | N.D. | |
| 19.05.2023 | 68 | 33 | 19 | 26 | 0.73 | N.D. | |
| 22.05.2023 | 66 | 30 | 17 | 24 | 0.66 | N.D. | |
| 26.05.2023 | 71 | 36 | 15 | 23 | 0.58 | N.D. | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden

· Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.



-----End of the test report-----



ar

HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custor TO, HINDALCO INDUST GARE PALMA - IV/4 VILLAGE - BANKHI POST -MILUPARA, DISTT RAIGARH | TRIES LIMITED, 4, COAL MINE, ETA, | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | UES/TR/23-: UES/23-24/2 02/06/2023 03/06/2023 04/07/2023 START:03/06/ | to 3 to 0 | 04294-04301 0/06/2023 |
|---|---|--|--|--------------|--|
| | In some state of the second | PLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORIN | G CUSTOMER REF. | NO. & DATE | | 0.13552310211, TED:07.09.2022 |
| SAMPLING LOCATION | ETP AREA, BANJIKHOL | | | | ED.07.03.2022 |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED E | Y LABORATO | DRY CH | EMTST |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | na oriented in the second of t | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 NO., SO ₂ : 30MLX1 NO. PVC BOTTLE, N RUBBER BLADDER: 1X1 NO. | FILTER PAPER (PM2 5 02: 30MLX1 NO. PVC |): 1X1 NO. BOTTLE | | an a |

| Test Method and NA | AQM Standard for Ambient Air Quality M | onitoring |
|---------------------------|--|-------------------|
| Parameter | Method Reference | NAAQM Standard |
| ticulate Matter size less | IS 5182 (Part 23): 2006 & CPCB | 100 |

| than 10 microns (PM10) | Guidelines VolI | 100 |
|--|---|-----|
| Particulate Matter size less than 2.5 microns $(PM_{2.5})$ | IS 5182 (Part 24): 2019 CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4 0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | |
| 02.06.2023 | 69 | 29 | 16 | 23 | 0.60 | N.D. | |
| 05.06.2023 | 67 | 34 | 17 | 24 | 0.78 | N.D. | |
| 09.06.2023 | 70 | 35 | 15 | 25 | 0.89 | N.D. | |
| 12.06.2023 | 71 | 33 | 18 | 24 | 0.67 | N.D. | |
| 16.06.2023 | 68 | 30 | 17 | 26 | 0.56 | N.D. | |
| 19.06.2023 | 67 | 32 | 18 | 25 | 0.67 | N.D. | |
| 23.06.2023 | 52 | 28 | 14 | 21 | 0.52 | N.D. | |
| 30.06.2023 | 59 | 27 | 15 | 22 | 0.45 | N.D. | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden

Test sample will be retained for 15 days after issue of test report unless ptherwise agreed with customer.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | 03/07/2023 t | AQM/05786-05793 co 28/07/2023 co 29/07/2023 |
|--|---|---|--|---|---|
| | MONITORING FOR | AMBIENT AIR QUALITY MONITORI | ING CUSTOMER REF. | NO. & DATE | P.O.13552310211, DATED:07.09.2022 |
| MONITORING FOR AMBIENT AIR QUALITY MONITORING CUSTOMER REF NO & DATE | SAMPLING LOCATION | ETP AREA, BANJIKHOL | e some nore done in en in some menne an ar some | en i prestanta da construcción da construcción de la construcción de la construcción de la construcción de la c | |
| MUNITORING FOR AMBIENT AIR QUALITY MONITORING CUSTOMER REF. NO. & DATE DATED:07.09.2022 | DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED | BY LABORATORY CHEMIST | |
| ADDITIONING FOR ADDIENT AIR QUALITY MONITORING CUSTOMER REF. NO. & DATE DATED:07.09.2022 SAMPLING LOCATION ETP AREA, BANJIKHOL DATED:07.09.2022 DATED:07.09.2022 | SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | |
| MONITORING FOR AMBIENT AIR QUALITY MONITORING CUSTOMER REF. NO. & DATE DATED:07.09.2022 SAMPLING LOCATION ETP AREA, BANJIKHOL DURATION OF SAMPLING 24 HOURS SAMPLE COLLECTED BY LABORATORY CHEMIST | SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 NO., SO2: 30MLX1 NO. PVC BOTTLE, RUBBER BLADDER: 1X1 NO. | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|---|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------|--------------------------|-------------------------|--|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡΜ _{2.5} μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ | | | |
| 03.07.2023 | 47 | 23 | 18 | 21 | 0.54 | N.D. | | | |
| 07.07.2023 | 42 | 26 | 16 | 26 | 0.61 | N.D. | | | |
| 10.07.2023 | 42 | 26 | 17 | 25 | 0.70 | N.D. | | | |
| 14.07.2023 | 46 | 28 | 18 | 23 | 0.53 | N.D. | | | |
| 17.07.2023 | 45 | 23 | 15 | 25 | 0.48 | N.D. | | | |
| 21.07.2023 | 43 | 25 | 17 | 26 | 0.51 | N.D. | | | |
| 24.07.2023 | 47 | 27 | 18 | 23 | 0.47 | N.D. | | | |
| 28.07.2023 | 46 | 27 | 16 | 26 | 0.39 | N.D. | | | |

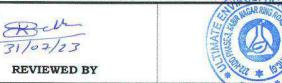
Duration of sampling for CO I Hour, N.D. Not Detected

- INAAOM CI

Terms & conditions

.....

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise This is for information as the party has asked for above test(s) only 600LY776se agreed with customer



For ULTIMATE ENVIROLYTICAL SOLUTIONS **AUTHORIZED SIGNATORY**

End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | UES/TR/23-24/03829 UES/23-24/AAQM/07262-7269 03/08/2023 to 28/08/2023 04/08/2023 to 29/08/2023 31/08/2023 START:04/08/2023 END:31/08/2023 | | |
|--|--|--|--|--------------|----------------------------------|
| DISTT RAIGARH | Construction of the second | PLE DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORI | ING CUSTOMER REF. | NO. & DATE | 201 200 2040 | D.13552310211, TED:07.09.2022 |
| SAMPLING LOCATION | ETP AREA, BANJIKHOL | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED 1 | BY LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X1 NO., SO2: 30MLX1 NO. PVC BOTTLE, RUBBER BLADDER: 1X1 NO. | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | | |
|---|---|-------------------|--|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | | |

| TEST REPORT | | | | | | | | | |
|---------------------|---------------------------|----------------------------|--------------------------------------|--------------|--------------------------|-------------------------|--|--|--|
| Date of Sampling | ΡΜ10 μg/m ³ | ΡΜ2.5 μg/m ³ | SO ₂ μg/m ³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ | | | |
| 03.08.2023 | 39 | 29 | 15 | 23 | 0.43 | N.D. | | | |
| 07.08.2023 | 42 | 26 | 19 | 26 | 0.56 | N.D. | | | |
| 11.08.2023 | 41 | 30 | 18 | 22 | 0.61 | N.D. | | | |
| 14.08.2023 | 38 | 24 | 17 | 25 | 0.45 | N.D. | | | |
| 18.08.2023 | 42 | 27 | 15 | 25 | 0.37 | N.D. | | | |
| 21.08.2023 | 45 | 26 | 21 | 22 | 0.52 | N.D. | | | |
| 25.08.2023 | 43 | 25 | 18 | 26 | 0.36 | N.D. | | | |
| 28.08.2023 | 40 | 28 | 15 | 22 | 0.28 | N.D. | | | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

- This is for information as the party has asked for above test(s) any OLYTIC

31108 **REVIEWED BY**



For ULTIMATE ENVIROLYTICAL SOLUTIONS 00

AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT | UES/TR/23-24/04649 UES/23-24/AAQM/08508-08515 01/09/2023 to 25/09/2023 02/09/2023 to 26/09/2023 27/09/2023 | | | | |
|--|--|--|--|------|---------------------------------|--|--|
| DISTT RAIGARH | | DATE OF ANALYSIS | START:02/09/2 | 2023 | END:27/09/2023 | | |
| | SAMP | LE DETAILS | | | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORIN | G CUSTOMER REF. | NO. & DATE | 1 | 0.13552310211, ED:07.09.2022 | | |
| SAMPLING LOCATION | ETP AREA, BANJIKHOL | | | | | | |
| DURATION OF SAMPLING | 24 HOURS SAMPLE COLLECTED BY LABORATORY CHEMIST | | | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 NO., SO ₂ : 30MLX1 NO. PVC BOTTLE, NO RUBBER BLADDER: 1X1 NO. | | | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|--|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCBGuidelines VolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | | | |
|---------------------|------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|--|--|
| Date of Sampling | Ρ Μ 10 μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | | |
| 01.09.2023 | 41 | 27 | 18 | 24 | 0.24 | N.D. | | | |
| 04.09.2023 | 43 | 25 | 16 | 25 | 0.31 | N.D. | | | |
| 08.09.2023 | 38 | 27 | 20 | 28 | 0.49 | N.D. | | | |
| 11.09.2023 | 40 | 26 | 19 | 24 | 0.30 | N.D. | | | |
| 15.09.2023 | 44 | 29 | 15 | 27 | 0.27 | N.D. | | | |
| 19.09.2023 | 41 | 25 | 15 | 25 | 0.46 | N.D. | | | |
| 22.09.2023 | 43 | 29 | 20 | 24 | 0.25 | N.D. | | | |
| 25.09.2023 | 44 | 26 | 19 | 26 | 0.20 | N.D. | | | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT N | REPORT NO LAB REF NO | | UES/TR/23-24/0532 UES/23-24/AAQM/01299-01306 | | | |
|---|--|------------------|-----------------------------------|------------------|---|--------------------------------|--|--|
| | | LAB REF | | | | | | |
| | | DATE OF . | SAMPLING | 03/04/2023 to | 27/ | 04/2023 | | |
| | | DATE OF | DATE OF RECEIPT DATE OF REPORT | | 04/04/2023 to 28/04/2023 02/05/2023 | | | |
| | | DATE OF | | | | | | |
| | | DATE OF ANALYSIS | | START:04/04/2023 | | END: 30/04/2023 | | |
| and the second second | | SAMPLE DI | TAILS | | | | | |
| MONITORING FOR | AMBIENT AIR QUALITY | MONITORING | CUSTOMER 1 | REF. NO. & DATE | P.O. | .13552310211,DATED:07. 2022 | | |
| SAMPLING LOCATION | OFFICE AREA, BANKHE | TA | * | | | | | |
| DURATION OF SAMPLING | 24 HOURS SAMPLE COLLECTED BY LABORATORY CHEMIST | | | | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFER | ENCE | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): SO ₂ : 30MLX1 NO. PVC RUBBER BLADDER: 1X1 | BOTTLE, NO2: 301 | | | | 0 | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM Standard |
|--|---|-------------------|
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡΜ _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 03.04.2023 | 63 | 35 | 16 | 26 | 0.46 | N.D. | | |
| 06.04.2023 | 67 | 34 | 18 | 25 | 0.80 | N.D. | | |
| 10.04.2023 | 68 | 33 | 16 | 24 | 0.75 | N.D. | | |
| 13.04.2023 | 63 | 31 | 17 | 26 | 0.69 | N.D. | | |
| 17.04.2023 | 62 | 33 | 18 | 25 | 0.81 | N.D. | | |
| 20.04.2023 | 68 | 33 | 18 | 26 | 0.74 | N.D. | | |
| 24.04.2023 | 65 | 29 | 17 | 24 | 0.52 | N.D. | | |
| 27.04.2023 | 64 | 31 | 16 | 23 | 0.33 | N.D. | | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.
 Test sample will be retained for 15 days after issue of test report upters bifferwise agriced with custo
 This is for information as the party has asked for above test(s) offices



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT NO | REPORT NO | | UES/TR/23-24/0883 | | | |
|---|--|---|----------------------|--|-------------------|--------------------------------|-------------------|--|
| | | LAB REF 1 | NO | UES/23-24/AA | QM/02 | 2022-02029 | | |
| | | DATE OF | SAMPLING | 01/05/2023 to | o 26, | /05/2023 | | |
| | | DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | 02/05/2023 to 27/05/2023 31/05/2023 | | | | |
| | | | | | | | START: 02/05/2023 | |
| | | | | | | SAMPLE DE | TAILS | |
| MONITORING FOR | AMBIENT AIR QUALITY | MONITORING | CUSTOMER 1 | REF. NO. & DATE | | .13552310211,DATED:07. 2022 | | |
| SAMPLING LOCATION | OFFICE AREA, BANKHET | 'A | | and a second | | | | |
| DURATION OF SAMPLING | 24 HOURS | LLECTED BY | Y LABORATORY CHEMIST | | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERE | INCE | | alaa aa ahaa ahaa ahaa ahaa ahaa ahaa a | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): SO ₂ : 30MLX1 NO. PVC I RUBBER BLADDER: 1X1 | BOTTLE, NO2: 30M | | | | | | |

| Test Method and NAAQM Sta | andard for Ambient A | lir Quality | Monitoring |
|---------------------------|----------------------|--------------------|------------|
| | | | |

| Parameter | Method Reference | NAAQM Standard | |
|--|--|-------------------|--|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019 CPCBGuidelines VolI | 60 | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | |
| Mercury (Hg) | EPA Method IO-5 | | |

TEST REPORT

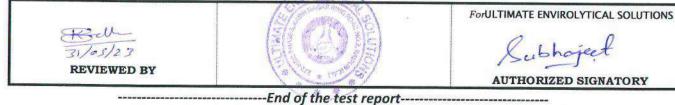
| Date of Sampling | ΡM ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|------------|
| 01.05.2023 | 65 | 36 | 17 | 27 | 0.57 | N.D. |
| 05.05.2023 | 69 | 35 | 19 | 26 | 0.88 | N.D. |
| 08.05.2023 | 70 | 32 | 18 | 25 | 0.84 | N.D. |
| 12.05.2023 | 66 | 33 | 16 | 27 | 0.76 | N.D. |
| 15.05.2023 | 65 | 34 | 17 | 26 | 0.92 | N.D. |
| 19.05.2023 | 71 | 36 | 19 | 27 | 0.81 | N.D. |
| 22.05.2023 | 67 | 31 | 18 | 2.5 | 0.63 | N.D. |
| 26.05.2023 | 66 | 32 | 17 | 24 | 0.48 | N.D. |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.

This is for information as the party has asked for above test(s) gety.





Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT NO | | UES/TR/23-24/01990 | | | | |
|---|--|---|--|--|----------------------------|---|------------------|--|
| | | LAB REF | LAB REF NO | | UES/23-24/AAQM/04302-04309 | | | |
| | | DATE OF | SAMPLING | 02/06/2023 to | o 30, | /06/2023 | | |
| | | DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | 03/06/2023 to 01/07/2023 04/07/2023 | | | | |
| | | | | | | | START:03/06/2023 | |
| | | | | | | SAMPLE D | ETAILS | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING CUSTOMER | | | REF. NO. & DATE | | .13552310211,DATED:07. 2022 | | |
| SAMPLING LOCATION | OFFICE AREA, BANKHET | "A | | | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE C | COLLECTED BY | LABORATORY CHE | MIST | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERE | INCE | · ··· ································ | Anternation and a second s | (0) | n or on a state of the state second state s | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): SO ₂ : 30MLX1 NO. PVC RUBBER BLADDER: 1X1 | BOTTLE, NO2: 30 | | | 10-110-11-1 | ne ann an Ann | | |

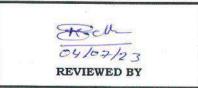
| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|--|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCBGuidelines VolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 02.06.2023 | 64 | 34 | 16 | 26 | 0.42 | N.D. | | |
| 05.06.2023 | 68 | 32 | 18 | 25 | 0.73 | N.D. | | |
| 09.06.2023 | 69 | 30 | 17 | 24 | 0.70 | N.D. | | |
| 12.06.2023 | 65 | 31 | 15 | 26 | 0.63 | N.D. | | |
| 16.06.2023 | 64 | 32 | 16 | 25 | 0.80 | N.D. | | |
| 19.06.2023 | 70 | 33 | 18 | 26 | 0.72 | N.D. | | |
| 23.06.2023 | 51 | 26 | 14 | 23 | 0.54 | N.D. | | |
| 30.06.2023 | 61 | 30 | 15 | 24 | 0.37 | N.D. | | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless after one agreed with customer.
 This is for information as the party has asked for above rests form



For ULTIMATE ENVIROLYTICAL SOLUTIONS

Subhajee,

AUTHORIZED SIGNATORY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT N LAB REF DATE OF DATE OF DATE OF DATE OF | NO SAMPLING RECEIPT REPORT | UES/TR/23-24/03034 UES/23-24/AAQM/05794-05801 03/07/2023 to 28/07/2023 04/07/2023 to 29/07/2023 31/07/2023 START:04/07/2023 END:31/07/2023 | | |
|---|--|---|-------------------------------------|---|-----------------------------------|--|
| | | SAMPLE DI | ETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MONITORING | | CUSTOMER 1 | REE NO & DATE | .0.13552310211,DATED:07 9.2022 | |
| SAMPLING LOCATION | OFFICE AREA, BANKHI | | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE C | OLLECTED BY | LABORATORY CHEMIS | T | |
| SAMPLING PROCEDURE | AS PER METHOD REFER | RENCE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀) SO ₂ : 30MLX1 NO. PVC RUBBER BLADDER: 1X | BOTTLE, NO2: 301 | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|--|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 03.07.2023 | 42 | 24 | 14 | 24 | 0.34 | N.D. | | |
| 07.07.2023 | 47 | 24 | 18 | 25 | 0.65 | N.D. | | |
| 10.07.2023 | 45 | 26 | 16 | 26 | 0.60 | N.D. | | |
| 14.07.2023 | 43 | 26 | 15 | 22 | 0.58 | N.D. | | |
| 17.07.2023 | 47 | 23 | 15 | 21 | 0.72 | N.D. | | |
| 21.07.2023 | 44 | 27 | 14 | 24 | 0.61 | N.D. | | |
| 24.07.2023 | 42 | 27 | 17 | 25 | 0.47 | N.D. | | |
| 28.07.2023 | 44 | 23 | 14 | 23 | 0.25 | N.D. | | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.





For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

End of the test report--



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | UES/TR/23-24/03830 UES/23-24/AAQM/07270-07277 | | | | | | |
|---|---|--|-------------|--|---|-----------|------------------|-------------------------|----------------|--------------------------------|
| | | | | | | | | 03/08/2023 to | 5 28, | /08/2023 |
| | | | | 04/08/2023 to 29/08/2023 31/08/2023 | | | | | | |
| | | | | | | | START:04/08/2023 | | END:31/08/2023 | |
| | | | | | | SAMPLE DI | TAILS | | | |
| | | | | MONITORING FOR | AMBIENT AIR QUALITY MONITORING CUSTOMER | | | USTOMER REF. NO. & DATE | | .13552310211,DATED:07. 2022 |
| SAMPLING LOCATION | OFFICE AREA, BANKHET | 'A | | | L | | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE C | OLLECTED BY | LABORATORY CHE | MIST | | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERE | INCE | | | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): SO2: 30MLX1 NO. PVC. RUBBER BLADDER: 1X1 | BOTTLE, NO2: 301 | | | | | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|--|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCB Guidelines VolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 03.08.2023 | 41 | 26 | 16 | 22 | 0.27 | N.D. | | |
| 07.08.2023 | 42 | 24 | 20 | 26 | 0.51 | N.D. | | |
| 11.08.2023 | 44 | 26 | 16 | 24 | 0.46 | N.D. | | |
| 14.08.2023 | 42 | 24 | 19 | 22 | 0.37 | N.D. | | |
| 18.08.2023 | 41 | 26 | 21 | 25 | 0.58 | N.D. | | |
| 21.08.2023 | 39 | 24 | 17 | 23 | 0.44 | N.D. | | |
| 25.08.2023 | 43 | 28 | 18 | 25 | 0.25 | N.D. | | |
| 28.08.2023 | 40 | 29 | 16 | 2.5 | 0.18 | N.D. | | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only



For ULTIMATE ENVIROLYTICAL SOLUTIONS ha

AUTHORIZED SIGNATORY



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer | | REPORT N | REPORT NO | | UES/TR/23-24/04650 | | | | | |
|---|--|---|-------------|--|---------------------|--------------------------|------------------|--------------------------------------|----------------|--------|
| TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | UES/23-24/AAQM/08516-08523 | | | | | | |
| | | | | 01/09/2023 to 25/09/2023 02/09/2023 to 26/09/2023 27/09/2023 | | | | | | |
| | | | | | | | START:02/09/2023 | | END:27/09/2023 | |
| | | | | | | | | | SAMPLE DI | ETAILS |
| | | | | MONITORING FOR | AMBIENT AIR QUALITY | CUSTOMER REF. NO. & DATE | | P.O.13552310211, DATED:07 09.2022 | | |
| SAMPLING LOCATION | OFFICE AREA, BANKHE | TA | | | kinnennen | | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE C | OLLECTED BY | LABORATORY CHE | MIST | | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFER | ENCE | | | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): SO2: 30MLX1 NO. PVC RUBBER BLADDER: 1X1 | BOTTLE, NO2: 30 | | | | | | | | |

| Parameter | Method Reference | NAAQM Standard |
|---|---|-------------------|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019 CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 |
| Mercury (Hg) | EPA Method IO-5 | |

| TEST REPORT | | | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------|--------------------------|-------------------------|--|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡΜ _{2.5} μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ | | | |
| 01.09.2023 | 41 | 27 | 16 | 28 | 0.23 | N.D. | | | |
| 04.09.2023 | 44 | 26 | 17 | 27 | 0.44 | N.D. | | | |
| 08.09.2023 | 40 | 27 | 15 | 26 | 0.37 | N.D. | | | |
| 11.09.2023 | 39 | 24 | 18 | 27 | 0.29 | N.D. | | | |
| 15.09.2023 | 44 | 26 | 22 | 28 | 0.46 | N.D. | | | |
| 19.09.2023 | 41 | 28 | 19 | 26 | 0.38 | N.D. | | | |
| 22.09.2023 | 44 | 27 | 16 | 24 | 0.21 | N.D. | | | |
| 25.09.2023 | 42 | 28 | 22 | 25 | 0.10 | N.D. | | | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.



Lind of the test report



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | DATE C DATE C | 101101 (01000 (01) | UES/TR/23-24/0533 UES/23-24/AAQM/01307-01314 03/04/2023 to 27/04/2023 04/04/2023 to 28/04/2023 02/05/2023 START:04/04/2023 END:30/04/2023 | | | |
|---|--|------------------|---|--|--------|-------------------------------------|--|
| | | SAMPLE | DETAILS | | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MO | NITORING | CUSTOMER REF. | CUSTOMER REF. NO. & DATE | | P.O.13552310211, DATED:0 09.2022 | |
| SAMPLING LOCATION | PIT OFFICE AREA, BANKH | ETA | стологион-летично-тольков обстаний алектийн | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE | COLLECTED BY | LABORATORY | CHEMIS | T | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | E | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1X SO2: 30MLX1 NO. PVC BOT RUBBER BLADDER: 1X1 NO | TLE, NO2: | SALEES (1995) 201 703 | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | | |
|--|---|-------------------|--|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Par <mark>t 24): 2</mark> 019 CPCB Guidelines VolI | 60 | | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | | |

| TEST REPORT | | | | | | | | | |
|---------------------|---------------------------------------|---|--------------|--------------|--------------------------|-------------------------|--|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | Ρ <mark>Μ</mark> 2.5 μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ² | | | |
| 03.04.2023 | 64 | 33 | 18 | 26 | 0.65 | N.D. | | | |
| 06.04.2023 | 66 | 29 | 17 | 26 | 0.83 | N.D. | | | |
| 10.04.2023 | 65 | 30 | 18 | 24 | 0.76 | N.D. | | | |
| 13.04.2023 | 63 | 30 | 16 | 25 | 0.88 | N.D. | | | |
| 17.04.2023 | 67 | 33 | 16 | 24 | 0.49 | N.D. | | | |
| 20.04.2023 | 68 | 34 | 17 | 26 | 0.67 | N.D. | | | |
| 24.04.2023 | 63 | 35 | 16 | 24 | 0.46 | N.D. | | | |
| 27.04.2023 | 69 | 31 | 15 | 23 | 0.58 | N.D. | | | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

wise agreed with customer.



For ULTIMATE ENVIROLYTICAL SOLUTIONS Subhajeet

AUTHORIZED SIGNATORY

---End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | 02/05/2023 to 27/05/2023 31/05/2023 START: 02/05/2023 END: 30/05/2023 | | | |
|--|---|---|---------------|---|--------------------------------------|-----|--|
| Idition Idition | (0.0.) 430107 | SAMPLE | DETAILS | | | | |
| ONITORING FOR | | AMBIENT AIR QUALITY MONITORING CUS | | | P.O.13552310211, DATED:07 09.2022 | | |
| and the second | and a second | | | | | | |
| states and the state of the sta | The second se | SAMPLE COLLECTED BY LABORATORY | | | P | | |
| ONITORING FOR AMPLING LOCATION URATION OF SAMPLING AMPLING PROCEDURE | AMBIENT AIR QUALITY PIT OFFICE AREA, BAN 24 HOURS AS PER METHOD REFERE | ikheta Sample | CUSTOMER REF. | | 09.20 | 022 | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | | |
|---|---|-------------------|--|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | | |
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 | | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | | |

| TEST REPORT | | | | | | | | | |
|---------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------------|--|--|--|
| Date of Sampling | ΡM ₁₀ μg/m ³ | Ρ <mark>Μ</mark> _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | | |
| 01.05.2023 | 66 | 34 | 19 | 27 | 0.77 | N.D. | | | |
| 05.05.2023 | 69 | 30 | 18 | 27 | 0.94 | N.D. | | | |
| 08.05.2023 | 68 | 31 | 19 | 25 | 0.82 | N.D. | | | |
| 12.05.2023 | 66 | 32 | 17 | 26 | 0.70 | N.D. | | | |
| 15.05.2023 | 69 | 34 | 18 | 25 | 0.58 | N.D. | | | |
| 19.05.2023 | 70 | 35 | 19 | 27 | 0.71 | N.D. | | | |
| 22.05.2023 | 65 | 36 | 17 | 25 | 0.50 | N.D. | | | |
| 26.05.2023 | 72 | 32 | 16 | 24 | 0.63 | N.D. | | | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer This is for information as the party has asked for above test(s) only.



-End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Custo TO, | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | UES/TR/23-24/01991 UES/23-24/AAQM/04310-04317 02/06/2023 to 30/06/2023 03/06/2023 to 01/07/2023 | | | | | | | |
|--|--|---|--|-----------------------|-----------|---------------|------------------|------|-----------------------|--|
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | | | | | | | | | |
| | | | | | | | 04/07/2023 | | | |
| | | | | | | | START:03/06/2023 | | END:04/07/2023 | |
| | | | | | SAMPLE | DETAILS | 9.2 | | | |
| | | | MONITORING FOR | AMBIENT AIR QUALITY M | ONITORING | CUSTOMER REF. | NO 6 DATE | P.O. | 13552310211, DATED:07 | |
| SAMPLING LOCATION | PIT OFFICE AREA, BANK | | | | | 9.2022 | | | | |
| DURATION OF SAMPLING | 24 HOURS | | COLLECTED BY LABORATORY C | | | | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFEREN | CE CE | COLLECTED BY | LABORATORY (| CHEMIST | r | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): 1 SO2: 30MLX1 NO. PVC BC RUBBER BLADDER: 1X1 NO. | X1 NO., FIL DTTLE, NO ₂ : | TER PAPER (PM2.5 30MLX1 NO. PVC |): 1X1 NO. BOTTLE | | | | | | |

Test Method and NAAQM Standard for Ambient Air Quality Monitoring

| Parameter | Method Reference | NAAQM |
|--|---|----------|
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB | Standard |
| Particulate Matter size less | Guidelines VolI | 100 |
| than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 |
| Carbon Monoxide (CO)* | IS 5182 (Part 10):1999, RA 2003 | 00 |
| Mercury (Hg) | EPA Method 10-5 | 4.0 |
| and the second | | |

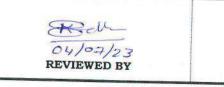
| TEST REPORT | | | | | | | | | | |
|---|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|-------------------|--|--|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | PM _{2.5} μg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg | | | | |
| 02.06.2023 | 65 | 32 | 17 | 26 | | ng/m ³ | | | | |
| 05.06.2023 | 68 | 29 | 19 | | 0.61 | N.D. | | | | |
| 09.06.2023 | 67 | 30 | | 2.5 | 0.84 | N.D. | | | | |
| 12.06.2023 | - | | 18 | 24 | 0.73 | N.D. | | | | |
| 16.06.2023 | 65 | 31 | 16 | 27 | 0.62 | N.D. | | | | |
| - CONTRACTOR OF | 68 | 33 | 17 | 24 | 0.44 | N.D. | | | | |
| 19.06.2023 | 69 | 34 | 18 | 26 | 0.64 | | | | | |
| 23.06.2023 | 60 | 31 | 15 | 22 | | N.D. | | | | |
| 30.06.2023 | 62 | 22 | in | | 0.43 | N.D. | | | | |
| marks: * Duratio | | | 16 | 23 | 0.51 | N.D. | | | | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agri-

This is for information as the party has asked for above test(s) only WIROW



For ULTIMATE ENVIROLYTICAL SQLUTIONS ebhajee AUTHORIZED SIGNATORY

End of the test report------End of the test report-----

AN ISO : 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY

ed with customer.



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

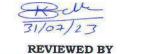
| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | LAB RE DATE C DATE C DATE C | REPORT NO UES/TR/23-24/03035 LAB REF NO UES/23-24/AAQM/05802-05809 DATE OF SAMPLING 03/07/2023 to 28/07/2023 DATE OF RECEIPT 04/07/2023 to 29/07/2023 DATE OF REPORT 31/07/2023 DATE OF ANALYSIS START: 04/07/2023 | | | 05802-05809 8/07/2023 |
|---|---|--------------------------------------|--|--------------------|------------------------------------|--|
| | An of any particular second | SAMPLE | DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY MON | | CUSTOMER REF. NO. & DATE | | P.O.13552310211,DATED:(09.2022 | |
| SAMPLING LOCATION | PIT OFFICE AREA, BANKHE | | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE COLLECTED 1 | | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | 101110-0012-00110-101100-001100-001100-001 |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO. | | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|---|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM ₁₀) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM2.5) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------------------------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO ₂ µg/m ³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 03.07.2023 | 43 | 24 | - 18 | 22 | 0.56 | N.D. | | |
| 07.07.2023 | 44 | 26 | 16 | 23 | 0.72 | N.D. | | |
| 10.07.2023 | 43 | 29 | 15 | 24 | 0.61 | N.D. | | |
| 14.07.2023 | 45 | 26 | 16 | 23 | 0.54 | N.D. | | |
| 17.07.2023 | 46 | 24 | 15 | 25 | 0.32 | N.D. | | |
| 21.07.2023 | 47 | 29 | 19 | 22 | 0.58 | N.D. | | |
| 24.07.2023 | 45 - | 27 | 18 | 23 | 0.34 | N.D. | | |
| 28.07.2023 | 44 | 28 | 15 | 25 | 0.48 | N.D. | | |

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.





For ULTIMATE ENVIROLYTICAL SOLUTIONS ha

AUTHORIZED SIGNATORY

End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, | | REPORT | REPORT NO | | UES/TR/23-24/03939 | | | |
|--|--|---|-----------------------------------|--|-------------------------------------|-----------|---------------------------|--|
| | | LAB REF NO | | UES/23-24/AAQM/07492-7499 | | | | |
| HINDALCO INDUST | Contraction of the second second second second | DATE OF SAMPLING | | 03/08/2023 | to 2 | 8/08/2023 | | |
| GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | 04/08/2023 to 29/08/2023 31/08/2023 | | | | |
| | | | | | | | START:04/08/2023 END:31/0 | |
| | | | | | | SAMPLE | DETAILS | |
| MONITORING FOR | AMBIENT AIR QUALITY 1 | MONITORING | CUSTOMER REF. | NO. & DATE | P.O.13552310211, DATED:0 09.2022 | | | |
| SAMPLING LOCATION | PIT OFFICE AREA, BANK | KHETA | | | | | | |
| DURATION OF SAMPLING | 24 HOURS | COLLECTED BY | LABORATORY CHEMIST | | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFEREN | NCE | | | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM10): SO2: 30MLX1 NO. PVC E RUBBER BLADDER: 1X1 N | NO2: | Carpender (Carpender) (Carpender) | | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | |
|--|---|-------------------|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | |

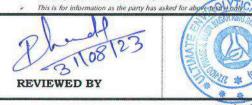
| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|---|--------------|--------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | Ρ <mark>Μ</mark> 2.5 μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 03.08.2023 | 43 | 27 | 18 | 25 | 0.34 | N.D. | | |
| 07.08.2023 | 39 | 24 | 19 | 25 | 0.52 | N.D. | | |
| 11.08.2023 | 40 | 28 | 18 | 24 | 0.47 | N.D. | | |
| 14.08.2023 | 39 | 27 | 21 | 26 | 0.30 | N.D. | | |
| 18.08.2023 | 42 | 25 | 19 | 24 | 0.16 | N.D. | | |
| 21.08.2023 | 39 | 26 | 16 | 23 | 0.39 | N.D. | | |
| 25.08.2023 | 44 | 30 | 18 | 23 | 0.19 | N.D. | | |
| 28.08.2023 | 41 | 30 | 21 | 25 | 0.24 | N.D. | | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test upport miless otherwise agreed with customer.



For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107 | | REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS | | UES/TR/23-24/04651 UES/23-24/AAQM/08524-08531 01/09/2023 to 25/09/2023 02/09/2023 to 26/09/2023 27/09/2023 | | |
|---|---|--|---------------|--|-----------------------------------|----------------|
| | | | | START: 02/09/2023 END: 27/09/2 | | END:27/09/2023 |
| | | SAMPLE | DETAILS | | | |
| MONITORING FOR | AMBIENT AIR QUALITY M | ONITORING | CUSTOMER REF. | NO. & DATE | P.O.13552310211,DATED: 09.2022 | |
| SAMPLING LOCATION | PIT OFFICE AREA, BANK | HETA | | | | |
| DURATION OF SAMPLING | 24 HOURS | SAMPLE | COLLECTED BY | LABORATORY CHEMIST | | |
| SAMPLING PROCEDURE | AS PER METHOD REFEREN | CE | | | | |
| SAMPLE QUANTITY/PACKING | FILTER PAPER (PM ₁₀): 1 SO ₂ : 30MLX1 NO. PVC BC RUBBER BLADDER: 1X1 N | OTTLE, NO2: | | | | |

| Test Method and NAAQM Standard for Ambient Air Quality Monitoring | | | | | | |
|--|---|-------------------|--|--|--|--|
| Parameter | Method Reference | NAAQM Standard | | | | |
| Particulate Matter size less than 10 microns (PM10) | IS 5182 (Part 23): 2006 & CPCB Guidelines VolI | 100 | | | | |
| Particulate Matter size less than 2.5 microns (PM _{2.5}) | IS 5182 (Part 24): 2019CPCBGuidelines VolI | 60 | | | | |
| Sulphur Dioxide (SO ₂) | IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI | 80 | | | | |
| Nitrogen Dioxide (NO ₂) | IS 5182 (Part 6): 2006 & CPCB Guidelines VolI | 80 | | | | |
| Carbon Monoxide (CO)* | IS 5182(Part 10):1999, RA 2003 | 4.0 | | | | |
| Mercury (Hg) | EPA Method IO-5 | | | | | |

| TEST REPORT | | | | | | | | |
|---------------------|---------------------------------------|--|--------------|--------------|--------------------------|-------------------------|--|--|
| Date of Sampling | ΡΜ ₁₀ μg/m ³ | ΡM _{2.5} μg/m ³ | SO₂ µg/m³ | NO₂ µg/m³ | CO* mg/m ³ | Hg ng/m ³ | | |
| 01.09.2023 | 39 | 25 | 16 | 26 | 0.29 | N.D. | | |
| 04.09.2023 | 44 | 27 | 16 | 24 | 0.43 | N.D. | | |
| 08.09.2023 | 40 | 26 | 17 | 27 | 0.41 | N.D. | | |
| 11.09.2023 | 42 | 25 | 15 | 27 | 0.25 | N.D. | | |
| 15.09.2023 | 40 | 27 | 21 | 27 | 0.11 | N.D. | | |
| 19.09.2023 | 41 | 26 | 20 | 25 | 0.36 | N.D. | | |
| 22.09.2023 | 43 | 28 | 16 | 25 | 0.12 | N.D. | | |
| 25.09.2023 | 44 | 29 | 18 | 27 | 0.18 | N.D. | | |

Remarks: * Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.



Annexure – 6A



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer To, | ÷ | REPORT NO. | UES/TR/23-24/0577 UES/23-24/FE/01423-01425 26/04/2023 | | |
|--|---|---------------------------------|---|----------------|--|
| HINDALCO INDUSTRIES L | and a second statement of the second statement of the | LAB REF NO. DATE OF SAMPLING | | | |
| PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT 27/04/2023 | | | |
| | | DATE OF REPORT | 02/05/2023 | | |
| | | DATE OF ANALYSIS | START:27/04/2023 | END:02/05/2023 | |
| | SAM | LE DETAILS | | | |
| MONITORING FOR | FUGITIVE EMISSIC | DN . | 2 | 6 | |
| SAMPLING LOCATION | Gare Palma-IV/5 | COAL MINE | | | |
| DURATION OF SAMPLING | 8 HOURS | | | | |
| SAMPLE COLLECTED BY | LABORATORY CHEMI | ST | | | |
| SAMPLING PROCEDURE | AS PER METHOD RE | FERENCE | | | |
| SAMPLE QUANTITY/PACKING | GMF FILTER PAPER (8 X 10 INCH): 1X10 NO. | | | | |

| TEST REPORT | | | | | | | | |
|----------------------------|-------------------|--|-------------------------------------|----------------------|--|--|--|--|
| Locations | Unit | Suspended Particulate Matter SPM | Moef& CC Notification (350-1) | Method Reference | | | | |
| Weighbridge area Kondkel | µg/m ³ | 149 | 500 | | | | | |
| Workshop area Kondkel | μg/m ³ | 168 | 500 | EPA Method IO-2.1 | | | | |
| Stowing plant area kondkel | µg/m ³ | 126 | 500 | | | | | |

REMARKS:

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.





Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer | | REPORT NO. UES/TR/23-24/01296 | | | | |
|--|---|-----------------------------------|------------------|-----------------|--|--|
| То, | | LAB REF NO. UES/23-24/FE/02539-02 | | 9-02541 | | |
| HINDALCO INDUSTRIES I | and the second second second second second second | DATE OF SAMPLING | 19/05/2023 | 1 | | |
| PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF RECEIPT 20/05/2023 | | | | |
| | | DATE OF REPORT | 24/05/2023 | | | |
| | | DATE OF ANALYSIS | START:20/05/2023 | END: 24/05/2023 | | |
| | | PLE DETAILS | | | | |
| MONITORING FOR | FUGITIVE EMISSIC | DN . | | | | |
| SAMPLING LOCATION | Gare Palma-IV/5 | COAL MINE | | | | |
| DURATION OF SAMPLING | 8 HOURS | 8 HOURS | | | | |
| SAMPLE COLLECTED BY | LABORATORY CHEMI | ST | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | | |
| SAMPLE QUANTITY/PACKING | GMF FILTER PAPER (8 X 10 INCH): 1X10 NO. | | | | | |

| TEST REPORT | | | | | | |
|----------------------------|-------------------|--|-------------------------------------|----------------------|--|--|
| Locations | Unit | Suspended Particulate Matter SPM | Moef& CC Notification (350-1) | Method Reference | | |
| Weighbridge area Kondkel | µg/m³ | 152 | 500 | | | |
| Workshop area Kondkel | µg/m ³ | 176 | 500 | EPA Method IO-2.1 | | |
| Stowing plant area kondkel | µg/m ³ | 134 ⁻ | 500 | | | |

REMARKS:

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer | | REPORT NO. UES/TR/23-24/02030 | | | |
|---|--|--------------------------------------|-------------------|-----------------|--|
| То, | | LAB REF NO. | UES/23-24/FE/0441 | 9-04421 | |
| HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | DATE OF SAMPLING | 29/06/2023 | | |
| | | DATE OF RECEIPT 30/06/2023 | | | |
| | | DATE OF REPORT | 04/07/2023 | | |
| | | DATE OF ANALYSIS | START: 30/06/2023 | END: 04/07/2023 | |
| The second s | | PLE DETAILS | | | |
| MONITORING FOR | FUGITIVE EMISSIC | DN | | | |
| SAMPLING LOCATION | Gare Palma-IV/5 | COAL MINE | | | |
| DURATION OF SAMPLING | 8 HOURS | | | | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | | |
| SAMPLE QUANTITY/PACKING | GMF FILTER PAPER (8 X 10 INCH): 1X10 NO. | | | | |

| TEST REPORT | | | | | | |
|----------------------------|---------------------------|--|-------------------------------------|---------------------|--|--|
| Locations | Unit | Suspended Particulate Matter SPM | Moef& CC Notification (350-1) | Method Reference | | |
| Weighbridge area Kondkel | µg/m³ | 161 | 500 | | | |
| Workshop area Kondkel | ug/m ² 178 500 | | EPA Method IO-2.1 | | | |
| Stowing plant area kondkel | µg/m ³ | 137 | 500 | | | |

REMARKS:

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer | | REPORT NO. | UES/TR/23-24/03074 | 4 |
|--|-------------------------|-------------------|----------------------------|-----------------|
| To, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | LAB REF NO. | UES/23-24/FE/0591: | 2-05914 |
| | | DATE OF SAMPLING | 26/07/2023 | |
| | | DATE OF RECEIPT | DATE OF RECEIPT 27/07/2023 | |
| | | DATE OF REPORT | 31/07/2023 | |
| | | DATE OF ANALYSIS | START:27/07/2023 | END: 31/07/2023 |
| | | PLE DETAILS | | |
| MONITORING FOR | FUGITIVE EMISSIC | DN . | | |
| SAMPLING LOCATION | Gare Palma-IV/5 | COAL MINE | | - |
| DURATION OF SAMPLING | 8 HOURS | | | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | |
| SAMPLE QUANTITY/PACKING | GMF FILTER PAPER | (8 X 10 INCH): 1X | 10 NO. | |

| TEST REPORT | | | | | | |
|----------------------------|-------------------|--|-------------------------------------|----------------------|--|--|
| Locations | Unit | Suspended Particulate Matter SPM | Moef& CC Notification (350-1) | Method Reference | | |
| Weighbridge area Kondkel | µg/m³ | 160 | 500 | | | |
| Workshop area Kondkel | µg∕m³ | 185 500 | | EPA Method IO-2.1 | | |
| Stowing plant area kondkel | µg/m ³ | 131 | 500 | | | |

REMARKS:

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.



-----End of the test report------End of the test report------



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer | | REPORT NO. | UES/TR/23-24/03902 | 2 |
|--|-------------------------|--|--------------------|-----------------|
| To, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | LAB REF NO. | UES/23-24/FE/0741 | 7-07419 |
| | | DATE OF SAMPLING | 23/08/2023 | |
| | | DATE OF RECEIPT | 24/08/2023 | |
| | | DATE OF REPORT | 31/08/2023 | |
| | | DATE OF ANALYSIS | START:24/08/2023 | END: 28/08/2023 |
| | SAMI | LE DETAILS | | |
| MONITORING FOR | FUGITIVE EMISSION | | | |
| SAMPLING LOCATION | Gare Palma-IV/5 | COAL MINE | | |
| DURATION OF SAMPLING | 8 HOURS | | | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | |
| SAMPLE QUANTITY/PACKING | GMF FILTER PAPER | GMF FILTER PAPER (8 X 10 INCH): 1X10 NO. | | |

| TEST REPORT | | | | | | |
|----------------------------|-------------------|--|-------------------------------------|----------------------|--|--|
| Locations | Unit | Suspended Particulate Matter SPM | Moef& CC Notification (350-1) | Method Reference | | |
| Weighbridge area Kondkel | µg/m³ | 138 | 500 | | | |
| Workshop area Kondkel | µg/m³ | 161 | 500 | EPA Method IO-2.1 | | |
| Stowing plant area kondkel | µg/m ³ | 109 | 500 | | | |

REMARKS:

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.



-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Customer | | REPORT NO. | UES/TR/23-24/04693 | 1 |
|--|-------------------------|--|--------------------|----------------|
| To, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | LAB REF NO. | UES/23-24/FE/08638 | 8-08640 |
| | | DATE OF SAMPLING | 21/09/2023 | |
| | | DATE OF RECEIPT 22/09/2023 | | |
| | | DATE OF REPORT | 27/09/2023 | |
| | | DATE OF ANALYSIS | START:22/09/2023 | END:26/09/2023 |
| | | PLE DETAILS | | |
| MONITORING FOR | FUGITIVE EMISSIC | N | | |
| SAMPLING LOCATION | Gare Palma-IV/5 | COAL MINE | | |
| DURATION OF SAMPLING | 8 HOURS | | | |
| SAMPLE COLLECTED BY | IST | | | |
| SAMPLING PROCEDURE | AS PER METHOD REFERENCE | | | |
| SAMPLE QUANTITY/PACKING | GMF FILTER PAPER | GMF FILTER PAPER (8 X 10 INCH): 1X10 NO. | | |

| TEST REPORT | | | | | | |
|----------------------------|-------------------|--|-------------------------------------|----------------------|--|--|
| Locations | Unit | Suspended Particulate Matter SPM | Moef& CC Notification (350-1) | Method Reference | | |
| Weighbridge area Kondkel | µg/m ³ | 140 | 500 | | | |
| Workshop area Kondkel | μg/m ³ | 165 | 500 | EPA Method IO-2.1 | | |
| Stowing plant area kondkel | µg/m ³ | 118 | 500 | | | |

REMARKS:

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.



-----End of the test report-----

Annexure – 6B

Photographs of Fixed type and truck mounted water sprinklers at Gare Palma IV/5 Underground Coal Mine of M/s Hindalco Industries Limited

















Annexure-7



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | REPORT NO. LAB REF NO. DATE OF REPORT DATE OF SAMPLING | UES/TR/23-24/0561 UES/23-24/N/01397-01406 02/05/2023 26/04/2023 to 27/04/2023 | | |
|--|---|---|--|--|--|
| | SI | MPLE DETAILS | | | |
| MONITORING FOR | NOISE LEVEL MONITORING | NOISE LEVEL MONITORING | | | |
| CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09 | 9.2022 | | | |
| SAMPLING LOCATION | INSIDE COAL MINE & OUTSIDE COAL MINE (AS DESCRIBED BELOW) | | | | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | | |
| SAMPLE QUANTITY/ PACKING | NOT APPLICABLE | | Nora. | | |

| | Т | EST REF | PORT | | | | |
|----------------------------------|--------|-------------|-------------------------|----------|------------|-------------|---------------|
| | RESULT | | LIMIT (INDUSTRIAL ZONE) | | | | |
| LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME | | |
| OFFICE AREA, MILUPARA | dB(A) | 61 | 49 | | 9 | | |
| MILUPARA AREA NEAR INCLINE | dB(A) | 65 | 55 | 75 | 70 | | |
| BUNKER AREA, MILUPARA | dB(A) | 67 | 56 | | | | |
| DG SET AREA, KONDKEL | dB(A) | 60 | 49 | | | | |
| MILUPARA MINES WEIGHBRIDGE | dB(A) | 66 | 54 | | | | |
| OFFICE AREA, KONDKEL | dB(A) | 59 | 47 | | | | |
| BUNKER AREA, KONDKEL | dB(A) | 62 | 51 | | | | |
| | | RESULT | | RESULT | | LIMIT (RESI | DENTIAL ZONE) |
| LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | | | |
| Outside Plant | | | | | 10 | | |
| SIDARPARA VILLAGE (GOVT. SCHOOL) | dB(A) | 50 | 41 | 55 | 45 | | |
| HIL COLONY, KONDKEL | dB(A) | 48 | 37 | 33 | 45 | | |
| HIL STAFF QUARTER, MILUPARA | dB(A) | 51 | 39 | | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked to above test(s) only.

Sterch 02/05/23

REVIEWED BY



Subhajcet

AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

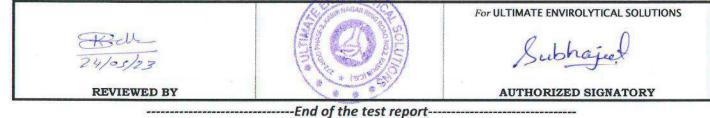
| Name & Address of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | REPORT NO. LAB REF NO. DATE OF REPORT DATE OF SAMPLING | UES/TR/23-24/0907 UES/23-24/N/02114-02123 24/05/2023 19/05/2023 - 20/05/2023 | | |
|--|---|---|---|--|--|
| | SZ | MPLE DETAILS | | | |
| MONITORING FOR | NOISE LEVEL MONITORING | NOISE LEVEL MONITORING | | | |
| CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09 | 9.2022 | | | |
| SAMPLING LOCATION | OCATION INSIDE COAL MINE & OUTSIDE COAL MINE (AS DESCRIBED BELOW) | | | | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | | |
| SAMPLE QUANTITY/ PACKING | NOT APPLICABLE | | | | |

| | TI | EST REI | PORT | | |
|----------------------------------|------------------|-------------|---------------|--------------------------|------------|
| A BUT PERSON SUBJECT | UNIT | RES | BULT | LIMIT (INDUSTRIAL ZONE) | |
| LOCATION | | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME |
| OFFICE AREA, MILUPARA | dB(A) | 62 | 50 | Testing I | |
| MILUPARA AREA NEAR INCLINE | dB(A) | 66 | 56 | | 70 |
| BUNKER AREA, MILUPARA | dB(A) | 68 | 57 | | |
| DG SET AREA, KONDKEL | dB(A) | 61 | 50 | 75 | |
| MILUPARA MINES WEIGHBRIDGE | dB(A) | 67 | 55 | | |
| OFFICE AREA, KONDKEL | dB(A) | 60 | 48 | | |
| BUNKER AREA, KONDKEL | dB(A) | 63 | 52 | | |
| | RES | | SULT | LIMIT (RESIDENTIAL ZONE) | |
| LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME |
| Outside Plant | - and a constant | | | | 45 |
| SIDARPARA VILLAGE (GOVT. SCHOOL) | dB(A) | 51 | 42 | 55 | |
| HIL COLONY, KONDKEL | dB(A) | 49 | 38 | | |
| HIL STAFF QUARTER, MILUPARA | dB(A) | 52 | 40 | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.





Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | REPORT NO. LAB REF NO. DATE OF REPORT | UES/TR/23-24/02014 UES/23-24/N/04394-04403 04/07/2023 | |
|--|------------------------------|---|---|--|
| | | DATE OF SAMPLING | 28/06/2023 | |
| | SZ | MPLE DETAILS | | |
| MONITORING FOR | NOISE LEVEL MONITORING | | | |
| CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.09 | 9.2022 | n per serie de la companya de la com La companya de la comp | |
| SAMPLING LOCATION | INSIDE COAL MINE & OUTSIDE | COAL MINE (AS DESCRIP | BED BELOW) | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | |
| SAMPLE QUANTITY/ PACKING | NOT APPLICABLE | | | |

| | TI | EST REI | PORT | | |
|----------------------------------|-------|-------------|---------------|--------------------------|------------|
| ta des det de la seguera : | | RESULT | | LIMIT (INDUSTRIAL ZONE) | |
| LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME |
| OFFICE AREA, MILUPARA | dB(A) | 61 | 51 | | |
| MILUPARA AREA NEAR INCLINE | dB(A) | 63 | - 55 | | 70 |
| BUNKER AREA, MILUPARA | dB(A) | 65 | 56 | | |
| DG SET AREA, KONDKEL | dB(A) | 60 | 49 | 75 | |
| MILUPARA MINES WEIGHBRIDGE | dB(A) | 63 | 53 | | |
| OFFICE AREA, KONDKEL | dB(A) | 59 | 48 | | |
| BUNKER AREA, KONDKEL | dB(A) | 61 | 52 | | |
| | | RESULT | | LIMIT (RESIDENTIAL ZONE) | |
| LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME |
| Outside Plant | | | | | |
| SIDARPARA VILLAGE (GOVT. SCHOOL) | dB(A) | 50 | 41 | FC | 45 |
| HIL COLONY, KONDKEL | dB(A) | 48 | 38 | 55 | 40 |
| HIL STAFF QUARTER, MILUPARA | dB(A) | 49 | 40 | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS Rede 04/07/23 **REVIEWED BY** AUTHORIZED SIGNATORY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | REPORT NO. | UES/TR/23-24/03116 UES/23-24/N/06013-06026 31/07/2023 | |
|---|-----------------------------|-------------------------|---|--|
| | | DATE OF REPORT | | |
| | | DATE OF SAMPLING | 27/07/2023 | |
| | | SAMPLE DETAILS | | |
| MONITORING FOR | NOISE LEVEL MONITORING | | | |
| CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.0 | 09.2022 | | |
| SAMPLING LOCATION | INSIDE COAL MINE & OUTSIDE | E COAL MINE (AS DESCRIE | BED BELOW) | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | |
| SAMPLE QUANTITY/ PACKING | NOT APPLICABLE | a solar second a second | | |

| TEST REPORT | | | | | | | | |
|-------------|--|-------|-------------|---------------|-------------------------|------------|--|--|
| SR. NO. | | | RE | SULT | LIMIT (INDUSTRIAL ZONE) | | | |
| | LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME | | |
| 1 | NEAR OFFICE AREA, MILUPARA | dB(A) | 62 | 52 | | | | |
| 2 | NEAR HIL STAFF QUARTER, MILUPARA | dB(A) | 53 | 45 | | 70 | | |
| 3 | NEAR HIL COLONY, KONDKEL | dB(A) | 51 | 43 | | | | |
| 4 | NEAR ETP AREA, KONDKEL | dB(A) | 58 | 49 | | | | |
| 5 | NEAR INCLINE AREA MILUPARA | dB(A) | 64 | 56 | 76 | | | |
| 6 | NEAR BUNKER AREA, MILUPARA | dB(A) | 66 | 57 | 75 | | | |
| 7 | NEAR DG SET AREA, KONDKEL | dB(A) | 61 | 50 | | | | |
| 8 | NEAR WEIGHBRIDGE AREA MILUPARA | dB(A) | 64 | 54 | | | | |
| 9 | NEAR OFFICE AREA, KONDKEL | dB(A) | 60 | 49 | | | | |
| 10 | NEAR BUNKER AREA, KONDKEL | dB(A) | 62 | 53 | | | | |
| | | | RESULT | | LIMIT (RESIDENTIAL ZONE | | | |
| | LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME | | |
| Outs | side Mines Premises | | | | | | | |
| 1 | NEAR GOVT. SCHOOL SIDARPARA VILLAGE | dB(A) | 51 | 42 | 55 | 45 | | |
| 2 | NEAR GOVT. SCHOOL KONDKEL VILLAGE | dB(A) | 50 | 41 | | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

Bur 31/07/23



For ULTIMATE ENVIROLYTICAL SOLUTIONS

bhapee AUTHORIZED SIGNATORY

REVIEWED BY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | REPORT NO. LAB REF NO. DATE OF REPORT | UES/TR/23-24/03869 UES/23-24/N/07372-07383 31/08/2023 23/08/2023 to 24/08/2023 | |
|---|-----------------------------|---|---|--|
| | | DATE OF SAMPLING | | |
| | 5 | SAMPLE DETAILS | | |
| MONITORING FOR | NOISE LEVEL MONITORING | | | |
| CUSTOMER REF. NO. & DATE | P.O.13552310212, DATED:07.0 | 09.2022 | | |
| SAMPLING LOCATION | INSIDE COAL MINE & OUTSID | E COAL MINE (AS DESCRII | BED BELOW) | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | |
| SAMPLE QUANTITY/ PACKING | NOT APPLICABLE | | | |

| | | TI | EST REF | PORT | | | |
|------|--|-------|-------------|---------------|-------------------------|------------|--|
| SR. | | | RES | SULT | LIMIT (INDUSTRIAL ZONE) | | |
| NO. | LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME | |
| 1 | NEAR OFFICE AREA, MILUPARA | dB(A) | 61 | 50 | | | |
| 2 | NEAR HIL STAFF QUARTER, MILUPARA | dB(A) | 52 | 44 | | 70 | |
| 3 | NEAR HIL COLONY, KONDKEL | dB(A) | 63 | 54 | | | |
| 4 | NEAR ETP AREA, KONDKEL | dB(A) | 65 | 57 | | | |
| 5 | NEAR INCLINE AREA MILUPARA | dB(A) | 62 | 51 | 75 | | |
| 6 | NEAR BUNKER AREA, MILUPARA | dB(A) | 59 | 51 | 75 | | |
| 7 | NEAR DG SET AREA, KONDKEL | dB(A) | 54 | 46 | | | |
| 8 | NEAR WEIGHBRIDGE AREA MILUPARA | dB(A) | 63 | 54 | | | |
| 9 | NEAR OFFICE AREA, KONDKEL | dB(A) | 65 | 55 | | | |
| 10 | NEAR BÜNKER AREA, KONDKEL | dB(A) | 67 | 58 | | | |
| | | | RESULT | | LIMIT (RESIDENTIAL ZON | | |
| | LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME | |
| Outs | side Mines Premises | | | | | | |
| 1 | NEAR GOVT. SCHOOL SIDARPARA VILLAGE | dB(A) | 50 | 40 | 55 | 45 | |
| 2 | NEAR GOVT. SCHOOL KONDKEL VILLAGE | dB(A) | 49 | 41 | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS 31108 AUTHORIZED SIGNATORY **REVIEWED BY** -End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | REPORT NO. LAB REF NO. | UES/TR/23-24/04675 UES/23-24/N/08610-08621 | | | |
|---|----------------------------|---------------------------|---|--|--|--|
| | | DATE OF REPORT | 27/09/2023 | | | |
| | | DATE OF SAMPLING | 21/09/2023 to 23/09/2023 | | | |
| | | SAMPLE DETAILS | | | | |
| MONITORING FOR | NOISE LEVEL MONITORING | | | | | |
| CUSTOMER REF. NO. & DATE | P.O.13552310212,DATED:07.0 | 09.2022 | | | | |
| SAMPLING LOCATION | INSIDE COAL MINE & OUTSIDE | E COAL MINE (AS DESCRIE | BED BELOW) | | | |
| SAMPLE COLLECTED BY | LABORATORY CHEMIST | | | | | |
| SAMPLE QUANTITY/ PACKING | NOT APPLICABLE | NOT APPLICABLE | | | | |

| | TEST REPORT | | | | | | | |
|------------|--|-------|-------------|---------------|-------------------------|------------|--|--|
| SR. NO. | LOCATION | | RESULT | | LIMIT (INDUSTRIAL ZONE) | | | |
| | | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME | | |
| 1 | NEAR OFFICE AREA, MILUPARA | dB(A) | 62 | 51 | | | | |
| 2 | NEAR HIL STAFF QUARTER, MILUPARA | dB(A) | 51 | 40 | | | | |
| 3 | NEAR HIL COLONY, KONDKEL | dB(A) | 53 | 42 | | 70 | | |
| 4 | NEAR ETP AREA, KONDKEL | dB(A) | 66 | 58 | | | | |
| 5 | NEAR INCLINE AREA MILUPARA | dB(A) | 63 | 52 | | | | |
| 6 | NEAR BUNKER AREA, MILUPARA | dB(A) | 61 | 53 | 75 | | | |
| 7 | NEAR DG SET AREA, KONDKEL | dB(A) | 57 | 45 | | | | |
| 8 | NEAR WEIGHBRIDGE AREA MILUPARA | dB(A) | 64 | 55 | | | | |
| 9 | NEAR OFFICE AREA, KONDKEL | dB(A) | 66 | 56 | | | | |
| 10 | NEAR BUNKER AREA, KONDKEL | dB(A) | 69 | 59 | | | | |
| | | | RESULT | | LIMIT (RESIDENTIAL ZON | | | |
| | LOCATION | UNIT | DAY TIME | NIGHT TIME | DAY TIME | NIGHT TIME | | |
| Outs | ide Mines Premises | | | | | | | |
| 1 | NEAR GOVT. SCHOOL SIDARPARA VILLAGE | dB(A) | 51 | 39 | 55 | 45 | | |
| 2 | NEAR GOVT. SCHOOL KONDKEL VILLAGE | dB(A) | 47 | 40 | | .5 | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only





ForULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

Annexure-8



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| zto Name & Address Of The TO , | Customer | Report No Lab Ref No | UES/TR/23 UES/23-24 | the second se | | |
|---|---------------------|-------------------------|-----------------------------|---|-------------------|--|
| | STRIES LIMITED, GAR | | Date Of Sampling | 26/04/202 | 3 | |
| and a standard for the second | LUPARA U/G COAL M | INE, | Date Of Receipt | 27/04/202 | 3 | an a |
| VILLAGE - MILUF | VIAG ENGINE. | | Date Of Report | 02/05/202 | 5/2023 | |
| BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | | Date Of Analysis | START: 27/04/2023 END: 01/05/20 | | |
| | | SAMP | LE DETAILS | | | |
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 2022 | 2310212, DATED:07.09 |
| Customer Sample ID | ETP INLET, KONDKEL | | Sample Condition at Receipt | | Ok | |
| Packing Of Sample 3 L X 1 NO. PVC CAN 1 L X 1 NO. FVC CAN 1 L X 1 NO. GLASS BOTTLE Sealed | | Sample Collected 1 | φy | Laboratory Chemist | | |
| Sampling Procedure IS: 3025 (PART-I): 1987 RA 2003; APHA 22 ND ED. 2021, 1060-B, 1-39 | | Quantity Received | | Approx. 5Ltr. | | |

| | | | TEST REPORT | | |
|------------|---|-------|---|---|-----------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature | °C | АРНА 22 nd Ed.2012,2130-В,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.3 |
| 4 | На | - | APHA 22 nd Ed.2012,4500-H*-B,4-92 | 5.5 to 9.0 | 7.28 |
| 5 | Total Residual Chlorine | mg/L | АРНА 22 nd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 85.9 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22nd Ed. 2012, 4500-F-B&D, 4-84&87 | 2.0 | 0.23 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.17 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed. 2012, 3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed. 2012, 3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 136.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 22.6 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003 | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report prices otherwise agreed with customer. This is for information as the party has asked for above test (spars)

For ULTIMATE ENVIROLYTICAL SOLUTIONS Holl -Subhajeet 02/05/23 AUTHORIZED SIGNATORY **REVIEWED BY** -End of the test report------



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| zto Name & Address Of The Customer To, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis LE DETAILS | UES/23-24 19/05/202 20/05/202 24/05/202 | UES/TR/23-24/0908 UES/23-24/W/02124 19/05/2023 20/05/2023 24/05/2023 START:20/05/2023 END: 24/05/20 | | |
|--|--------------------|--|--|--|--------------------|----------------------|
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 2022 | 2310212,DATED:07.09. |
| Customer Sample ID | ETP INLET, KONDKEL | | Sample Condition a | at Receipt | Ok | |
| Packing Of Sample 3 L X 1 NO. FVC CAN 1 L X 1 NO. FVC CAN 1 L X 1 NO. CLASS BOTTLE Sealed | | | Sample Collected | ьу | Laboratory Chemist | |
| Sampling Procedure IS: 3025 (PART-I): 1987 RA 2003; APHA 22 ^{MD} ED. 2021, 1060-B, 1-39 | | | Quantity Received Approx. 5Ltr. | | | īltr. |

| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
|------------|---|-------|---|---|-----------|
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature | •c | арна 22 nd ed.2012,2130-в,2-13 | Shall not exceed 5'C above the receiving water temperature | 25.4 |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H ⁺ -B,4-92 | 5.5 to 9.0 | 7.30 |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 86.1 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84&87 | 2.0 | 0.25 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.18 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 140.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 23.3 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003 | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden.

Fest sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.OL For ULTIMATE ENVIROLYTICAL SOLUTIONS Red 24/05/23 **REVIEWED BY** AUTHORIZED SIGNATORY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| tto Name & Address Of The Customer To, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis | UES/TR/23-24/02015 UES/23-24/W/04404 29/06/2023 30/06/2023 04/07/2023 START:30/06/2023 END: 04/07/2023 | | | |
|--|--------------------|-------------------|--|---|--------------------------|---------------------|--|
| | | SAMP | LE DETAILS | | | | |
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 2022 | 310212, DATED:07.09 | |
| Customer Sample ID | ETP INLET, KONDKEL | | Sample Condition at Receipt | | Ok Laboratory Chemist | | |
| Packing Of Sample 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE Sealed | | Sealed | Sample Collected 1 | by | | | |
| Sampling Procedure IS: 3025 (PART-I): 1987 RA 2003; APHA 22 ND ED. 2021, 1060-B, 1-39 | | Quantity Received | ************************************** | Approx. 5 | iLtr. | | |

| | TEST REPORT | | | | | | | | | |
|------------|---|-------|--|---|----------|--|--|--|--|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT | | | | | |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 | | | | | |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-1 | Agreeabl | | | | | |
| 3 | Temperature | °C | арна 22 nd ed.2012,2130-в,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.5 | | | | | |
| 4 | pH | | APHA 22 nd Ed.2012,4500-H'-B,4-92 | 5.5 to 9.0 | 7.27 | | | | | |
| 5 | Total Residual Chlorine | mg/L | APHA 22 rd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. | | | | | |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 67.2 | | | | | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. | | | | | |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84&87 | 2.0 | 0.22 | | | | | |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. | | | | | |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.18 | | | | | |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. | | | | | |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. | | | | | |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. | | | | | |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. | | | | | |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. | | | | | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. | | | | | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 116.0 | | | | | |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 19.4 | | | | | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003 | 10.0 | N.D. | | | | | |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | | | | | |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report antess otherwise agreed with customer. This is for information as the party has asked for above test(scont).



-End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| rteName& Address Of The Customer To, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis | UES/23-24 26/07/202 27/07/202 31/07/202 | UES/TR/23-24/03059 UES/23-24/W/05896 26/07/2023 27/07/2023 31/07/2023 START:27/07/2023 <i>END:31</i> /07/2023 | | |
|---|--------------------|--------|--|--|---|---|--|
| | | SAMP | LE DETAILS | | | an and the second second second second second | |
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 2022 | 2310212,DATED:07.09 | |
| Customer Sample ID | ETP INLET, KONDKEL | | Sample Condition a | at Receipt | Ok | | |
| Packing Of Sample 31 X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE Sealed | | Sealed | Sample Collected 1 | ⊳ <i>y</i> | Laboratory Chemist | | |
| Sampling Procedure IS: 3025(PART-I):1987 RA 2003; APHA 22ND ED. 2021, 1060-B, 1-39 | | | Quantity Received | | Approx. 1 | bLtr. | |

| | | | TEST REPORT | | | |
|------------|--|-------|--|---|-----------|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT | |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 | |
| 2 | Odour | | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-1 | Agreeable | |
| 3 | Temperature | °C | APHA 22 ^{m4} Ed.2012,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.2 | |
| 4 | pH | - | APHA 22 th Ed.2012,4500-H'-B,4-92 | 5.5 to 9.0 | 7.29 | |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1+G, 4 - 69 | 1.0 | N.D. | |
| 6 | Total Suspended Solids | mg/L | APHA 22 ⁻¹ Ed.2012,2540- D, 2-66 | 100 | 68.3 | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 ⁿ⁴ Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. | |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84&87 | 2.0 | 0.23 | |
| 9 | Lead (as Pb) | mg/L | APHA 22 ^{bd} Ed.2012,3111-B, 3-18 | 0.1 | N.D. | |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.19 | |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. | |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. | |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. | |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. | |
| 1,5 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N,D. | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 120.0 | |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 20.3 | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003 | 10.0 | N.D. | |
| 20 | Phenolic Compounds(as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

* The report for publication, arbitration or as legal dispute is forbidden

r Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer

- This is for information as the party has asked for above testislogly vr

| | IN UNGAR RING ROOM | For ULTIMATE ENVIROLYTICAL SOLUTIONS |
|-------------|--------------------|--------------------------------------|
| Delle | | e A |
| 31/07/23 | | Subhajeet |
| REVIEWED BY | | AUTHORIZED SIGNATORY |

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name& Address Of The Customer To, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis | UES/23-24 23/08/202 24/08/202 31/08/202 | UES/TR/23-24/03870 UES/23-24/W/07384 23/08/2023 24/08/2023 31/08/2023 START:24/08/2023 END:28/08/2023 | | | |
|--|--------------------|-------|--|--|--|---------------------|--|--|
| Sample Type | WASTE WATER | SAMP. | LE DETAILS Customer Ref. No. | & Date | P.O.13552 | 2310212,DATED:07.09 | | |
| Customer Sample ID | ETP INLET, KONDKEL | | Sample Condition at Receipt | | - | | | |
| Packing Of Sample 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE Sealed | | | Sample Collected 1 | by | Laboratory Chemist | | | |
| Sampling Procedure IS: 3025 (PART-I): 1987 RA 2003; APHA 22 ND ED. 2021, 1060-B, 1-39 | | | Quantity Received Approx. 5Ltr. | | | ltr. | | |

| | TEST REPORT | | | | | | | | | |
|------------|---|-------|--|---|-----------|--|--|--|--|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT | | | | | |
| 1 | Colour | Hazen | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | <1 | | | | | |
| 2 | Odour | - | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | Agreeable | | | | | |
| 3 | Temperature | °C | APHA 23 rd Ed. 2017,2130-B,2-13 | Shall not exceed 5'C above the receiving water temperature | 25.4 | | | | | |
| 4 | рН | - | APHA 23 rd Ed. 2017,4500-H ⁺ -B,4-92 | 5.5 to 9.0 | 7.31 | | | | | |
| 5 | Total Residual Chlorine | mg/L | APHA 23 rd Ed. 2017,4500-Cl-G, 4 - 69 | 1.0 | N.D. | | | | | |
| 6 | Total Suspended Solids | mg/L | APHA 23 rd Ed. 2017,2540- D, 2-66 | 100 | 70.5 | | | | | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 5.0 | N.D. | | | | | |
| 8 | Fluoride (as F) | mg/L | APHA 23 rd Ed. 2017,4500-F-B&D,4-84&87 | 2.0 | 0.26 | | | | | |
| 9 | Lead (as Pb) | mg/L | APHA 23 rd Ed. 2017,3111-B, 3-18 | 0.1 | N.D. | | | | | |
| 10 | Zinc (as Zn) | mg/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 5.0 | 0.20 | | | | | |
| 11 | Copper (as Cu) | mg/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 3.0 | N.D. | | | | | |
| 12 | Cadmium (as Cd) | mg/L | APHA 23 rd Ed. 2017,3500-Cd, 3-105 | 2.0 | N.D. | | | | | |
| 13 | Mercury (as Hg) | mg/L | APHA 23 rd Ed. 2017,3112-B, 3-23 | 0.01 | N.D. | | | | | |
| 14 | Arsenic (as As) | mg/L | APHA 23 rd Ed. 2017,3114-C, 3-38 | 0.2 | N.D. | | | | | |
| 15 | Selenium (as Se) | mg/L | APHA 23 rd Ed. 2017,3114-C, 3-38 | 0.05 | N.D. | | | | | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 23 rd Ed. 2017,3500-Cr-B,3-69 | 2.0 | N.D. | | | | | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 23 rd Ed. 2017, 5520-B,5-17 | 250 | 124.0 | | | | | |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 20.9 | | | | | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003 | 10.0 | N.D. | | | | | |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | | | | | |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

Fest sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above testisi only

For ULTIMATE ENVIROLYTICAL SOLUTIONS bhajee **REVIEWED BY** AUTHORIZED SIGNATORY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name& Address Of The Customer To, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE,VILLAGE - MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107 | | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report | UES/TR/23 UES/23-24 21/09/202 22/09/202 27/09/202 | :3 :3 | |
|--|--------------------|-------------------|--|---|--------------------|----------------------|
| | | | Date Of Analysis START:22/09/2023 END:26/09 | | | END:26/09/2023 |
| Sample Type | WASTE WATER | Of Life | Customer Ref. No. | & Date | P.O.13552 2022 | 2310212,DATED:07.09. |
| Customer Sample ID | ETP INLET, KONDKEL | | Sample Condition at Receipt | | Ok | |
| Packing Of Sample 3 L X 1 NO. FVC CAN 1 L X 1 NO. FVC CAN 1 L X 1 NO. GLASS BOTTLE Sealed | | | Sample Collected 1 | ¢y | Laboratory Chemist | |
| Sampling Procedure IS: 3025 (PART-I): 1987 RA 2003; APHA 22 ND ED. 2021, 1060-B, 1-39 | | Quantity Received | | Approx. 5Ltr. | | |

| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
|------------|---|-------|--|---|-----------|
| 1 | Colour | Hazen | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature | *c | АРНА 23 rd Ed. 2017,2130-В,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.2 |
| 4 | pH | - | APHA 23rd Ed. 2017,4500-H*-B,4-92 | 5.5 to 9.0 | 7.46 |
| 5 | Total Residual Chlorine | mg/L | APHA 23 rd Ed. 2017,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 23 rd Ed. 2017,2540- D, 2-66 | 100 | 65.4 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 23rd Ed. 2017,4500-F-B&D,4-84&87 | 2.0 | 0.21 |
| 9 | Lead (as Pb) | mg/L | APHA 23 rd Ed. 2017,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 5.0 | 0.16 |
| 11 | Copper (as Cu) | mg/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 23rd Ed. 2017,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 23rd Ed. 2017,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 23 rd Ed. 2017,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 23 rd Ed. 2017, 5520-B,5-17 | 250 | 132.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 24.8 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003 | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

· Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS Belle 27/09/23 **REVIEWED BY** AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| to Name & Address Of The C To, | Customer | | Report No Lab Ref No | UES/TR/23-24/0563 UES/23-24/W/01408 | | | |
|-----------------------------------|---|---------------------------|---------------------------|--|-----------------------|--|--|
| | STRIES LIMITED, GA | | Date Of Sampling | 26/04/202 | | and a second design of the second | |
| | LUPARA U/G COAL | MINE, | Date Of Receipt | 27/04/202 | 27/04/2023 | | |
| VILLAGE - MILUF | | | Date Of Report | 02/05/2023 | | | |
| BLOCK-TAMNAR | | | Date Of Analysis | START: 27/04/2023 END: 01/05/2 | | | |
| | | SAMP | LE DETAILS | | | | |
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 DATED:07 | | |
| Customer Sample ID | ETP OUTLET, KONDKEL | Sample Condition At Recei | At Receipt | t Ok | | | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected | Ву | Laborato | ry Chemist | |
| Sampling Procedure | IS: 3025 (PART-I): 1987 APHA 22 ND ED. 2021, 10 | Quantity Received | Quantity Received Approx. | | 5Ltr. | | |

| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
|------------|---|-------|--|---|-----------|
| 1 | Colour | Hazeh | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature | ۰c | APHA 22 nd Ed.2012,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.4 |
| 4 | pH | - | APHA 22 nd Ed.2012,4500-H*-B,4-92 | 5.5 to 9.0 | 7.60 |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 33.41 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.15 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.13 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed. 2012, 3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 56.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 10.2 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless other This is for information as the party has asked for above test(s) only. ise agreed with customer.



AUTHORIZED SIGNATORY

-End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAI LUPARA U/G COAL M PARA, | Report No UES/TR/23-24/0909 Lab Ref No UES/23-24/W/02125 Date Of Sampling 19/05/2023 Date Of Receipt 20/05/2023 Date Of Report 24/05/2023 | | | | |
|---|--|---|--------------------|--|------------------------|------------|
| DISTT RAIGAR | | SAMP | Date Of Analysis | START:20/ | 05/2023 END:24/05/2023 | |
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 DATED:07. | |
| Customer Sample ID | ETP OUTLET, KONDKEL | | Sample Condition 2 | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected 1 | By | Laborator | ry Chemist |
| Sampling Procedure IS: 3025 (PART-I): 1987 RA 2003; APHA 22 ND ED. 2021, 1060-B, 1-39 | | | Quantity Received | er er er en en en en er er er en en er | Approx. 5 | öLtr. |

| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
|------------|--|-------|--|---|-----------|
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature *C APHA 22 nd Ed.2012,2130-B,2-13 | | Shall not exceed 5°C above the receiving water temperature | 25.3 | |
| 4 | pH | - | APHA 22 nd Ed.2012,4500-H [*] -B,4-92 | 5.5 to 9.0 | 7.62 |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 34.50 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.17 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.14 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 2 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 3 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. |
| 4 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 7 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 60.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 10.9 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report-unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only.





Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAF LUPARA U/G COAL M PARA, , | INE, | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis | UES/TR/23-24/02016 UES/23-24/W/04405 29/06/2023 30/06/2023 04/07/2023 START:30/06/2023 END: 04/07/ | | |
|--------------------|--|---------------------------------|--|---|-----------------------|------------|
| Sample Type | WASTE WATER | SAMP. | LE DETAILS Customer Ref. No. | & Date | P.O.13552 DATED:07 | |
| Customer Sample ID | ETP OUTLET, KONDKEL | | Sample Condition 2 | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected 1 | Зу | Laborator | ry Chemist |
| Sampling Procedure | IS:3025(PART-I):1987 RA АРНА 22™ ED. 2021, 1060 | Quantity Received Approx. 5Ltr. | | | 5Ltr. | |

| | TEST REPORT | | | | | | | | |
|------------|---|-------------------|---|---|-----------|--|--|--|--|
| SR. NO. | PARAMETER | PARAMETER UNIT ME | | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT | | | | |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 | | | | |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeable | | | | |
| 3 | Temperature | *c | APHA 22 nd Ed.2012,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.4 | | | | |
| 4 | рН | - | APHA 22nd Ed. 2012, 4500-H'-B, 4-92 | 5.5 to 9.0 | 7.58 | | | | |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. | | | | |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 31.6 | | | | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. | | | | |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.13 | | | | |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. | | | | |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.11 | | | | |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. | | | | |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. | | | | |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. | | | | |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. | | | | |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. | | | | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. | | | | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 52.0 | | | | |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 9.4 | | | | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. | | | | |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above rest(s) only

For ULTIMATE ENVIROLYTICAL SOLUTIONS Redu 04/07/23 afer **REVIEWED BY** AUTHORIZED SIGNATORY

-End of the test report---



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAR LUPARA U/G COAL MILUPARA, | E | Report No UES/TR/23-24/03060 Lab Ref No UES/23-24/W/05897 Date Of Sampling 26/07/2023 Date Of Receipt 27/07/2023 Date Of Report 31/07/2023 Date Of Analysis START:27/07/2023 | | | |
|--------------------|--|--------|--|------------|------------------------|-----------------|
| DISTT RAIGAR | H (C.G.) 496107 | SAMP | Date Of Analysis | START:27/ | 07/2023 | END: 31/07/2023 |
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 DATED:07. | NS 55 (|
| Customer Sample ID | ETP OUTLET, KONDKEL | | Sample Condition 2 | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. FVC CAN 3 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected 1 | ∃у | Laborator | y Chemist |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22™ ED. 2021, 1060 | | Quantity Received | | Approx. 5 | Ltr. |

| SR THE ENVIRONMENT (PROTECTION) | | | | | | | | | |
|---------------------------------|--|-------|---|--|-----------|--|--|--|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT | | | | |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 | | | | |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-1 | Agreeable | | | | |
| 3 | Temperature | 'c | APHA 22 nd Ed.2012,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.2 | | | | |
| 4 | PH | - | APHA 22 nd Ed.2012,4500-H'-B,4-92 | 5.5 to 9.0 | 7.60 | | | | |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1-G, 4 = 69 | 1.0 | N.D. | | | | |
| 6 | Total Suspended Solids | mg/L | APHA 22"4 Ed.2012,2540- D, 2-66 | 100 | 32.2 | | | | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. | | | | |
| 8 | Fluoride (as F) | mg/L | APHA 22"3 Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.14 | | | | |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. | | | | |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.12 | | | | |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. | | | | |
| 12 | Cadmium (as Cd) | mg/L | APHA 22° Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. | | | | |
| 13 | Mercury (as Hg) | mg/L | APHA 22nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. | | | | |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. | | | | |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. | | | | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. | | | | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 56.0 | | | | |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 10.18 | | | | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. | | | | |
| 20 | Phenolic Compounds(as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- we have a second to the second
- The report for publication, arbitration or as legal dispute is forbidden.
 Test sample will be retained for 15 days after issue of test report where other
- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
 This is for information as the party has asked for above test of other Tices.



-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAR LUPARA U/G COAL MILUPARA, | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report | Ref No UES/23-24/W/07385 Of Sampling 23/08/2023 Of Receipt 24/08/2023 | | | |
|---|--|--|---|---------------------------|------------------------|---------------------------------|
| DISTT RAIGAR | | SAMP | Date Of Analysis | START:24/08/2023 END:28/0 | | END:28/08/2023 |
| Sample Type | WASTE WATER | Crart. | Customer Ref. No. | & Date | P.O.13552 DATED:07. | The second second second second |
| Customer Sample ID | ETP OUTLET, KONDKEL | | Sample Condition A | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected H | 3y | Laborator | y Chemist |
| Sampling Procedure IS: 3025 (PART-I): 1987 RA 2003; APHA 22ND ED. 2021, 1060-B, 1-39 | | | Quantity Received | | Approx. 5Ltr. | |

| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT | | | | |
|------------|---|-------|--|---|-----------|--|--|--|--|
| 1 | Colour | Hazen | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | <1 | | | | |
| 2 | Odour | - | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | Agreeable | | | | |
| 3 | Temperature 'C APHA 23 rd Ed. 2017, 2130-B, 2-13 | | Shall not exceed 5°C above the receiving water temperature | 25.0 | | | | | |
| 4 | PH | - | APHA 23rd Ed. 2017,4500-H*-B,4-92 | 5.5 to 9.0 | 7.58 | | | | |
| 5 | Total Residual Chlorine | mg/L | APHA 23 rd Ed. 2017,4500-Cl-G, 4 - 69 | 1.0 | N.D. | | | | |
| 6 | Total Suspended Solids | mg/L | APHA 23 rd Ed. 2017,2540- D, 2-66 | 100 | 30.1 | | | | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 5.0 | N.D. | | | | |
| 8 | Fluoride (as F) | mg/L | APHA 23 rd Ed. 2017,4500-F-B&D,4-84 & 87 | 2.0 | 0.13 | | | | |
| 9 | Lead (as Pb) | mg/L | APHA 23rd Ed. 2017, 3111-B, 3-18 | 0.1 | N.D. | | | | |
| .0 | Zinc (as Zn) | mg/L | APHA 23 rd Ed. 2017, 3111-B, 3-18 | 5.0 | 0.11 | | | | |
| 11 | Copper (as Cu) | mg/L | APHA 23 rd Ed. 2017,3111-B, 3-18 | 3.0 | N.D. | | | | |
| 12 | Cadmium (as Cd) | mg/L | APHA 23rd Ed. 2017,3500-Cd, 3-105 | 2.0 | N.D. | | | | |
| 13 | Mercury (as Hg) | mg/L | APHA 23rd Ed. 2017, 3112-B, 3-23 | 0.01 | N.D. | | | | |
| 14 | Arsenic (as As) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.2 | N.D. | | | | |
| 15 | Selenium (as Se) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.05 | N.D. | | | | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 23 rd Ed. 2017,3500-Cr-B,3-69 | 2.0 | N.D. | | | | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 23 rd Ed. 2017, 5520-B,5-17 | 250 | 52.0 | | | | |
| .8 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 9.4 | | | | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. | | | | |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only

31108 **REVIEWED BY**



For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| to Name & Address Of The To. | Customer | | Report No | UES/TR/23-24/04677 | | | | |
|-------------------------------------|---|--------|----------------------------|---|------------------------|---|--|--|
| | STRIES LIMITED, GAR | E | Lab Ref No | UES/23-24 | UES/23-24/W/08623 | | | |
| | LUPARA U/G COAL | | Date Of Sampling | 21/09/202 | !3 | | | |
| MINE,VILLAGE - | | | Date Of Receipt 22/09/2023 | | :3 | | | |
| BLOCK-TAMNAR | | | Date Of Report | 27/09/2023 START:22/09/2023 END:26/09/20 | | | | |
| DISTT RAIGAR | | | Date Of Analysis | | | | | |
| | | SAMP: | LE DETAILS | | | | | |
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 DATED:07. | | | |
| Customer Sample ID | ETP OUTLET, KONDKEL | | Sample Condition | At Receipt | Ok | e and the second production of the second | | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. FVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected B | Зу | Laborator | ry Chemist | | |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22™ ED. 2021, 1060 | | Quantity Received | | Approx. 5 | 5Ltr. | | |

| | | | TEST REPORT | | |
|------------|---|-------|---|---|---|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT <1 Agreeable 25.3 7.82 |
| 1 | Colour | Hazen | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 23 rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature | °c | APHA 23 rd Ed. 2017,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.3 |
| 4 | рН | - | APHA 23 rd Ed. 2017,4500-H*-B,4-92 | 5.5 to 9.0 | 7.82 |
| 5 | Total Residual Chlorine | mg/L | APHA 23 rd Ed. 2017,4500-Cl-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 23 rd Ed. 2017,2540- D, 2-66 | 100 | 28.6 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 23 rd Ed. 2017,4500-F-B&D,4-84 & 87 | 2.0 | 0.11 |
| 9 | Lead (as Pb) | mg/L | APHA 23rd Ed. 2017, 3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 5.0 | 0.09 |
| 11 | Copper (as Cu) | mg/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 23 rd Ed. 2017,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 23rd Ed. 2017, 3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 23 rd Ed. 2017,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 23 rd Ed. 2017, 5520-B,5-17 | 250 | 60.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 12.8 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only.



For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----

Annexure-8A

Photographs of Treatment facilities at Gare Palma IV/5 Under Ground Coal Mines of M/s Hindalco Industries Limited



Settling Pond # 05



Settling Pond # 01



Settling Pond # 02



Settling Pond # 03



Settling Pond # 04



Effluent Treatment Plant # 01



Effluent Treatment Plant # 02



Water Treatment Plant # 01



Water Treatment Plant # 02



Reverse Osmosis Plant



Reverse Osmosis Plant # 01



Reverse Osmosis Plant # 02

Annexure-9



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| to Name & Address Of The C To, | | | Report No Lab Ref No | UES/TR/23-24/0564 UES/23-24/W/01409 | | | |
|--|--|------------------|---|--|--------------------|--|--|
| | STRIES LIMITED, GAR | | Date Of Sampling | 26/04/202 | 3 | | |
| ANTERNA THE COMPANY AND STATEMENT OF COMPANY | /5, MILUPARA U/G COAL MINE, | | Date Of Receipt | 27/04/202 | 3 | | |
| VILLAGE - MILUF | Construction of the | | Date Of Report | 02/05/202 | 02/05/2023 | | |
| BLOCK-TAMNAR, DISTT RAIGAR | Construction and the second seco | Date Of Analysis | START:27/04/2023 END:01/05/2 | | | | |
| | | SAMP | LE DETAILS | | | | |
| Sample Type | WASTE WATER | | Customer Ref. No. & Date P.O.13552 DATED:07. | | | | |
| Customer Sample ID | STP INLET, PORTACABIN | | Sample Condition | At Receipt | ok | | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected By | | Laboratory Chemist | | |
| Sampling Procedure | Quantity Received Approx. 5Ltr. | | 5Ltr. | | | | |

| | | | TEST REPORT | | |
|------------|---|-------|---|---|-----------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature | °C | арна 22 nd Ed.2012,2130-В,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.5 |
| 4 | рH | - | APHA 22 nd Ed.2012,4500-H*-B,4-92 | 5.5 to 9.0 | 7.38 |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 49.5 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.58 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.16 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed. 2012, 3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | АРНА 22 nd Ed.2012, 5520-B,5-17 | 250 | 144.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 20.4 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless othe This is for information as the party has asked for above tests only. rise agreed with customer.



End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAI LUPARA U/G COAL M PARA, , | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis | UES/TR/23-24/0910 UES/23-24/W/02126 19/05/2023 20/05/2023 24/05/2023 START:20/05/2023 END: 24/05/2 | | | |
|--------------------|--|---------------------------------|--|---|-----------------------|---|--|
| Sample Type | WASTE WATER | SAMP: | LE DETAILS Customer Ref. No. | & Date | P.O.13552 DATED:07 | | |
| Customer Sample ID | STP INLET, PORTACABIN | <u>en 1960 - 100 - 1000</u> | Sample Condition A | At Receipt | Ok | 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - | |
| Packing Of Sample | 3 L X I NO. PVC CAN 1 L X I NO. PVC CAN 1 L X I NO. GLASS BOTTLE | Sealed | Sample Collected By | | Laboratory Chemist | | |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22 ND ED. 2021, 106 | Quantity Received Approx. 5Ltr. | | | 5Ltr. | | |

| | | | TEST REPORT | | |
|------------|---|-------------------------------|---|---|----------|
| SR. NO. | PARAMETER | PARAMETER UNIT METHOD OF TEST | | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeabl |
| 3 | Temperature | °C | арна 22 nd Ed.2012,21 <mark>30-в,2-1</mark> 3 | Shall not exceed 5°C above the receiving water temperature | 25.4 |
| 4 | рH | - | APHA 22 nd Ed.2012,4500-H ⁺ -B,4-92 | 5.5 to 9.0 | 7.41 |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 50.2 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & | 2.0 | 0.60 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.18 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 148.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 20.9 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GA LUPARA U/G COAL M PARA, | MINE, | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis LE DETAILS | UES/TR/2: UES/23-24 29/06/202 30/06/202 04/07/202 START: 30/ | 23 13 13 | END: 04/07/2023 |
|--------------------|---|---------------------------------|--|---|--------------------------------------|-----------------|
| Sample Type | WASTE WATER | | Customer Ref. No. & Date | | P.O.13552310212, DATED:07.09.2022 | |
| Customer Sample ID | STP INLET, PORTA CABIN | V | Sample Condition # | At Receipt | Ok. | |
| Packing Of Sample | 3 L X 1 NO PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sample Collected By | | Laboratory Chemist | | |
| Sampling Procedure | IS:3025(PART-I):1987 R APHA 22 ND ED. 2021, 10€ | Quantity Received Approx. 5Ltr. | | | Ltr. | |

| | | | TEST REPORT | | |
|------------|---|-------|---|---|----------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 (SCHEDULE-VI) PART-A INLAND SURFACE WATER | RESULT |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeabl |
| 3 | Temperature | •C | APHA 22 nd Ed.2012,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.6 |
| 4 | рн | - | APHA 22nd Ed. 2012, 4500-H*-B, 4-92 | 5.5 to 9.0 | 7.36 |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22nd Ed.2012,2540- D, 2-66 | 100 | 45.4 |
| 7 | Dissolved Phosphate (as P) | mg/L | АРНА 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & | 2.0 , | 0.52 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22nd Ed. 2012, 3111-B, 3-18 | 5.0 | 0.21 |
| 11 | Copper (as Cu) | mg/L | APHA 22nd Ed. 2012, 3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed. 2012, 3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed. 2012, 3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed. 2012, 3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | АРНА 22 nd Ed.2012, 5520-B,5-17 | 250 | 140.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 19.7 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.



-End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GA LUPARA U/G COAL M PARA, | | Report No UES/TR/23-24/03061 Lab Ref No UES/23-24/W/05898 Date Of Sampling 26/07/2023 Date Of Receipt 27/07/2023 Date Of Report 31/07/2023 | | | |
|-----------------------------------|--|---------------------------------|--|--------------------|------------------------------|-----------------|
| DISTT RAIGAR | | SAMP | Date Of Analysis | START:27/ | 07/2023 | END: 31/07/2023 |
| Sample Type Customer Sample ID | WASTE WATER STP INLET, PORTACABIN | | Customer Ref. No. Sample Condition A | | P.O.13552 DATED:07. Ok | |
| Packing Of Sample | 3 L X I NO PVC CAN I L X I NO PVC CAN I L X I NO. GLASS BOTTLE | Sample Collected By | | Laboratory Chemist | | |
| Sampling Procedure | IS:3025(PART-I):1987 R APHA 22 ND ED. 2021, 106 | Quantity Received Approx. 5Ltr. | | | 5Ltr. | |

| Margares Ma | | | TEST REPORT | | THE R. O. LOW PROPERTY AND IN | |
|-------------|---|---------------------|--|---|---|--|
| SR. NO. | PARAMETER | PARAMETER UNIT METH | | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | , 1986 VIJ PART-A RESULT FACE WATER | |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 | |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-1 | Agreeabl | |
| 3 | Temperature | °C | арна 22 ⁿ 'Ed.2012,2130-в, <mark>2-</mark> 13 | Shall not exceed 5°C above the receiving water temperature | 25.4 | |
| 4 | pH | | APHA 22 ⁿ⁴ Ed.2012,4500-H*-B,4-92 | 5.5 to 9.0 | 7.39 | |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69 | 1.0 | N.D. | |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 46.1 | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. | |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.53 | |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. | |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.22 | |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. | |
| 12 | Cadmium (as Cd) | mg/L | APHA 22nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. | |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. | |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. | |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 144.0 | |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 20.2 | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. | |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | |

Note: mg/lit.: milligram per liter, N.D. - Not Detecte

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

r The report for publication, arbitration or as legal dispute is forbidden.

F Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only

Rour 31/07/23



For ULTIMATE ENVIROLYTICAL SOLUTIONS

bha

AUTHORIZED SIGNATORY

REVIEWED BY

End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAR LUPARA U/G COAL M PARA, | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report | UES/23-24 23/08/202 24/08/202 | UES/TR/23-24/03872 UES/23-24/W/07386 23/08/2023 24/08/2023 31/08/2023 | | |
|--------------------|--|-------------------|--|-------------------------------------|---|----------------|--|
| DISTT RAIGAR | H (C.G.) 496107 | SAMD | Date Of Analysis | START:24/08/2023 | | END:28/08/2023 | |
| Sample Type | WASTE WATER | OAMF. | Customer Ref. No. | & Date | P.O.13552 | | |
| Customer Sample ID | STP INLET, PORTACABIN | | Sample Condition A | 0.000 | DATED:07. | TED:07.09.2022 | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected By | | Laboratory Chemist | | |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22™ ED. 2021, 1060 | Quantity Received | | Approx. 5 | Approx. 5Ltr. | | |

| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
|------------|---|-------|---|---|-----------|
| 1 | Colour | Hazen | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature | °C | АРНА 23 ^{zd} ed. 2017, <mark>2130-в,2</mark> -13 | Shall not exceed 5°C above the receiving water temperature | 25.2 |
| 4 | рн | - | APHA 23rd Ed. 2017,4500-H+-B,4-92 | 5.5 to 9.0 | 7.42 |
| 5 | Total Residual Chlorine | mg/L | APHA 23 rd Ed. 2017,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 23 rd Ed. 2017,2540- D, 2-66 | 100 | 48.3 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 23 rd Ed. 2017,4500-F-B&D,4-84 & | 2.0 | 0.55 |
| 9 | Lead (as Pb) | mq/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 23rd Ed. 2017, 3111-B, 3-18 | 5.0 | 0.23 |
| 11 | Copper (as Cu) | mg/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 23rd Ed. 2017,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 23rd Ed. 2017,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 23rd Ed. 2017, 3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 23rd Ed. 2017, 3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 23 rd Ed. 2017,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 23 rd Ed. 2017, 5520-B,5-17 | 250 | 148.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 20.7 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS 108 31 ia AUTHORIZED SIGNATORY **REVIEWED BY**

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAR LUPARA U/G COAL M PARA, | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report | UES/23-24 21/09/202 22/09/202 | UES/TR/23-24/04678 UES/23-24/W/08624 21/09/2023 22/09/2023 27/09/2023 | | |
|--------------------|--|--|---|---|--------------------|----------------|
| DISTT RAIGAR | H (C.G.) 496107 | | Date Of Analysis | START: 22/09/2023 END: | | END:26/09/2023 |
| | | SAMP. | LE DETAILS | | | |
| Sample Type | WASTE WATER | | Customer Ref. No. & Date P.O.13552 DATED:07. | | | |
| Customer Sample ID | STP INLET, PORTA CABIN | | Sample Condition 2 | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected By | | Laboratory Chemist | |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22™ ED. 2021, 1060 | Quantity Received | | Approx. 5Ltr. | | |

| | | | TEST REPORT | | |
|------------|---|-------|--|---|----------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | RESULT |
| 1 | Colour | Hazen | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | Agreeabl |
| 3 | Temperature | *C | APHA 23 rd Ed. 2017,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.4 |
| 4 | pH | - | APHA 23rd Ed. 2017,4500-H+-B,4-92 | 5.5 to 9.0 | 7.38 |
| 5 | Total Residual Chlorine | mg/L | APHA 23 rd Ed. 2017,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 23rd Ed. 2017,2540- D, 2-66 | 100 | 42.4 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 23 rd Ed. 2017,4500-F-B&D,4-84 & | 2.0 | 0.42 |
| 9 | Lead (as Pb) | mg/L | APHA 23rd Ed. 2017,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 23rd Ed. 2017, 3111-B, 3-18 | 5.0 | 0.18 |
| 11 | Copper (as Cu) | mg/L | APHA 23rd Ed. 2017, 3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 23rd Ed. 2017,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 23rd Ed. 2017, 3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 23rd Ed. 2017, 3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 23rd Ed. 2017, 3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 23 rd Ed. 2017,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 23 rd Ed. 2017, 5520-B,5-17 | 250 | 152.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 18.8 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| to Name & Address Of The C | Customer | | Report No | UES/TR/23 | -24/0565 | |
|--------------------------------|--|--------|-------------------|-----------------------------|------------------------|----------------|
| То, | | | Lab Ref No | UES/23-24 | /w/01410 | |
| | STRIES LIMITED, GAR | | Date Of Sampling | 26/04/202 | 3 | |
| | LUPARA U/G COAL MI | NE, | Date Of Receipt | 27/04/202 | 3 | 00 |
| VILLAGE - MILUF | | | Date Of Report | 02/05/202 | 3 | |
| BLOCK-TAMNAR, DISTT RAIGARI | A | | Date Of Analysis | START:27/04/2023 END:01/05/ | | END:01/05/2023 |
| | | SAMPI | LE DETAILS | | 4 Parts | 1 1 1 1 1 1 |
| Sample Type | WASTE WATER | | Customer Ref. No. | . & Date | P.O.13552 DATED:07. | |
| Customer Sample ID | STP OUTLET, PORTA CABIN | | Sample Condition | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected | Ву | Laboratory Chemist | |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22 ND ED. 2021, 1060 | | Quantity Received | a | Approx. 5 | 5Ltr. |

| | | | TEST REPORT | | |
|------------|---|-------|---|---|---------------------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 (SCHEDULE-VIJ PART-A INLAND SURFACE WATER | SUMP WATER PIT-D |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-1 | <1 |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-1 | Agreeable |
| 3 | Temperature | °C | APHA 22 nd Ed.2012,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.3 |
| 4 | Hq | - | APHA 22 nd Ed. 2012, 4500-H*-B, 4-92 | 5.5 to 9.0 | 7.48 |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 34.1 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N,D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.24 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.14 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 40.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 9.6 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above festive only.

Rede 02/05/23

For ULTIMATE ENVIROLYTICAL SOLUTIONS

Subhajeet

AUTHORIZED SIGNATORY

REVIEWED BY

End of the test report----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAR LUPARA U/G COAL MI PARA, | INE, | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis LE DETAILS | UES/TR/23 UES/23-24 19/05/202 20/05/202 24/05/202 START:20/ | /W/02127 23 3 3 | END: 24/05/2023 |
|--------------------|--|--------|--|--|--------------------------|-----------------|
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 DATED:07. | |
| Customer Sample ID | STP OUTLET, PORTA CABIN | | Sample Condition | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected | 1 * 100 meter et 100 | Laborator | ry Chemist |
| Sampling Procedure | IS:3025(PART-I):1987 RA АРНА 22 ^{№D} ED. 2021, 1060 | | Quantity Received | | Approx. 5 | ōLtr. |

| | | | | THE ENVIRONMENT | |
|------------|--|-------|--|--|---------------------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | SUMP WATER PIT-D |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature 'C APHA 22 nd Ed.2012,2130-B,2-13 | | Shall not exceed 5°C above the receiving water temperature | 25.4 | |
| 4 | рн | - | APHA 22 nd Ed.2012,4500-H*-B,4-92 | 5.5 to 9.0 | 7.50 |
| 5 | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 35.2 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & | 2.0 | 0.26 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0,1 | N .D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.16 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 44.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 10.5 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only.

Fell 24/05/23 **REVIEWED BY**



For ULTIMATE ENVIROLYTICAL SOLUTIONS

ibhajeet

AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAR LUPARA U/G COAL MI PARA, | INE, | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis LE DETAILS | UES/TR/23 UES/23-24 29/06/202 30/06/202 04/07/202 START: 30/ | 23 23 23 | END: 04/07/2023 |
|--------------------|--|--------|--|---|------------------------|-----------------|
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 DATED:07. | |
| Customer Sample ID | STP OUTLET, PORTA CABIN | р. | Sample Condition | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected By | | Laboratory Chemist | |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22 ND ED. 2021, 1060 | | Quantity Received | 1 | Approx. 5 | iltr. |

| | TEST REPORT | | | | | | | | |
|------------|---|---|--|---|---------------------|--|--|--|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-V]] PART-A INLAND SURFACE WATER | SUMP WATER PIT-D | | | | |
| 1 | Colour | Hazen | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 | | | | |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | Agreeable | | | | |
| 3 | Temperature | *C APHA 22 nd Ed.2012,2130-B,2-13 above the re water tempe | | Shall not exceed 5°C above the receiving water temperature | 25.6 | | | | |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H'-B,4-92 | 5.5 to 9.0 | 7,47 | | | | |
| 5 | Total Residual Chlorine | mg/L | APHA 22 rd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. | | | | |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 31.6 | | | | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed.2012,4500-P-C, 4-153 | 5.0 | N.D. | | | | |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.24 | | | | |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0,1 | N.D. | | | | |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.13 | | | | |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. | | | | |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. | | | | |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. | | | | |
| 14 | Arsenic (as As) | mg/L | APHA 22nd Ed. 2012, 3114-C, 3-38 | 0.2 | N.D. | | | | |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. | | | | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. | | | | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 40.0 | | | | |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 9.5 | | | | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. | | | | |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | | | | |

Note: mg/itt.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only $\mathbb{R}O($

Red 04/07/23 **REVIEWED BY**



For ULTIMATE ENVIROLYTICAL SOLUTIONS

Subhojeet

AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAR LUPARA U/G COAL MI PARA, | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report | UES/TR/23 UES/23-24 26/07/202 27/07/202 31/07/202 | 3 | |
|--------------------|--|--------|--|---|-----------------------|-----------------|
| DISTT RAIGAR | * | SAMP | Date Of Analysis | START:27/ | 07/2023 | END: 31/07/2023 |
| Sample Type | WASTE WATER | | Customer Ref. No. | & Date | P.O.13552 DATED:07 | |
| Customer Sample ID | STP OUTLET, PORTA CABIN | | Sample Condition | At Receipt | Ok | |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected | Ву | Laborator | ry Chemist |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22™ ED. 2021, 1060 | | Quantity Received | 1 | Approx. 5 | 5Ltr. |

| | | 1 | TEST REPORT | | |
|---------------------------------|---|-------|--|---|---------------------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | SUMP WATER PIT-D |
| 1 | Colour | Hazen | APHA 22 ¹⁴ Ed. 2012,2120-B,2-6 | See 6 of Annexure-I | <1 |
| 2 | Odour | - | APHA 22 nd Ed. 2012,2120-B,2-6 | See 6 of Annexure-1 | Agreeable |
| 3 | Temperature | ¢ | АРНА 22 ^{ng} Ed.2012,2130-В,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.3 |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H*-B,4-92 | 5.5 to 9.0 | 7.50 |
| $\underline{\underline{F}}_{i}$ | Total Residual Chlorine | mg/L | APHA 22 nd Ed.2012,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 22 nd Ed.2012,2540- D, 2-66 | 100 | 32.2 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 22 nd Ed. 2012,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87 | 2.0 | 0.25 |
| 9 | Lead (as Pb) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 5.0 | 0.14 |
| 11 | Copper (as Cu) | mg/L | APHA 22 nd Ed.2012,3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 22 nd Ed.2012,3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 22 nd Ed.2012,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 22 nd Ed.2012,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 22 nd Ed.2012, 5520-B,5-17 | 250 | 44.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 10.4 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1,0 | N.D. |

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

* Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only in River



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | STRIES LIMITED, GAR LUPARA U/G COAL M PARA, | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report | UES/TR/23 UES/23-24 23/08/202 24/08/202 31/08/202 | :3 :3 | |
|--------------------|--|--------|--|---|------------------------|--|
| DISTT RAIGAR | H (C.G.) 496107 | | Date Of Analysis | START: 24/08/2023 | | END:28/08/2023 |
| | | SAMP | LE DETAILS | | | |
| Sample Type | WASTE WATER | - | Customer Ref. No. | & Date | P.O.13552 DATED:07. | |
| Customer Sample ID | STP OUTLET, PORTA CABIN | | Sample Condition | At Receipt | Ok | and a second |
| Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected By | | Laboratory Chemist | |
| Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22™ ED. 2021, 1060 | | Quantity Received | 1 | Approx. 5 | iLtr. |

| | | | TEST REPORT | | |
|------------|---|-------|---|---|---------------------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | SUMP WATER PIT-D |
| 1 | Colour | Hazen | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | <1 |
| _2 | Odour | | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | Agreeable |
| 3 | Temperature | *c | APHA 23 rd Ed. 2017,2130-B,2-13 | Shall not exceed 5°C above the receiving water temperature | 25.1 |
| 4 | PH | - | APHA 23rd Ed. 2017,4500-H+-B,4-92 | 5.5 to 9.0 | 7.47 |
| 5 | Total Residual Chlorine | mg/L | APHA 23 rd Ed. 2017,4500-C1-G, 4 - 69 | 1.0 | N.D. |
| 6 | Total Suspended Solids | mg/L | APHA 23 rd Ed. 2017,2540- D, 2-66 | 100 | 29.40 |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 5.0 | N.D. |
| 8 | Fluoride (as F) | mg/L | APHA 23 rd Ed. 2017,4500-F-B&D,4-84 & 87 | 2.0 | 0.24 |
| 9 | Lead (as Pb) | mg/L | APHA 23 rd Ed. 2017, 3111-B, 3-18 | 0.1 | N.D. |
| 10 | Zinc (as Zn) | mg/L | APHA 23 rd Ed. 2017, 3111-B, 3-18 | 5.0 | 0.13 |
| 11 | Copper (as Cu) | mg/L | APHA 23rd Ed. 2017, 3111-B, 3-18 | 3.0 | N.D. |
| 12 | Cadmium (as Cd) | mg/L | APHA 23rd Ed. 2017, 3500-Cd, 3-105 | 2.0 | N.D. |
| 13 | Mercury (as Hg) | mg/L | APHA 23 rd Ed. 2017, 3112-B, 3-23 | 0.01 | N.D. |
| 14 | Arsenic (as As) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.2 | N.D. |
| 15 | Selenium (as Se) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.05 | N.D. |
| 16 | Total Chromium (as Cr) | mg/L | APHA 23 rd Ed. 2017,3500-Cr-B,3-69 | 2.0 | N.D. |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 23 rd Ed. 2017, 5520-B,5-17 | 250 | 40.0 |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 9.5 |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only

07 31 **REVIEWED BY**

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | STRIES LIMITED, GAF LUPARA U/G COAL M PARA, | | Report No Lab Ref No Date Of Sampling Date Of Receipt Date Of Report Date Of Analysis | UES/TR/23 UES/23-24 21/09/202 22/09/202 27/09/202 START: 22/ | :3 :3 :3 | END:26/09/2023 |
|--|--------------------|--|--------|--|---|--------------------------|----------------|
| | Sample Type | WASTE WATER | | | & Date | | |
| SAMPLE DETAILS Sample Type WASTE WATER Customer Ref. No. & Date P.O.13552310212, DATED:07.09.2022 | Customer Sample ID | STP OUTLET, PORTA CABIN | T | Sample Condition | At Receipt | Ok Laboratory Chemist | |
| Sample Type WASTE WATER Customer Ref. No. & Date P.O.13552310212, DATED:07.09.2022 | Packing Of Sample | 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | Sealed | Sample Collected | Ву | | |
| Sample Type WASTE WATER Customer Ref. No. & Date P.O.13552310212, DATED:07.09.2022 Customer Sample ID STP OUTLET, PORTA CABIN Sample Condition At Receipt Ok Packing Of Sample 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN Sealed Sample Collected By Laboratory Chemist | Sampling Procedure | IS:3025(PART-I):1987 RA APHA 22™ ED. 2021, 1060 | | Quantity Received | 1 | Approx. 5 | 5Ltr. |

| TEST REPORT | | | | | | | | | |
|-------------|---|-------|---|---|---------------------|--|--|--|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER | SUMP WATER PIT-D | | | | |
| 1 | Colour | Hazen | APHA 23 rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | <1 | | | | |
| 2 | Odour | - | APHA 23rd Ed. 2017,2120-B,2-6 | See 6 of Annexure-I | Agreeable | | | | |
| 3 | Temperature | °c | APHA 23 rd Ed. 2017, <mark>2130-B,</mark> 2-13 | Shall not exceed 5°C above the receiving water temperature | 25.3 | | | | |
| 4 | pH | - | APHA 23rd Ed. 2017,4500-H+-B,4-92 | 5.5 to 9.0 | 7.57 | | | | |
| 5 | Total Residual Chlorine | mg/L | APHA 23 rd Ed. 2017,4500-Cl-G, 4 - 69 | 1.0 | N.D. | | | | |
| 6 | Total Suspended Solids | mg/L | APHA 23 rd Ed. 2017,2540- D, 2-66 | 100 | 32.4 | | | | |
| 7 | Dissolved Phosphate (as P) | mg/L | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 5.0 | N.D. | | | | |
| 8 | Fluoride (as F) | mg/L | APHA 23 ^{zd} Ed. 2017,4500-F-B&D,4-84 & 87 | 2.0 | 0.21 | | | | |
| 9 | Lead (as Pb) | mg/L | APHA 23 rd Ed. 2017, 3111-B, 3-18 | 0.1 | N.D. | | | | |
| 10 | Zinc (as Zn) | mg/L | APHA 23rd Ed. 2017, 3111-B, 3-18 | 5.0 | 0.11 | | | | |
| 11 | Copper (as Cu) | mg/L | APHA 23rd Ed. 2017, 3111-B, 3-18 | 3.0 | N.D. | | | | |
| 12 | Cadmium (as Cd) | mg/L | APHA 23 rd Ed. 2017,3500-Cd, 3-105 | 2.0 | N.D. | | | | |
| 13 | Mercury (as Hg) | mg/L | APHA 23rd Ed. 2017, 3112-B, 3-23 | 0.01 | N.D. | | | | |
| 14 | Arsenic (as As) | mg/L | APHA 23rd Ed. 2017,3114-C, 3-38 | 0.2 | N.D. | | | | |
| 15 | Selenium (as Se) | mg/L | APHA 23 rd Ed. 2017,3114-C, 3-38 | 0.05 | N.D. | | | | |
| 16 | Total Chromium (as Cr) | mg/L | APHA 23 rd Ed. 2017,3500-Cr-B,3-69 | 2.0 | N.D. | | | | |
| 17 | Chemical Oxygen Demand (COD) | mg/L | APHA 23 rd Ed. 2017, 5520-B,5-17 | 250 | 48.0 | | | | |
| 18 | Biochemical Oxygen Demand (BOD) | mg/L | IS 3025(Part 44):1993,RA 2003 | 30 | 8.6 | | | | |
| 19 | Oil & Grease | mg/L | IS 3025(Part 39):1991,RA 2003, | 10.0 | N.D. | | | | |
| 20 | Phenolic Compounds (as C ₆ H ₅ OH) | mg/L | IS 3025(Part 43):1992,RA 2003 | 1.0 | N.D. | | | | |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only 11 YTC



-----End of the test report-----

Annexure – 9A

Photographs of Sewage Treatment Plant at Gare Palma IV/5 Under Ground Coal Mines of M/s Hindalco Industries Limited



Sewage Treatment Plant

Annexure – 9B



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cus | tomer | REPORT NO. | UES/TR/23-24/0575 | | |
|--|--|--------------------------------|------------------------------------|--|--|
| To, | | LAB REF NO. | UES/23-24/W/01420 | | |
| | RIES LIMITED, GARE | DATE OF SAMPLING | 27/04/2023 | | |
| VILLAGE - MILUPA | | DATE OF RECEIPT | 28/04/2023 | | |
| BLOCK-TAMNAR, | | DATE OF REPORT | 02/05/2023 | | |
| DISTT RAIGARH | (C.G.) 496107 | DATE OF ANALYSIS | START: 28/04/2023 END: 02/05/2023 | | |
| | S | AMPLE DETAILS | | | |
| SAMPLE TYPE | OUTLET OF WTP | ORDER /REFERENCE: | P.O.13552310212, DATED: 07.09.2022 | | |
| CUSTOMER SAMPLE ID | WTP OUTLET KONDKEL VILLAGE | SAMPLE CONDITION AT RECEIPT | ОК | | |
| PACKING OF SAMPLE 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTLE L X 1 NO. GLASS BOTLE | | SAMPLE COLLECTED BY | CHEMIST | | |
| SAMPLING PROCEDURE | IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, | QUANTITY RECEIVED | 5 LTR | | |

Report No.0575

| TEST REPORT | | | | | | | | | |
|-------------|--|--------|--|----------------------|------------------|-----------|--|--|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS 10500:2012 | | RESULT | | | |
| | | | | ACCEPTABLE | PERMISSIBLE | | | | |
| 1 | Colour | Hazen | IS 3025(part-4) | 5 | 15 | <1 | | | |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | | | |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | | | |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H ⁺ - B, 4-92 | 6.5 To 8.5 | No Relaxation | 7.46 | | | |
| 5 | Turbidity | NTU | APHA 22 nd Ed.2012,2130-B,2- 13 | 1 | 5 | 0.70 | | | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | // | | 278.3 | | | |
| 7 | Residual Chlorine | mg/Lit | APHA 22 nd Ed.2012,4500-CI-G, 4 - 69 | 0.2 | 1 | N.D. | | | |
| 8 | Total Solid | mg/Lit | APHA 22 nd Ed.2012,2540- B, 2-64 | | | 170.0 | | | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 167.0 | | | |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2-66 | and the stand of | | 3.0 | | | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 90.0 | | | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 116.0 | | | |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B, 3-67 | | | 60.0 | | | |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B, 3-84 | | | 56.0 | | | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B, 3-67 | 75 | 200 | 24.05 | | | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B, 3-84 | 30 | 100 | 13.61 | | | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 22 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 25.1 | | | |
| 18 | Sulphate (as SO ₄) | mg/Lit | APHA 22 nd Ed.2012,4500-SO ₄ - E, 4-190 | 200 | 400 | 21.9 | | | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.0575

| | | | TEST REPORT | | | |
|------------|--|-------------------|--|-----------|----------------------------|---|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | 10500:2012 PERMISSIBLE | RESULT |
| | A President President | | ····································· | LIMIT | LIMIT | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 22 nd Ed.2012,4500-NO ₃ - B, 4-122 | 45 | No Relaxation | 1.71 |
| 20 | Phosphate (as P) | mg/Lit | APHA 22nd Ed.2012,4500-P- C, 4-153 | | | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 22nd Ed.2012,3500-Na- B, 3-97 | | | 8.3 |
| 22 | Potassium (as K) | mg/Lit | APHA 22 nd Ed.2012,3500-K-B, 3-87 | | | 0.85 |
| 23 | Boron (as B) | mg/Lit | APHA 22 nd Ed.2012,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 22 nd Ed.2012,3111-B,3- 18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1.0 | 1.5 | 0.16 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 22 nd Ed.2012,3500-Ni, 3-108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 5.0 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 22 nd Ed.2012,3112-B, 3- 23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3- 38 | 0.01 | | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3- 38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 22 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 22 nd Ed.2012,5540-C, 5- 53 | 0.02 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 22 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 22 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003, Ed. 2.1 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003, Ed 2.1 | | 1 | N.D. |
| Mic | obiological Analysis | | | | | 030-1410- 4 -1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 |
| 1 | Total Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | | detectable in ml sample | Absent |
| 2 | Faecal Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | | detectable in ml sample | Absent |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No 0575

| | | | TEST REPORT | | | |
|------|---------------------|-------------------|-----------------------|--|----------------------------|--------|
| SR. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | 10500:2012 | RESULT |
| NO. | | | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | |
| 3 | E-coli | MPN/ 100 ML | IS: 1622:1981:RA:2019 | | detectable in ml sample | Absent |
| Pest | ticides | | | | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | | .01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | | .04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | | .04 | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | and a second |).4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | |).4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | and have been and the second se |).4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | i | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | and an | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | | 30 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | | 2 | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 19 | 2,4-D | µg/L | US EPA515.1-1995 | in the second se | 30 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | and a supersonance of the superson supe | 20 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | |).3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | one town i town one of a common one of the | 90 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | | .03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0 | .03 | N.D. |

Note: mg/lit.: milligram per liter, N.D.- Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report foror publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 07 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

Subhajcet

Relle 02/05/27

REVIEWED BY

End of the test report---



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cus | | REFORT NO. | UES/TR/23-24/0921 UES/23-24/W/02137 | | |
|---|--|--------------------------------|--|-----------------|--|
| | RIES LIMITED, GARE JPARA U/G COAL MINE, | DATE OF SAMPLING | 18/05/2023 | | |
| VILLAGE - MILUPA | | DATE OF RECEIPT | 19/05/2023 | | |
| BLOCK-TAMNAR, | | DATE OF REPORT | 24/05/2023 | | |
| DISTT RAIGARH | (C.G.) 496107 | DATE OF ANALYSIS | START:19/05/2023 END: 23/05 | | |
| SAMPLE TYPE | OUTLET OF WTP | ORDER /REFERENCE: | P.O.13552310212,D | ATED:07.09.2022 | |
| CUSTOMER SAMPLE ID | WTP OUTLET KONDKEL VILLAGE | SAMPLE CONDITION AT RECEIPT | OK | | |
| PACKING OF SAMPLE 1 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | | SAMPLE COLLECTED BY | CHEMIST | | |
| | IS: 3025 (PART I): 1987 RA | | 5 LTR | | |

TEST REPORT

| | | 1 | | | | |
|------------|--|------------|--|----------------------|----------------------|-----------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS 10500:2012 | | RESULT |
| NO. | at and an an | 5.247.A-1. | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | |
| 1 | Colour | Hazen | IS 3025(part-4) | 5 | 15 | <1 |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рН | - 10 | APHA 22 nd Ed.2012,4500-H ⁺ - B, 4-92 | 6.5 To 8.5 | No Relaxation | 7.48 |
| 5 | Turbidity | NTU | APHA 22 nd Ed.2012,2130-B,2- 13 | 1 | 5 | 0.72 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | | - | 285.0 |
| 7 | Residual Chlorine | mg/Lit | APHA 22 nd Ed.2012,4500-CI-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 22 nd Ed.2012,2540- B, 2-64 | | | 176.2 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 171.0 |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2-66 | | | 4.3 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 94.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 122.0 |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B, 3-67 | - | | 64.0 |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B, 3-84 | | | 58.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B, 3-67 | 75 | 200 | 25.65 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B, 3-84 | 30 | 100 | 14.09 |
| 17 | Chloride (as CI) | mg/Lit | APHA 22 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 27.9 |
| 18 | Sulphate (as SO₄) | mg/Lit | APHA 22 nd Ed.2012,4500-SO ₄ - E, 4-190 | 200 | 400 | 22.8 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Report | No.0921 |
|--------|---------|
| | |

| | A State State | | TEST REPORT | | in a starter | |
|------------|--|-------------------|--|---------------------------|--|--------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | | 10500:2012 | RESUL |
| | | | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 22 nd Ed.2012,4500-NO ₃ - B, 4-122 | 45 | No Relaxation | 1.73 |
| 20 | Phosphate (as P) | mg/Lit | APHA 22nd Ed.2012,4500-P- C, 4-153 | | | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 22nd Ed.2012,3500-Na- B, 3-97 | | | 9.2 |
| 22 | Potassium (as K) | mg/Lit | APHA 22 nd Ed.2012,3500-K-B, 3-87 | | | 0.87 |
| 23 | Boron (as B) | mg/Lit | APHA 22 nd Ed.2012,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 22 nd Ed.2012,3111-B,3- 18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1.0 | 1.5 | 0.18 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 22 nd Ed.2012,3500-Ni, 3-108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 5.0 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 22 nd Ed.2012,3112-B, 3- 23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3- 38 | 0.01 | | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3- 38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 22 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 22 nd Ed.2012,5540-C, 5- 53 | 0.02 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 22 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 22 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003, Ed. 2.1 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003, Ed 2.1 | | | N.D. |
| Micr | obiological Analysis | 1 | | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be any 100 r | and the second | Absent |
| 2 | Faecal Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be any 100 r | and particular and the states of the | Absent |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.0921

| | | | TEST REPORT | ALC: ALC: A SOL | | |
|------|---------------------|-------------------|-----------------------|-------------------------------------|--|--------|
| SR. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS 10500:2012 | | RESULT |
| NO. | | | | ACCEPTABLE LIMIT | PERMISSIBLE | |
| 3 | E-coli | MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be any 100 r | | Absent |
| Pest | ticides | | | 0,1,0,0,000000000000000000000000000 | and the second | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | 1 | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | L | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 |] | L I | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.0 | 01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.0 | 04 | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.0 | 04 | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0. | 4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0. | 4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0. | 4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 0 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 19 | 2,4-D | µg/L | US EPA515.1-1995 | 3 | 0 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0. | 3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 0 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.0 |)3 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 | 13 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > There port for or publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 07 days after issue of test report unless otherwise agreed with customer.
- This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS Relle Subhajeet 24/05/23 **REVIEWED BY** AUTHORIZED SIGNATORY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cu | tomer | REPORT NO. | UES/TR/23-24/02028 | | |
|--------------------------|---|--------------------------------|-----------------------------------|--|--|
| To, HINDALCO INDUST | RIES LIMITED, GARE | LAB REF NO. | UES/23-24/W/04417 | | |
| | JPARA U/G COAL MINE, | DATE OF SAMPLING | 29/06/2023 | | |
| VILLAGE - MILUPA | | DATE OF RECEIPT | 30/06/2023 | | |
| BLOCK-TAMNAR, | | DATE OF REPORT | 04/07/2023 | | |
| DISTT RAIGARH | (C.G.) 496107 | DATE OF ANALYSIS | START: 30/06/2023 END: 04/07/2023 | | |
| all parties of | S | AMPLE DETAILS | sales - dit - | | |
| SAMPLE TYPE | OUTLET OF WTP | ORDER /REFERENCE: | P.O.13552310212, DATED:07.09.2022 | | |
| CUSTOMER SAMPLE ID | WTP OUTLET KONDKEL VILLAGE | SAMPLE CONDITION AT RECEIPT | OK | | |
| CODICIENT DAME IN ID | PACKING OF SAMPLE 3 L X 1 NO. PVC CAN 1 L X 1 NO. FVC CAN SEAL 1 L X 1 NO. GLASS BOTTLE | | | | |
| | 1 L X 1 NO. PVC CAN SEALED | SAMPLE COLLECTED BY | CHEMIST | | |

Report No.02028

| | | | TEST REPORT | | | |
|------------|--|--------|--|------------|----------------------|-----------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | AS PER IS 10500:2012 | |
| NU. | | | | ACCEPTABLE | PERMISSIBLE | |
| 1 | Colour | Hazen | IS 3025(part-4) | 5 | 15 | <1 |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H ⁺ - B, 4-92 | 6.5 To 8.5 | No Relaxation | 7.49 |
| 5 | Turbidity | NTU | APHA 22 nd Ed.2012,2130-B,2- 13 | 1 | 5 | 0.73 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | | | 253.5 |
| 7 | Residual Chlorine | mg/Lit | APHA 22 nd Ed.2012,4500-CI-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 22 nd Ed.2012,2540- B, 2-64 | 16 | | 156.7 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 152.0 |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2-66 | | | 4.7 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 84.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 110.0 |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B, 3-67 | | | 58.0 |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B, 3-84 | | | 52.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B, 3-67 | 75 | 200 | 23.25 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B, 3-84 | 30 | 100 | 12.64 |
| 17 | Chloride (as Cl) | mg/Lit | APHA 22 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 25.9 |
| 18 | Sulphate (as SO₄) | mg/Lit | APHA 22 nd Ed.2012,4500-SO ₄ - E, 4-190 | 200 | 400 | 20.99 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.02028

| - | | | TEST REPORT | | | _ |
|------------|--|-------------------|--|---------------------------|----------------------|--------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | RESULT | |
| | | | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 22 nd Ed.2012,4500-NO ₃ - B, 4-122 | 45 | No Relaxation | 1.59 |
| 20 | Phosphate (as P) | mg/Lit | APHA 22nd Ed.2012,4500-P- C, 4-153 | | | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 22nd Ed.2012,3500-Na- B, 3-97 | | | 8.96 |
| 22 | Potassium (as K) | mg/Lit | APHA 22 nd Ed.2012,3500-K-B, 3-87 | | | 0.86 |
| 23 | Boron (as B) | mg/Lit | APHA 22 nd Ed.2012,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 22 nd Ed.2012,3111-B,3- 18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1.0 | 1.5 | 0.17 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 22 nd Ed.2012,3500-Ni, 3-108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 5.0 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 22 nd Ed.2012,3112-B, 3- 23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3- 38 | 0.01 | | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3- 38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 22 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 22 nd Ed.2012,5540-C, 5- 53 | 0.02 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 22 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 22 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003, Ed. 2.1 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003, Ed 2.1 | | | N.D. |
| Micr | obiological Analysis | | 4 | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be any 100 n | | Absent |
| 2 | Faecal Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be a any 100 n | | Absent |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.02028

| - | | | TEST REPORT | | | - |
|------|---------------------|--|-----------------------|--|--|--------|
| SR. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | 10500:2012 | RESULT |
| | | | | ACCEPTABLE | PERMISSIBLE LIMIT | |
| 3 | E-coli | MPN/ 100 ML | IS: 1622:1981:RA:2019 | | detectable in ml sample | Absent |
| Pest | ticides | an a | | -k | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 9 790000000 000000000000000000000000000 | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | The second state in the second state of the second state in the se | 01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | | 04 | N.D. |
| 9 | Delta HCH | μg/L | US EPA 508-1995 | 0. | 04 | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | | L | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 0 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | | 2 | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | · | N.D. |
| 19 | 2,4-D | µg/L | US EPA515.1-1995 | 3 | 0 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0. | 3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 0 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.0 |)3 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 |)3 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

There port for or publication, arbitration or as legal dispute is forbidden.

For the sample will be retained for 07 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS Ret ubha 04/07/23 **REVIEWED BY** AUTHORIZED SIGNATORY End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cus | tamer | REPORT NO. | UES/TR/23-24/0307 | 2 | |
|--|--|--------------------------------|-------------------|-----------------|--|
| To, | RIES LIMITED, GARE | LAB REF NO. | UES/23-24/W/05909 | | |
| | JPARA U/G COAL MINE, | DATE OF SAMPLING | 26/07/2023 | | |
| VILLAGE - MILUPA | | DATE OF RECEIPT | 27/07/2023 | | |
| BLOCK-TAMNAR, | | DATE OF REPORT | 31/07/2023 | | |
| DISTT RAIGARH | (C.G.) 496107 | DATE OF ANALYSIS | START: 27/07/2023 | END: 31/07/2023 | |
| | SZ | AMPLE DETAILS | | | |
| SAMPLE TYPE | OUTLET OF WTP | ORDER /REFERENCE: | P.O.13552310212,D | ATED:07.09.2022 | |
| CUSTOMER SAMPLE ID | WTP OUTLET KONDKEL VILLAGE | SAMPLE CONDITION AT RECEIPT | OK | | |
| PACKING OF SAMPLE 3 L X 1 NO. PVC CAN SEALE 1 L X 1 NO. PVC CAN SEALE 1 L X 1 NO. GLASS BOTTLE | | SAMPLE COLLECTED BY | CHEMIST | | |
| SAMPLING PROCEDURE | IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39 | QUANTITY RECEIVED | 5 LTR | | |

Report No.03072

TEST REPORT

| SR. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | RESULT | |
|-----|--|--------|--|---------------------|------------------|-----------|
| NO. | | | | ACCEPTABLE LIMIT | PERMISSIBLE | |
| 1 | Colour | Hazen | IS 3025(part-4) | 5 | 15 | <1 |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable |
| 3 | Taste | + | IS 3025(part-8) | Agreeable | Agreeable | Agreeable |
| 4 | рН | - | APHA 22 nd Ed.2012,4500-H ⁺ - B, 4-92 | 6.5 To 8.5 | No Relaxation | 7.53 |
| 5 | Turbidity | NTU | APHA 22 nd Ed.2012,2130-B,2- 13 | 1 | 5 | 0.75 |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | | | 260.0 |
| 7 | Residual Chlorine | mg/Lit | APHA 22 nd Ed.2012,4500-CI-G, 4 - 69 | 0.2 | 1 | N.D. |
| 8 | Total Solid | mg/Lit | APHA 22 nd Ed.2012,2540- B, 2-64 | | | 161.1 |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 156.0 |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2-66 | | | 5.1 |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 86.0 |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 22 nd Ed.2012,2340-C, 2- 44,45 | 200 | 600 | 114.0 |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B, 3-67 | 7.7 | | 60.0 |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B, 3-84 | | | 54.0 |
| 15 | Calcium (as Ca) | mg/Lit | APHA 22 nd Ed.2012,3500-Ca- B, 3-67 | 75 | 200 | 23.25 |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 22 nd Ed.2012,3500-Mg- B, 3-84 | 30 | 100 | 13.12 |
| 17 | Chloride (as Cl) | mg/Lit | APHA 22 nd Ed.2012,4500-CI-B, 4-72 | 250 | 1000 | 26.9 |
| 18 | Sulphate (as SO₄) | mg/Lit | APHA 22 nd Ed.2012,4500-SO ₄ - E, 4-190 | 200 | 400 | 21.06 |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.03072

| TEST REPORT | | | | | | | | |
|-------------|--|-----------------------|--|---------------------|----------------------------|--------|--|--|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | RESULT | | | |
| NU. | | | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | | | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 22 nd Ed.2012,4500-NO ₃ - B, 4-122 | 45 | No Relaxation | 1.62 | | |
| 20 | Phosphate (as P) | mg/Lit | APHA 22nd Ed.2012,4500-P- C, 4-153 | n | | N.D. | | |
| 21 | Sodium (as Na) | mg/Lit | APHA 22nd Ed.2012,3500-Na- B, 3-97 | | | 8.99 | | |
| 22 | Potassium (as K) | mg/Lit | APHA 22 nd Ed.2012,3500-K-B, 3-87 | | | 0.88 | | |
| 23 | Boron (as B) | mg/Lit | APHA 22 nd Ed.2012,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. | | |
| 24 | Iron (as Fe) | mg/Lit | APHA 22 nd Ed.2012,3111-B,3- 18 | 0.3 | No Relaxation | N.D. | | |
| 25 | Fluoride (as F) | mg/Lit | APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87 | 1.0 | 1.5 | 0.18 | | |
| 26 | Manganese (as Mn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.1 | 0.3 | N.D. | | |
| 27 | Lead (as Pb) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. | | |
| 28 | Nickel (as Ni) | mg/Lit | APHA 22 nd Ed.2012,3500-Ni, 3-108 | 0.02 | No Relaxation | N.D. | | |
| 29 | Zinc (as Zn) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- 18 | 5.0 | 15 | N.D. | | |
| 30 | Copper (as Cu) | mg/Lit | APHA 22 nd Ed.2012,3111-B, 3- | 0.05 | 1.5 | N.D. | | |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 22 nd Ed.2012,3500-Cd, 3-105 | 0.003 | No Relaxation | N.D. | | |
| 32 | Mercury (as Hg) | mg/Lit | APHA 22 nd Ed.2012,3112-B, 3- 23 | 0.001 | No Relaxation | N.D. | | |
| 33 | Arsenic (as As) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3- 38 | 0.01 | | N.D. | | |
| 34 | Selenium (as Se) | mg/Lit | APHA 22 nd Ed.2012,3114-C, 3- 38 | 0.01 | No Relaxation | N.D. | | |
| 35 | Chromium (as Cr) | mg/Lit | APHA 22 nd Ed.2012,3500-Cr-B, 3-69 | 0.05 | No Relaxation | N.D. | | |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 22 nd Ed.2012,5540-C, 5- 53 | 0.02 | 1.0 | N.D. | | |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 22 nd Ed.2012,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. | | |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 22 nd Ed.2012,6440-6-93 | 0.0001 | No Relaxation | N.D. | | |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003, Ed. 2.1 | 0.5 | No Relaxation | N.D. | | |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003, Ed 2.1 | | | N.D. | | |
| Micr | obiological Analysis | and the second second | | | tere in a second de | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | | detectable in ml sample | Absent | | |
| 2 | Faecal Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | | detectable in ml sample | Absent | | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.03072

| | | | TEST REPORT | | | the weather the second s |
|------|---------------------|-------------------|-----------------------|---------------------|----------------------------|---|
| SR. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | RESULT | |
| | | | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | |
| 3 | E-coli | MPN/ 100 ML | IS: 1622:1981:RA:2019 | | detectable in ml sample | Absent |
| Pest | ticides | | | | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0. | 01 | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 0 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | | 2 | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 19 | 2,4-D | µg/L | US EPA515.1-1995 | 3 | 0 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0 | .3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 90 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | the same state and | | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0. | 03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0. | 03 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

· Thereport foror publication, arbitration or as legal dispute is forbidden.

➤ Test sample will be retained for 07 days after issue of test report unless otherwise agreed with customer.

- This is for information as the party has asked for above test(s) only.





For ULTIMATE ENVIROLYTICAL SOLUTIONS ha AUTHORIZED SIGNATORY

REVIEWED BY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| 3883Name & Address Of Th | e Customer | | REPORT NO. | UES/TR/23-24/0388 | 3 | |
|--------------------------|---|--------|--------------------------------|-----------------------------------|---|--|
| To,7397 | RIES LIMITED, GARE | | LAB REF NO. | UES/23-24/W/07397 | | |
| | JPARA U/G COAL MIN | | DATE OF SAMPLING | 23/08/2023 | | |
| VILLAGE - MILUPA | | , | DATE OF RECEIPT | 24/08/2023 | | |
| BLOCK-TAMNAR, | | | DATE OF REPORT | 31/08/2023 | | |
| DISTT RAIGARH | (C.G.) 496107 | | DATE OF ANALYSIS | START:24/08/2023 END:28/08 | | |
| | | SZ | AMPLE DETAILS | | | |
| SAMPLE TYPE | OUTLET OF WTP | | ORDER /REFERENCE: | P.O.13552310212, DATED:07.09.2022 | | |
| CUSTOMER SAMPLE ID | WTP OUTLET KONDKEL V | ILLAGE | SAMPLE CONDITION AT RECEIPT | OK | | |
| | 3 L X 1 NO. PVC CAN | | SAMPLE COLLECTED | CHEMIST | | |
| PACKING OF SAMPLE | 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE | SEALED | BY | | | |

| Report No.03 | 883 |
|--------------|-----|
|--------------|-----|

| | TEST REPORT | | | | | | | | |
|-----|--|--------|---|---------------------|------------------|-----------|--|--|--|
| SR. | PARAMETER | UNIT | IT METHOD OF TEST | AS PER IS | RESULT | | | | |
| NO. | | | | ACCEPTABLE LIMIT | PERMISSIBLE | | | | |
| 1 | Colour | Hazen | IS 3025(part-4) | 5 | 15 | <1 | | | |
| 2 | Odour | - | IS 3025(part-5) | Agreeable | Agreeable | Agreeable | | | |
| 3 | Taste | - | IS 3025(part-8) | Agreeable | Agreeable | Agreeable | | | |
| 4 | рН | - | APHA 23 rd Ed. 2017,4500-H ⁺ - B, 4-92 | 6.5 To 8.5 | No Relaxation | 7.48 | | | |
| 5 | Turbidity | NTU | APHA 23 rd Ed. 2017,2130-B,2- 13 | 1 | 5 | 0.63 | | | |
| 6 | Electrical Conductivity | µS/cm | IS 3025(part-14):1984, RA 2013 | | | 254.5 | | | |
| 7 | Residual Chlorine | mg/Lit | APHA 23 rd Ed. 2017,4500-Cl- G, 4 - 69 | 0.2 | 1 | N.D. | | | |
| 8 | Total Solid | mg/Lit | APHA 23 rd Ed. 2017,2540- B, 2-64 | | | 156.4 | | | |
| 9 | Total Dissolved Solids | mg/Lit | IS 3025(part-16):1984, RA 2006 | 500 | 2000 | 152.7 | | | |
| 10 | Total Suspended Solids | mg/Lit | APHA 22 nd Ed.2012,2540- D, 2-66 | | | 3.7 | | | |
| 11 | Alkalinity Total (as CaCO ₃) | mg/Lit | IS 3025(part-23):1986, RA 2003 | 200 | 600 | 84.0 | | | |
| 12 | Total Hardness (as CaCO ₃) | mg/Lit | APHA 23 rd Ed. 2017,2340-C, 2-44,45 | 200 | 600 | 108.0 | | | |
| 13 | Calcium Hardness (as CaCO3) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca- B, 3-67 | | | 56.0 | | | |
| 14 | Magnesium Hardness (as CaCO3) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg- B, 3-84 | | | 22.44 | | | |
| 15 | Calcium (as Ca) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ca- B, 3-67 | 75 | 200 | 12.63 | | | |
| 16 | Magnesium (as Mg) | mg/Lit | APHA 23 rd Ed. 2017,3500-Mg- B, 3-84 | 30 | 100 | 13.12 | | | |
| 17 | Chloride (as Cl) | mg/Lit | APHA 23 rd Ed. 2017,4500-Cl- B, 4-72 | 250 | 1000 | 25.9 | | | |
| 18 | Sulphate (as SO₄) | mg/Lit | APHA 23 rd Ed. 2017,4500-SO ₄ - E, 4-190 | 200 | 400 | 19.85 | | | |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------|--|-------------------|---|---------------------------|----------------------|--------|
| SR. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | RESULT | |
| NO. | | | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed. 2017,4500- NO ₃ -B, 4-122 | 45 | No Relaxation | 1.53 |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | | | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed. 2017,3500-Na- B, 3-97 | | | 7.56 |
| 22 | Potassium (as K) | mg/Lit | APHA 23 rd Ed. 2017,3500-K-B, 3-87 | | | 0.74 |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed. 2017,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 rd Ed. 2017,3111-B,3- 18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed. 2017,4500-F-B &D, 4-84 & 87 | 1.0 | 1.5 | 0.17 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ni, 3-108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 5.0 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cd, 3-105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 rd Ed. 2017,3112-B, 3- 23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23 rd Ed. 2017,3114-C, 3- 38 | 0.01 | | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 rd Ed. 2017,3114-C, 3- 38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cr- B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 rd Ed. 2017,5540-C, 5- 53 | 0.02 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 rd Ed. 2017,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23rd Ed. 2017,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003, Ed. 2.1 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003, Ed 2.1 | | | N.D. |
| Micr | obiological Analysis | | r | | | |
| 1 | Total Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be any 100 r | | Absent |
| 2 | Faecal Coliforms | MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be any 100 r | | Absent |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------------|---------------------|-------------------|-----------------------|----------------------|----------------------------|--------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS 10500:2012 | | RESULT |
| | | | | ACCEPTABLE LIMIT | PERMISSIBLE | |
| 3 | E-coli | MPN/ 100 ML | IS: 1622:1981:RA:2019 | | detectable in ml sample | Absent |
| Pest | icides | | | | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | | 1 | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | | 2 | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.01 | | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0 | .4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | | 1 | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | | 3 | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 3 | 0 | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | | 2 | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | | | N.D. |
| 19 | 2,4-D | µg/L | US EPA515.1-1995 | 3 | 0 | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 2 | 0 | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | | 2 | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0 | .3 | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 19 | 90 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | | - | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0. | 03 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0. | 03 | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> Thereport foror publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 07 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS 31108 **REVIEWED BY** AUTHORIZED SIGNATORY

End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| Name & Address Of The Cu | tomer | REPORT NO. | UES/TR/23-24/0468 | 9 | |
|--------------------------|--|--------------------------------|---|---|--|
| To, HINDALCO INDUST | RIES LIMITED, GARE | LAB REF NO. | UES/23-24/W/08635 | | |
| | JPARA U/G COAL MINE, | DATE OF SAMPLING | 21/09/2023 | | |
| VILLAGE - MILUPA | | DATE OF RECEIPT | DATE OF RECEIPT 22/09/2023 DATE OF REPORT 27/09/2023 DATE OF ANALYSIS START:22/09/2023 END:26/09/2023 | | |
| BLOCK-TAMNAR, | | DATE OF REPORT | | | |
| DISTT RAIGARH | (C.G.) 496107 | DATE OF ANALYSIS | | | |
| | S | AMPLE DETAILS | | | |
| SAMPLE TYPE | OUTLET OF WTP | ORDER /REFERENCE: | P.O.13552310212, DATED:07.09.2022 | | |
| CUSTOMER SAMPLE ID | WTP OUTLET KONDKEL VILLAGE | SAMPLE CONDITION AT RECEIPT | OK | | |
| | 3 L X 1 NO. PVC CAN | SAMPLE COLLECTED | CHEMIST | | |
| PACKING OF SAMPLE | 1 L X 1 NO. PVC CAN SEALED 1 L X 1 NO. GLASS BOTTLE | BY | CHEMIST | | |

Report No.04689 **TEST REPORT** AS PER IS 10500:2012 SR. PARAMETER UNIT METHOD OF TEST RESULT NO. ACCEPTABLE PERMISSIBLE LIMIT LIMIT 1 Colour Hazen IS 3025(part-4) 5 15 <1 Odour 2 IS 3025(part-5) Agreeable Agreeable Agreeable 3 Taste IS 3025(part-8) Agreeable Agreeable Agreeable APHA 23rd Ed. 2017,4500-H+-No 4 pH _ 6.5 To 8.5 7.56 B, 4-92 Relaxation APHA 23rd Ed. 2017,2130-B,2-5 Turbidity NTU 5 0.72 1 13 IS 3025(part-14):1984, RA 6 Electrical Conductivity µS/cm 286.4 -----2013 APHA 23rd Ed. 2017,4500-CI-7 **Residual Chlorine** mg/Lit 0.2 1 N.D. G, 4 - 69 APHA 23rd Ed. 2017,2540- B, 8 Total Solid mg/Lit 165.4 ------2-64 IS 3025(part-16):1984, RA 9 Total Dissolved Solids mg/Lit 500 2000 162.0 2006 APHA 22nd Ed.2012,2540- D, 10 Total Suspended Solids mg/Lit ------3.4 2-66 IS 3025(part-23):1986, RA 11 Alkalinity Total (as CaCO₃) mg/Lit 200 600 88.0 2003 APHA 23rd Ed. 2017,2340-C, 12 Total Hardness (as CaCO₃) mg/Lit 200 600 102.0 2-44,45 Calcium Hardness (as APHA 23rd Ed. 2017,3500-Ca-13 mg/Lit --76.0 ---CaCO3) B, 3-67 Magnesium Hardness (as APHA 23rd Ed. 2017,3500-Mg-14 mg/Lit 26.0 ------CaCO3) B, 3-84 APHA 23rd Ed. 2017,3500-Ca-15 Calcium (as Ca) mg/Lit 75 200 30.46 B, 3-67 APHA 23rd Ed. 2017,3500-Mg-16 Magnesium (as Mg) mg/Lit 30 100 6.32 B, 3-84 APHA 23rd Ed. 2017,4500-CI-17 Chloride (as Cl) mg/Lit 250 1000 24.9 B, 4-72 APHA 23rd Ed. 2017,4500-SO4-18 Sulphate (as SO₄) mg/Lit 200 400 16.41

E, 4-190



.

HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------------|--|-------------------------|---|---------------------------|----------------------|--------|
| SR. NO. | PARAMETER | UNIT | METHOD OF TEST | AS PER IS | RESULT | |
| NU. | | | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | |
| 19 | Nitrate (as NO ₃) | mg/Lit | APHA 23 rd Ed. 2017,4500- NO ₃ -B, 4-122 | 45 | No Relaxation | 1.63 |
| 20 | Phosphate (as P) | mg/Lit | APHA 23 rd Ed. 2017,4500-P-C, 4-153 | 1-1-1-1 | | N.D. |
| 21 | Sodium (as Na) | mg/Lit | APHA 23 rd Ed. 2017,3500-Na- B, 3-97 | | | 7.21 |
| 22 | Potassium (as K) | mg/Lit | APHA 23 rd Ed. 2017,3500-K-B, 3-87 | | | 0.52 |
| 23 | Boron (as B) | mg/Lit | APHA 23 rd Ed. 2017,4500-B-B, 4-25 | 0.5 | 1.0 | N.D. |
| 24 | Iron (as Fe) | mg/Lit | APHA 23 rd Ed. 2017,3111-B,3- 18 | 0.3 | No Relaxation | N.D. |
| 25 | Fluoride (as F) | mg/Lit | APHA 23 rd Ed. 2017,4500-F-B &D, 4-84 & 87 | 1.0 | 1.5 | 0.13 |
| 26 | Manganese (as Mn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.1 | 0.3 | N.D. |
| 27 | Lead (as Pb) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.01 | No Relaxation | N.D. |
| 28 | Nickel (as Ni) | mg/Lit | APHA 23 rd Ed. 2017,3500-Ni, 3-108 | 0.02 | No Relaxation | N.D. |
| 29 | Zinc (as Zn) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 5.0 | 15 | N.D. |
| 30 | Copper (as Cu) | mg/Lit | APHA 23 rd Ed. 2017,3111-B, 3- 18 | 0.05 | 1.5 | N.D. |
| 31 | Cadmium (as Cd) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cd, 3-105 | 0.003 | No Relaxation | N.D. |
| 32 | Mercury (as Hg) | mg/Lit | APHA 23 rd Ed. 2017,3112-B, 3- 23 | 0.001 | No Relaxation | N.D. |
| 33 | Arsenic (as As) | mg/Lit | APHA 23 rd Ed. 2017,3114-C, 3- 38 | 0.01 | | N.D. |
| 34 | Selenium (as Se) | mg/Lit | APHA 23 rd Ed. 2017,3114-C, 3- 38 | 0.01 | No Relaxation | N.D. |
| 35 | Chromium (as Cr) | mg/Lit | APHA 23 rd Ed. 2017,3500-Cr- B, 3-69 | 0.05 | No Relaxation | N.D. |
| 36 | Anionic Detergent (as MBAS) | mg/Lit | APHA 23 rd Ed. 2017,5540-C, 5- 53 | 0.02 | 1.0 | N.D. |
| 37 | Phenolic Compound (as C_6H_5OH) | mg/Lit | APHA 23 rd Ed. 2017,5540-B & C, 5-47 | 0.001 | 0.002 | N.D. |
| 38 | Poly-nuclear Aromatic Hydrocarbon (PAH) | µg/Lit | APHA 23rd Ed. 2017,6440-6-93 | 0.0001 | No Relaxation | N.D. |
| 39 | Mineral Oil | mg/Lit | IS 3025 (part-39) : 1991, RA 2003, Ed. 2.1 | 0.5 | No Relaxation | N.D. |
| 40 | Oil & Grease | mg/Lit | IS 3025 (Part 39):1991, RA 2003, Ed 2.1 | | | N.D. |
| Micr | obiological Analysis | | • • • • • • • • • • • • • • • • • • • | | | |
| 1 | Total Coliforms | MPN/ 100 | IS: 1622:1981:RA:2019 | Shall not be any 100 r | | Absent |
| 2 | Faecal Coliforms | ML MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be any 100 n | detectable in | Absent |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

| | | | TEST REPORT | | | |
|------------|---------------------|-------------------|-----------------------|---------------------------|----------------------|--------|
| SR. NO. | DADAMETED | UNIT | METHOD OF TEST | AS PER IS | 10500:2012 | RESULT |
| | | | | ACCEPTABLE LIMIT | PERMISSIBLE LIMIT | |
| 3 | E-coli | MPN/ 100 ML | IS: 1622:1981:RA:2019 | Shall not be any 100 n | | Absent |
| Pes | ticides | | | | | |
| 1 | p,p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 2 | o.p DDT | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 3 | p,pDDE | µg/L | US EPA 508-1995 | 11 | | N.D. |
| 4 | p,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 5 | O,p DDD | µg/L | US EPA 508-1995 | 1 | | N.D. |
| 6 | Gamma-HCH (Lindane) | µg/L | US EPA 508-1995 | 2 | | N.D. |
| 7 | Alpha-HCH | µg/L | US EPA 508-1995 | 0.01 | | N.D. |
| 8 | Beta-HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. |
| 9 | Delta HCH | µg/L | US EPA 508-1995 | 0.04 | | N.D. |
| 10 | Alpha-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 11 | Beta-Endosulfan | µg/L | US EPA 508-1995 | 0.4 | | N.D. |
| 12 | Endosulfansulphate | µg/L | US EPA 508-1995 | 0.4 | 4 | N.D. |
| 13 | Monocrotophos | µg/L | US EPA 8141A-1994 | 1 | | N.D. |
| 14 | Ethion | µg/L | US EPA 8141A-1994 | 3 | | N.D. |
| 15 | Chloropyrifos | µg/L | US EPA 8141A-1994 | 30 | | N.D. |
| 16 | Phorate | µg/L | US EPA 8141A-1994 | 2 | | N.D. |
| 17 | Phoratesulphoxide | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 18 | Phoratesulphone | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 19 | 2,4-D | µg/L | US EPA515.1-1995 | 30 |) | N.D. |
| 20 | Alachlor | µg/L | US EPA 508- 1995 | 20 | | N.D. |
| 21 | Atrazine | µg/L | US EPA 532-2000 | 2 | | N.D. |
| 22 | Methyl parathion | µg/L | US EPA 8141A-1994 | 0.3 | | N.D. |
| 23 | Methyl paraxone | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 24 | Malathion | µg/L | US EPA 8141A-1994 | 190 | 0 | N.D. |
| 25 | Malaoxon | µg/L | US EPA 8141A-1994 | - | | N.D. |
| 26 | Aldrin | µg/L | US EPA 508- 1995 | 0.0 | 3 | N.D. |
| 27 | Dieldrin | µg/L | US EPA 508-1995 | 0.0 | | N.D. |

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> 2

Thereportforor publication, arbitration or as legal dispute is forbidden. Test sample will be retained for 07 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s) only.

Redu 27/03/23 **REVIEWED BY**

For ULTIMATE ENVIROLYTICAL SOLUTIONS bhar AUTHORIZED SIGNATORY

-End of the test report-----

Annexure-10



National Accreditation Board for Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

ULTIMATE ENVIROLYTICAL SOLUTIONS

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

HDD 272, PHASE-III, KABIR NAGAR, RAIPUR, CHHATTISGARH, INDIA

in the field of

TESTING

Certificate Number:

TC-6065

Issue Date:

27/10/2021

Valid Until:

26/10/2023

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL. (To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity : ULTIMATE ENVIROLYTICAL SOLUTIONS

Signed for and on behalf of NABL



N. Venkateswaran Chief Executive Officer

महोत्सव



छत्तीसगढ़ पर्यावरण संरक्षण मंडल <u>पर्यावास भवन, सेक्टर – 19,</u>

नवा रायपुर अटल नगर, जिला-रायपुर (छ.ग.) 492002

Email add - hocecb@gmail.com

क्रमांक 1607 मुख्या/वैज्ञा./छ.ग.प.सं.मं./2022 नवा रायपुर, अटल नगर, दिनांक 12/5/2022 प्रति,

श्री अनुराग श्रीवास्तव,

मैर्नजिंग पार्टनर / क्वालिटी मैनेजर,

मेसर्स अल्टीमेट इन्वायरोलाईटिकल सॉल्यूशन्स,

272-एच.डी.डी., फेस-3, कबीर नगर, रिंग रोड नं. 2,

जिला - रायपुर (छ.ग.)

मान्यता के संबंध में।

विषय :--

संदर्भ :--

1. आपका आवेदन पत्र कमांक UES/22-23/027 दिनांक 04/05/2022.

2. मंडल मुख्यालय का पत्र कमांक 3398 दिनांक 17/08/2021.

3. National Accreditation Board for Testing and Calibration Laboratories का सर्टिफिकेट नं. TC-6065 दिनांक 27/10/2021.

प्रदेश में संचालित निजी प्रयोगशाला को छत्तीसगढ़ पर्यावरण संरक्षण मंडल द्वारा प्रदत्त

उपरोक्त विषयांर्तगत संदर्भित पत्रों का अवलोकन करें। लेख है कि मंडल मुख्यालय द्वारा पत्र कमांक 3398 दिनांक 17/08/2021 के माध्यम से आपके निजी प्रयोगशाला को जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा 17 (2) एवं वायु (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1981 की धारा 17 (2) के अंतर्गत मान्यता प्रदान की गई थी, जिसकी वैधता दिनांक 25/06/2022 तक है। संदर्भ – 3 पर उल्लेखित सर्टिफिकेट नं. TC-6065 दिनांक 27/10/2021 के अनुकम में छत्तीसगढ़ पर्यावरण संरक्षण मंडल द्वारा जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा 17 (2) एवं वायु (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1981 की धारा 17 (2) के अंतर्गत प्रदत्त मान्यता की वैधता दिनांक 26/10/2023 तक बढ़ाई जाती है। कृपया आपकी प्रयोगशाला में प्रचालकों की अघतन विश्लेषण दर सूची से मंडल को अवगत कराते हुए इस पत्र की पावती भेजे।

----::00::----



संदरस्य सचिव छन्नीसगढ़ पर्यावरण संरक्षण मंडल, नवा रायपुर अटल नगर, रायपुर (छ.ग.)

पृ.क्रमांक मुख्या/वैज्ञा./छ.ग.प.सं.मं./2022 नवा रायपुर अटल नगर, दिनांक / /2022 प्रतिलिपिः क्षेत्रीय अधिकारी, क्षेत्रीय कार्यालय, छत्तीसगढ़ पर्यावरण संरक्षण मंडल, रायपुर/भिलाई–दुर्ग/बिलासपुर/कोरबा/रायगढ़/अंबिकापुर/जगदलपुर की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

> सदस्य सचिव छत्तीसगढ़ पर्यावरण संरक्षण मंडल, नवा रायपुर अटल नगर, रायपुर (छ.ग.)

455



पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

F. No. LB/99/7/2021-INST LAB-HO-CPCB-HO/ Pvt/ 4564

Dated: 28th September, 2022

Provisional Certificate

To,

वयांखिण को

Head of Laboratory, M/s Ultimate Envirolytical Solutions, HDD272, Phase-III, Kabir Nagar, Raipur -492099, Chhattisgarh.

Subject: Recognition of M/s Ultimate Envirolytical Solutions, HDD272, Phase-III, Kabir Nagar, Raipur -492099, Chhattisgarh, as Environmental laboratory under the Environmental (Protection) Act-1986.

Sir,

I am directed to refer the online application, dated 24/05/2022 for recognition of your laboratory under Environmental (Protection) Act, 1986. Based on the recommendations of the concerned Division, approval of Competent Authority for recognition of Environmental laboratories and your acceptance of the revised terms and conditions at Annexure-III & IV of the guidelines for recognition of environmental laboratories, CPCB approves the renewal of recognition of M/s Ultimate Envirolytical Solutions, HDD272, Phase-III, Kabir Nagar, Raipur -492099, Chhattisgarh, as shall be notified in the Gazette of India. Considering the current requirement of mandatory accreditation/ certifications of the laboratory, this recognition shall be valid up to 26/10/2023 in continuation to earlier recognition.

- 2. As sought in the aforementioned application M/s Ultimate Envirolytical Solutions, HDD272, Phase-III, Kabir Nagar, Raipur -492099, Chhattisgarh, may undertake the following tests:
 - i. **Physical Tests-** Conductivity, Colour, pH, Fixed & Volatile Solids, Total Solids, Total Dissolved Solids, Total Suspended Solids, Turbidity, Temperature, Velocity & Discharge measurement, Flocculation test (Jar test), Odour, Salinity, Settleable Solids and Sludge Volume Index (SVI).
 - ii. Inorganic (General and Non-Metallic): Acidity, Alkalinity, Ammonical Nitrogen, Chloride, Chlorine residual, Dissolved Oxygen, Fluoride, Total Hardness, Total Kjeldahl Nitrogen (TKN), Nitrite Nitrogen, Nitrate Nitrogen, Phosphate, Sulphate, Bromide, Chlorine Demand, Iodine, Sulphite, Silica, Cyanide and Sulphide.
 - iii. Inorganic (Trace Metals): Boron, Cadmium, Calcium, Chromium Total, Chromium Hexavalent, Copper, Iron, Lead, Magnesium, Mercury, Nickel, Potassium, Sodium, Sodium Absorption Ratio (SAR), Zinc, Arsenic, Aluminium, Barium, Manganese, Selenium and Vanadium.
 - iv. Organics (General) and Trace Organics: Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Oil and Grease, Phenolic Compounds, Pesticides (each) (Organochlorine and Organo nitrogen-phosphorus), Total Organic Carbon, Poly-Chlorinated Biphenyl (PCB's) each, Polynuclear Aromatic Hydrocarbon (PAH) each, and Organic Carbon (in solid).
 - v. Microbiological Test: Total Coliform, Faecal Coliform, E. coli, Faecal Streptococci and Total Plate Count.
 - vi. **Toxicological Tests:** Bioassay method for evaluation of toxicity using fish and Measurement of toxicity using Daphnia or Other Organism.
 - vii. Characterization of Hazardous waste: Preparation of Leachate (TCLP extract/water extract), Corrosivity, Ignibility (Flash point), Reactivity and Measurement of heavy metals/ pesticides in the waste and leachate.

Contd.

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032 Parivesh Bhawan, East Arjun Nagar, Delhi-110032 दूरभाष/Tel : 43102030, 22305792, वेबसाईट/Website : www.cpcb.nic.in

- viii.Soil/Sludge/Sediment and Solid Waste: Boron, Cation Exchange Capacity (CEC), Electrical Conductivity, Nitrogen (available), Organic Carbon/matter (Chemical method), pH, Phosphorous (available), Phosphate (ortho), Phosphate (total), Potassium, SAR in Soil Extract, Sodium, Soil Moisture, TKN, Calorific Value, Ammonia, Bicarbonate, Calcium, Calcium Carbonate, Chloride, Colour, Exchangeable Sodium Percentage (ESP), Heavy metal, Magnesium, Nitrate, PAH, Pesticide and Sulphate.
- ix. Ambient Air/ Fugitive Emissions: Nitrogen Dioxide (NO₂), Sulphur Dioxide (SO₂), Total Suspended Particulate Matter, Respirable Suspended Particulate Matter (PM₁₀), Ammonia, Carbon Monoxide, Chlorine, Fluoride, Lead, Ozone, and PM_{2.5}.
- x. Stack Gases/ Source Emission: Particulate Matter, Sulphur Dioxide, Velocity & Flow, Carbon Dioxide, Carbon Monoxide, Temperature, Oxygen, Oxides of Nitrogen, Acid mist, Ammonia, Fluoride (Gaseous), Chlorine and Hydrogen Sulphide.
- xi. Noise Level: Noise Level Measurement (20-140 dBa) and Ambient Noise and Source Specific Noise.
- xii. Meteorological: Ambient Temperature, Wind Direction, Wind Speed, Relative Humidity, and Rainfall.
- 3. Further, the following analysts have been approved as Government Analysts.
 - i. Sh. Anurag K. Shrivastava
 - ii. Smt. Snehal Akulwar
 - iii. Sh. Pramod Choubey
- 2. The laboratory shall compulsorily participate in the Analytical Quality Exercise conducted by the Central Pollution Control Board (CPCB) to ascertain the capability of the laboratory and analysis carried out and shall submit quarterly progress report to CPCB.
- 3. The surprise inspection/periodic surveillance of the recognized environment laboratory will be undertaken by CPCB to assess its proper functioning systematic operation and reliability of data generated at the laboratory.
- 4. It is also mandatory for the laboratory to have requisite accreditations of the ISO: 17025 (NABL) and ISO:45001 (OH&SMS) and its renewal as per accreditation rules. This recognition is subject to such accreditations and renewals as applicable. The laboratory is required to apply online for further renewal of recognition through CPCB web portal after renewal of the mandatory accreditations / certifications concerned.
- 5. The laboratory should compulsorily follow the accepted terms and conditions. In case of serious non-compliance of any of the terms and conditions, the laboratory may be black listed for a minimum period of two years and civil/criminal proceedings, as applicable, may be initiated for performing functions on behalf of the Government in an unauthorized manner.

Yours faithfully,

K.PJ1 28 9122

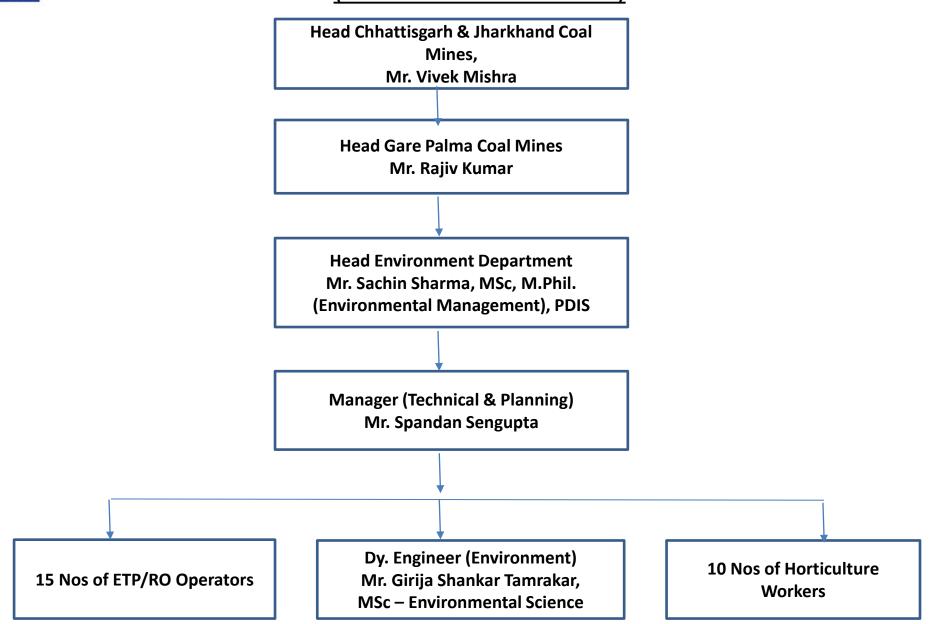
(Dr. K. Ranganathan) Scientist-E & Divisional Head Instrumentation Laboratory

Annexure – 10A



Organisation Chart of Environment Management Cell

(Gare Palma Coal Mines)



Annexure-11

Environmental Expenditure Details for FY 2023-24 (From April 2023 to September 2023)

M/s Hindalco Industries Limited, Gare Palma Mines IV/5

| Particulars | Amount (Lakh) |
|------------------------------------|---------------|
| Water Quality Management | 133.14 |
| Air Quality Management | 6.00 |
| Plantation, Green Belt Development | 0.43 |
| Others | 0.24 |
| Total | 139.81 |