

VLL/HSE/ENV/2021/1298

27th May 2021

To
Additional Director,
Ministry of Environment Forest & Climate Change,
Eastern Region Office, A/3,
Chandrasekharapur,
Bhubaneswar -751023.

Sub: Six monthly compliance reports of 1 MTPA to 4 MTPA Alumina Refinery and 75 MW to 285 MW Captive Power Plant of **M/s Vedanta Limited** at Lanjigarh, Dist. Kalahandi, Odisha.

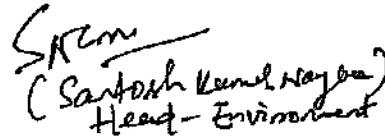
Ref: Environmental Clearance No. J-11011/53/2014-IA-II (I) dated 20th November 2015

Dear Sir,

We are herewith submitting the monitoring report of *October 2020 to March 2021* along with compliance status of the above environmental clearance conditions for your kind information.

Thanking you,

Yours faithfully,
For **Vedanta Limited, Lanjigarh**

for 
(Santosh Kumar Nayak)
Head - Environment

Harshvardhan Pande
(Head HSE & S)
HeadHSE.VLL@vedanta.co.in



Encl: As above

Copy to:

1. Additional Director, Ministry of Environment Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110 003
2. Member Secretary, Central Pollution Control Board, Paribesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110032
3. Member Secretary, State Pollution Control Board, A-118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012
4. Regional Office, State Pollution Control Board, 1st Lane, Kasturinagar, Rayagada.



Compliance

To

Environmental Clearance Conditions

Of

M/s Vedanta Limited, Lanjigarh

For the period: Oct'20 - Mar'21

(MoEF & CC Letter Ref No: J-11011/53/2014-IA-II (I), dated 20.11.2015)

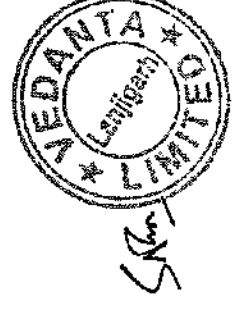
Name of the Project: Vedanta Limited, Lanjigarh

Clearance Letter/s No. and date: J-110111/53/2014-IA-II (I), dated 20.11.2015

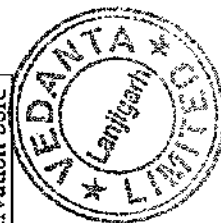
Period of Compliance Report: Oct'20 - Mar'21

Specific Conditions:

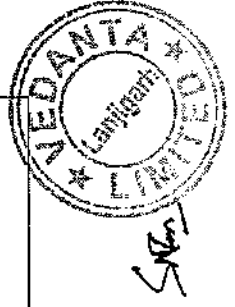
Sr. No.	Conditions	Compliance Status
1	The project proponent should install 24*7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.	Continuous Emission Monitoring system (CEMS) have been installed in the CPP stack & Calciner stacks for monitoring of PM, SO ₂ , NO _x , and CO. Report is being submitted to SPCB on a monthly basis. CEMS of all the stacks are linked to the RTDAS of SPCB & CPCB. Six Continuous Ambient Air Quality Monitoring Station (CAAQMS) has been installed inside and periphery of the Refinery to monitor PM ₁₀ , PM _{2.5} , SO ₂ , NO _x & CO. The Real Time Data is being transmitted through Real Time Data Acquisition System (RTDAS) to the OSPCB server continuously. There is no effluent discharge as our refinery has been designed with Zero Discharge Concept. The monitoring reports of the above are submitted to Ministry and its Regional Office through half-yearly compliance reports.
2	The environmental clearance is for Phase - I (2MTPA) and Phase - II (4MTPA) of the project only. No expansion or modification shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted and being adhered to.



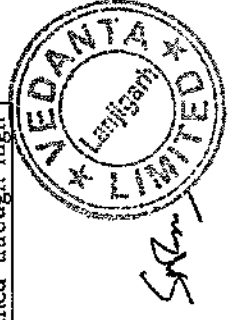
Sr. No.	Conditions	Compliance Status
3	The complete details of land acquisition for 883 ha required for Phase - I and Phase - II shall be furnished to MOEF & CC and RO, Bhubaneswar as part of the Compliance report.	No additional land required for Phase-I. For Phase-II, 53.4 ha of additional land required for which Section 4(1) & Section 6(1) Notification under the Land Acquisition Act has been initiated. The same will be submitted after acquisition of land required for Phase-II & Phase-III.
4	The land acquisition of 53.4 ha required for Phase - II shall be completed and details furnished to MOEF & CC, its RO at Bhubaneswar and to Odisha SPCB for grant of CTO before commissioning the 4 MTPA expansion project	The acquisition of land Ad. 53.4 Ha. Is under progress and has gone ahead of Section 4(1) & Section 6(1) Notification, Order u/s 7 (1), Notification u/s 9 (1), Award U/s 11 and followed by payment of Land compensation as per the Land Acquisition Act. The details of the same shall be furnished to MOEF & CC, its regional office, OSPCB for grant of CTO for 4 MTPA, once the process is completed.
5	For Phase - III (6MTPA), the proponent shall obtain amendment of EC after completion of land acquisition of the balance area of 666.03 ha details of which will be furnished to MOEF & CC.	The same will be done after complete acquisition of land. (Our Letter no. VLL/LAN/LLE/2020/21 dated 7th May, 2020 has been submitted in this regard to MoEF & CC based on the conclusion of land requirement given by Industrial Promotion & Investment Corporation of Odisha (IPICOL), the nodal agency of Government of Odisha after carrying out due assessment though Engineers India Limited (EIL), a Government of India Undertaking, that the total requirement of land for expansion upto 6 MTPA is of only 666 acres i.e. 269.52 Ha (inclusive of ongoing acquisition of 53.5 Ha meant for Red Mud Disposal facility) and communicated to us vide their letter dated 18th March, 2019. It has been further stated in the IPICOL letter of approval that the land requirement for rail project expansion will be separately assessed).
6	Electrostatic Precipitator(s) shall be provided to Kiln and boiler stacks to control gaseous emissions within 50 mg/NM ³ . The height of the stacks shall be as per the CPCB guidelines. Gaseous emissions should be regularly monitored and records maintained and reports submitted to this Ministry including its Regional Office as part of the compliance report.	The Calciners and Boilers have been provided with ESPs having 99.5 % efficiency. Installation of bag filters in three ESPs of CPP are completed & PM emission is achieved as prescribed in the notification (PM< 50 mg/Nm ³). The heights of the stacks are designed as per the CPCB guidelines. The monitoring report is being submitted to SPCB on monthly basis & to regional office MOEF vide half-yearly compliance report. In addition to the above, CEMS of all the stacks are connected to the RTDAS of the Board.
7	The estimated 4.8 MTPA of red mud generated in Phase - I and II shall be stored in the red mud pond only designed as per the guidelines with proper leachate collection system and ground water	The existing RMP is designed and provided with HDPE liners to prevent any seepage. The red mud to be generated in Phase-I and II shall be stored in red mud yard only through dry stacking of red mud. Observation bore



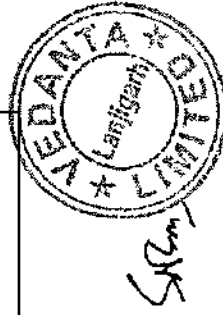
Sr. No.	Conditions	Compliance Status
	all around the red mud disposal area shall be monitored regularly and report submitted to the Odisha PCB/CPCB and Regional Office of the Ministry at Bhubaneswar. Proper care shall be taken to ensure no run off or seepage from the red mud disposal site to natural drainage. Sewage sludge shall be used as manure within the premises.	wells have been installed around RMP for monitoring of ground water quality & reports of the same are being submitted to SPCB on monthly basis & to MOEF&CC & its RO vide half-yearly compliance report. In addition, garland drains have been constructed along the periphery of RMP and connected to collection pits with pumping facility to recycle back the seepage water if any. Sewage sludge is dried in sludge drying bed & further used as manure in horticulture. Leachate collection system shall be installed/ provided in the new red mud pond to be constructed for which land acquisition and R&R process is going on.
8	The red mud generated will have moisture and will not be in powder form but in cake form. The red mud from the storage area shall not be let off along with the rain water particularly during rainy season and an effective drainage plan has to be prepared to ensure that rainwater entering the project area is not contaminated with red mud.	The Red mud is disposed of in dry (cake form) after passing through High pressure membrane filter (Red mud Filter), which is having 75-80% of solids & is stacked in Dry red mud stacking area. To divert the rain water from red mud cake storage area, suitable garland drains are provided which are connected to the collection pits with pumping facility to recycle back the water to process.
9	The red mud slurry shall be converted into red mud powder using a high pressure filtration system by which, the red mud shall not be in a slurry form but in cake form and thereafter sold for use by cement manufacturers, The stock piles shall be stored in areas which shall be lined.	Red mud is being dry disposed through HCSD technology & as a step forward the red mud slurry is further processed with High Pressure Membrane Filtration Technology by Red Mud Filtration unit for dry stacking of red mud having 75-80% solids which eliminates completely the wet storage of red mud. This new system is first of its kind across the country. This new system is first of its kind across the country.
10	A plan for utilization of red mud generated shall be implemented. Under the plan, the entire amount of red mud generated from the project would be sold to cement industry. MoU shall be signed with potential buyers including cement companies for long term supply of red mud.	Roadmap has been prepared for utilization of Red mud. Presently we are associated with some cement companies for lifting Red mud. Work order get placed to cement company based on the required quantity at each time. Studies are under progress for utilisation in Road construction and Iron recovery from Red mud.
11	Coal linkage shall be firm up and furnished as part of the Compliance report. The details of coal linkage (source and quantity)/procurement details for Phase - I and Phase - II of the project shall be furnished as part of the compliance report to MOEFCC and to RO, Bhubaneswar. Details of Coal Characteristics also shall be furnished along with specific quantity from domestic market/linkage/imports.	Coal for the expanded refinery will be sourced from linkage with the CIL and imports. Present coal linkage documents i.e. PSA with MCL & NCL & the imported coal procurement agreement copy is attached as Annexure-IA. The coal procurement details from Oct'20 to Mar'21 of domestic & imported coal are attached herewith Annexure - I.



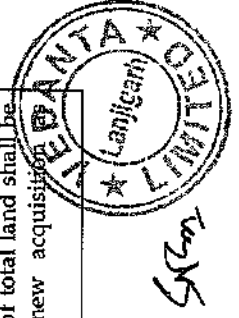
Sr. No.	Conditions	Compliance Status
12	All the fly ash generated from the Alumina Refinery shall be properly stored in ash storage pond and provided to cement and brick manufacturers for further utilization. Ash pond created for the existing project shall be used for storage of ash for the expansion project. Ash shall be evacuated through High Concentration Slurry Disposal (HCSD).	Ash is being disposed through High Concentration Slurry Disposal (HCSD) technology. Ash generated from refinery is being properly stored in ash pond and further the ash is also being used for the purpose of brick manufacturing, land development, dyke height raising & road making. For the year 2020-21, 130 % is the Fly ash utilization against the generation. Monthly Fly ash utilization report are being submitted to CPCB. At present around 106 Fly ash brick manufacturing units are associated with us for lifting the fly ash from our plant.
13	Green belt shall be developed in 33% area to mitigate the effects of fugitive emissions as per the CPCB guidelines. Plant species form local area shall be selected in consultation with DFO for green belt development.	Green belt has been developed in & around the refinery, township, rehabilitation colony, Bauxite residue disposal area (RMT), PWL and Ash pond, covering an area of 278.216 Ha (till Sept'20) as per the CPCB guidelines. All the Plant species selected for green belt development are of local varieties and has been planted in consultation with DFO. The year wise plantation details are given in Annexure-II.
14	Rehabilitation and Resettlement plan for the project affected population including tribal population should be implemented as per the policy of the Govt. of Odisha.	The same will be implemented as per the R & R policy of the Govt. of Odisha.
15	For undertaking Phase - I and Phase - II of the project, the project proponent shall finalize the MOUs/ Agreements for firm availability of bauxite of 5.2 MTPA for phase - I and 10.4 MTPA for Phase - II and details furnished to MOEFCC and its RO at Bhubaneswar.	We have been granted with Consent to Operate for capacity of 2MTPA (Phase-I) for which we require around 5.2MTPA of bauxite. The focus lies in procuring Bauxite from mines in Odisha, for which we are having Long Term Agreement with OMC for supply of 2.1 MTPA of Bauxite from Kodingamali mines in addition to Bauxite being procured through National E-Auction being held for Sale of Bauxite. Furthermore, entity has long term agreement with RTA, EGA for securing Bauxite for Phase I and Phase II expansion. As Odisha is having abundant reserve, hence we are looking forward to adequate supply of Bauxite for meeting our requirement from Odisha only. Agreement with OMC EGA are attached herewith as Annexure IIIA.
16	All the recommendation made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Aluminium sector shall be strictly implemented.	As per Corporate Responsibility for Environmental Protection (CREP) guideline for Aluminium sector, Red mud is being disposed through High Concentration Slurry Disposal (HCSD) pump technology into Red Mud Filtration unit where red mud powder is being formed through high



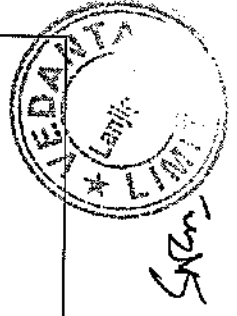
Sr. No.	Conditions	Compliance Status																									
		pressure filtration technology. This is to ensure dry disposal into the Red mud pond.																									
17	The gaseous emissions (PM ₁₀ , PM _{2.5} , SO ₂ , NO _x) from various process units shall conform to the standards prescribed by the concerned authorities from time to time. The OSPCB may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. The particulate emissions from the plant shall not exceed 50mg/NM ³ . At no time the emissions level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	All the emission levels are well within the standards. All the pollution control systems are working with desired efficiency. 6 number of AAQ monitoring stations have been installed in consultation with SPCB. The AAQ monitoring is being carried out regularly and records also maintained. The summary of the monitoring AAQ data is as follows: <table><tr><th>In mg/m³</th><th>Industrial</th><th>Standard Norm</th><th>Residential</th><th>Standard Norm</th></tr><tr><td>PM₁₀</td><td>68.0 – 76.0</td><td>100</td><td>46.0 – 67.0</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>27.3 – 40.3</td><td>60</td><td>21.1 – 38.5</td><td>60</td></tr><tr><td>SO₂</td><td>6.3 – 9.9</td><td>80</td><td>4.1 – 9.5</td><td>80</td></tr><tr><td>NO₂</td><td>10.2 – 18.2</td><td>80</td><td>9.1 – 15.5</td><td>80</td></tr></table>	In mg/m ³	Industrial	Standard Norm	Residential	Standard Norm	PM ₁₀	68.0 – 76.0	100	46.0 – 67.0	100	PM _{2.5}	27.3 – 40.3	60	21.1 – 38.5	60	SO ₂	6.3 – 9.9	80	4.1 – 9.5	80	NO ₂	10.2 – 18.2	80	9.1 – 15.5	80
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18	In-plant control measures for checking fugitive emissions from spillage/raw materials handling etc. should be provided and particulate matter from Bauxite transport and crushing shall be provided with highly efficient bag filters and covered conveyers and adequate water sprinkling shall be done.	In-plant control measures have been provided to control the fugitive emissions. (Dust Suppression System of Dry fog type are provided at all transfer points at Bauxite Handling Area & Coal Handling area, Wet Scrubbers at Lime Plant, Bag Filter for Alumina Handling Plant, water sprinkler system through sprinklers and & mobile mist cannon on stockpiles have been installed in bauxite stockpile areas and sprinklers have been installed at Coal Handling area). To reduce the fugitive emissions through vehicular movement, in plant concrete roads have been laid and water sprinkling is done through mobile water tankers. All the raw material movement into the plant including bauxite is being done through rail. Stockpiles of bauxite are provisioned with permanent water sprinkling system and conveyed through closed conveyor system.																									
19	The additional water requirement to be met from River Tel for Phase - I and Phase - II shall not exceed the quantity sanctioned by the State Government from River Tel.	Water requirement and consumption in Phase - I is within the quantity sanctioned by the State Government and same shall also be adhered to during Phase II expansion.																									
20	The requirement of make-up water at present is 0.20 cumecs and shall not exceed 0.40 cumecs for the Phase - II expansion. The total make-	Noted and being adhered to.																									



Sr. No.	Conditions	Compliance Status
	up water requirement for the 6 MTPA project shall not exceed 0.6 cumecs.	
21	The existing raw water reservoir (2.1 lakh m3 capacity), storm water pond (75,000 m3 capacity) caustic water pond (94,350 m3 capacity), red mud pond (7.2 lakh m3 capacity) totaling 39 lakh m3 shall be utilized as rain water harvesting ponds. In addition, about 1 lakh m3 of rainwater shall be harvested from township which will be recharged to groundwater to meet the domestic requirement of an estimated 2300 people for a complete year. With this water harvesting measures the PP shall reduce fresh water consumption to an extent of about 40%.	Rain water collection is being practiced through different water reservoirs like raw water reservoir (2.1 lakh m3 capacity), storm water pond (75,000 m3 capacity) caustic water pond (94,350 m3 capacity), red mud pond (7.2 lakh m3 capacity). Rain water harvesting project through ground water recharge has been implemented at township which is provided for Executive Hostel roof top rain water collection & recharge to the ground water.
22	The plant will operate on a zero-discharge concept and all treated water shall be recycled and reused. No effluents shall be discharged outside the premises during the non-monsoon period and during the monsoon period water should be discharged only after proper treatment and meeting the norms of the OPCR/CPCB. There shall be separate drain for storm water/rainwater. The company shall construct separate RCC drains for carrying storm water inside the plant. Decanted water from red mud pond is collected in the Process Water Lake during the monsoon and the same water recycled back to the process through pumping arrangements. The concrete drains shall be de-silted and regular supervision of the areas shall be carried out so that blocking of drains may be avoided for quick discharge of rainwater.	<p>The plant is operating with zero discharge concepts by 100% recycle of waste water as well as other sources of effluents. No discharge is being made to outside water bodies from any of the facilities of the plant. Separate drains have been constructed in the entire plant area for collection of storm water (Storm water drain) and process water (Caustic drain). Storm water drains are connected to Clear water pond and caustic drains to caustic pond.</p> <p>At present, the process water lake is used only for storing rain runoff water from the red mud pond. This stored water is fully recycled and used in the process.</p> <p>Regular activities like de-siltation & cleaning have been carried out prior to monsoon to avoid blocking of drains.</p>
23	Of the total area of 1552.65 ha., an area of 512.37 ha (33%) shall be developed into green belt. Of this, a total of 215.20 ha green belt have been developed and the balance area of 297.17 ha shall also be brought under plantation, which includes plantation in a width of 15-20m along the remaining boundary wall of 3km of the 8km.	<p>Green belt has been developed in & around the refinery, township, rehabilitation colony, RMP, PWL and Ash pond, covering an area of 278.216 Ha as per the CPCB guidelines which is more than 33% of the existing land area. All the Plant species selected for green belt development are of local varieties.</p> <p>Furthermore, same ratio shall also be followed (33% of total land shall be developed as Green belt) in future considering new acquisition mentioned in the condition.</p>

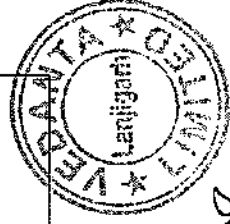


Sr. No.	Conditions	Compliance Status
24	Material transportation shall be by rail for which a dedicated railway line for transportation of both raw materials and product shall be established. Material handling areas shall have DFS.	Dedicated railway management system/siding has been set up for transportation of raw materials and final product. All the material handling areas i.e. coal handling area, bauxite handling areas are provisioned with Dry Fog System (DFS) in the conveying systems.
25	The company shall comply with all the commitment made during public hearing/public consultation.	Noted and fulfilled.
26	The details of quantity and source of bauxite procured shall be submitted as part of the six-monthly compliance report.	The bauxite procurement details from Oct'20 to Mar'21 is attached herewith Annexure - III.
27	Provisions shall be made for the housing of construction Labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Noted and provision has been made.
28	At least 2.5% of the total cost of the project (Rs 10,000 crores) shall be e-marked towards the Enterprise Social Commitment (ESC) based on local needs. The proponent shall prepare a detailed CSR plan for every next five years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc.) activities in consultation with the local communities and administration. The CSR plan will include the amount of 2% retain annual profits as provided for in clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 year towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO, Bhubaneswar. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual report of the Company.	<p>Towards Enterprise Social Commitment (ESC), based on social need assessment, Vedanta Limited, Lanjigarh has identified to establish teaching hospital of Kalahandi medical college worth Rs.142 Cr. at Bhawanipatna. In this respect an MOU has been entered into between Vedanta Limited & Director of Medical Education & Training, Govt. of Odisha. Acknowledgement letter in this respect is submitted to MoEF & CC & its RO vide letter no. VLL/HSE/ENV/2020/1160 Dated 30.01.2020.</p> <p>Keeping in view of the social development, LPADF is formed under the chairmanship of RDC, Berhampur as per the order of Hon. Supreme court of India. As per the decision of the LPADF, various sector-wise development activities are being taken up at both the district level. Details of CSR expenditure for FY 2020-21 has been attached in Annexure-V.</p>

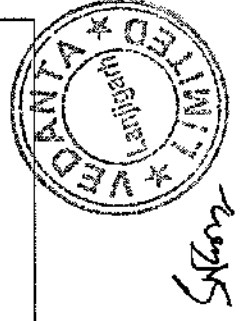


General Conditions

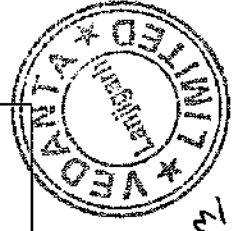
Sl no.	Conditions	Compliance Status									
1	No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted									
2	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM ₁₀ , PM _{2.5} , SO ₂ and NO _x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional office at Bhubaneswar and the SPCB/CPCB once in six months.	Six AAQ monitoring stations have been installed in consultation with SPCB at various locations in & around the refinery. The AAQ monitoring is being carried out as per the guidelines of National Ambient Air Quality Standards. The monitoring reports for ambient air quality and stack emissions are being submitted to SPCB on monthly basis & to regional office MOEF vide half-yearly compliance report.									
3	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	The plant is operating with zero discharge concept by 100% recycle of industrial waste water. Hence, no discharge is being made to outside water bodies or used for any other purposes.									
4	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 v/z. 75 dBA (daytime) and 70 dBA (nighttime).	During detailed engineering stage, care has been taken by providing suitable acoustic measures to contain noise level up to 85 dB(A) in frequented areas and to contain plant overall noise level of 75dB(A) during daytime and 70dB(A) during night time. The noise monitored data is as follows: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th></th><th>Daytime dB</th><th>Nighttime dB</th></tr> <tr> <td>Industrial</td><td>67.8 - 72.9</td><td>63.5 - 66.5</td></tr> <tr> <td>Residential</td><td>46.3 - 54.3</td><td>33.9 - 44.7</td></tr> </table>		Daytime dB	Nighttime dB	Industrial	67.8 - 72.9	63.5 - 66.5	Residential	46.3 - 54.3	33.9 - 44.7
	Daytime dB	Nighttime dB									
Industrial	67.8 - 72.9	63.5 - 66.5									
Residential	46.3 - 54.3	33.9 - 44.7									
5	Occupational health surveillance of the workers be done on a regular basis and records maintained as per the factories Act.	Occupational health surveillance of the workers is being done on regular basis as mandatory by The Factories Act, 1948 & Odisha Factory rules 1950. The records are being maintained and are being submitted to The Director, Factories & Boilers.									



Sl no.	Conditions	Compliance Status
6	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Rain water collection is being practiced through rain water harvesting structures like raw water reservoir, storm water pond, caustic water pond, and red mud pond. In addition to this, rain water harvesting project has been implemented at township to recharge the ground water table.
7	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socioeconomic development activities in the surrounding village like community development programs, educational programs, drinking water supply and health care etc.	Noted & being followed.
8	Requisite funds shall be e-marked towards capital cost and recurring cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.	All the conditions imposed by MOEF and SPCB have been completed and no fund has been diverted.
9	A Copy of clearance letter shall be sent by the proponent to concern panchayat, Zilla parishad/Municipal corporation, urban local body and the local Ngo, if any from whom suggestion/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	As there was no suggestion / representations from any such agencies, hence letter of clearance has not been sent. The clearance letter has been uploaded on the website of the company i.e. http:// www.vedantaaluminium.com .
10	The project proponent shall upload the status of the compliance of the stipulated environment clearance conditions, including result of monitoring data on their website and shall update the same periodically, it shall simultaneously be sent to the Regional Office of the MOEF & CC at Bhubaneswar, the respective Zonal Office of CPCB and SPCB. The criteria pollutant levels namely: PM10, SO2, NOx (Ambient level as well as Stack Emissions) or critical sectoral parameter indicated for the project shall be	Being followed.



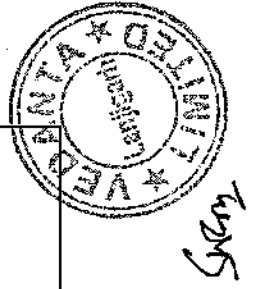
Sl no.	Conditions	Compliance Status
	monitored and displayed at convenient location near the main gate of the company in the public domain.	The company has installed six CAAQMS where the parameters PM10, PM2.5, SO2, NO2, CO are being monitored and the same is being displayed near the main gate of the company.
11	The project proponent shall also submit six monthly report on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by email) to the regional office of MOEFCC, the respective Zonal office of the CPCB & SPCB. The regional office of this ministry at Bhubaneswar/CPCB/SBCB shall monitor the stipulated conditions.	The same is being submitted on regular basis, while submitting six monthly report.
12	The environment statement for each financial year ending 31 st March in FORM- V as is mandated to be submitted by the project proponent to the concerned State Pollution control Board as prescribed under the Environment Protection Rules 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective regional office of the MOEF at Bhubaneswar by email.	Being followed
13	The project proponent shall inform the public the project has been accorded Environmental Clearance by the Ministry and copies of the clearance letter are the available with the SPCB and may also be seen at the website of the Ministry of the Environment and Forests at http://envfor.nic.in . This shall be advertised within 7 days from the date of the issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be vernacular language of the locality concerned and the copy of the same should be forwarded to the regional office at Bhubaneswar.	The granted environmental clearance has been uploaded in the company website for the information to the public. The same has been advertised in two local newspapers 'The Odisha Bhaskar' and 'The Darshan' in both English & vernacular language (Odia) on 27th November 2015. And the copy of the same was submitted as annexure-V1 in the Half yearly compliance report submitted on 28th May 2016.
14	Project authorities shall inform the Regional Office as well as the Ministry, the date of the financial closure and final approval of the project by the concerned authorities and the commencing the land development work.	Noted and being informed.



Sd/-

Conditions stipulated in the Environmental Clearances of Thermal Power Plants and Coal Mines in line with the Fly Ash Notification, and subsequent amendments

Sl no.	Conditions	Compliance Status
1	The guidelines prepared by CPCB for disposal of flyash for reclamation of low lying areas and in stowing/backfilling of abandoned mines/quarries shall be followed during disposal of ash in abandoned or working mines, as annexed.	Not Applicable.
2	There should at least be clearance of 500 m of safe distance be maintained from River and water body in case of ash disposal in abandoned mines to prevent embankment failures and flyash flowing into the nearby water body.	Not Applicable.
3	The top layer of the flyash disposal area in the abandoned mines shall be kept moist during disposal.	Not Applicable.
4	Top layer of the disposed area should have 70 cm overburden or gravels/stones and then 30 cm sweet soil cover. Subsequently, the vegetation shall be raised on the soil cover.	Not Applicable.
5	Bioaccumulation and bio-magnification tests shall be conducted on surrounding flora and fauna (tree leaves, vegetation, crop yields and cattle population) during pre-monsoon and post monsoon to find out any trace metals escaped through ground water or runoff.	Not Applicable.
6	Surface runoff and supernatant water, in any case shall not be let into the surrounding areas. It shall be collected by providing adequate drains around the mine. The supernatant water along with surface runoff shall be treated and re-used for mixing ash and plant operations.	Not Applicable.
7	To the extent possible, only decanted water from mine, make up water from treated effluents such as cooling tower blow down and treated sewage water shall be used for making ash slurry.	Not Applicable.



Sl no.	Conditions	Compliance Status
8	Flyash to be used as soil conditioner in agriculture needs and to be applied in controlled manner to limit excessive application so as to prevent soil degradation. The optimize proportion of ash to be applied which is to be certified by the State Agricultural Universities/Colleges based on the soil testing.	Not Applicable.
9	Approval from DGMS shall be obtained before disposing the ash in the mine voids.	Not Applicable.
10	Technology for conversion of fly ash into coarse granules for stowing in the underground mines to be explored.	Not Applicable.
11	All the power plants should install different silos for dry collection of flyash.	Complied.
12	Records pertaining to details of month-wise quantity of flyash disposed and water consumption along with nature/source of water shall be maintained and submitted to Ministry/Regional Office annually.	Complied and attached as Annexure-IV
13	Before starting the disposal of ash into mine voids, the NOC/Permission from the mine owner is to be obtained incase the mine closure activities are not completed or State Government incase the mine has been handed over to the State Govt. after its closure. A copy of such NOC/Permission is to be submitted to the Ministry and its Regional Offices.	Not Applicable.



Splm

Ministry of Environment & Forest

Regional Office

Monitoring Report

Part-I

DATA SHEET

- 1 Project Type Alumina Refinery with Captive Power Plant
- 2 Name of the Project Vedanta Limited, Lanjigarh
- 3 Clearance/Approval letter(S) , No data J-11011/53/2014-IA-II(I) dated 20th November,2015.
- 4 Locations
a) District(s) Kalahandi
b) State(s) Orissa
c) Latitude/longitude Lat 19°43' 01"
Long 83° 24' 26"
- 5 Address for Correspondence
a) Address of concerned project Chief Head-Operations & Factory Manager, Vedanta Limited,Alumina Engineer (with pin code and Refinery Project,P.O.Lanjigarh, Dist.Kalahandi, Orissa-telephone/telex/fax number) 766027.Tel :06677-247312/13/14/15/16 Fax :06677-247311
b) Address of Executive Project Same as above
engineer/Manager(with Pin Code& Telephone/ telex/ fax Nos.
- 6 Salient features
a) Of the project Production of 2.0MT Alumina per annum using Bayer's process & Coal fired steam and power plant.
b) Of the Environmental Management As given in chapter 3 (Environmental Management plan) of the plans Environmental Impact Assesment report for 6 MT alumina refinery and 285 MW captive power plant, Lanjigarh, Kalahandi, Orissa
- 7 Break up of the project area (in Ha)
Forest area Nil
Non- Forest area 833.31 Hectares
Total 833.31 Hectares



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- 8 Break up of project affected : Village-wise details along with R&R package to be given Number of ousters:
population

Sl.no	Type	Kinari	Borbhata	Bandhaguda	Kothduar	Sindhbahal	Bundel	Total
1	SC-Homestead	0	0	0	12	8	0	20
	SC-Land Oustees	12	7	8	14	8	0	49
2	ST-Homestead	51	0	0	1	5	0	57
	ST-Land Oustees	17	7	18	36	24	34	137
3	OBC-Homestead	0	28	0	0	0	0	28
	OBC-Land Oustees	20	4	22	11	7	0	64
4	Others-Homestead	0	0	0	0	0	0	0
	Others-Land Oustees	0	0	5	4	0	0	9
	Total	100	46	54	78	52	34	364

- 9 Financial Details
a) Project cost as originally Planned and : Original Estimation =Rs. 4500Cr. (approx) as on 2002 subsequent revised Estimates and the years of price reference

b) Allocation made for environmental : Construction completed management plans, with item wise & yearwise break up (in Lakh)

Sl.No.	Items	2004-05	2005-06	2006-07	2007-08
1	Environmental Monitoring and Appraisal Cost	12.00	15.00	120.00	15.12
2	Pollution control equipment and system	0.00	200.00	12836.00	50.00
3	Plantation and Green Belt Developmet	0.00	12.00	25.00	100.00
4	Corporate social responsibility	393.00	709.00	194.35	530.00
5	Pollution Control equipment and System Maintenance				1280.80
6	Red mud, fly ash and other solid waste handling				1000.00
	Total	405.00	936.00	13175.35	2975.92

c) Benefit cost ratio/internal rate of : Not Applicable.
Return & the year of assessment

d) Whether includes the cost of : Not Applicable.
environmental management as shown in (b) above

e) Actual expenditure incurred on the : 4357.54 Crore (The same is Gross Block of Fixed assets as per SAP.)
project so far (Upto 30th Nov 2013)

- 10 Forest land requirement:
a) The status of approval for a diversion : No diversion of forest land is involved.
of forest land for non forest use
b) The status of compensatory : Not applicable.
c) The status of clear felling : Not applicable.
d) Comments on the viability & : Not applicable.
sustainability of compensatory
afforestation programme in the light of
actual filed experience so far
- 11 The status of clear felling in non-forest : Nil.
areas (such as sub-mergence area of
reservoir, approach roads), if any, with
quantitative information
- 12 Status of construction:
a) Date of commencement (actual and/or : 22nd September 2004
planned)
b) Date of completion (actual and/or : Plant commissioned on Aug 2007 & Commercial production started from Dec 2007
planned(1st phase)
- 13 Reason for the delay if the project is yet : Not applicable.
to start (Please attach a separate sheet if
required)



Environmental Expenditure Fy 2020-21		
Sl No	Activity	Expenditure FY 2020-21 (Rs. In Lakhs)
1	Green Belt Development & Land scaping	106.5
2	O&M of STP & Biogas plant	33.0
3	Environmental monitoring	21.9
4	Water sprinkling by road tanker inside refinery	7.8
5	Environmental awareness program	1.0
6	CAAQMS, RTDAS & Piezometer Maintenance	13.1
7	Corporate Social Responsibility	833.9
8	IMS surveillance audit	7.0
9	Waste Disposal (Including Hazardous waste & process waste like Red mud, Fly ash, lime grit etc.)	312.2
10	Procurement of Noise Meter	2.7
11	AMC of Environmental Laboratory Equipments	0.9
12	O&M of CPP CEMS	9.5
13	O&M of Boiler ESP	1.5
14	Installation of Fencing around Ash pond	6.0
15	Operation & Maintenance of Coal handling Plant & Ash Handling Plant	858.2
16	Consumption of Spares of Coal Handling & Ash Handling Plant	268.7
17	Lighting arrangement of Ash pond	4.2
18	Pedestal work for Second Ash disposal line	12.5
19	Piezometer installation on dyke top at Ash Pond	3.7
20	Water sprinkling at Ash pond	4.5
21	Storm water Drain cleaning at Coal Handling Plant	5.0
22	Geotechnical test of Ash Pond	15.0
23	O & M of sprinklers, Dry Fog System & Mist Canon at Bauxite Handling area	3.2
24	Engagement of water tanker for dust suppression on Bauxite movement road	24.0
25	O & M of CEMS of Calciner	12.0
26	O&M of ESP of Calciner	15.6
27	Replacement of new Bag Filters of Alumina Silo	1.2
28	Storm water Drain cleaning in Refinery area	9.1
29	O&M of pipe conveyer for Calcined Alumina transfer	83.9
30	Civil Maintenance (Flooring, sump pit & trench liner, RCC road, Sewage line etc.)	400.0
31	O&M of Red mud filters, Red mud shifting to RMP, O&M of Process Water Lake	2313.0
32	Purchase / maintenance of sprinklers/ Mist Cannons etc. of RMP	72.0
33	All Tailing dams stability study by engagement of Third Party Expert	15.0
34	Fencing around RM, PWL & GJJ area	21.0
35	Purchase of RMF filter cloths	302.0
36	Monitoring of Piezometers installed on the dykes of RMP	12.0
37	Infrastructure development in RMP/PWL	225.0
	Total	6037.7

Note : All the units are in Lakhs



ANNEXURE - I

DETAILS OF COAL PROCUREMENTS FOR FY 2020-21 (from Oct'20 to Mar'21)		
MONTH	DOMESTIC (In MT.)	IMPORTED(In MT.)
Oct-20	26896	18912
Nov-20	46546	21741
Dec-20	55492	3754
Jan-21	63670	11724
Feb-21	78767	0
Mar-21	94079	0



ANNEXURE-II

PLANTATION IN AND AROUND VEDANTA LTD, LANJIGARH

Name of the Industry	Year	Area in Ha	No of Plantation	Replacement*
VEDANTA LIMITED Lanjigarh, Kalahandi	Till 31 st March 2006	32.3	79200	0
	2006-07	14	37800	0
	2007-08	34	57300	0
	2008-09	37	64535	0
	2009-10	0	0	0
	2010-11	13.866	19409	0
	2011-12	37.2	53459	7100
	2012-13	7.2	17100	85416
	2013-14	14.6	24089	10205
	2014-15	36	73930	50030
	2015-16	10	20000	20500
	2016-17	25	58600	10500
	2017-18	16	35000	49000
	2018-19	1	2500	33040
	2019-20	0	0	25900
	2020-21 (Upto Mar'21)	0	0	11360
Total		278.216	542922	303051

* The replacement is only for gap filling and has not been included in total calculation.



S. K. Roy

ANNEXURE- III

BAUXITE PROCUREMENT (OCT'20 - MAR'21)	
<i>Sources</i>	<i>In MT</i>
OMC-VL	1753288
EGA-Guinea	1296746
Grand Total	3050034



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ANNEXURE- IV

Month	Total ash generated (MT)	Total ash utilized (MT)	% of ash utilization	Water Consumption (m ³)	Nature/Source of Water
Apr-20	24542	6206	25.3	16716	Plant Water recycled/reuse
May-20	27357	24641	90.1	18127	
Jun-20	31518	12205	38.7	18075	
Jul-20	30489	15940	52.3	17938	
Aug-20	28776	11035	38.3	19183	
Sep-20	29643	25307	85.4	18141	
Oct-20	24564	25669	104.5	16995	
Nov-20	31420	31545	100.4	17233	
Dec-20	30177	30455	100.9	15010	
Jan-21	30149	44011	146.0	17370	
Feb-21	24631	97860	397.3	14611	
Mar-21	28334	119010	420.0	15605	
FY2020-21 (Upto Mar'21)	341601	443884	130	205004	



SNM

ANNEXURE - V			
CSR EXPENDITURE FY 2020-21			
S.No	CSR Projects Categories	CSR Project or Activity Identified	Expenditure (In lakhs)
A	EDUCATION	EDUCATION	
A1		Child Care Centre	31.57
A2		Support to school (teachers)	-
A3		10th coaching Program Shiksha Sambal	-
A4		Scholarships - VGA and DAV MS	-
B	HEALTH	HEALTH	
B1		Promoting Preventive health through Vedanta Hospital	307.75
B2		Ambulance Services	15.79
B3		Maa Santoshi Jankalyan Hospital, Bankakundru	12.11
B4		Drinking Water	-
C	WOMEN EMPOWERMENT	LIVELIHOOD	
C1		SAKHI SHG strengthening & mobilization	19.24
C2		Dhokra Art & Tribal Art	5.39
D	Rural Infrastructure	PRAGATI	
D1		Village Infrastructure & school Infra	5.84
D2		Sports & Culture Tournaments	-
E	NITI Aayog: Aspirational District Program	Health, Education, Financial Inclusion & Community Infrastructure	2.3
F	Environment	Energy Conservation	2.28
G	Covid-19	Covid Relief	267.73
H	Program Management	Assessment, Audit, Village Coordinator, Stakeholder Engagement	17.88
I	Admin Cost	Admin Salary	146
Total Cost			833.88



ANNEXURE – IA
(COAL AGREEMENTS)

LOI Ref No. & Date	Primary Source	Mode	Consumer Code	FSA Code
MCL/SBP/HOD(M&S)/Comml./2018-19/ 5663 dated 18.02.2019	Spur 1 & 2	Rail	391108	391108C01NN
MCL/SBP/HOD(M&S)/Comml./2018-19/ 5664 dated 18.02.2019	Spur 5 & 6	Rail		391108D01NN

FUEL SUPPLY AGREEMENT

BETWEEN

MAHANADI COALFIELDS LIMITED

AND

VEDANTA LIMITED

**PURSUANT TO AUCTION OF LINKAGES HELD FOR THE NON
REGULATED SECTOR (FRANCHE IV)**

(OTHERS SUB-SECTOR)

Date: 03/07/2019

[Signature]





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H 402123

FUEL SUPPLY AGREEMENT
MAHANADI COALFIELDS LIMITED
AND
VEDANTA LIMITED

This Fuel Supply Agreement is made at Burla, Sambalpur, India on this 3rd day of July 2019 between:

1. Mahanadi Coalfields Limited, a company incorporated in India under the Companies Act, 1956/2013 with corporate identity number U10102OR1992GOI003038, whose registered office is at At./Po. Jagriti Vihar, Burla, District- Sambalpur - 768020, Odisha, India and principal place of business is at [address of principal place of business, if different from the registered office] (hereinafter referred to as the "Seller", which expression shall unless repugnant to the meaning or context thereof, be deemed to include its successors and permitted assigns) of the one part;

AND

2. Vedanta Limited, a company incorporated in India under the Companies Act, 1956/2013 with corporate identity number L13209GA1965PLC000044 whose registered office is at 1st Floor, C Wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri East, Mumbai, 400093, Maharashtra and principal place of business is at At/Po- Lanjigarh, Dist- Kalahandi, Odisha, Pin-766027 (hereinafter referred to as the "Purchaser", which expression shall unless repugnant to the meaning or context thereof, be deemed to include its successors and permitted assigns) of the other part;

Model Fuel Supply Agreement - NRS I A T IV OTHERS

MCL & Vedanta Limited (Lanjigarh Unit)

[Handwritten signature]



The Seller and the Purchaser may hereinafter be referred to as such, or may collectively be referred to as the "Parties", and individually each may be referred to as a "Party".

WHEREAS:

- A. The Purchaser has participated in an electronic auction for grant of the Coal Linkages (*as hereinafter defined*), pursuant to which the Purchaser has qualified as a Successful Bidder (*as hereinafter defined*) in accordance with the scheme document dated 26/08/2018 issued by Coal India Limited for auction of coal linkages in the 'Others' sub-sector ("Scheme Document").
- B. The Purchaser has thereafter been issued Letter of Intent(s), as mentioned below, by the Seller("LOI") in terms of which *inter alia* the Purchaser has become entitled to enter into a fresh fuel supply agreement to receive the Annual Contracted Quantity (ies) (*as hereinafter defined*).

Sl No.	LOI Reference No.	LOI Date
1	MCL/SBP/HOD(M&S)/Comml./2018-19/ 5663	18.02.2019
2	MCL/SBP/HOD(M&S)/Comml./2018-19/ 5664	18.02.2019

- C. In terms of the requirements of clause 3.7 of the Scheme Document, the Purchaser has submitted the following documents with the Seller in accordance with the timelines stipulated in the Scheme Document:

- (a) Unconditional and irrevocable Bank Guarantee(s), in the format provided in *Annexure I* and Demand Draft ("Performance Security") as detailed below; and

LOI Ref. No. & Date	Primary Source	BG/DD Ref. No.	Amount (in Rs.)	Issuing Bank
MCL/SBP/HOD(M&S)/Comml./2018-19/ 5663 dated 18.02.2019	Spur 1 & 2 Sidings	BG No. 0999819BG0000157, dated 25.04.2019	19800000.00	SBI
MCL/SBP/HOD(M&S)/Comml./2018-19/ 5664 dated 18.02.2019	Spur 5 & 6 Sidings	BG No. 0999819BG0000156, dated 25.04.2019	28300000.00	SBI

- (b) the documents listed in *Annexure II*.

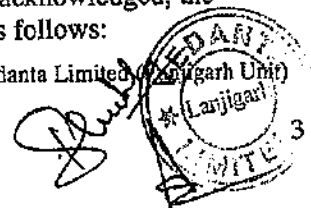
- D. Accordingly, the Parties are now entering into and executing this Agreement to record their mutual understanding with respect to the terms and conditions for supply of the Annual Contracted Quantity (*as hereinafter defined*) from the Seller to the Purchaser.

NOWHEREFORE, in consideration of the of the mutual covenants, terms and conditions and understandings set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are hereby mutually acknowledged, the Parties with the intent to be legally bound hereby covenant and agree as follows:

Model Fuel Supply Agreement NRS LA T IV OTHERS

MCL & Vedanta Limited (Zamgarh Unit)

[Signature]



**FUEL SUPPLY AGREEMENT – NON REGULATED
SECTOR**

BETWEEN

**NORTHERN COALFIELDS LIMITED,
SINGRAULI**

AND


VEDANTA LIMITED

{Others Sub Sector- EUP- Vedanta Limited}

[Block-B (Spur-II): 41935 Tcs.; Rail Mode]

[22nd February 2018]

[BLOCK-B (SPUR-II): RAIL MODE: 41,935 TCS.]


महा प्रबंधक विभाग (एच. एम. & एस.)
सुन. वि. सं. वि. वि. वि.
General Manager (M & S)
N.C.L. Singrauli







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F 788137


This Fuel Supply Agreement is made at Singrauli, Madhya Pradesh, India on this 22nd day of February 2018 between:

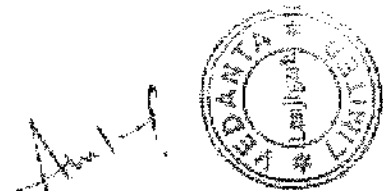
1. Northern Coalfields Limited, a company incorporated in India under the Companies Act, [1956/2013] with corporate identity number [U10102MP1985GO1003160], whose registered office is at Singrauli, Distt. Singrauli, Madhya Pradesh, India, (hereinafter referred to as the "Seller", which expression shall unless repugnant to the meaning or context thereof, be deemed to include its successors and permitted assigns) of the one part;

AND

2. M/s Vedanta Limited, a company incorporated in India under the Companies Act, [1956/2013] with corporate identity number [L13209GA1965PLC000044], whose registered office is at 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai, Maharashtra, India 400 093 and principal place of business is at PO- Lanjigarh, Bhawanipatna, Distt. Kalahandi, Odisha, 766 027 India (hereinafter referred to as the "Purchaser", which expression shall unless repugnant to the meaning or context thereof, be deemed to include its successors and permitted assigns) of the other part;

The Seller and the Purchaser may hereinafter be referred to as such, or may collectively be referred to as the "Parties", and individually each may be referred to as a "Party".


General Manager (M & S)
NCL Singrauli

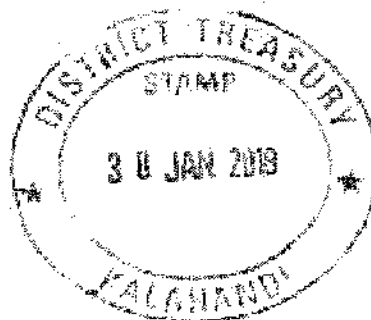


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1-2-18

Vadanta Limited, Lanjigarh,
Kalahandi, Odisha, 766027

महाराष्ट्र सरकार
राज्य सरकार
राज्य सरकार



1597
T.O. KLD

WHEREAS:

- A. The Purchaser has participated in an electronic auction for grant of the Coal Linkages (*as hereinafter defined*), pursuant to which the Purchaser has qualified as a Successful Bidder (*as hereinafter defined*) in accordance with the scheme document dated 29.08.2017 issued by Coal India Limited for auction of coal linkages in the Others sub-sector ("Scheme Document").
- B. The Purchaser has thereafter been issued a letter of intent dated 08.12.2017 by the Seller ("LOI") in terms of which *inter alia* the Purchaser has become entitled to enter into a fresh fuel supply agreement to receive the Annual Contracted Quantity (*as hereinafter defined*).
- C. In terms of the requirements of clause 3.7 of the Scheme Document, the Purchaser has submitted the following documents with the Seller in accordance with the timelines stipulated in the Scheme Document:
- (a) An unconditional and irrevocable bank guarantee 0544BC00070518 dated 24.01.2018 from ICICI Bank Limited issued at Mega Branch Kolkata in the format provided in *Annexure I* for an amount equal to Rs. 49,86,910 (Rupees Forty Nine Lakhs Eighty Six Thousand Nine Hundred Ten Only) ("Performance Security"); and
 - (b) the documents listed in *Annexure II*.
- D. Accordingly, the Parties are now entering into and executing this Agreement to record their mutual understanding with respect to the terms and conditions for supply of the Annual Contracted Quantity (*as hereinafter defined*) from the Seller to the Purchaser.

NOW THEREFORE, in consideration of the of the mutual covenants, terms and conditions and understandings set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are hereby mutually acknowledged, the Parties with the intent to be legally bound hereby covenant and agree as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement, in addition to the terms defined in the introduction of the Parties, the Recitals and the body of this Agreement, except where the context otherwise requires, the following words and expressions shall have the following meanings:

- (a) "Acceptable Bank" shall mean a Scheduled Bank as listed in the Second Schedule of the Reserve Bank of India Act, 1934 excluding those listed under the headings of Gramin Banks, Urban Co-operative Banks and State Co-operative Banks;
- (b) "Advance Payment" shall have the meaning ascribed to it in Clause 8.2.2.

WE HAVE READ THE ENTIRE
AGREEMENT
AND HEREBY AGREE TO THE
TERMS AND CONDITIONS
HEREIN

Amul



FUEL SUPPLY AGREEMENT

NON-REGULATED SECTOR

BETWEEN

[M/S Northern Coalfields Limited]


AND

[M/s VEDANTA LIMITED]
Lanjigarh

(Other Sub Sector-EUP- TG1,2&3 (3x30MW) Co-generation power plant (CGPP))

Colliery	Mode	Grade	Size	Allocated Quantity (in tes)	Winning Premium
Block-B Project	Rail	G-9	(-)100mm	85,968	31.80 % of NP

[Date: -28.06.2019]


 विभागाध्यक्ष (विपणन एवं वित्त)।
 एन सी.एल. सिंगरौली
 HOD (M&S)
 N C.L. Singrauli



This Fuel Supply Agreement is made at NCL, HQ-Singrauli, India on this 28th day of June 2019 between:

1. **Northern Coalfields Limited (NCL)**, a company incorporated in India under the Companies Act, [1956/2013] with corporate identity number [CIN-U10102MP1985GOI003160], whose registered office is at Singrauli, Distt. Singrauli, Madhya Pradesh (hereinafter referred to as the "Seller", which expression shall unless repugnant to the meaning or context thereof, be deemed to include its successors and permitted assigns) of the one part;

AND

2. **M/s VEDANTA LIMITED**, a company incorporated in India under the Companies Act, [1956/2013]² with corporate identity number [CIN-L13209MH1965PLC291394], whose registered office is at 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects Chakala, Andheri (E), Mumbai-400093 and principal place of business is at LANJIGARH, BHAWANIPATNA, 766027, Orissa (hereinafter referred to as the "Purchaser", which expression shall unless repugnant to the meaning or context thereof, be deemed to include its successors and permitted assigns) of the other part;

The Seller and the Purchaser may hereinafter be referred to as such, or may collectively be referred to as the "Parties", and individually each may be referred to as a "Party".

WHEREAS:

- A. The Purchaser has participated in an electronic auction for grant of the Coal Linkages (*as hereinafter defined*), pursuant to which the Purchaser has qualified as a Successful Bidder (*as hereinafter defined*) in accordance with the scheme document dated 25.08.2018 issued by Coal India Limited for auction of coal linkages in the Other sub-sector ("Scheme Document").
- B. The Purchaser has thereafter been issued a letter of intent dated 14/15.03.2019 by the Seller ("LOI") in terms of which *inter alia* the Purchaser has become entitled to enter into a fresh fuel supply agreement to receive the Annual Contracted Quantity (*as hereinafter defined*).
- C. In terms of the requirements of clause 3.7 of the Scheme Document, the Purchaser has submitted the following documents with the Seller in accordance with the timelines stipulated in the Scheme Document:
 - (a) [an unconditional and irrevocable bank guarantee dated 25.04.2019 from State Bank of India issued at Kolkata in the format provided in Annexure I/ a non-interest-bearing security deposit]⁴ for an amount equal to Rs. 1,02,50,000/- (Rupees One crore two Lakhs fifty thousands only) ("Performance Security"); and



² Note: Deleted text is inapplicable.

⁴ Note: Deleted text is inapplicable.

Fuel Supply Agreement – Non-Regulated Sector- Other Sub Sector Between NCL and VEDANTA LIMITED, Singrauli



GLENCORE

INTERNATIONAL AG

CXL 94082

Contract No. CXL 94082

Dated: 25th April 2020

CONTRACT FOR SALE AND PURCHASE OF STEAM COAL

SELLER: GLENCORE INTERNATIONAL AG
Baarermttstrasse 3,
CH - 6340,
Baar, Switzerland

BUYER: VEDANTA LIMITED
Registered office at
1st floor, C wing, Unit 103, Corporate Avenue,
Atul Projects, Chakala, Andheri (East),
Mumbai-400093, Maharashtra, India

And has one of its Units at
Vedanta Limited - 90 MW power Plant
Viswanathpur, Kalahandi District,
Lanjigarh, Odisha 766027

By this agreement the Seller agrees to sell and the Buyer agrees to buy the following material on the under mentioned terms and conditions:

1. DEFINITIONS :

In this Agreement, unless the context otherwise requires, the following terms shall respectively have the following meanings:

- a) A fraction of a cent in any calculation shall be rounded up to the nearest cent if such fraction is one half of a cent or more, and shall be rounded down when otherwise.
- b) A fraction of a tonne in any calculation shall be rounded up to the nearest tonne if such fraction is one half of a tonne or more, and shall be rounded down when otherwise.
- c) "ASTM" means the American Society for Testing and Materials and "ISO" means International Organization for Standardization.
- d) "Coal" means Steam coal of South African origin in bulk.
- e) "Dollars", "US Dollars", "USD", "US\$", "\$", "Cents" where used shall refer to the currency of the United States of America.
- f) "FOB" (Free on Board) shall refer to the completion of the loading of the Coal in the vessel designated by Buyer at the loading port and has the meaning set forth in INCOTERMS - 2020
- g) "Kcal" means Kilocalorie (s) as defined in the "International System of Units"
- h) "Kg" means Kilogram (s) as defined in "International System of Units"
- i) "mm" means Millimeter as defined in "International System of Units".
- j) "Port of Loading" means the port at which the coal is to be loaded. For this contract it would be Richards Bay Coal Terminal, South Africa.
- k) "Pratique" means permission to do business at a port by a ship that has complied with all applicable local health regulations.
- l) "Statement of Facts" means a document that is drawn up covering the time, the breakdown that occurred and relating to the loading of cargo as well as the duration of and reason for any stoppage of work and is used as a basis for the calculation of laytime.
- m) "Ton (s)", "Tonne (s)", and "MT" means metric tonne of 1,000 Kgs as defined in "International System of Units".
- n) "Working day" means a day upon which business is regularly transacted and unless expressly stated, the term "day" shall be deemed to mean "calendar day".
- o) "Demurrage" means the amount payable by the Seller to the Buyer if time actually used in loading the vessel is greater than the allowed laytime. Demurrage rate shall be notified by Buyer to the Seller at the time of vessel nomination and must be in line with market rate prevalent for similar sized vessels.
- p) "Despatch" means the amount payable by the Buyer to the Seller if allowed laytime is greater than the time actually used in loading the vessel. Despatch rate shall be half of the demurrage rate.
- q) "Laycan" means the period of time agreed for loading the vessel.

Registered address: Baarermttstrasse 3 . CH-6340 Baar, Switzerland
Mailing address: Baarermttstrasse 3 . P.O. Box 1363 . CH-6341 Baar, Switzerland
Telephone +41 41 709 2000 . Telefax +41 41 709 3000

GLENCORE

INTERNATIONAL AG

CXL 94082

2. **CARGO DESCRIPTION**
Steam (Non Coking) Coal of South African origin in bulk.
3. **QUANTITY**
150,000 mts +/-10% at Vessel's option.
4. **SHIPMENT PERIOD (Loadport Laycan)**
21-30 May 2020
5. **ORIGIN**
South African
6. **PORT OF LOADING**
Richards Bay Coal Terminal, South Africa.
7. **TYPICAL SPECIFICATIONS:** As per ISO/ASTM standards at Seller's option.

Parameter	Typical	Rejection
Total Moisture (arb)	8%	>12%
Moisture in Analysis Sample (adb)	2 - 4%	No rejection
Ash (arb)	28%	>29%
Volatile Matter (arb)	20%	<18 %
Total Sulphur (arb)	1%	>1.1
Net Calorific Value (arb)	4800 kcal/kg	<4600 kcal/kg
Size 0-50mm	90%	No rejection
AFT - IDT (reducing) deg C	1350	<1150
Hard Grove Grindability Index (adb)	45-70	<45 & >70

The above mentioned are typical specifications as contractually agreed. Nevertheless, if the certificate of sampling and analysis reflects results that do not exceed the rejection confines of specifications listed in the rejection column, the beneficiary of the letter of credit may negotiate LC without discrepancy.

ARB = As Received Basis, NCV = Net Calorific Value = Net Calorific Value Constant volume, ADB = Air Dry Basis, DB = Dry Basis

8. **PRICE**
USD 25.50 pmt (US Dollar Twenty Six and fifty cents only) FOB RBCT, basis Net Calorific Value (arb) 4800 Kcal/kg scale pro-rata.

9. **PREMIUM / PENALTY**
Net Calorific Value (ARB)
If the actual Net Calorific Value (ARB) of coal as declared by independent inspection Agency is above or below 4800 kcal/kg, then the FOB price will be adjusted as per following formula:

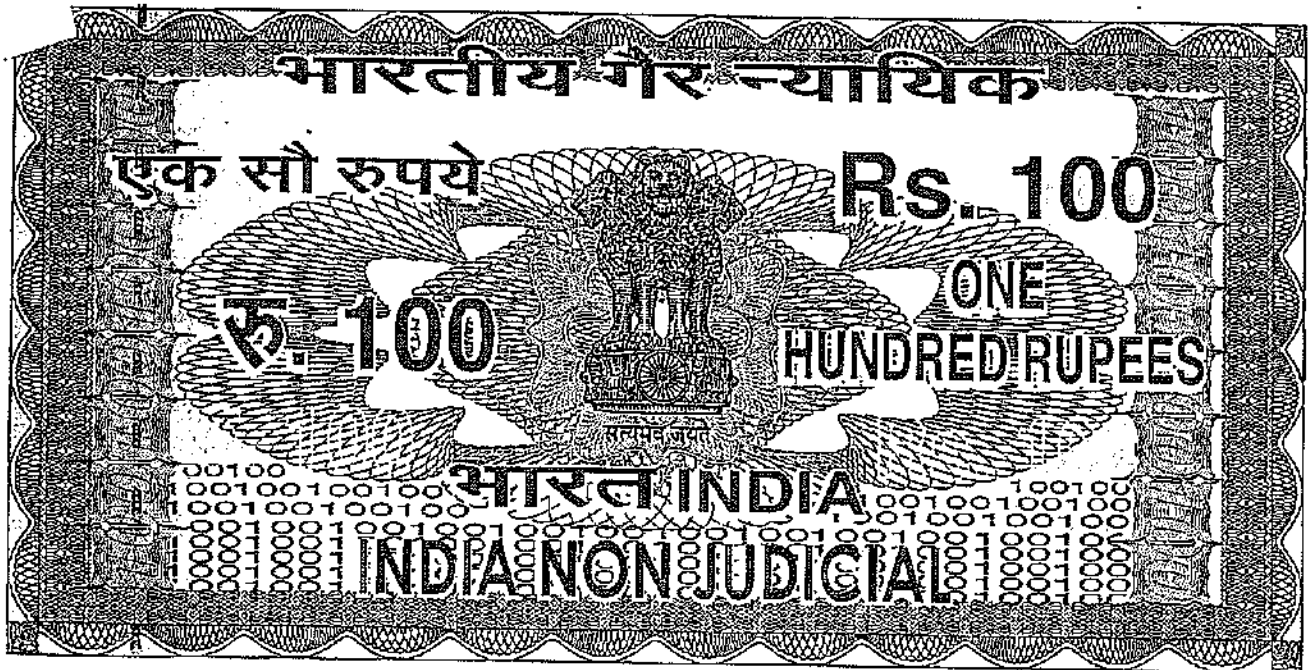
$$\text{Adjusted price} = \frac{\text{FOB Price} \times \text{Actual Net Calorific Value (ARB)}}{4800 \text{ kcal/kg}}$$

No CV cap applicable.
No other price adjustments applicable on any other parameters.

10. **LOAD PORT AND LOADING TERMS:**
The loading terms to be governed strictly in accordance with the latest Shipping Regulations issued by the Richards Bay Coal Terminal Company Limited (RBCT rules) and all such rules, regulations, requirements and restrictions are fully

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Mailing address: Baarerstrasse 3, P.O. Box 1363, CH-6341 Baar, Switzerland
Telephone +41 41 709 2000, Telefax +41 41 709 3000

ANNEXURE – IIIA
(BAUXITE AGREEMENTS)



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SALES AGREEMENT FOR BAUXITE

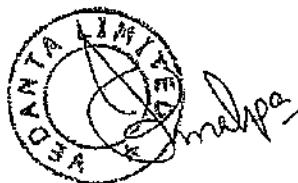
This Agreement is made on this 20th day of April 2018 at Bhubaneswar

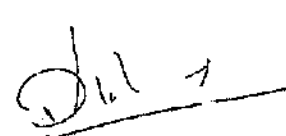
BETWEEN

The Odisha Mining Corporation Ltd., a Government of Odisha Undertaking, having its Registered Office at OMC House, Bhubaneswar-751001, Odisha, India (hereinafter called the "OMC" which expression unless repugnant to the context or meaning thereof shall include its successors and permitted assigns) of the First Part

AND

M/s. Vedanta Limited (hereinafter called the "Buyer" which expression unless repugnant to the context or meaning thereof shall include its successors and permitted assigns) of the Second Part.




D.K. Mohanty
GM (S&M), OMC

NOW THEREFORE THIS AGREEMENT WITNESSES:-

- WHEREAS the buyer is desirous of purchasing Bauxite of Kodingamali Bauxite Mines from OMC for its own use in buyer's Plant at Lanjigarh.
- WHEREAS OMC agrees to sell and deliver at ex-mines basis and the buyer agrees to purchase and receive and pay for the product specified below for a period of five years with effect from 20.04.2018 upon the following terms and conditions.

1. PRODUCTS SPECIFICATION.

- A. The products agreed to be sold hereunder will be as follows:-

Gibbsitic Bauxite (hereinafter called the product)

The above products are produced by the OMC at its mines in Kodingamali in the State of Odisha and shall be of the following specification.

Chemical Composition	Guaranteed Specification	
	Grade	Basis
Al ₂ O ₃	38-45% Al ₂ O ₃	40%
Silica	2.5 - 3.5% SiO ₂	
Size	(-) 150 mm Permissible Oversize - 5% max.	

2. QUANTITY & QUARTERLY LIFTING OF QUANTITIES

- A) The annual sales quantity of the products and quarterly lifting of quantities are given below.

PRODUCT	ANNUAL SALES QTY. IN WMT	(Quantity in Lakh MT) QUARTERLY LIFTING			
		1 ST QTR	2 ND QTR	3 RD QTR	4 TH QTR
BAUXITE	8.82	2.20	2.20	2.20	2.22



Dated 29th June 2018

LEG-EGA2018164

EMIRATES GLOBAL ALUMINIUM PJSC

- and -

VEDANTA LIMITED

BAUXITE OFFTAKE CONTRACT



ENEA 100M0919

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THIS BAUXITE OFFTAKE CONTRACT (this "Contract") is made on 29th June 2018 (the "Contract Date")

BETWEEN:

- (1) Emirates Global Aluminum PJSC, a private, joint stock company formed pursuant to the laws of the United Arab Emirates with its registered address at P.O. Box 109111, Abu Dhabi, United Arab Emirates with company number CB-1771938 (the "Seller" or "EGA"); and
- (2) Vedanta Limited, incorporated and validly existing under Companies Act, 1956, having its registered office at Vedanta Limited, 1st Floor, C Wing, Unit 103, Corporate Avenue, And Projects, Chakala, Andheri East, Mumbai - 400 093, India (the "Buyer")

Each of the Seller and the Buyer is a "Party" to this Contract, and the Seller and the Buyer are collectively the "Parties" to this Contract.

WHEREAS

The Seller desires to sell to the Buyer, and the Buyer desires to buy from the Seller, Product during the period upon and subject to the terms and conditions of this Contract.

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. DEFINITIONS

1.1 Defined Terms

Except where the context otherwise indicates or requires the following terms in this Contract shall have the following meanings:

"2019 Range" has the meaning given to it in Clause 3.3(a)(i)(A).

"2019 Volume" has the meaning given to it in Clause 3.3(a)(i)(B).

"2020 Range" has the meaning given to it in Clause 3.3(a)(ii)(A).

"2020 Volume" has the meaning given to it in Clause 3.3(a)(ii)(B).

"2021-2023 Volume" has the meaning given to it in Clause 3.3(a)(iii)(A).

"Acceptable Bank" means any commercial bank having a credit rating of at least the Minimum Credit Rating.

"Acceptable Credit Support" means a Standby Letter of Credit for an amount not less than the Applicable Value, issued by an Acceptable Bank.

"Adjusted Base Price" has the meaning given to it in Clause 3.2 (*Index Adjustments and Quality Adjustments*).

"Affected Party" means a Party whose performance under this Contract is affected by a Force Majeure Event.

"Affiliate" means any entity that, directly or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with the entity in question. For the purpose of this definition, "control" means the beneficial ownership of at least fifty (50)% of

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the issued equity of any entity (or the whole or majority of the entity's assets), and/or the right or ability to direct or otherwise control the entity or the votes attaching to at least fifty (50)% of the entity's issued share capital and "controlled" or "under common control" shall have a similar meaning.

"Alternative Shipment Size" has the meaning given to it in Clause 8.3 (*Shipment Adjustments*).

"Annual Contract Quantity" has the meaning given to it in Clause 3.3(a) (*Annual Contracted Quantities*).

"Anti-Corruption Legislation" means any laws or international conventions relating to anti-corruption, including:

- (a) the OECD Convention on Combating Bribery of Foreign Public Officials in International Transactions 1997;
- (b) the Foreign Corrupt Practices Act of 1977 (US) (as amended by the Foreign Corrupt Practices Act Amendments of 1988 and 1998); and
- (c) the Bribery Act 2010 (UK),

which, in each case, are issued, administered or enforced by any Government Authority.

"Applicable Laws" means all laws, treaties, regulations, standards, decrees, rules, decisions, judgments, orders, injunctions, interpretations, authorisations and directives applicable to the performance of the Project, the Parties or this Contract and issued by any Government Authority or other public body having jurisdiction over the matter in question and that are in effect at the time in question.

"Applicable Value" means:

- (a) for the Contract Year 2019, an amount equal to the Adjusted Base Price multiplied by 165,000; and
- (b) for the Contract Year 2020 and onwards, an amount equal to the Adjusted Base Price multiplied by 330,000.

"Atypical Product" means Product that contains the following:

- (a) Total Al₂O₃ below 45% but above or equal to 42%; and/or
- (b) Total SiO₂ of higher than 3% but lower or equal to 5%.

"Auditor" has the meaning given to it in Clause 18.8 (*Business Ethics and Undertakings*).

"Base Price" has the meaning given to it in Part A (*Invoice Amount and Provisional Invoice Amount*) of Schedule 2 (*Pricing of Material*) and the Base Price is calculated considering Total Al₂O₃ at 47% and Total SiO₂ at 2%.

"Bill of Lading" means a bill of lading issued in respect of a Shipment by the master, owner or provider of the relevant OGV.

"Business Day" means a day on which trading banks are open for business in Guinea, Abu Dhabi and India.



"Buyer's Sample" has the meaning given to it in paragraph 2(a) of Schedule 4 (*Weighing, Sampling and Analysis Procedures*).

"Certificate of Analysis" means a certificate showing the analysis of the Seller's Sample representing the quality of a Shipment for physical composition and chemical specifications, as prepared by the Independent Laboratory.

"Certificate of Moisture Content" means a certificate showing the free moisture content for a representative sample of the Product of a Shipment, as prepared by the Independent Laboratory.

"Certificate of Weight" means a certificate showing the weight of Product loaded onto an OGV as determined in accordance with Schedule 4 (*Weighing, Sampling and Analysis Procedures*).

"CFR" has the meaning given to it in Incoterms 2010 edition.

"Conditions Precedent" has the meaning given to it in Clause 2.2(a) (*Conditions Precedent*).

"Confidential Information" means all data and information disclosed by a Party or its Representatives to the other Party or its Representatives, whether orally or in writing or in disk or electronic form, relating in any way, directly or indirectly, to this Contract (including the terms of this Contract) that is not in the public domain, or that is in the public domain, but only as a consequence of a breach of this clause or another obligation of confidentiality between the Parties.

"Consequential Loss" means

- (a) any indirect damage, cost, or liability arising out of any delay, reduction or loss of ability to produce, store, transport, process, or dispose of the Product or any products derived from the Product;
- (b) any indirect damage, cost, or liability associated with business interruption or increase of cost of working during business interruption;
- (c) any indirect, special or punitive costs, losses or damages; and
- (d) any loss or deferment of business, revenue, anticipated profits, opportunity, bargain, contract, reputation, expectation or opportunity.

"Contract" means this Bauxite Offtake Contract.

"Contract Date" has the meaning given to it in the preamble to this Contract.

"Contract Year" means each calendar year during the Supply Period, *provided that:*

- (a) the first Contract Year shall commence on the date when the Supply Period commences and end on 31 December of the calendar year; and
- (b) the last Contract Year shall commence on 1 January of the calendar year in which the Supply Period expires and end upon the date of expiry of the Supply Period.

"Date of First Production" means the date on which Product is first ready to be Delivered.

"Default Rate" means LIBOR plus two per cent (2%) per annum.



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"Delivery" means, in respect of Product, that it has physically passed from the Seller to the Buyer at the Delivery Point and the terms "Deliver" and "Delivered" shall be construed accordingly.

"Delivery Point" means the point at which Product is loaded on an OGV arranged by the Seller from Seller's transshipment equipment at the Load Port.

"Destination Port" means Gangavaram Port Limited, India or Vizag Port Trust, India or such other destination port as agreed by the Parties.

"Discharging Conditions" means the discharging conditions set out in Schedule 5 (*Discharging Conditions*).

"Dispute" has the meaning given to it in Clause 15.1(a) (*Occurrence of Disputes*).

"Disputed Amount" has the meaning given to it in Clause 9.7(a) (*Disputed Amounts*).

"Disruption Event" means a material disruption to those payment or communication systems or to those financial markets which are required to operate in order for payments to be made under this Contract which disruption is not caused by, and is beyond the control of, the affected party.

"Draft Survey Certificate" has the meaning given to it in paragraph 1 of Schedule 4 (*Weighing, Sampling and Analysis Procedures*).

"Dry Metric Tonne" or "DMT" means one metric tonne of Product adjusted at zero percent (0%) moisture content.

"Expert Determination" means the determination of a Technical Dispute by an Expert in accordance with Clause 15.3 (*Expert Determination*).

"Expert" means an independent expert appointed in accordance with Clause 15.3 (*Expert Determination*).

"Final Shipping Schedule" has the meaning given to it in Clause 4.1(a)(ii) (*Shipping Schedule*).

"Fitch" means Fitch Ratings Limited.

"Force Majeure Event" has the meaning given to it in Clause 11.1 (*Force Majeure Event*).

"Government Authority" means the Government having jurisdiction over the relevant Party or any ministry, department or political subdivision thereof, and any person exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government or any governmental entity, instrumentality, agency, authority, corporation, committee or commission under the direct or indirect control of the Government (or any State Government) of the relevant Party.

"Gross Negligence" means any act or failure to act (whether sole, joint or concurrent) by a person or entity which was intended to cause, or which was in reckless disregard of or wanton indifference to, avoidable and harmful consequences such person or entity knew, or should have known would result from such act or failure to act, which shall not include any action taken in good faith for safeguard of life or property.



"IMSBC Code" means the International Maritime Solid Bulk Cargoes Code published by the International Maritime Organisation.

"Incoterms® 2010" means the 2010 edition of the International Chamber of Commerce official rules for the interpretation of trade terms.

"Independent Laboratory" means any internationally reputable bauxite inspection authority designated by the Seller and approved by the Buyer (such approval not to be unreasonably withheld or delayed) for the sampling and analysis of Product at the Port.

"Independent Surveyor" means an independent surveyor who shall be an independent, suitably qualified third party to witness and verify any measurement, sampling and testing of the Product.

"In Transit" means, in respect of each Shipment, the period from the time at which that Shipment is Delivered, until the time at which the Seller receives a notice from the Buyer that the unloading of that Shipment has been completed at the Destination Port.

"Issuing Bank" means a first class financial institution, with a Minimum Credit Rating, which shall issue an SBLC.

"Jurisdictions" means the United States of America, the United Kingdom, the European Union, India, the United Arab Emirates and the United Nations.

"LCIA" means the London Court of International Arbitration.

"LCIA Rules" means the "Arbitration Rules of the London Court of International Arbitration (2014)".

"LIBOR" means on or from any day, the London interbank offered rate administered by ICE Benchmark Administration Limited (or any other person which takes over the administration of that rate) for three-month USD deposits displayed on pages LIBOR01 or LIBOR02 of the Reuters screen (or any replacement Reuters page which displays that rate) at 11:00 am (London time). If no offered rate appears on the LIBOR01 or LIBOR02 page (or any successor page) of the Reuters screen, then it shall mean the rate on the Bloomberg screen and, if none of these are available, or if the London interbank offered rate is otherwise discontinued, becomes unavailable or is superseded, then it shall be a comparable rate for three-month USD deposits quoted by a leading bank in the London inter-bank market as the Parties may agree.

"Load Port" means the area within the customary limits of the Kamsar Offshore Anchorage, Boké Region, Republic of Guinea.

"Load Port Charges" has the meaning given to it in Clause 9.4(b) (*Allocation of Other Costs and Charges*).

"M 1" means the month prior to the month of shipment based on the Bill of Lading date.

"Metric Tonne" or "MT" means one metric tonne of Delivered Product having the moisture content set out in the Certificate of Moisture Content.

"Mine" means the greenfield bauxite mine in Sangaredi, Boké Region, Republic of Guinea to be developed and operated by the Seller.

"Minimum Credit Rating" means a long-term credit rating of at least A3 (Moody's) or A- (S&P or Fitch).



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"Moody's" means Moody's Investors Service Ltd.

"Non-Conforming Product" means Product having quality characteristics that do not comply with the Rejection Limits.

"Notice of Dispute" has the meaning given to it in Clause 15.1(c) (*Occurrence of Disputes*).

"OGV" means an ocean-going bulk carrier suitable for use in the international trade of bauxite which is chartered or otherwise arranged by the Seller for the transport of Product from the Delivery Point to the Destination Port.

"Party" has the meaning given to it in the preamble to this Contract.

"Permit" means any permit, license, consent, clearance, certificate, approval, authorisation or authority which any Applicable Laws requires either Party to hold or obtain in order for each Party's respective obligations to be performed, including in respect of the sale, loading, delivery and transportation of Product.

"Permitted Purpose" has the meaning given in Clause 3.2 (*Permitted Purpose*).

"Person" or "party" means any person, firm, partnership, association, company, body corporate, or individual

"Producer" means the bauxite from the Mine

"Project" means the development, finance, design, engineering, procurement, construction, installation, testing, commissioning, completion, start-up, operation and maintenance of facilities, infrastructure, systems and equipment (including mine, railway, materials handling and berth facilities at the Load Port) required for the development of a bauxite exploitation project by ECA and/or its affiliates in the Boké Region of the Republic of Guinea.

"Proposed Shipping Schedule" has the meaning given to it in Clause 4.1(c)(i) (*Shipping Schedule*).

"Provisional Invoice" has the meaning given to it in Clause 9.1(a) (*Payment for Product Delivered*).

"Provisional Invoice Amount" has the meaning given to it in Clause 9.1(b) (*Payment for Product Delivered*).

"Quality Adjustment" has the meaning given to it in Clause 6.2(a) (*Delivery of Non-Conforming Product*).

"Quarter" means each three (3) month period commencing on 1 January, 1 April, 1 July or 1 October (as the case may be) of any Contract Year, *provided that*:

- (a) the first Quarter shall commence on the date on which the first Contract Year commences and end on the first to occur of 31 March, 30 June, 30 September or 31 December of the first Contract Year, and
- (b) the last Quarter shall commence on the last to occur of 1 January, 1 April, 1 July or 1 October prior to the expiry of the Supply Period.

"Reasonable and Prudent Operator" means a Person seeking in good faith to perform its contractual obligations, and, in so doing and in the general conduct of its undertaking, exercising that degree of skill, diligence, prudence and foresight which would reasonably and



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ordinarily be expected from a skilled and experienced operator complying with the Applicable Laws and industry standards engaged in the same type of undertaking under the same or similar circumstances and conditions.

"Reconciliation Amount" means the difference between the Invoice Amount and the Provisional Invoice Amount.

"Referee Sample" has the meaning given to it in paragraph 2(c) of Schedule 4 (*Weighting, Sampling and Analysis Procedures*).

"Rejection Limits" means each of the minimum or maximum (as relevant) thresholds identified as a "Rejection Limit" in respect of the quality characteristics in Table A of Schedule 1 (*Product Specifications*).

"Representatives" means, in respect of a Party or its Affiliates, their directors, officers, employees, contractors, subcontractors, consultants, agents and representatives.

"Reserve Sample" has the meaning given to it in paragraph 2(d) of Schedule 4 (*Weighting, Sampling and Analysis Procedures*).

"S&P" means Standard and Poor's, a division of the McGraw Hill Companies.

"Sanctions" means sanctions, prohibitions, restrictions or designations pursuant to economic or trade sanctions, embargoes or restrictive measures administered, enacted or endorsed by the governments having jurisdiction over any Party.

"SBLC Effective Date" has the meaning given to it in Clause 9.2(a) (*Security*).

"SBLC Drawn Amount" means an amount equal to the aggregate Provisional Invoice Amount of all Shipments then in Transit at the time of the breach of the Buyer's payment obligation.

"Seller's Sample" has the meaning given to it in paragraph 2(b) of Schedule 4 (*Weighting, Sampling and Analysis Procedures*).

"Shipment" means each shipment of Product which shall be 165,000 MT with a per Shipment tolerance of $\pm 0.5\%$.

"Specifications" means the Product quality specifications set out in Part A (*Content of Product*) of Schedule 1 (*Product Specifications*).

"Standby Letter of Credit" or "SBLC" means an irrevocable and unconditional standby letter of credit in favour of the Seller, substantially in the form of Schedule 3 (*Form of Standby Letter of Credit*).

"Supply Period" means the period in which Deliveries of Product shall be made under this Contract commencing on 1 January 2019 and ending on 31 December 2023 or such later date as may be agreed in writing by the Parties.

"Target Specifications" means each value identified as a "Target Specification" in respect of the characteristics in Table A of Schedule 1 (*Product Specifications*).

"Taxes" means any tax, charge, impost, tariff, duty or fee of any kind charged, imposed or levied, directly or indirectly, by any Government Authority, including any value-added tax, sales tax, stamp duty, import or export duty, withholding tax (whether on income, dividends, interest payments, fees, equipment rentals or otherwise), tax on foreign currency loans or



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foreign exchange transactions, excise tax, property tax, registration fee or license, water tax or environmental, energy or fuel tax including any interest, penalties or other additions imposed on any of these.

"Technical Dispute" means a Dispute:

- (a) that is to be referred for Expert Determination in accordance with Clauses 4.1 (*Shipping Schedule*), 6.2(i) (*Delivery of Non-Conforming Product*), 8.5(b) (*Unavailability of Quotations*) and 9.7(b) (*Disputed Amounts*); or
- (b) that, subject to Clause 15.2(b)(i) (*Good Faith Negotiations*), the Parties agree, within thirty (30) days of any Notice of Dispute, will be determined in accordance with Clause 15.3 (*Expert Determination*).

which, for the avoidance of doubt, shall not include any disagreement referred to the Referee Analysis as set out in Schedule 4 (*Weighing, Sampling and Analysis Procedures*).

"Transportable Moisture Limit" or "TML" has the meaning given in the IMSBC Code.

1.2 Interpretation

In this Contract (unless the context otherwise requires):

- (a) a reference to a "Clause" or "Schedule", refers to them of, in and to this Contract;
- (b) a reference to this Contract includes all Schedules to this Contract;
- (c) the singular includes the plural and vice-versa;
- (d) if a word or phrase is given a defined meaning, any other part of speech or grammatical form of that word or phrase has a corresponding meaning;
- (e) a reference to any legislation or legislative provision includes any statutory modification or re-enactment of, or legislative provision substituted for, and any subordinated legislation issued or made under, that legislation or legislative provision;
- (f) headings do not affect the interpretation of this Contract;
- (g) references to "writing" shall include any modes of reproducing words in any legible form and shall include email, except where expressly stated otherwise;
- (h) a reference to any party includes that party's executors, administrators, substitutes, successors and permitted assigns;
- (i) a reference to a day, month or year is relevantly to a calendar day, calendar month or calendar year;
- (j) in calculating time by reference to calendar months, a period of one (1) month shall constitute the period from a specified day to the day numerically corresponding to that day in the following month, less one;
- (k) a reference to \$, US\$, USD or dollars is to United States Dollars;
- (l) terminology used to describe units of measurement shall be in accordance with International Standard ISO/IEC 8000 "Quantities and Units";

ENSA 11696919



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- (m) a reference to an agreement, deed, instrument or other document includes the same as amended, novated, supplemented, varied or replaced from time to time; and
- (n) the expressions "including", "includes" and "include" have the meaning as if followed by "without limitation".

1.3 Incorporation of Incoterms® 2010

- (a) The Incoterms® 2010 applicable to a sale of Product made under this Contract apply to, and are incorporated in, this Contract.
- (b) If there is a conflict between a provision of this Contract and a provision of the Incoterms® 2010, the provisions of this Contract shall prevail.

2 PERIOD OF CONTRACT

2.1 Commencement

Subject to Clause 2.2 (*Conditions Precedent*), this Contract shall come into force on the Contract Date.

2.2 Conditions Precedent

- (a) Other than Clauses 1 (*Definitions*), 2 (*Period of Contract*), 12 (*Termination*), 10 (*Representations and Warranties*), 13 (*Liabilities and Indemnities*), 14 (*Assignment and Security Interests*), 15 (*Dispute Resolution*), 16 (*Notices*) and 17 (*Miscellaneous Provisions*), the effectiveness of the provisions of this Contract are subject to the satisfaction of the following conditions (the "*Conditions Precedent*"):
 - (i) with respect to the Seller:
 - (A) the passing of a resolution of the board of directors (being, for the avoidance of doubt, a decision taken at the sole discretion of the board of directors of the Seller) authorising the execution, delivery and performance by the Seller of this Contract; and
 - (B) an external legal opinion confirming the capacity and authority of the Seller to enter into the Contract, the cost of which shall be borne by the Seller.
 - (ii) with respect to the Buyer:
 - (A) any evidence of authority of the Buyer to execute, deliver and perform its obligations under this Contract; and
 - (B) an external legal opinion confirming the capacity and authority of the Buyer to enter into the Contract, the cost of which shall be borne by the Buyer.
- (b) Each Party shall give written notice to each other as soon as possible upon the satisfaction of each of the *Conditions Precedent*.

2.3 Notification of Project Periods

- (a) The Seller shall provide the Buyer with written notice of its good faith estimate of the Date of First Production:



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- (i) no later than six (6) months prior to the estimated Date of First Production;
 - (ii) no later than three (3) months prior to the estimated Date of First Production as notified under Clause 2.3(a)(i); and
 - (iii) no later than one (1) month prior to the estimated Date of First Production as notified under Clause 2.3(a)(ii).
- (b) As soon as reasonably practicable on or after the applicable date, the Seller shall provide the Buyer with written notice confirming the occurrence of the Date of First Production.

3. SUPPLY AND OFFTAKE OBLIGATIONS

3.1 Sale and Purchase of Product

The Seller agrees to Deliver and sell, and the Buyer agrees to purchase, pay for and take Delivery of, Product in accordance with the terms and conditions of this Contract.

3.2 Permitted Purpose

The Buyer shall use the Product purely for captive consumption, except as expressly permitted by this Contract or by the Seller's prior written consent (the "Permitted Purpose").

3.3 Annual Contracted Quantities

- (a) The annual quantity of Product supplied pursuant to this Contract ("Annual Contract Quantity") shall be as follows:

(i) Contract Year 2019

- (A) The Seller shall make available between 700,000 and 3,000,000 MT (the "2019 Range").
- (B) The Seller shall provide to the Buyer on or prior to 31 July 2018 with a final confirmation of the specific volume (falling within the 2019 Range) that it intends to sell and deliver to the Buyer (subject to a \pm 5% shipping tolerance) (the "2019 Volume"). If the Seller fails to notify the 2019 Volume prior to such date, the Buyer shall give Seller a one-time notice of such failure and the Seller shall, within five (5) Business Days of such notice, provide its final confirmation of the 2019 Volume to the Buyer. However, if the Seller fails to provide its final confirmation within the time period, the Buyer shall notify the specific volume of Product (falling within the 2019 Range) it intends to buy and accept Delivery from the Seller, which shall be the new 2019 Volume. The new 2019 Volume shall then be deemed to be nominated by the Seller.
- (C) Notwithstanding sub-Clause (a)(i)(A) above, the Seller shall have the right to nominate at its sole discretion the 2019 Volume, including zero (0) MT in accordance with the timeline mentioned above.
- (D) Once nominated by the Seller, the 2019 Volume shall be the Annual Contract Quantity for Contract Year 2019.



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(ii) Contract Year 2020

- (A) The Seller shall make available between 3,000,000 to 4,000,000 MT per year (the "2020 Range").
- (B) Prior to 31 March 2019, the Seller shall notify the Buyer of the specific volume of Product (falling within the 2020 Range) it intends to sell and deliver to the Buyer (subject to a \pm 5% shipping tolerance) in Contract Year 2020 (the "2020 Volume"). If the Seller fails to notify the 2020 Volume prior to such date, the Buyer shall give Seller a one-time notice of such failure and the Seller shall, within five (5) Business Days of such notice, provide its final confirmation of the 2020 Volume to the Buyer. However, if the Seller fails to provide its final confirmation within the time period, the Buyer shall notify the specific volume of Product (falling within the 2020 Range) it intends to buy and accept Delivery from the Seller, which shall be the new 2020 Volume. The new 2020 Volume shall then be deemed to be nominated by the Seller.
- (C) Once nominated by the Seller, the 2020 Volume shall be the Annual Contract Quantity for Contract Year 2020.

(iii) Contract Years 2021-2023

- (A) For Contract Years 2021 to 2023, the Seller shall (subject to a \pm 5% shipping tolerance) make available 4,000,000 MT of Product per year (the "2021-2023 Volume").
 - (B) Prior to 31 January in the preceding Contract Year, the Parties may, at their discretion, agree additional volumes of Product to be supplied and delivered in addition to the 2021-2023 Volume in the following Contract Year. Once agreed, such additional volumes shall form part of the Annual Contract Quantity for the relevant year(s).
- (b) The Buyer and the Seller may agree on an extension of the Contract beyond 2023 upon mutual agreement on its terms and conditions.

4. **SCHEDULING**

4.1 **Shipping Schedule**

- (a) Following the giving of notice by the Seller under Clause 2.3(a)(i) (*Notification of Project Periods*), the Parties shall meet in good faith to discuss and agree the following shipping schedules for Delivery of the Annual Contract Quantity as set out below:
 - (i) the shipping schedule for each Contract Year and the applicable unloading terms by 30 October of the previous year for the following Contract Year (the "Proposed Shipping Schedule"); and
 - (ii) the quarterly final shipping schedule for the forthcoming Quarter in a Contract Year at least forty-five (45) days prior to the commencement of such Quarter, which shall contain each Shipment's final ten (10) days' laycan (the "Final Shipping Schedule").

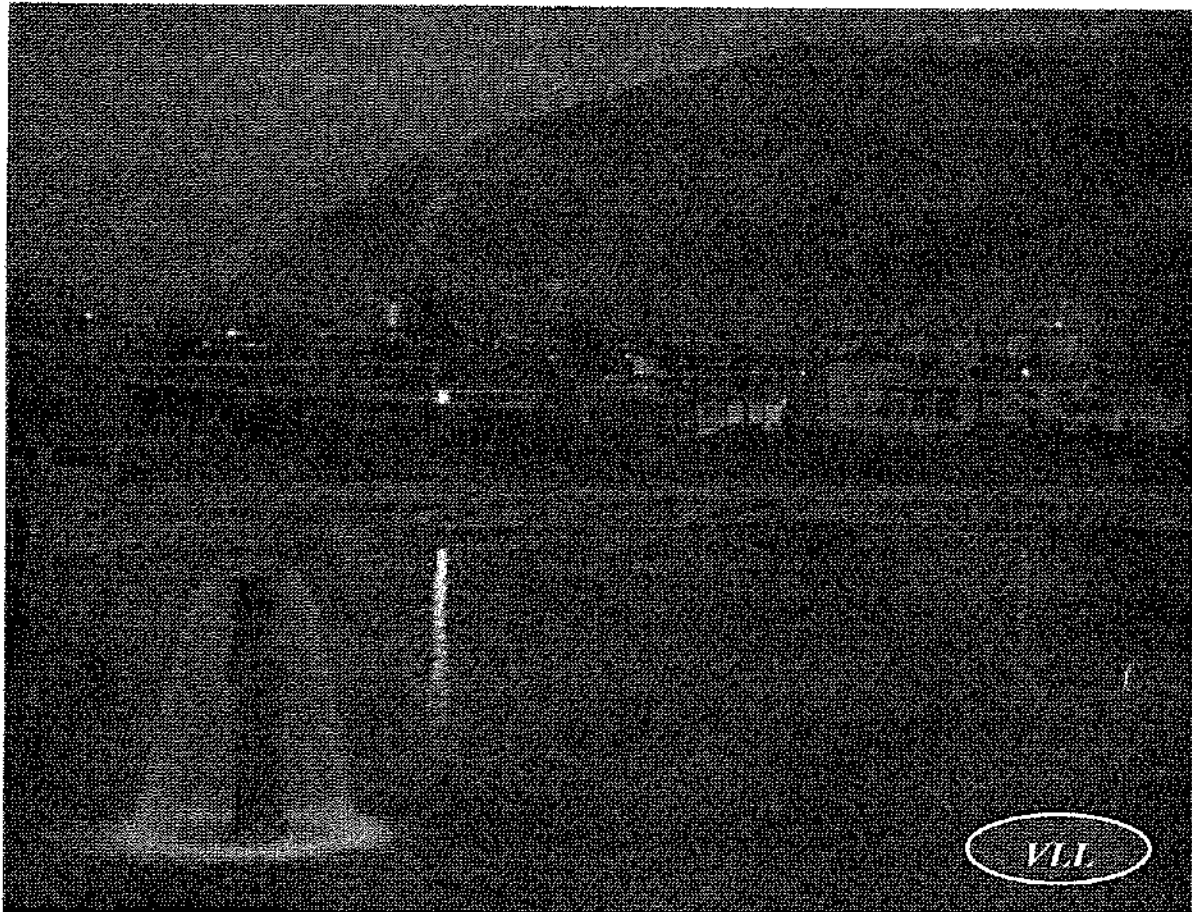
4.2 **Production Variability**



ENVIRONMENTAL SEASONAL REPORT

SEASONAL REPORT

October 2020 to December 2020



Address

Via: Viswanathpur, P.O. Lanjigarh-766027

Dist. Kalahandi, ORISSA

Tel: + 91 6677 247312/13/14/15/16

Fax: +91 6677 247311

MICRO-METEOROLOGICAL DATA AT SITEPeriod: 1st October 2020 to 30th December 2020

Location: Plant Site

Month	Temperature (°C)		Relative Humidity (%)		Rainfall (mm)
	Max	Min	Max	Min	
Oct'20	34.20	21.80	95.90	45.30	261.6
Nov'20	32.10	13.20	97.50	35.40	0.4
Dec'20	30.50	8.80	94.40	28.80	0.0
			Total rainfall		262

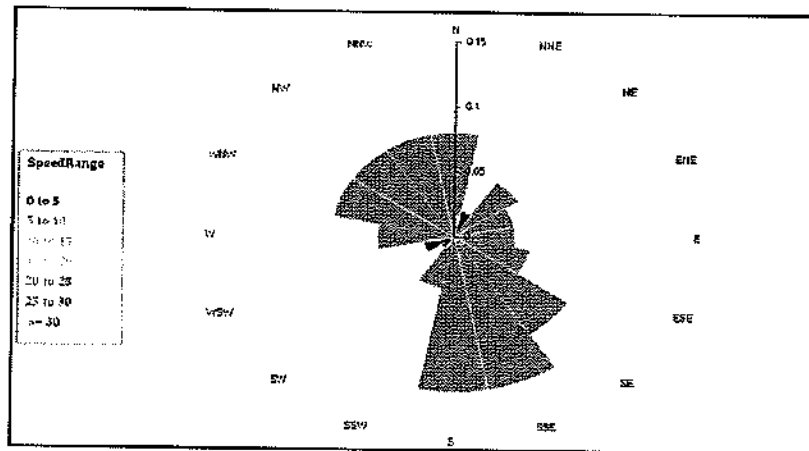
SUMMARY OF WIND PATTERN IN STUDY AREA

Season	First Predominant Wind Direction	Second Predominant Wind Direction	Predominant Wind Speeds (m/sec)	Calm (%)
Oct`20 to Dec`20	SSE (13.76%) & S (13.06%)	SE (10.17%)	0 – 15	0.0

Wind Pattern during the Season

During the season the average winds from South (S) & SSE direction were observed for 13% each of the total time, with wind speeds and the frequency in the range of 0-15 m/sec (13%). In SE direction the winds were also observed for 10.17% each of the total time, with wind speeds and the frequency in the range of 0-10 m/sec (10.17%). The other direction and percentage frequencies were observed from N (8.8%), NW (9.01%), E (4 %), W (9 %). The calm conditions were observed to be for 0.0% of the total time.





WINDROSE DIAGRAM FOR THE SEASON – (Oct'20 to Dec'20)



SPM

SUMMARY OF AMBIENT AIR QUALITY RESULTSConcentrations are expressed in $\mu\text{g}/\text{m}^3$

Location	PM ₁₀			PM _{2.5}			SO ₂			NO _x		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
Plant Site	77.0	68.0	72.5	35.1	27.3	31.89	8.4	6.3	7.4	18.2	13.2	15.8
Lanjigarh	63.0	54.0	57.3	28.2	23.2	25.6	7.2	6.0	6.5	12.7	11.1	11.8
Belamba	56.0	46.0	49.7	22.5	20.4	21.5	5.3	4.2	4.8	10.5	9.1	9.6
Niyamgiri Vedanta Nagar	58.0	51.0	54.8	27.2	21.3	23.7	7.1	5.1	5.9	12.2	10.1	11.1
Mid-Day Meal	56.0	51.0	53.8	27.2	22.1	24.2	6.3	4.7	5.4	11.6	10.1	10.6
Chhatrapur	52.0	46.0	50.2	23.1	21.1	22.0	5.3	4.1	4.5	10.3	9.2	9.8
	46.0-77.0			21.1-35.4			4.1-8.4			9.1-18.2		



**ONLINE STACK MONITORING TEST RESULT OF CALCINER AND CF BOILER FOR THE
MONTH OF OCTOBER 2020**

Date of sampling	Calciner 1				Calciner 2				CFB Stack			
Parameter	SO2	NOx	CO	PM	SO2	NOx	CO	PM	SO2	NOx	CO	PM
Unit	ppm	ppm	%	mg/Nm ³	ppm	ppm	%	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
01-Oct-20					526	59.18	0.01	19	1748.00	435.45	7.40	13.05
02-Oct-20					551	61.19	0.01	18	1848.00	423.98	7.40	14.7
03-Oct-20					516	57.52	0.01	18	1808.13	416.29	4.88	13.89
04-Oct-20					493	65.42	0.01	20	1812.97	460.54	14.51	14.71
05-Oct-20					349	65.36	0.01	22	1806.51	463.08	9.97	14.23
06-Oct-20					374	58.29	0.01	33	1715.09	495.42	5.19	13.36
07-Oct-20					329	65.58	0.01	28	1688.34	443.35	11.52	13.65
08-Oct-20					361	64.84	0.01	20	1682.05	480.53	8.76	13.41
09-Oct-20					341	64.07	0.01	21	1749.48	498.54	8.00	13.99
10-Oct-20					371	71.18	0.01	26	896.45	350.42	6.70	9.35
11-Oct-20												
12-Oct-20									1705.84	422.38	5.87	13.77
13-Oct-20	85			11					1801.82	427.82	12.94	13.59
14-Oct-20	145	21.56	0	17	157	15.56	0.01	9	1777.49	421.38	13.82	15.83
15-Oct-20	153	7.74	0.01	23	447	65.09	0.01	23	1586.35	323.73	12.91	16.36
16-Oct-20	213	10.96	0	23	443	70.48	0.01	23	1597.45	347.39	12.22	16.29
17-Oct-20	243	3.61	0	23	256	30.52	0.01	22	1718.30	415.54	13.25	16.69
18-Oct-20	186	0	0	23	85	1.75	0.01	23	1821.08	505.28	5.48	16.59
19-Oct-20	141	0	0	23	58	1.47	0.01	24	1847.91	501.47	7.97	14.31
20-Oct-20	101	0	0	23	48	1.75	0.01	30	1851.75	466.82	9.76	16.62
21-Oct-20	103	0	0	23	137	12.71	0.01	31	1852.37	503.55	12.19	16.34
22-Oct-20	88	0	0	23	164	22.51	0.01	27	1683.95	491.02	8.58	15.58
23-Oct-20	332	14.36	0.01	26	297	40.37	0.02	28	1619.74	439.58	9.00	15.01
24-Oct-20	460	17.02	0.02	35	248	27.34	0.01	25	1337.77	412.66	17.40	15.35
25-Oct-20	303	6.82	0.01	29	221	18	0.01	24	1453.15	377.45	23.50	15.95
26-Oct-20	243	21.67	0.01	23	203	16.23	0.01	25	1615.08	421.19	11.71	15.65
27-Oct-20	301	27.95	0.01	27	220	22.94	0.01	26	1754.71	412.21	13.54	15.49
28-Oct-20	331	32.11	0.01	28	241	34.58	0.01	18	1765.83	442.30	25.72	14.56
29-Oct-20	588	36.61	0.02	26	285	35.12	0.01	18	1906.04	418.30	17.30	16.08
30-Oct-20	577	47.32	0.02	27	278	33.62	0.01	21	1848.79	394.25	14.23	11.61
31-Oct-20	414	20.4	0.01	30	260	29.88	0.01	18	1738.30	362.48	12.23	11.35

Note : Calciner 1 was under planned shutdown from dt: 01-10-2020 to dt: 13-10-2020 & Calciner 2 was under planned shutdown from dt:11.10.2020 to dt: 13.10.2020 for maintenance activities.



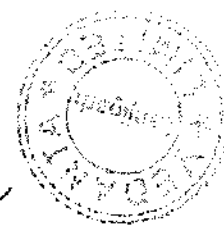
**ONLINE STACK MONITORING TEST RESULT OF CALCINER AND CF BOILER FOR THE
MONTH NOVEMBER 2020**

Date of sampling	Calciner 1				Calciner 2				CFB Stack			
Parameter	SO2	NOx	CO	PM	SO2	NOx	CO	PM	SO2	NOx	CO	PM
Unit	ppm	ppm	%	mg/Nm3	ppm	ppm	%	mg/Nm3	mg/Nm3	mg/Nm3	mg/Nm3	mg/Nm3
01-Nov-20	251	2	0	23	237	27	0	17	1858.39	435.83	13.74	15.49
02-Nov-20	538	63	0	23					1874.95	416.57	13.82	14.91
03-Nov-20	389	47	0	23	27			34	1658.55	369.17	13.72	14.60
04-Nov-20	256	32	0	23					1634.23	339.24	13.83	16.06
05-Nov-20	232	28	0	23	196	27	0	24	1830.29	343.23	14.16	48.26
06-Nov-20	267	22	0	23	226	24	0	26	1852.77	354.32	13.83	14.07
07-Nov-20	292	28	0	23	217	23	0	21	1597.47	424.64	13.01	12.71
08-Nov-20	278	20	0	23	210	21	0	19	1753.04	429.18	13.64	12.65
09-Nov-20	333	26	0	23	196	19	0	21	1890.77	405.95	14.01	12.48
10-Nov-20	330	26	0	23	212	21	0	23	1774.83	411.49	13.40	12.48
11-Nov-20	135	33	0	23	198	21	0	23	1789.68	377.36	14.09	13.05
12-Nov-20	345	39	0	23	222	19	0	18	1942.81	369.24	14.51	12.45
13-Nov-20	387	37	0	23	182	15	0	18	1948.63	363.06	14.52	12.52
14-Nov-20	389	39	0	23	207	17	0	16	1943.20	355.44	14.67	12.35
15-Nov-20	367	37	0	23	209	18	0	19	1940.17	398.71	14.34	12.61
16-Nov-20	416	38	0	23	210	20	0	23	1858.39	435.83	13.74	12.42
17-Nov-20	433	47	0	23	103	21	0	23	1874.95	416.57	13.82	12.32
18-Nov-20	393	41	0	23	224	18	0	19	1658.55	369.17	13.72	12.21
19-Nov-20	340	27	0	23	244	18	0	18	1634.23	339.24	13.83	12.19
20-Nov-20	322	38	0	23	229	17	0	19	1830.29	343.23	14.16	12.15
21-Nov-20	206	14	0	23	206	16	0	25	1852.77	354.32	13.83	12.16
22-Nov-20	111	12	0	23	214	17	0	19	1565.93	335.82	14.09	12.24
23-Nov-20	159	21	0	23	269	17	0	20	1480.81	365.25	13.46	12.39
24-Nov-20	220	40	0	23	213	11	0	22	1581.47	335.73	13.50	12.31
25-Nov-20	129	20	0	23	201	12	0	23	1834.63	406.62	13.83	12.44
26-Nov-20	219	21	0	23	212	12	0	20	1898.39	425.98	13.73	12.54
27-Nov-20	327	12	0	23	240	12	0	21	1945.11	379.06	13.18	44.24
28-Nov-20	475	36	0	23	254	14	0	20	1992.39	408.25	13.97	13.46
29-Nov-20	318	9	0	23	259	16	0	20	1941.70	422.72	13.88	12.71
30-Nov-20	475	26	0	23	319	22	0	13	1991.58	421.23	12.73	13.00

Note : Calciner 2 was under planned shutdown from dt: 02-11-2020 to dt: 04-11-2020 for maintenance activities.

**ONLINE STACK MONITORING TEST RESULT OF CALCINER AND CF BOILER FOR THE
MONTH OF DECEMBER 2020**

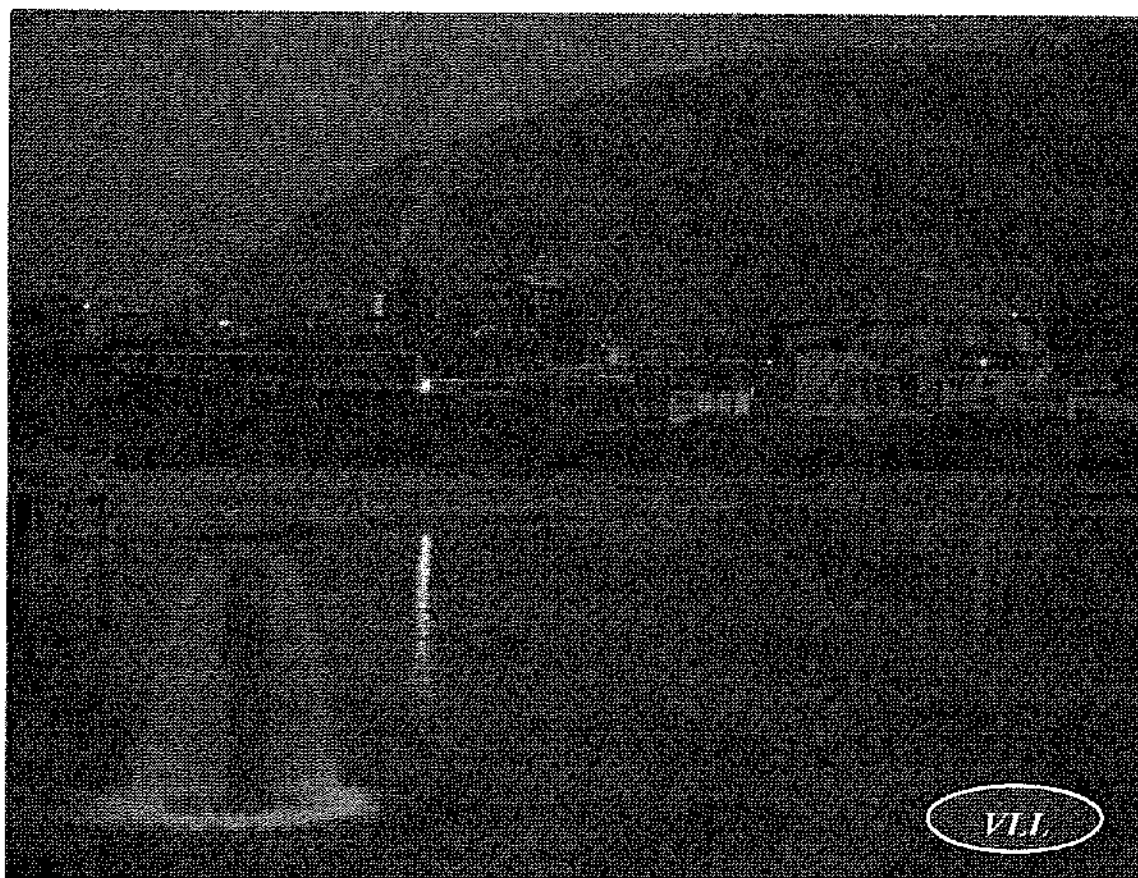
Date of sampling	Calciner 1				Calciner 2				CFB Stack			
Parameter	SO ₂	NO _x	CO	PM	SO ₂	NO _x	CO	PM	SO ₂	NO _x	CO	PM
Unit	ppm	ppm	%	mg/Nm ³	ppm	ppm	%	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
01-Dec-20	429	3	0	23	206	19	0	21	1909.39	407.65	75.09	15.92
02-Dec-20	300	17	0	23	222	20	0	20	1561.10	357.4	9	16.66
03-Dec-20	541	31	0	24	275	18	0	22	1720.55	369.84	8.85	17.88
04-Dec-20	394	17	0	21	285	17	0	23	1708.06	369.27	7.87	17.8
05-Dec-20	210	41	0	30	240	21	0	23	1356.45	384.69	6.15	13.92
06-Dec-20	429	45	0	28	238	28	0	24	1333.53	376.7	6.71	15.64
07-Dec-20	323	13	0	34	252	32	0	22	1791.78	396.22	14.62	15.43
08-Dec-20	374	30	0	34	216	24	0	28	1938.63	415.19	7.86	16.87
09-Dec-20	262	5	0	26	228	25	0	22	1744.48	426.26	7.56	14.88
10-Dec-20	186	0	0	20	190	24	0	26	1635.77	391.94	15.12	14.26
11-Dec-20	170	0	0	24	206	24	0	25	1560.62	403.45	7.63	14.56
12-Dec-20	455	46	0	24	210	18	0	25	1607.16	443.3	8.06	15.74
13-Dec-20	549	28	0	23	245	14	0	22	1781.09	447.93	7.95	15.22
14-Dec-20	716	39	0	28	273	15	0	25	1642.93	397.68	10.11	15.67
15-Dec-20	555	35	0	22	371	21	0	24	1950.27	440.21	10.68	15.63
16-Dec-20	573	42	0	21	400	23	0	22	1972.31	418.08	111.14	15.35
17-Dec-20	545	34	0	28	430	28	0	25	1982.12	415.14	295.97	15.19
18-Dec-20	602	31	0	28	450	29	0	26	1985.45	418.1	302.44	15.48
19-Dec-20	634	32	0	22	421	25	0	30	1912.00	455.73	253.1	17.17
20-Dec-20	692	33	0	22	212	18	0	25	1883.82	484.12	31.46	15.69
21-Dec-20	729	36	0	27	285	16	0	24	1896.75	487.44	28.47	15.36
22-Dec-20	738	36	0	24	365	17	0	24	1896.75	487.44	28.47	15.5
23-Dec-20	749	37	0	22	374	17	0	27	1683.56	410.76	39.26	15.73
24-Dec-20	712	37	0	23	345	15	0	27	1753.17	300.92	203.8	15.71
25-Dec-20	748	35	0	23	365	16	0	24	1798.79	365.88	169.69	15.65
26-Dec-20	746	35	0	22	335	17	0	27	1720.39	382.42	41.92	16.51
27-Dec-20	321	32	0	22	275	15	0	26	1698.65	394.46	37.79	17.4
28-Dec-20	249	27	0	22	388	40	0	24	1642.05	357.79	11.26	16
29-Dec-20	454	31	0	23	633	53	0	24	1767.13	375.52	10.57	17.36
30-Dec-20	395	29	0	27	600	56	0	24	1698.88	355.6	7.09	17.97
31-Dec-20	434	16	0	24	599	54	0	25	1623.32	345.68	25.93	16.12



ENVIRONMENTAL SEASONAL REPORT

SEASONAL REPORT

January 2021 to March 2021



VII

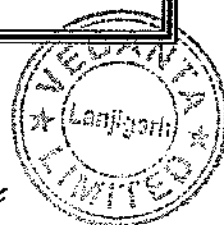
Address

Via: Viswanathpur, P.O. Lanjigarh-766027

Dist. Kalahandi, ORISSA

Tel: + 91 6677 247312/13/14/15/16

Fax: +91 6677 247311



MICRO-METEOROLOGICAL DATA AT SITEPeriod: 1st January 2021 to 31st March 2021

Location: Plant Site

Month	Temperature (°C)		Relative Humidity (%)		Rainfall (mm)
	Max	Min	Max	Min	
Jan'21	31.50	11.30	93.80	26.40	0.0
Feb'21	34.90	9.80	91.0	21.30	0.0
Mar'21	39.21	16.40	92.30	17.80	0.0
			Total rainfall		0

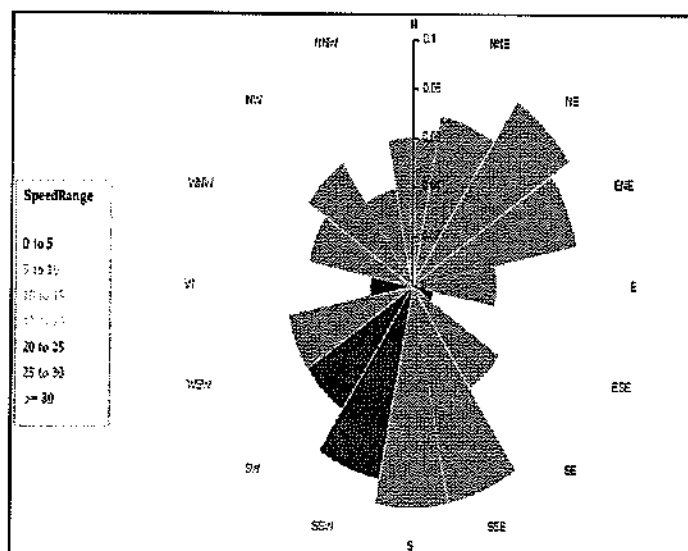
SUMMARY OF WIND PATTERN IN STUDY AREA

Season	First Predominant Wind Direction	Second Predominant Wind Direction	Predominant Wind Speeds (m/sec)	Calm (%)
Jan'21 to Mar'21	SSE (10.05%)	S (9.68%) & NE (9.59%)	0- 10	0.0

Wind Pattern during the Season

During the season the average winds from SSE direction were observed for 10.05% of the total time, with wind speeds and the frequency in the range of 0-10 m/sec. In NE & S direction the winds were also observed for 9.59% & 9.68% each of the total time respectively, with wind speeds and the frequency in the range of 0-10 m/sec. The other direction and percentage frequencies were observed from ENE(9.35%), SSW(8.79%), NNE(8.06%), NW(6.75%), N(6.58%), WSW (5.92 %), E (4.8 %), W(2.97%). The calm conditions were observed to be for 0.0% of the total time.





WINDROSE DIAGRAM FOR THE SEASON – (Jan'21 to Mar'21)

100-443886-100
 RECEIVED
 DEPT. OF JUSTICE
 DIVISION OF INVESTIGATION
 APR 11 1964
 WASHINGTON, D.C.

SUMMARY OF AMBIENT AIR QUALITY RESULTSConcentrations are expressed in $\mu\text{g}/\text{m}^3$

Location	PM ₁₀			PM _{2.5}			SO ₂			NO _x		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
Plant Site	76.0	71.0	73.4	40.3	30.6	36.8	9.9	6.9	8.3	17.2	10.2	14.1
Lanjigarh	62.0	51.0	57.2	38.5	25.1	31.9	8.4	7.1	7.8	12.9	10.5	11.6
Belamba	63.0	53.0	57.3	35.7	25.1	31.8	9.5	7.1	8.2	12.7	10.1	11.5
Niyamgiri Vedanta Nagar	67.0	60.0	63.5	30.2	22.7	28.1	7.8	6.9	7.2	11.7	10.3	10.9
Mid-Day Meal	58.0	51.0	54.3	35.4	21.4	31.0	8.4	6.9	7.7	15.5	10.4	11.9
Chhatrapur	60.0	51.0	56.8	36.2	22.2	31.2	8.0	7.0	7.3	12.5	10.1	10.6
	51.0-76.0			21.3-40.2			6.8-9.8			10.0-17.1		



**ONLINE STACK MONITORING TEST RESULT OF CALCINER AND CF BOILER FOR THE
MONTH OF JANUARY 2021**

Date of sampling	Calciner 1				Calciner 2				CFB Stack			
Parameter	SO ₂	NO _x	CO	PM	SO ₂	NO _x	CO	PM	SO ₂	NO _x	CO	PM
Unit	ppm	ppm	%	mg/Nm ³	ppm	ppm	%	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
01-Jan-21	344.58	17.81	0.02	23	606.91	53.49	0	25	1748.97	353.21	100.37	17.35
02-Jan-21	476.2	31.33	0.02	23	585.51	59.64	0.01	25	1668.91	328.76	163.83	22.80
03-Jan-21	468.26	16.86	0.01	24	555.08	68.31	0.06	28	1389.42	285.86	98.26	30.29
04-Jan-21	588.4	30.48	0.01	24	696.65	67.93	0	39	1326.07	247.16	219.69	33.66
05-Jan-21	563.47	47.3	0.02	23	717.38	72.56	0.01	37	1437.96	315.74	6.94	14.94
06-Jan-21	692.17	49.42	0.03	25	689.62	76.7	0	28	1371.80	285.76	7.01	14.94
07-Jan-21	363.76	45.19	0.03	23	740.85	75.13	0	27	1269.05	283.18	8.71	15.83
08-Jan-21	607.63	31.04	0.02	29	679.97	72.08	0	32	1334.05	365.20	45.57	15.47
09-Jan-21	354.06	32.2	0.01	23	250.32	39.77	0.01	21	1531.42	495.54	31.93	15.95
10-Jan-21	668.38	44.89	0.02	30	658.23	65.18	0.01	35	1310.60	538.71	7.38	16.25
11-Jan-21	710.12	47.73	0.02	25	688.27	68.83	0	25	1525.51	499.87	17.66	44.05
12-Jan-21	714.36	44.21	0.02	29	697.17	60.96	0.13	43	1238.06	501.75	19.35	12.68
13-Jan-21	621.62	44.1	0.03	29	722.43	56	0.01	27	1316.41	505.39	32.24	12.19
14-Jan-21	594.66	32.73	0.03	28	261.05	27.74	0.16	31	1721.60	483.15	162.36	12.23
15-Jan-21	487.63	49.21	0.02	26	111.98	32.26	0.01	29	1839.31	478.27	472.63	13.07
16-Jan-21	431.44	34.04	0.02	27	42.02	0.42	0	20	1843.43	479.37	396.05	12.23
17-Jan-21	479.39	55.25	0.02	25	0.55	0	0	21	1684.72	494.56	144.16	12.39
18-Jan-21	475.91	53.65	0.02	24	592.09	80.05	0.01	20	1721.05	456.01	274.83	11.75
19-Jan-21	271.33	14.7	0.01	27	618.84	81.69	0.01	19	1621.82	439.89	59.27	11.86
20-Jan-21	517.92	59.69	0.02	24	619.06	83.06	0.01	21	1630.89	395.76	249.83	11.74
21-Jan-21	313.25	42.57	0.02	24	640.69	84.04	0.01	24	1759.76	392.27	243.38	11.63
22-Jan-21	38.76	36.86	0.01	24	609.19	82.89	0.02	25	1612.10	393.28	139.17	11.85
23-Jan-21	371.07	63.78	0.02	29	635.05	87.36	0.04	26	1352.71	386.83	107.59	12.09
24-Jan-21	0	0	0.01	25	604.53	79.11	0.01	24	1105.91	434.39	22.12	19.67
25-Jan-21	225.14	20.77	0.02	26	588.42	75.55	0.01	25	1292.83	405.95	123.84	12.04
26-Jan-21	222.38	20.52	0.02	25	571.81	74.86	0.02	25	1332.04	396.93	461.09	12.48
27-Jan-21	269.98	12.15	0.02	25	559.72	73.07	0.02	24	1395.00	469.61	157.55	12.74
28-Jan-21	229.79	32.78	0.02	27	562.94	70	0.02	25	1423.89	497.62	49.22	12.84
29-Jan-21	392.5	46.45	0.02	26	558.47	59.33	0.01	27	1323.81	479.38	308.15	12.90
30-Jan-21	393.33	47.47	0.02	28	455.07	55.06	0.02	21	1175.62	546.74	105.01	13.02
31-Jan-21	262.02	27.67	0.01	26	505.94	60.47	0.02	23	1058.61	536.62	59.23	12.75

**ONLINE STACK MONITORING TEST RESULT OF CALCINER AND CF BOILER FOR THE
MONTH OF FEBRUARY 2021**

Date of sampling	Calciner 1				Calciner 2				CFB Stack			
Parameter	SO ₂	NO _x	CO	PM	SO ₂	NO _x	CO	PM	SO ₂	NO _x	CO	PM
Unit	ppm	ppm	%	mg/Nm ³	ppm	ppm	%	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
01-Feb-21	394.24	49.15	0.02	26	549.1	65.41	0.02	23	1135.18	531.34	49.07	12.86
02-Feb-21	84.36	60.11	0.01	26	519.49	69.88	0.02	36	1813.14	568.68	106.62	12.87
03-Feb-21	209.45	63.59	0.01	33	588.66	78.61	0.02	25	1679.10	291.17	71.82	49.43
04-Feb-21	154.22	31.82	0.01	26	644.54	80.3	0.01	23	1860.29	502.27	44.15	16.42
05-Feb-21	311.21	43.54	0.02	29	627.48	74.82	0.01	25	1859.42	559.92	84.16	13.89
06-Feb-21	521.83	62.56	0.02	31	660.31	76.39	0.01	29	1858.86	576.88	48.82	12.67
07-Feb-21	662.07	68.85	0.02	30	741.55	78.57	0.01	24	1857.63	569.47	40.19	12.41
08-Feb-21	680.64	72.69	0.03	31	754.54	80.03	0.01	28	1857.41	581.33	43.93	12.99
09-Feb-21	646.48	73.44	0.02	28	595.44	66.45	0.02	27	1856.82	547.48	901.25	13.98
10-Feb-21	666.9	70.44	0.02	28	676.91	70.01	0.01	29	1858.44	538.91	281.47	13.56
11-Feb-21	673.71	63.88	0.02	28	702.71	64.17	0.02	28	1858.23	544.22	41.10	13.25
12-Feb-21	440.17	32.67	0.02	29	647.52	62.94	0.03	27	1856.25	476.57	39.01	12.63
13-Feb-21	235.22	20.17	0.02	30	589.62	55.42	0.03	25	1854.77	468.04	44.20	12.82
14-Feb-21	131.47	16.23	0.02	29	619.1	48.68	0.02	29	1877.40	458.84	46.12	12.92
15-Feb-21	36.69	30.08	0.02	28	81.36	38.84	0.01	29	2000.09	468.82	48.55	13.10
16-Feb-21	250.76	48.58	0.02	28	85.13	46.7	0.01	30	1933.54	439.54	106.73	13.07
17-Feb-21	530.45	53.77	0.03	27	456.7	67.76	0.01	27	1978.32	396.01	133.91	12.79
18-Feb-21	398.97	43.09	0.02	29	738.49	67.55	0.01	26	1974.43	448.22	79.39	12.63
19-Feb-21	488.62	42.62	0.02	27	652.88	36.29	0.01	25	1563.79	486.79	279.28	12.41
20-Feb-21	490.2	38.85	0.02	32	571.27	27.39	0.01	43	1581.36	483.83	241.88	12.51
21-Feb-21	393.23	33.27	0.02	32	667.45	57.6	0.01	21	1564.41	517.64	44.49	12.72
22-Feb-21	263.43	28.82	0.02	26	411.11	52.91	0.02	21	1673.09	463.54	628.20	12.39
23-Feb-21	312.57	25.98	0.02	25	588.89	50.45	0.01	20	1459.83	497.89	335.31	48.84
24-Feb-21	321.83	27.4	0.02	25	632.79	52.1	0.01	20	1649.35	607.91	27.50	14.84
25-Feb-21	372.25	26.13	0.02	28	343.29	45.06	0.02	32	1644.09	615.81	19.90	14.15
26-Feb-21	404.35	25.7	0.02	28	602.23	46.59	0.01	30	1978.32	465.44	8.77	16.98
27-Feb-21	363.87	19.8	0.02	27	610.89	46.52	0.02	23	1974.43	182.24	2.75	18.99
28-Feb-21	255.31	31.76	0.03	26	665.79	49.66	0.01	21	1563.79	595.10	11.37	13.81



**ONLINE STACK MONITORING TEST RESULT OF CALCINER AND CF BOILER FOR THE
MONTH OF MARCH 2021**

Date of sampling	Calciner 1				Calciner 2				CFB Stack			
Parameter	SO2	NOx	CO	PM	SO2	NOx	CO	PM	SO2	NOx	CO	PM
Unit	ppm	ppm	%	mg/Nm ³	ppm	ppm	%	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
01-Mar-21	219.08	35.93	0.02	31	687.14	54.79	0.01	21	1673.09	737.73	12.16	13.00
02-Mar-21	337.84	26.25	0.02	26	652.51	55.73	0.01	21	1459.83	731.32	16.54	13.08
03-Mar-21	509.28	37.08	0.02	25	584.72	59.67	0.01	22	1581.36	786.98	20.38	13.82
04-Mar-21	368.02	29.81	0.02	26	654.53	58.21	0.01	24	1564.41	701.18	17.32	12.90
05-Mar-21	234.5	10.69	0.02	25	621.64	66.62	0.02	21	1564.41	697.12	12.68	12.96
06-Mar-21	471.37	32.69	0.02	27	683.1	65.73	0.02	21	1856.82	758.84	11.77	12.98
07-Mar-21	421.08	29.04	0.02	34	683.72	61.83	0.02	22	1858.44	688.87	5.47	12.94
08-Mar-21	434.3	16.01	0.02	36	687.34	52.93	0.02	24	1858.23	698.70	6.73	12.99
09-Mar-21	357.01	13.01	0.02	39	491.84	48.02	0.02	23	1856.25	725.17	9.56	13.57
10-Mar-21	228.58	10.5	0.01	33	403.08	44.71	0.02	24	1563.79	689.17	16.37	13.38
11-Mar-21	211.44	22.49	0.02	27	580.77	51.28	0.02	25	1581.36	618.21	12.38	14.16
12-Mar-21	282.29	7.83	0.02	35	610.22	53.52	0.02	25	1564.41	633.57	14.92	13.96
13-Mar-21	307.63	2.65	0.02	27	573.93	48.34	0.02	26	1859.42	694.77	8.38	13.87
14-Mar-21	519.72	24.66	0.03	29	533.03	55.66	0.02	29	1858.86	625.51	10.13	13.86
15-Mar-21	488.35	31.15	0.03	27	401.44	52.76	0.02	23	1857.63	582.24	8.87	13.59
16-Mar-21	192.17	25.39	0.02	28	430.92	58.72	0.02	23	1857.41	616.84	7.92	13.80
17-Mar-21	97.72	20.04	0.01	28	527.6	53.45	0.02	24	1856.82	695.05	8.24	14.56
18-Mar-21	331.88	8.17	0.02	28	511.11	58.25	0.02	26	1858.44	637.69	17.07	42.70
19-Mar-21	286.14	18.63	0.02	29	536.09	59.03	0.02	27	1858.23	627.91	5.19	13.15
20-Mar-21	226.49	16.75	0.02	31	457.84	50.12	0.02	26	1856.25	517.63	16.09	12.33
21-Mar-21	229.43	24.76	0.02	28	596.68	56.58	0.02	24	1563.79	499.19	208.72	12.29
22-Mar-21	444.57	22.85	0.02	29	677.78	54.76	0.02	23	1581.36	628.84	129.22	12.16
23-Mar-21	374.97	18.94	0.02	29	493.87	46.97	0.01	23	1564.41	662.99	42.06	12.13
24-Mar-21	144.45	5.52	0.02	28	428.39	53.59	0.02	23	1673.09	603.93	58.90	11.74
25-Mar-21	225.25	18.64	0.02	30	553.16	53.24	0.04	23	1207.49	656.76	64.83	11.77
26-Mar-21	195.7	23.57	0.02	30	499.5	44.12	0.05	23	618.16	467.19	150.27	17.04
27-Mar-21	403.55	39.47	0.02	32	508.57	38.18	0.06	23	1196.06	496.57	58.14	13.91
28-Mar-21	582.69	38.02	0.03	31	536.78	39.64	0.06	26	1638.24	449.62	134.73	12.24
29-Mar-21	562.31	38.01	0.03	31	355.33	37.24	0.07	23	1305.06	306.77	591.7	11.73
30-Mar-21	634.58	37.89	0.03	29	340.26	38.83	0.12	24	1121.87	258.54	257.57	11.48
31-Mar-21	680.38	41.87	0.03	34	662.35	46.8	0.04	23	1023.96	238.76	77.89	11.64



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED

NABL ULR NO

Test Report No

Amendment No

Reference

Customer Name

Address

Date of receipt

Sample Name

Sample Condition

Quantity

Ref. To Sampling Procedure

Parameters

Location & Date

TC70432000005145P

624 | 58611419 KLPL/10/20/ENVN/80764G

ORDER NO-6600013488 DT-16.12.2019

VEDANTA LIMITED, LANJIGARH

PO. LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.

27-Oct-2020 Commenced On: 27-Oct-2020

FLUE GAS | STACK MONITORING

--

1 NO

KLPL/SOP/AIR-06

Unit

CALCINER -I, 26.10.2020

TEST REPORT



Issue Date : 05-Nov-2020

Amendment Date : -

Completion On: 31-Oct-2020

Sulphur Dioxide	mg/Nm ³	-	675.2	IS 11256(part-2):1995(RA 2014)
Particulate Matter	mg/Nm ³	-	23.05	KLPL/SOP/AIR-06
Velocity	m/sec	*	23.21	KLPL/SOP/AIR-06
Oxygen	%	*	3.93	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	442	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	285.5	IS 11255 (part-2):2005
Carbon Dioxide	%	--	16.28	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	*	3459173	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	32.02	KLPL/SOP/AIR-06

Remarks : nil

Any unusual feature observed during determination : NIL

***** End of Test Report *****

I. Anujaha

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1419514512031

KLPL-342882A

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GPR



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC70432000005145P

TEST REPORT



Test Report No : 624 | 58611419 KLPL/10/20/ENVN/00764

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference :

ORDER NO-6600013488 DT-16.12.2019

Customer Name :

VEDANTA LIMITED, LANJIGARH

Address :

PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt :

12-Oct-2020

Commenced On : 12-Oct-2020

Completion On: 17-Oct-2020

Sample Name :

FLUE GAS | STACK MONITORING

Sample Condition :

--

Quantity :

1 NO

Ref. To Sampling Procedure:

KLPL/SOP/AIR-06

Parameters

Unit

Standard Value

Results

Test Method

Location & Date

POWER PLANT UNIT-II, 09.10.2020

Sulphur Dioxide	mg/Nm ³	-	720.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	23.9	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.64	KLPL/SOP/AIR-06
Oxygen	%	-	5.28	KLPL/SOP/AIR-06
Stack Temperature In Deg kelvin	--	--	409	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	323.2	IS 11255 (part-7):2008
Carbon Dioxide	%	--	9.91	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1783245	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	4.8	KLPL/SOP/AIR-06

Remarks

: nil

Any unusual feature observed during determination

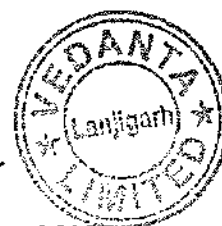
: NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anubha
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1419514512031
KLPL-342316A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005145P

TEST REPORT



Test Report No : 624 | 58611419 KLPL/10/20/ENVN/00764A Issue Date : 05-Nov-2020
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-765027.
Date of receipt : 12-Oct-2020 Commenced On : 12-Oct-2020 Completion On: 17-Oct-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NO
Ref.To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date			CALCINER -II, 10.10.2020	
Sulphur Dioxide	mg/Nm ³	-	739.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	26.5	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.53	KLPL/SOP/AIR-06
Oxygen	%	-	4.52	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	447	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	-	334.5	IS 11255 (part-7):2005
Carbon Dioxide	%	--	13.70	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3421908	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH2O	--	29.92	KLPL/SOP/AIR-06

Remarks : nil

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Das
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



1419514512031
KLPL-342315A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005145P

TEST REPORT



Test Report No : 624 | 58611419 KLPL/10/20/ENVN/00764B Issue Date : 05-Nov-2020
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 15-Oct-2020 Commenced On : 15-Oct-2020 Completion On: 19-Oct-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NO
Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Result	Test Method
Location & Date : POWER PLANT UNIT-11, 12.10.2020				
Sulphur Dioxide	mg/Nm ³	-	740.1	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	27.3	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.18	KLPL/SOP/AIR-06
Oxygen	%	-	5.35	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	411	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	342.3	IS 11255 (part-7):2005
Carbon Dioxide	%	--	9.97	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1641780	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmHg	--	4.28	KLPL/SOP/AIR-06

Remarks : nil

Any unusual feature observed during determination : NIL

***** End of Test Report *****

B. Swain
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anil Kumar
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1419514512031
KLPL-342314A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005145P

TEST REPORT



Test Report No : 624 | 58611419 KLPL/10/20/ENVN/00764C

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 15-Oct-2020

Commenced On : 15-Oct-2020

Completion On: 19-Oct-2020

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NO

Ref.To Sampling Procedure: KLPL/SOP/AIR-05

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II, 13.10.2020				
Sulphur Dioxide	mg/Nm ³	-	727.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	22.6	KLPL/SOP/AIR-06
Velocity	m/sec	-	23.5	KLPL/SOP/AIR-06
Oxygen	%	-	4.50	KLPL/SOP/AIR-06
Stack Temperature in Deg kelyn	--	--	454	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	321.6	IS 11255 (part-2):2005
Carbon Dioxide	%	--	13.15	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3540803	KLPL/SOP/AIR-05
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-05
Pressure	mmH2O	--	32.24	KLPL/SOP/AIR-06

Remarks : nil

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anurag
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1419514512031
KLPL- 342313A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005145P

Test Report No : 624 | 58611419 KLPL/10/20/ENVN/00764D

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Oct-2020

Commenced On : 26-Oct-2020

Completion On : 31-Oct-2020

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : -

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-05

Parameters	Unit	Standard Value	Result	Test Method
Location & Date : POWER PLANT UNIT-III, 22.10.2020				
Sulphur Dioxide	mg/Nm ³	-	700.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	33.7	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.86	KLPL/SOP/AIR-06
Oxygen	%	-	4.67	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	-	-	410	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	-	290.2	IS 11255 (part-7):2005
Carbon Dioxide	%	-	9.87	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1828068	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	-	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	-	5.03	KLPL/SOP/AIR-06

Remarks : nil

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anujaha
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1419514512031
KLPL- 342318A
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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005145P
Test Report No : 624 | 58611419 KLPL/10/20/ENVN/00764E **Issue Date** : 05-Nov-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Oct-2020 **Commenced On** : 26-Oct-2020 **Completion On** : 31-Oct-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NO
Ref. To Sampling Procedure : KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II, 23.10.2020				
Sulphur Dioxide	mg/Nm ³	-	760.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	30.5	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.58	KLPL/SOP/AIR-06
Oxygen	%	-	4.56	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	442	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	353.2	IS 11255 (part-7):2005
Carbon Dioxide	%	--	13.75	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3445405	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	30.3	KLPL/SOP/AIR-06

Remarks : nil

Any unusual feature observed during determination : NIL

***** End of Test Report *****

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Arulaha
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1419514512031
KLPL- 342318A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005145P

TEST REPORT



Test Report No : 624 | 58611419 KLPL/10/20/ENVN/00764F Issue Date : 05-Nov-2020
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 29-Oct-2020 Commenced On : 29-Oct-2020 Completion On: 02-Nov-2020
 Sample Name : FLUE GAS | STACK MONITORING
 Sample Condition : --
 Quantity : 1 NO
 Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-III, 27.10.2020				
Sulphur Dioxide	mg/Nm ³	-	685.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	29.1	KLPL/SOP/AIR-06
Velocity	m/sec	-	9.00	KLPL/SOP/AIR-06
Oxygen	%	-	4.64	KLPL/SOP/AIR-06
Stack Temperature In Deg kelvin	--	--	415	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	277.3	IS 11255 (part-7):2005
Carbon Dioxide	%	--	9.83	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1777022	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	5.13	KLPL/SOP/AIR-06

Remarks : nil

Any unusual feature observed during determination : NIL

***** End of Test Report *****

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Soujanya
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1419514512031
KLPL- 342317A
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KALYANI LABORATORIES PVT. LTD.

78904, PAHAL BHUDANESWAR ROAD, ODISHA

TEST REPORT



NABL ULK NO : TC704320000005374P

Test Report No : 662 | 625914FE KLPL/11/20/ENVN/00840

Issue Date : 07-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 09-Nov-2020

Commenced On : 09-Nov-2020

Completion On : 13-Nov-2020

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - POWER PLANT UNIT-III, 07.11.2020				
Sulphur Dioxide	mg/Nm ³	600	665.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	24.5	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.067	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.12	KLPL/SOP/AIR-06
Oxygen	%	-	4.6	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	405	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	257.8	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.79	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1626317	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	4.28	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14FE537412376
KLPL- 342092A



KALYANI LABORATORIES PVT. LTD.

3094, PAHAL, SHI BAKSWAB-NULI, ODISHA

NABL ULR NO : TC704320000005374P
Test Report No : 662 | 628014FE KLPL/11/20/ENVN/00840A
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 12-Nov-2020 **Commenced On** : 12-Nov-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition :
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

Issue Date : 07-Dec-2020
Amendment Date : -

Completion On : 13-Nov-2020



Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II, 11.11.2020				
Sulphur Dioxide	mg/Nm ³	-	721.7	IS 11255(part-2):1985(IA 2014)
Particulate Matter	mg/Nm ³	50	21.3	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.004	KLPL/SOP/AIR-06
Velocity	m/sec	-	19.38	KLPL/SOP/AIR-06
Oxygen	%	-	4.48	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	435	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	316.9	IS 11255 (part-7):2005
carbon Dioxide	%	--	13.13	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2994731	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	22.72	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

D. Anubh
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

79941, PANDAL SUTRANEMAR, KOLKATA, INDIA

NABL ULN NO : TC704320000005374P **TEST REPORT**

Test Report No : 662 | 628914FE KLPL/11/20/ENVN/00840B

Amendment No : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 13 Nov 2020 **Commenced On** : 13-Nov-2020

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : -

Quantity : 1 NOS

Ref. To Sampling Procedure : QSP-07

Issue Date : 07-Dec-2020

Amendment Date : -

Completion On : 17-Nov-2020



Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-II, 12.11.2020				
Sulphur Dioxide	mg/Nm ³	600	749.3	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	29.4	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.078	KLPL/SOP/AIR-06
Velocity	m/sec	-	7.83	KLPL/SOP/AIR-06
Oxygen	%	-	9.35	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	-	-	414	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	350.4	IS 11255 (part-7):2005
Carbon Dioxide	%	-	10.01	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1554944	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	-	3.91	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By : D. Ambekar
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14FE537412376
KLPL- 342089A

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KALYANI LABORATORIES PVT. LTD.

SEPA, PADAL, BURHANPUR, 475102, INDIA

NABL ULR NO

: TC704320000005374P

TEST REPORT



Test Report No

: 662 | 628914FE KLPL/11/20/ENVN/00840D

Issue Date

: 07-Dec-2020

Amendment No

: -

Amendment Date

: -

Reference

: ORDER NO-6600013488 DT-16.12.2019

Customer Name

: VEDANTA LIMITED, LANJIGARH

Address

: PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt

: 17-Nov-2020

Commenced On : 17-Nov-2020

Completion On:

21-Nov-2020

Sample Name

: FLUE GAS | STACK MONITORING

Sample Condition

: --

Quantity

: 1 NOS

Ref. To Sampling Procedure:

QSP-07

Parameters

Unit

Standard Value

Results

Test Method

Location & Date

: CALCINER - I, 16.11.2020

Sulphur Dioxide	mg/Nm ³	-	711.5	IS 11255(part-2):1985(AA 2014)
Particulate Matter	mg/Nm ³	50	32.4	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.011	KLPL/SOP/AIR-06
Velocity	m/sec	-	31.25	KLPL/SOP/AIR-06
Oxygen	%	-	3.99	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	451	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	318.2	IS 11255 (part-7):2005
carbon Dioxide	%	--	16.36	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	4704226	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	56.89	KLPL/SOP/AIR-06

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

D. Anil Kumar

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14FE537412376

KLPL- 342087A

Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

78004 PATAI BILHANDEWAR TATHE ODISHA

NABL ULR NO : TC704320000005374P

TEST REPORT



Test Report No : 662 | 628914FE KLPL/11/20/ENVN/00840C

Issue Date : 07-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 17-Nov-2020 Commenced On : 17-Nov-2020

Completion On: 21-Nov-2020

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters Unit Standard Value Results Test Method

Location & Date : CALCINER -II, 16.11.2020

Sulphur Dioxide	mg/Nm ³	-	736.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	25.2	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.006	KLPL/SOP/AIR-06
Velocity	m/sec	-	23.07	KLPL/SOP/AIR-06
Oxygen	%	-	4.51	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	432	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	332.2	IS 11255 (part-7):2005
carbon Dioxide	%	--	13.18	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3613623	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	32.38	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anish

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14FE537412376

KLPL- 342088A

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Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

7594, PAKHIL, SHI-BADENW, R-INDIA, GUJINIA

TEST REPORT

NABL ULR NO : TC704320000005374P

Test Report No : 662 | 628914FE KLPL/11/20/ENVN/00840E

Issue Date : 07-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19-Nov-2020 Commenced On : 19-Nov-2020

Completion On : 23-Nov-2020

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - POWER PLANT UNIT-1, 18.11.2020				
Sulphur Dioxide	mg/Nm ³	600	785.1	IS 11255(part-2):1985(ISA 2014)
Particulate Matter	mg/Nm ³	50	39.2	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.09	KLPL/SOP/AIR-06
Velocity	m/sec	-	7.21	KLPL/SOP/AIR-06
Oxygen	%	-	5.20	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	395	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	380.2	IS 11255 (part-7):2005
carbon Dioxide	%	--	10.18	KLPL/SOP/AIR-05
Quantity of Gas Flow	Nm ³ / hr	-	1490654	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-05
Pressure	mmH ₂ O	--	3.46	KLPL/SOP/AIR-05

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Amiche

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Amiche

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

14FE537412376

KLPL-342091A

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KALYANI LABORATORIES PVT. LTD.

NABL ULR NO : TC70432000005374P
Test Report No : 662 | 628914FE KLPL/11/20/EMVN/00840P
Amendment No :
Reference : ORDER NO 6600017488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO. LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Nov-2020 Commenced On : 25-Nov-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref. To Sampling Procedure: QSP-07

TEST REPORT

Issue Date : 07-Dec-2020

Amendment Date : --

Completion On: 28-Nov-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	CALCINER - I, DT-23.11.2020			
Sulphur Dioxide	mg/Nm ³	-	692.5	IS 11255 (part-2):1983(RA 2014)
Particulate Matter	mg/Nm ³	50	27.1	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.009	KLPL/SOP/AIR-06
Velocity	m/sec	-	23.3	KLPL/SOP/AIR-06
Oxygen	%	-	3.84	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	445	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	300.2	IS 11255 (part-2):2005
Carbon Dioxide	%	--	16.31	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3472640	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	32.3	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
For Kalyani Laboratories Pvt Ltd

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

14FE537412376
KLPL-343543A



Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL UIR NO : IC/0432000005374P
Test Report No : 662 | 628914FE KLPL/11/20/ENVN/0084UG
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Nov-2020 **Commenced On** : 25-Nov-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

Issue Date : 07-Dec-2020
Amendment Date : -

Completion On : 28-Nov-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-II, 24.11.2020				
Sulphur Dioxide	mg/Nm ³	600	758.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	31.8	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.085	KLPL/SOP/AIR-06
Velocity	m/sec	-	9.88	KLPL/SOP/AIR-06
Oxygen	%	-	5.37	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	411	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	358.3	IS 11255 (part-7):2005
carbon Dioxide	%	--	10.04	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1949931	KLPL/SOP/AIR-05
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	6.24	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14FE537412376
 KLPL- 342093A



KALYANI LABORATORIES PVT. LTD.

NABL ULR NO : TC7043210D0005899P
Test Report No : 730 | 68721708 KLPL/12/20/ENVN/00893
Amendment No : -
Reference : ORDER NO-6500013488 DT-16 12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Dec-2020 **Commenced On** : 07-Dec-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07



Issue Date : 11-Dec-2020
Amendment Date : -

Completion On : 11-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-I, 04.12.2020				
Sulphur Dioxide	mg/Nm ³	600	772.3	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	36.3	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.08	KLPL/SOP/AIR-06
Velocity	m/sec	-	6.67	KLPL/SOP/AIR-06
Oxygen	%	-	5.17	KLPL/SOP/AIR-06
Stack Temperature In Deg kelvin	--	--	396	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	368.5	IS 11355 (part-7):2005
Carbon Dioxide	%	--	10.15	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1361633	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH2O	--	2.96	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analytical
For Kalyani Laboratories Pvt. Ltd.



[Signature]
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1708589913413

KLPL- 343876A

Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

TEST REPORT
NABL ULR NO : TC704321000005899P
Test Report No : 730 | 68721708 KLPL/12/20/ENVN/00893A
Amendment No :
Reference : ORDER NO-6600013480 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Dec-2020 **Commenced On** : 07-Dec-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

Issue Date : 11-Dec-2020

Amendment Date : -

Completion On : 11-Dec-2020

Parameter	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II, 05.12.2020				
Sulphur Dioxide	mg/Nm ³	-	740.5	IS 11255(part-2), 1985(RA 2014)
Particulate Matter	mg/Nm ³	50	26.4	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.008	KLPL/SOP/AIR-06
Velocity	m/sec	-	21.18	KLPL/SOP/AIR-06
Oxygen	%	-	4.53	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	443	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	937.2	IS 11255 (part-7):2005
Carbon Dioxide	%	--	13.18	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2680776	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	26.6	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1708589913413

KLPL-3438756



KALYANI LABORATORIES PVT. LTD.

KABL ULR NO : TC704321000005899P
Test Report No : 730 | 6872170B KLPL/12/20/ENVN/00893B
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 10-Dec-2020 **Commenced On** : 10-Dec-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

TEST REPORT



Issue Date : 15-Dec-2020

Amendment Date : -

Completion On : 15-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-III, 07.12.2020				
Sulphur Dioxide	mg/Nm ³	600	705.2	IS 11255 (part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	32.5	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.075	KLPL/SOP/AIR-06
Velocity	m/sec	-	7.9	KLPL/SOP/AIR-06
Oxygen	%	-	4.68	KLPL/SOP/AIR-06
Stack Temperature In Deg kelvin	--	--	411	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	298.1	IS 11255 (part-2):2005
carbon Dioxide	%	--	8.87	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1564441	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	4.1	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

..... End of Test Report

Analysed By :
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory :
For Kalyani Laboratories Pvt. Ltd.



1708589913413

KLPL-343876A1



KALYANI LABORATORIES PVT. LTD.

NABL ULR NO : TC704321000005899P
Test Report No : 730 | 6B72170B KLPL/12/20/ENVN/00693C
Amendment No : -
Reference : ORDER NO-6500013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.
Date of receipt : 10-Dec-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

TEST REPORT



Issue Date : 15-Dec-2020

Amendment Date : -

Completion On : 15-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -I, 08.12.2020				
Sulphur Dioxide	mg/Nm ³	-	701.6	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	28.6	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.010	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.75	KLPL/SOP/AIR-06
Oxygen	%	-	3.96	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	459	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	309.6	IS 11255 (part-7):2005
carbon Dioxide	%	--	16.34	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2845741	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	29.63	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1708589913413
KLPL- 343873A



KALYANI LABORATORIES PVT. LTD.

NABL ULR NO : TC704321000005899P
Test Report No : 730 | 6872170B KLPL/12/20/ENVN/00893D
Amendment No :
Reference : ORDER NO-5600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 28-Dec-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

TEST REPORT



Issue Date : 31-Dec-2020

Amendment Date : --

Completion On : 31-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-III, 24.12.2020				
Sulphur Dioxide	mg/Nm ³	600	654.4	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	30.1	KLPL/SOP/AIR-06
Carbon Monoxide	%	--	0.072	KLPL/SOP/AIR-05
Velocity	m/sec	--	10.32	KLPL/SOP/AIR-05
Oxygen	%	--	4.55	KLPL/SOP/AIR-06
Stack Temperature in Deg Kelvin	--	--	404	KLPL/SOP/AIR-05
Nitrogen Dioxide	mg/Nm ³	450	288.3	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.84	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	--	2100157	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.04	KLPL/SOP/AIR-05
Pressure	mmH ₂ O	--	6.93	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyse By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1708589913413

KLPL- 343624



KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000005899P
Test Report No : 730 | 6872170B KLPL/12/20/ENVN/00893E
Amendment No :
Reference : ORDER NO-6600013488 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.
Date of receipt : 28-Dec-2020 Commenced On : 28-Dec-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref. To Sampling Procedure: QSP-07



Issue Date : 31-Dec-2020

Amendment Date : --



Completion On: 31-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II, 26.12.2020				
Sulphur Dioxide	mg/Nm ³	-	725.9	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	23.4	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.006	KLPL/SOP/AIR-06
Velocity	m/sec	-	23.69	KLPL/SOP/AIR-06
Oxygen	%	-	4.51	KLPL/SOP/AIR-06
Stack Temperature In Deg kelvin	--	--	440	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	327.6	IS 11255 (part-2): 2005
carbon Dioxide	%	--	13.15	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3070608	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	33.53	KLPL/SOP/AIR-06

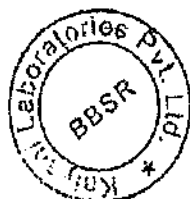
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



170B589913413
KLPL- 343871A



KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : 1C704321000005899P
Test Report No : 730 | 6872170B KLPL/12/20/ENVN/00893F
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 31-Dec-2020 Commenced On : 31-Dec-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref. To Sampling Procedure: QSP-07



Issue Date : 04-Jan-2021

Amendment Date :

Completion On: 04-Jan-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-1, 29.12.2020				
Sulphur Dioxide	mg/Nm ³	600	796.2	IS 11255(part-2):1985(IA 2014)
Particulate Matter	mg/Nm ³	50	42.5	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.11	KLPL/SOP/AIR-06
Velocity	m/sec	-	7.33	KLPL/SOP/AIR-06
Oxygen	%	-	5.25	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	405	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	397.6	IS 11255 (part-7):2005
Carbon Dioxide	%	--	10.22	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1483021	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	3.49	KLPL/SOP/AIR-06

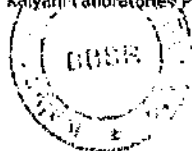
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1708589913413
KLPL- 343850A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC704321000005899P
Test Report No : 730 | 68721708 KLPL/12/20/ENVN/00893G
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 31-Dec-2020
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref.To Sampling Procedure: QSP-07

Issue Date : 04-Jan-2021

Amendment Date : -

Completion On: 04-Jan-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -I, 30.12.2020				
Sulphur Dioxide	mg/Nm ³	-	711.7	IS 11255 (part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	30.5	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.012	KLPL/SOP/AIR-06
Velocity	m/sec.	-	23.53	KLPL/SOP/AIR-06
Oxygen	%	-	3.99	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	442	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	318.7	IS 11255 (part-7):2005
Carbon Dioxide	%	--	16.37	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3036069	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	-	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	32.91	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report



[Signature]
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1708589913413

KLPL- 34387A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED

TEST REPORT



NABL ULR NO : TC704321000006066P

Issue Date : 05-Feb-2021

Test Report No : 758 | 73071782 KLPL/1/21/ENVN/00949

Amendment No : -

Amendment Date : -

Reference : ORDER NO 6600013488 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 11-Jan-2021 Commenced On : 11-Jan-2021

Completion On: 16-Jan-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : -

Quantity : 1 NO

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II , 07.01.2021				
Sulphur Dioxide	mg/Nm ³	-	732.8	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	24.8	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.007	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.73	KLPL/SOP/AIR-06
Oxygen	%	-	4.50	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	449	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	330.3	IS 11255 (part-7):2005
Carbon Dioxide	%	--	13.16	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2906563	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	30.24	KLPL/SOP/AIR-06

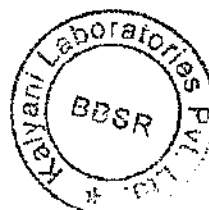
Remarks : NIL

Any unusual feature observed during determination : NIL

End of test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1782606613662

KLPL- 343907A



KALYANI LABORATORIES PVT. LTD.

20-10, PANDIT, BIP, RAJASTHAN, INDIA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006066P
 Test Report No : 76R | 73071782 KLPL/1/21/ENVN/00949A
 Amendment No : -
 Reference : ORDER NO-G600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 11 Jan 2021 Commenced On : 11 Jan 2021 Completion On: 16-Jan-2021
 Sample Name : FLUE GAS | STACK MONITORING
 Sample Condition : -
 Quantity : 1 NO
 Ref.To Sampling Procedure: QSP-07

Testing Date : 05 Feb 2021

Amendment Date : -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-III, 08.01.2021				
Sulphur Dioxide	mg/Nm ³	500	711.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	33.7	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.077	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.22	KLPL/SOP/AIR-06
Oxygen	%	-	4.70	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	395	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	307.1	IS 11255 (part-7):2005
Carbon Dioxide	%	--	9.89	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1665137	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	4.5	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

Lab of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



17B2606613662
 KLPL- 343906A



KALYANI LABORATORIES PVT. LTD.

ANALYTICAL DIV. DANUPUR, BIRSA, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC70432100006066P
Test Report No : 768 | 73071/B7 KLPL/1/21/ENVN/00949B
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 14-Jan-2021 Commenced On : 14-Jan-2021
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : -
Quantity : 1 NO
Ref.To Sampling Procedure: QSP-07

Issue Date : 05-Feb-2021
Amendment Date : -

Completion On: 18-Jan-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-II, 11.01.2021				
Sulphur Dioxide	mg/Nm ³	600	744.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	28.6	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.076	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.47	KLPL/SOP/AIR-06
Oxygen	%	-	5.33	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	40.1	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	344.6	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.97	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1683321	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	4.67	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



17B2600613062
KLPL- 343905A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

75/401, PATAI, BILUPANOWAR, JODHPUR, INDIA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006066P

Test Report No : 766 | 730717B2 KLPL/1/21/ENVN/00949C

Issue Date : 05-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16 12 2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 14-Jan-2021 Commenced On : 14-Jan-2021

Completion On: 18-Jan-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : -

Quantity : 1 NO

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -I, 12.01.2021				
Sulphur Dioxide	mg/Nm ³	-	715.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	31.7	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.013	KLPL/SOP/AIR-06
Velocity	m/sec	-	21.40	KLPL/SOP/AIR-06
Oxygen	%	-	4.01	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	452	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	324.8	IS 11255 (part-7):2005
carbon Dioxide	%	--	16.38	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2700146	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	26.62	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyzed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



17B2606613662
KLPL- 343904A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

76600013488 DT-16.12.2019

TEST REPORT



NABL ULR NO : TC704321000006066P

Test Report No : 768 / 30/1/82 KLPL/1/21/ENVN/00949D

Issue Date : 05 Feb 2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Jan-2021 Commenced On : 25-Jan-2021

Completion On: 29-Jan-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : -

Quantity : 1 NO

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-I, 22.01.2021				
Sulphur Dioxide	mg/Nm ³	500	792.3	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	10.3	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.085	KLPL/SOP/AIR-06
Velocity	m/sec	-	10.29	KLPL/SOP/AIR-06
Oxygen	%	-	5.25	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	398	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	388.7	IS 11255 (part-7):2005
carbon Dioxide	%	--	10.2	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2061638	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	7.0	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343903A

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KALYANI LABORATORIES PVT. LTD.

TRUST, PANAJI, SHEL, KARNATAKA-575001, INDIA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006066P
 Test Report No : 768 | 730717B2 KLPL / 1/21/ENVN/00949E
 Amendment No : -
 Reference : ORDER NO 6600013488 DT 16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 25-Jan-2021 Commenced On : 25-Jan-2021
 Sample Name : FLUE GAS | STACK MONITORING
 Sample Condition : -
 Quantity : 1 NO
 Ref.To Sampling Procedure: QSP-07

Issue Date : 05-Feb-2021
 Amendment Date : -

Completion On: 29-Jan-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II, 23.01.2021				
Sulphur Dioxide	mg/Nm ³	-	756.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	29.3	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.010	KLPL/SOP/AIR-06
Velocity	m/sec	-	23.43	KLPL/SOP/AIR-06
Oxygen	%	-	4.55	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	444	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	355.2	IS 11255 (part-7):2005
carbon Dioxide	%	--	13.21	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2979149	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	32.62	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



17B2606613662
 KLPL- 343902A

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KALYANI LABORATORIES PVT. LTD.

78041, PATIALA, DIST. BANGALU, WEST BENGAL, INDIA

TEST REPORT



NABL ULR NO : IC/04321000006066P
Test Report No : 768 | 730717B2 KLPL/1/21/ENVN/00949F
Amendment No : -
Reference : ORDER NO-GG00013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 31-Jan-2021 Commenced On : 31-Jan-2021

Issue Date : 05-Feb-2021
Amendment Date : -

Completion On: 04-Feb-2021

Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : -
Quantity : 1 NO
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -I, 28.01.2021				
Sulphur Dioxide	mg/Nm ³	-	696.8	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	27.3	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.011	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.85	KLPL/SOP/AIR-06
Oxygen	%	-	3.97	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	451	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	304.2	IS 11255 (part-1):2005
Carbon Dioxide	%	--	16.33	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2879764	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	--	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	30.44	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anand

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Signature

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1782606613662

KLPL 343901A



KALYANI LABORATORIES PVT. LTD.

NEWAL, PARAL, BHUBANESWAR-751002, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006066P

Test Report No : 768 | 73071782 KLPL/1/21/ENVN/00949G

Issue Date : 05-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2010

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 31-Jan-2021

Commenced On : 31-Jan-2021

Completion On : 04-Feb-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : -

Quantity : 1 NO

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-I, 29.01.2021				
Sulphur Dioxide	mg/Nm ³	600	783.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	38.4	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.081	KLPL/SOP/AIR-06
Velocity	m/sec	-	7.28	KLPL/SOP/AIR-06
Oxygen	%	-	5.21	KLPL/SOP/AIR-06
Stack Temperature in Deg kelyin	--	--	404	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	377.7	IS 11255 (part-7):2005
carbon Dioxide	%	--	10.16	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1476551	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	3.45	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



17B2606613662
KLPL- 343900A

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TEST REPORT



NABL ULR NO : TC704321000006511P
Test Report No : 819 | 7834196F KLPL/2/21/ENVN/01005A
Amendment No : -
Reference : ORDER NO GG00013400 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027
Date of receipt : 05-Feb-2021 **Commenced On** : 05-Feb-2021 **Completion On** : 09-Feb-2021
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref To Sampling Procedure : QSP-11/

Issue Date : 06-Mar-2021
Amendment Date : -

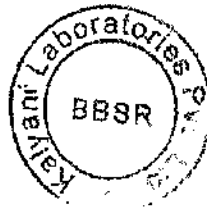
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-II, 03.02.2021				
Sulphur Dioxide	mg/Nm ³	600	734.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	26.7	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.073	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.64	KLPL/SOP/AIR-06
Stack Temperature In Deg kelvin	--	--	412	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	334.6	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.94	KLPL/SOP/AIR-06
Oxygen	%	--	5.30	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1731.898	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	4.78	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anubha
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.



D. Anubha
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.

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KLPL-344367A

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KALYANI LABORATORIES PVT. LTD.

KALYANI, PATNALL, DIST. BADAJANG, AP. - 511111

TEST REPORT



NABL ULR NO : TC704321000006511P
Test Report No : 819 | 7834196F KLPL/2/21/ENVN/01006
Amendment No : -
Reference : ORDER NO-660001J488 D1-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 05-Feb-2021 **Commenced On** : 05-Feb-2021
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

Issue Date : 06-Mar-2021
Amendment Date : -
Completion On : 09-Feb-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - CALCINER -I, 04.02.2021				
Sulphur Dioxide	mg/Nm ³	-	686.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	25.4	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.009	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.9	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	448	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	300.5	IS 11255 (part-7):2005
carbon Dioxide	%	--	16.31	KLPL/SOP/AIR-06
Oxygen	%	--	3.94	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr		2925023	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	30.76	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557
KLPL 344263A

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KALYANI LABORATORIES PVT. LTD.

(NABL, KAPAL, ISO 14001, ISO 9001, ISO 45001)

NABL ULR NO : TC704321000006511P
Test Report No : 819 | 7834196F KLPL/2/21/ENVN/01006B
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO - 1 ANJIGARH, DIST - KALAHANDI, ODISHA-766027
Date of receipt : 15-Feb-2021
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : -
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

TEST REPORT



Issue Date : 06-Mar-2021

Amendment Date : -

Completion On : 19 Feb 2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-I, 12.02.2021				
Sulphur Dioxide	mg/Nm ³	600	778.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	37.3	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.081	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.04	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	-	-	409	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	374.5	IS 11255 (part-7):2005
carbon Dioxide	%	-	10.15	KLPL/SOP/AIR-06
Oxygen	%	-	5.20	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1632382	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	-	4.16	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557
KLPL-344366A

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KALYANI LABORATORIES PVT. LTD.

ANALYST: RIK SANDESWAR, 75001 ODISHA

NABL ULR NO : TC704321000006511P

TEST REPORT



Test Report No : 819 | 7834196F KLPL/2/21/ENVN/01006C Issue Date : 06 Mar 2021
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 05-Feb-2021 Commenced On : 05-Feb-2021 Completion On : 09-Feb-2021
 Sample Name : FLUE GAS | STACK MONITORING
 Sample Condition : -
 Quantity : 1 NOS
 Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - CALCINER - II, 13.02.2021				
Sulphur Dioxide	mg/Nm ³	-	770.8	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	32.6	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.013	KLPL/SOP/AIR-06
Velocity	m/sec	-	24.76	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	450	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	370.4	IS 11255 (part-7):2006
carbon Dioxide	%	--	13.25	KLPL/SOP/AIR-06
Oxygen	%	--	4.59	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr		3190807	KLPL/SOP/AIR-06
Pressure	mmH2O	--	35.81	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557
KLPL-344365A



KALYANI LABORATORIES PVT. LTD.

INDIA, RAJASTHAN, JAIPUR, JALMA, ODISHA

NABL ULR NO : TC704321000006511P

TEST REPORT



Test Report No : 819 | 7034196F KLPL/2/21/ENVN/01006D

Issue Date : 06 Mar 2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6000013400 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST. KALAHANDI, ODISHA 766027.

Date of receipt : 22-Feb-2021

Commenced On : 22-Feb-2021

Completion On : 26-Feb-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition :

Quantity : 1 NOS

Ref To Sampling Procedure: QSP 07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-III, 19.02.2021				
Sulphur Dioxide	mg/Nm ³	500	715.8	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	34.5	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.070	KLPL/SOP/AIR-06
Velocity	m/sec	-	16.24	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	403	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	311.3	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.91	KLPL/SOP/AIR-06
Oxygen	%	--	4.72	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3324179	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.04	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	17.2	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557
KLPL-344364A

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KALYANI LABORATORIES PVT. LTD.

78944 PATAI, BHUBANESWAR-751001, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006511P

Test Report No : 819 | 7834196F KLPL/2/21/ENVN/01006E

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013408 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.

Date of receipt : 22 Feb 2021

Commenced On : 22 Feb 2021

Completion On : 20-Feb-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition :

Quantity : 1 NOS

Ref. To Sampling Procedure: QSR 07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - CALCINER -I, 20.02.2021				
Sulphur Dioxide	mg/Nm ³	-	720.6	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	33.4	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.016	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.6	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	-	--	445	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	340.2	IS 11255 (part-7):2005
carbon Dioxide	%	--	16.38	KLPL/SOP/AIR-06
Oxygen	%	--	4.02	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr		2922433	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	29.9	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

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KLPL-344363A

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KALYANI LABORATORIES PVT. LTD.

7/44, PATAI, BILHANESWARI ROAD, INDIA

NABL ULR NO : TC70432100006511P

IESI REPORT



Test Report No : 819 | 7834196F KLPL/2/21/ENVN/01006F

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA- 766027.

Date of receipt : 24-Feb-2021

Commenced On : 24-Feb-2021

Completion On : 27-Feb-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref. To Sampling Procedure : QSP-07

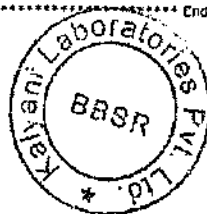
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-II, 23.02.2021				
Sulphur Dioxide	mg/Nm ³	600	701.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	19.8	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.067	KLPL/SOP/AIR-06
Velocity	m/sec	-	10.4	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	410	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	301.3	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.87	KLPL/SOP/AIR-06
Oxygen	%	--	5.23	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2134288	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	5.94	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114587
KLPL-344362A

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KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

NABL ULR NO : TC704321000006511P

TEST REPORT



Test Report No : 819 | 7834196F KLPL/2/21/ENVN/01006G Issue Date : 05-Mar-2021
Amendment No : - Amendment Date : -
Reference : ORDER NO 6600013408 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO - LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 01 Mar 2021 Commenced On : 01-Mar-2021 Completion On: 05-Mar-2021
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref. to Sampling Procedure: QSP 07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - CALCINER -II, 27.02.2021				
Sulphur Dioxide	mg/Nm ³	-	760.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	10.7	KLPL/SOP/AIR-06
Carbon Monoxide	%	1	0.011	KLPL/SOP/AIR-06
Velocity	m/sec	-	24.01	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	447	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	360.8	IS 11255 (part-2):2005
Carbon Dioxide	%	--	13.23	KLPL/SOP/AIR-06
Oxygen	%	--	4.57	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3114921	KLPL/SOP/AIR-06
Pressure	mmHg	--	33.6	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557
KLPL-344361A

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KALYANI LABORATORIES PVT. LTD.

357H PARAL BIR BANESWAR-751011 ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000007027P

Test Report No : 854 | 86531B73 KLPL/3/21/ENVN/01051

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16 12 2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Mar-2021

Commenced On : 08-Mar-2021

Completion On: 12-Mar-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	CALCINER -I, 05.03.2021			
Sulphur Dioxide	mg/Nm ³	-	678.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	23.6	KLPL/SOP/AIR-06
Carbon Monoxide (CO) (01 Hrs.)	%	01	0.007	KLPL/SOP/AIR-06
Velocity	m/sec	-	23.24	KLPL/SOP/AIR-06
Oxygen	%	-	3.91	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	456	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	291.6	IS 11255 (part-7):2005
carbon Dioxide	%	--	16.28	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2975092	KLPL/SOP/AIR-06
Pressure	mmH2O	--	31.13	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B73702715563

KLPL- 344708A1



KALYANI LABORATORIES PVT. LTD.

AS 991, PATIALA, BILASPUR, JHARKHAND, INDIA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006511P

Test Report No : 864 | 83561B73 KLPL/3/21/ENVN/01051A

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Mar-2021

Commenced On : 08-Mar-2021

Completion On: 12-Mar-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

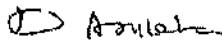
Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT 37 METER , 06.03.2021				
Sulphur Dioxide	mg/Nm ³	600	704.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	21.8	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.068	KLPL/SOP/AIR-06
Velocity	m/sec	-	7.15	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	398	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	303.6	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.88	KLPL/SOP/AIR-06
Oxygen	%	--	5.24	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1516504	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	3.38	KLPL/SOP/AIR-06

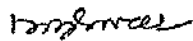
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557

KLPL- 344787A1



KALYANI LABORATORIES PVT. LTD.

(ISO 9001:2015) ISO 17025:2017

TEST REPORT



NABL ULR NO : TC704321000006511P

Test Report No : 864 | 83561B73 KLPL/3/21/ENVN/01051B

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 11-Mar-2021

Commenced On : 11-Mar-2021

Completion On: 15-Mar-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-1, 08.03.2021				
Sulphur Dioxide	mg/Nm ³	600	768.4	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	35.2	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.079	KLPL/SOP/AIR-06
Velocity	m/sec	-	6.95	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	397	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	364.3	IS 11255 (part-7):2005
carbon Dioxide	%	--	10.12	KLPL/SOP/AIR-06
Oxygen	%	--	5.17	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1453729	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	3.2	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557
KLPL-344796A



KALYANI LABORATORIES PVT. LTD.

749411, P. VILL, BHL RAIPUR, JALPAIGURI, ODISHA

TEST REPORT



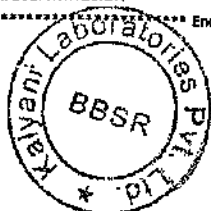
NABL ULR NO : TC704321000007027P
Test Report No : 864 | 86531B73 KLPL/3/21/ENVN/01051C
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 11-Mar-2021 Commenced On : 11-Mar-2021
Issue Date : 06 Apr 2021
Amendment Date : -
Completion On: 15-Mar-2021
Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : --
Quantity : 1 NOS
Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II, 09.03.2021				
Sulphur Dioxide	mg/Nm ³	-	740.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	26.4	KLPL/SOP/AIR-06
Carbon Monoxide (CO) (01 Hrs.)	%	01	0.009	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.0	KLPL/SOP/AIR-06
Oxygen	%	-	4.53	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	437	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	340.8	IS 11255 (part-7):2005
carbon Dioxide	%	--	13.19	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2977471	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	29.1	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B73702715563

KLPL- 344785A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704321000006511P

Test Report No : 864 | 83561873 KLPL/3/21/ENVN/01051D

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 22-Mar-2021

Commenced On : 22-Mar-2021

Completion On: 26-Mar-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-III, 19.03.2021				
Sulphur Dioxide	mg/Nm ³	600	670.1	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	24.4	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.069	KLPL/SOP/AIR-06
Velocity	m/sec	-	13.62	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	410	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	275.8	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.81	KLPL/SOP/AIR-06
Oxygen	%	--	4.62	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2831634	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	11.9	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557

KLPL- 34478AA1

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED

TEST REPORT



NABL ULR NO : TC704321000007027P

Test Report No : 864 | 86531B73 KLPL/3/21/ENVN/01051E

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013408 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 22-Mar-2021

Commenced On : 22-Mar-2021

Completion On: 26-Mar-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref.To Sampling Procedure: QSP-07

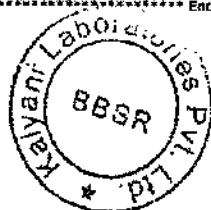
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -I, 20.03.2021				
Sulphur Dioxide	mg/Nm ³	-	702.6	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	28.5	KLPL/SOP/AIR-06
Carbon Monoxide (CO) (01 Hrs.)	%	01	0.012	KLPL/SOP/AIR-06
Velocity	m/sec	-	22.25	KLPL/SOP/AIR-06
Oxygen	%	-	3.96	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	452	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	-	315.2	IS 11255 (part-7):2005
carbon Dioxide	%	--	16.33	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	2854658	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	28.8	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1873702715563

KLPL- 344782A



KALYANI LABORATORIES PVT. LTD.

78TH, PAHAL, BILUPANAGAR, DIST. ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006511P

Test Report No : 864 | 83561B73 KLPL/3/21/ENVN/01051F

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Mar-2021

Commenced On : 25-Mar-2021

Completion On: 29-Mar-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : POWER PLANT UNIT-II, 22.03.2021				
Sulphur Dioxide	mg/Nm ³	600	735.2	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	26.7	KLPL/SOP/AIR-06
Carbon Monoxide	%	-	0.074	KLPL/SOP/AIR-06
Velocity	m/sec	-	9.24	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	406	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	450	336.8	IS 11255 (part-7):2005
carbon Dioxide	%	--	9.94	KLPL/SOP/AIR-06
Oxygen	%	--	5.30	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	1871110	KLPL/SOP/AIR-06
Mercury	mg/Nm ³	0.03	0.03	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	5.53	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196F651114557

KLPL- 344282A1



KALYANI LABORATORIES PVT. LTD.

30041, PATIALA, G.O. BANGSAR, 751001, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000007027P

Test Report No : 864 | 86531873 KLPL/3/21/ENVN/01051G

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO 6600013488 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Mar-2021

Commenced On : 25-Mar-2021

Completion On: 29-Mar-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : --

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

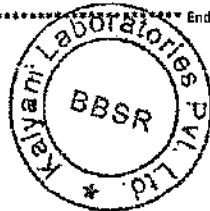
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CALCINER -II, 23.03.2021				
Sulphur Dioxide	mg/Nm ³	-	721.6	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	50	22.4	KLPL/SOP/AIR-06
Carbon Monoxide (CO) (01 Hrs.)	%	01	0.005	KLPL/SOP/AIR-06
Velocity	m/sec	-	23.67	KLPL/SOP/AIR-06
Oxygen	%	-	4.48	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	445	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	322.3	IS 11255 (part-7):2005
carbon Dioxide	%	--	13.15	KLPL/SOP/AIR-06
Quantity of Gas Flow	Nm ³ / hr	-	3043757	KLPL/SOP/AIR-06
Pressure	mmH ₂ O	--	23.1	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B73702715563

KLPL- 344781A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 05-Oct-2020

Commenced On : 05-Oct-2020

Completion On : 10-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 03.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	4.15	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	9.33	IS 5102 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	47.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	21.37	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.41	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	1.5	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Arulaha
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023
KLPL- 342340A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763A

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 12-Oct-2020 Commenced On : 12-Oct-2020

Completion On : 17-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 05.10.2020				
Sulphur Dioxide	µg/m ³	80	6.54	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	60	15.05	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	µg/m ³	100	68.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	32.12	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.36	KLPL/SOP/AIR-19
Ozone (O ₃) (01 Hrs.)	µg/m ³	120	5.8	KLPL/SOP/AIR-19
Lead (Pb) ²⁺	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH ₃)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C ₆ H ₆)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (NI)	µg/m ³	20	4.41	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. S. Wain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anurag

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023
KLPL-342339A
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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58501413 KLPL/10/20/ENVN/00763B

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 12-Oct-2020 Commenced On : 12-Oct-2020

Completion On: 17-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure: KLPL/SOP/AIR-05

Parameters	Unit	Standard Value	Results	Test Methods
Location & Date : CHHATRAPUR VILLAGE, 05.10.2020				
Sulphur Dioxide	µg/m ³	80	4.43	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.32	IS 5162 (PART 6) : 2008
Particulate Matter (PM10)	µg/m ³	100	49.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	22.43	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.42	KLPL/SOP/AIR-19
Ozone (O ₃) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb) ²⁺	µg/m ³	1.0	40.02	KLPL/SOP/AIR-10
Ammonia (NH ₃)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C ₆ H ₆)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anurag

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023
KLPL- 342338A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763C

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 12-Oct-2020

Commenced On : 12-Oct-2020

Completion On: 17-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 07.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.25	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.21	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	54.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	27.16	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.64	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. B. Swain
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342337A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC70432000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763D

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 12-Oct-2020

Commenced On : 12-Oct-2020

Completion On: 17-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 08.10.2020				
Sulphur Dioxide	µg/m ³	80	7.17	IS 5182 (PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.24	IS 5182 (PART-6) : 2008
Particulate Matter (PM10)	µg/m ³	100	59.0	IS 5182 (PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	25.43	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342336A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005139P

TEST REPORT



Test Report No : 519 | 58601413 KLPL/10/20/ENVN/00763E Issue Date : 05-Nov-2020
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 12-Oct-2020 Commenced On : 12-Oct-2020 Completion On : 17-Oct-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & date : REHABILITATION COLONY, 09.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.16	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.25	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	55.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	26.21	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.68	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763F

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 12-Oct-2020

Commenced On : 12-Oct-2020

Completion On : 17-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 10.10.2020				
Sulphur Dioxide	µg/m ³	80	4.49	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.20	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	48.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	22.03	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. S. Wadhwa

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/007636

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19-Oct-2020

Commenced On : 19-Oct-2020

Completion On : 24-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 12.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.23	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	13.22	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	70.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	31.12	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	1.37	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	6.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	4.45	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. S. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anybha
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342343A
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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763H

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19-Oct-2020

Commenced On : 19-Oct-2020

Completion On : 24-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 13.10.2020				
Sulphur Dioxide	µg/m ³	80	4.35	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.03	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	46.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.10	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.39	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-20
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

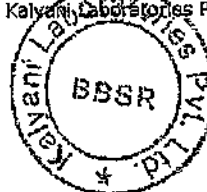
Any unusual feature observed during determination : NIL

***** End of Test Report *****

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023
KLPL- 342342A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/007631

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.

Date of receipt : 19-Oct-2020

Commenced On : 19-Oct-2020

Completion On : 24-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 14.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.34	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.32	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	52.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.21	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.62	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023

KLPL- 342341A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005139P

TEST REPORT



Test Report No : 619 | 58601413 KLPL/10/20/ENVN/007631 Issue Date : 05-Nov-2020

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19-Oct-2020 Commenced On : 19-Oct-2020 Completion On: 24-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref To Sampling Procedure: KLPL/SOP/AIR-06

Parameters Unit Standard Value Results Test Method

Location & Date : - LANJIGARH VILLAGE, 15.10.2020

Sulphur Dioxide	µg/m ³	80	6.21	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.45	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	55.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	23.48	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.41	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Arulaha
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342328A
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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005139P

TEST REPORT



Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763K

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19-Oct-2020

Commenced On : 19-Oct-2020

Completion On : 24-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 16.10.2020				
Sulphur Dioxide	µg/m³	80	6.16	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	11.15	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	53.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	22.63	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.65	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swachh

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Swachh
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023

KLPL- 342327A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 68601413 KLPL/10/20/ENVN/00763L

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19-Oct-2020

Commenced On : 19-Oct-2020

Completion On : 24-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 17.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.12	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	9.20	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	46.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	20.42	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.40	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342328A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 56601413 KLPL/10/20/ENVN/00763M

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Oct-2020

Commenced On : 26-Oct-2020

Completion On : 31-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 19.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.11	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.03	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	73.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	33.19	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	1.41	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	5.1	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	4.75	KLPL/SOP/AIR-10

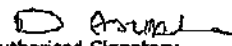
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.


Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342325A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005139P

TEST REPORT



Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763N
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 26-Oct-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref. To Sampling Procedure: KLPL/SOP/AIR-D6

Issue Date : 05-Nov-2020

Amendment Date : -

Completion On: 31-Oct-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
CHHATRAPUR VILLAGE, 20.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	4.31	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	9.21	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	48.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.13	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.41	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	1.5	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. S. Wadh

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342324A
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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005139P

TEST REPORT



Test Report No : 519 | 58601413 KLPL/10/20/ENVN/007630
 Amendment No : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 26-Oct-2020 Commenced On : 26-Oct-2020
 Issue Date : 05-Nov-2020
 Amendment Date : -
 Completion On : 31-Oct-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NO
 Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Result	Test Method
Location & Date : MID DAY MEAL, 21.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.07	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.18	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	51.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.33	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.60	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	130	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<1.0	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Ananta
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342323A
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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/D0763P

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Oct-2020

Commenced On : 26-Oct-2020

Completion On : 31-Oct-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 22.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.48	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.08	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	54.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.11	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.40	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Arunachala
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005139P

TEST REPORT



Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763Q Issue Date : 05-Nov-2020
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6500013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 26-Oct-2020 Commenced On : 26-Oct-2020 Completion On: 31-Oct-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NO
 Ref.To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 23.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.39	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.34	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	52.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	50	22.13	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.64	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 & II
Benza (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. S. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anubh
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342321A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC70432000005139P

TEST REPORT



Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763R
 Amendment No : -
 Reference : ORDER NO-5600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 02-Nov-2020 Commenced On : 02-Nov-2020 Completion On: 05-Nov-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NO
 Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameter	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 26.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.29	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	15.22	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	71.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	29.29	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	1.38	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	5.8	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	4.49	KLPL/SOP/AIR-10

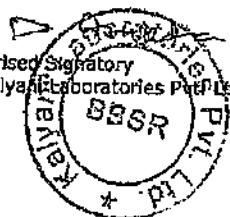
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



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 KLPL- 342320A

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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P
Test Report No : 619 | 58601413 KLPL/10/20/ENVN/007635 Issue Date : 05-Nov-2020
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 02-Nov-2020 Commenced On : 02-Nov-2020 Completion On : 05-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 27.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	4.10	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	9.57	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	49.0	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.33	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anurag
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC70432000005139P

TEST REPORT



Test Report No : 619 | 58601413 KLPL/10/20/ENVH/00763Y Issue Date : 05-Nov-2020
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 02-Nov-2020 Commenced On : 02-Nov-2020 Completion On : 05-Nov-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NO
 Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 28.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.15	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.34	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	53.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	23.48	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.63	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

B-Swain
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.

D. Anand
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



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 KLPL- 342332A
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KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763U

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 02-Nov-2020

Commenced On : 02-Nov-2020

Completion On: 05-Nov-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 29.10.2020				
Sulphur Dioxide	µg/m ³	80	6.23	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.59	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	56.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	24.05	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anurag

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023
KLPL- 342331A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763V

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-5600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 02-Nov-2020

Commenced On : 02-Nov-2020

Completion On: 05-Nov-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 30.10.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.41	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.46	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	51.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.53	KLPL/SOP/AIR-02
Carbon Monoxide, (CO) (01 Hrs.)	mg/m^3	04	0.63	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<1.0	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

B. Swain

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023

KLPL- 342330A-1



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005139P

Test Report No : 619 | 58601413 KLPL/10/20/ENVN/00763W

Issue Date : 05-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-5600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.

Date of receipt : 02-Nov-2020

Commenced On : 02-Nov-2020

Completion On: 05-Nov-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure: KLPL/SOP/AIR-06

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
Sulphur Dioxide	µg/m ³	80	4.44	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.11	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	47.0	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	21.46	KLPL/SOP/AIR-02
Carbon Monoxide(CO) (01 Hrs.)	mg/m ³	04	0.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any Unusual feature observed during determination : NIL

End of Test Report

B. Swamy

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1413513912023

KLPL- 342329A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

W-97, P.M.A., 30th K.V.D., 5th Floor, 7th Fl.

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 09 Nov 2020
Commenced On : 09 Nov 2020
Completion On : 14-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 02.11.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.46	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	16.21	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	72.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	80	32.27	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	1.38	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	6.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	4.14	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Aravinda
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Aravinda
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL-343787A1

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC70432000005351P
 Test Report No : 661 | KLPL/L1/20/ENVN/00839A
 Amendment No :
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 09-Nov-2020 Commenced On : 09-Nov-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref. To Sampling Procedure: QSP-07

Issue Date : 05 Dec 2020
 Amendment Date :
 Completion On: 14-Nov-2020

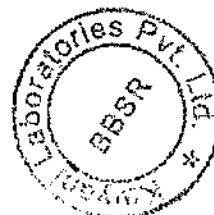
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 03.11.2020				
Sulphur Dioxide	µg/m ³	80	4.49	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	9.31	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	51.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.28	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347
 KLPL- 343186A of 1



KALYANI LABORATORIES PVT. LTD.

PA. 44, RAHAT, BILUPADA, ODISHA-751004

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC70432000005351P

Test Report No : 661 | KLPL/11/20/ENVN/00839B

Issue Date : 05-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 09-Nov-2020 Commenced On : 09-Nov-2020

Completion On: 14-Nov-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 04.11.2020				
Sulphur Dioxide	µg/m ³	80	5.14	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.29	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	53.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	22.13	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.63	KLPL/SOP/AIR-13
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 342185A



KALYANI LABORATORIES PVT. LTD.

24/99, PALLI, DWP, KANAKA, VILLAGE, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839C Issue Date : 05-Dec-2020
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 09-Nov-2020 Commenced On : 09-Nov-2020 Completion On : 14-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 05.11.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.15	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.19	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	55.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.43	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	190	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

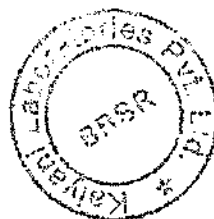
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyse By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 34348AA



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839D
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.
Date of receipt : 09-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

Issue Date : 05-Dec-2020

Amendment Date : -

Completion On : 14-Nov-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 06.11.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.67	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.40	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	57.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	23.48	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.67	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anubha
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anubha
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343183A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Unit: 101, Nilgiri, Kalyani Nagar, Kolkata - 700016

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839E
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027
Date of receipt : 09-Nov-2020
Commenced On : 09-Nov-2020
Completion On : 14-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 07.11.2020				
Sulphur Dioxide	µg/m ³	80	5.23	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	9.13	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	49.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	22.43	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	1.5	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

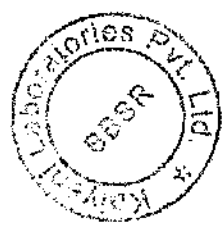
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

[Signature]
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.

[Signature]
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347
 KLPL-343182A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANAL. LAB., BIL. BAYAN, AS. 751001, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 KLPL/11/20/ENVN/00839F
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 16-Nov-2020 **Commenced On** : 16-Nov-2020 **Completion On** : 21-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 09.11.2020				
Sulphur Dioxide	µg/m ³	80	7.20	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	17.45	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	74.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	31.36	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.40	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	7.3	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	4.32	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347
 KLPL- 343181A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYTICAL LABORATORY

NABL ULR NO : TC704320000005351P

TEST REPORT



Test Report No : 661 | KLPL/11/20/ENVN/00839C

Issue Date : 05-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 16-Nov-2020 Commenced On : 16-Nov-2020

Completion On : 21-Nov-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 10.11.2020				
Sulphur Dioxide	µg/m ³	80	5.28	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	9.75	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	52.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	22.33	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.45	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347
KLPL- 343180A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839H
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 16-Nov-2020
Commenced On : 16-Nov-2020
Completion On : 21-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 11.11.2020				
Sulphur Dioxide	µg/m ³	80	5.16	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.36	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	54.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	25.11	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs)	mg/m ³	04	0.64	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.5	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 B. II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

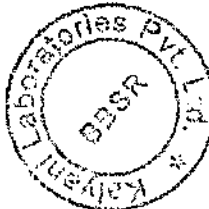
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347
 KLPL- 343179A
 Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

KALYANI, BALASORE, DIST. BALASORE, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005351P

Test Report No : 661 | KLPL/11/20/ENVN/008391

Issue Date : 05-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 16-Nov-2020 Commenced On : 16-Nov-2020

Completion On: 21-Nov-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 12.11.2020				
Sulphur Dioxide	µg/m ³	80	6.13	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.43	IS 5182 (PART 5) :2006
Particulate Matter (PM10)	µg/m ³	100	57.0	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	26.44	KLPL/SOP/AIR-04
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.45	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343178A

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KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/008393
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 16-Nov-2020 **Commenced On** : 16-Nov-2020 **Completion On** : 21-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 13.11.2020				
Sulphur Dioxide	µg/m ³	80	6.32	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.94	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	56.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	25.32	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.66	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347
KLPL- 343177A

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KALYANI LABORATORIES PVT. LTD.

11/11/2020 11:11:11 AM

TEST REPORT



NABL ULR NO : IC/04320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839K
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 23-Nov-2020 Commenced On : 23-Nov-2020 Completion On : 28-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	PLANT SITE, 16.11.2020			
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.11	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.27	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	73.0	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	30.18	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	1.39	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	6.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR 05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	4.52	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347
KLPL- 343176A

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KALYANI LABORATORIES PVT. LTD.

NEW PARADE, LANJIGARH, DIST. KALAHANDI, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : IC/04320000005351P
 Test Report No : 661 | KLPL/11/20/ENVN/00839L
 Amendment No : -
 Reference : ORDER NO-6600013468 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST - KALAHANDI, ODISHA-766027.
 Date of receipt : 23-Nov-2020 Commenced On : 23-Nov-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref. To Sampling Procedure: QSP-07

Issue Date : 05-Dec-2020
 Amendment Date : -

Completion On: 28-Nov-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 17.11.2020				
Sulphur Dioxide	µg/m ³	80	4.35	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.08	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	50.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.10	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	160	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347
 KLPL- 343175A
 Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704320000005351P

Test Report No : 661 | KLPL/11/20/ENVN/00839M

Issue Date : 05-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 23-Nov-2020 Commenced On : 23-Nov-2020

Completion On: 20 Nov 2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 15.11.2020				
Sulphur Dioxide	µg/m ³	80	4.72	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.28	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	55.0	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	25.11	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.55	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.8	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

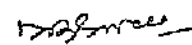
Remarks : NIL

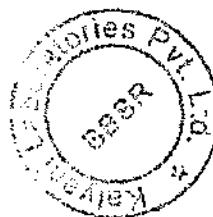
Any unusual feature observed during determination : NIL

End of Test Report

Analyst

Analysed By
For Kalyani Laboratories Pvt. Ltd.


Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343174A of 1



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

TEST REPORT



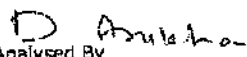
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Test Report No : 661 | KLPL/11/20/ENVN/00839N **Issue Date** : 05-Dec-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 23-Nov-2020 **Commenced On** : 23-Nov-2020 **Completion On** : 28-Nov-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

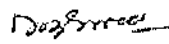
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 19.11.2020				
Sulphur Dioxide	µg/m ³	80	6.23	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.40	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	56.0	IS 5182(PART-23) :2005
Particulate Matter (PM2.5)	µg/m ³	60	26.32	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<1.0	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (NI)	µg/m ³	20	<4	KLPL/SOP/AIR-10

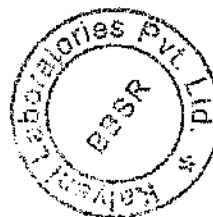
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report


 Analysed By
 For Kalyani Laboratories Pvt. Ltd.


 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343126Aof1



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

20, 11, 2020

TEST REPORT



NABL ULR NO : TC704320000005351P

Test Report No : 661 | KLPL/11/20/ENVN/008390

Issue Date : 05-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST. KALAHANDI, ODISHA 766027.

Date of receipt : 23-Nov-2020

Commenced On : 23-Nov-2020

Completion On : 28-Nov-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 20.11.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.11	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.22	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	57.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	26.44	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.57	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 3431254

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KALYANI LABORATORIES PVT. LTD.

WIND TUNNEL, SPM, BANGKOK, THAILAND

TEST REPORT



NABL IIR NO : TC704320000005351P

Test Report No : 661 | KLPL/11/20/ENVN/00839P

Issue Date : 05-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 23-Nov-2020 Commenced On : 23-Nov-2020

Completion On: 28-Nov-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 21.11.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.30	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.46	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	51.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	21.37	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.44	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	1.5	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

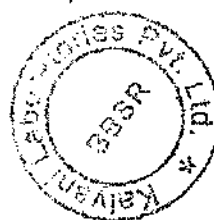
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL-343124A of 1



KALYANI LABORATORIES PVT. LTD.

70, PLOT NO. 11, INDUSTRIAL ESTATE, KALAHANDI, ODISHA-766027

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839Q Issue Date : 05-Dec-2020
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 30-Nov-2020 Commenced On : 30-Nov-2020 Completion On : 04 Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 23.11.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	8.22	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	15.36	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	71.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	33.19	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	1.37	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	7.3	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-16
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	4.41	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343123A of 1



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839R Issue Date : 05-Dec-2020
Amendment No : - Amendment Date :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.
Date of receipt : 30 Nov-2020 Commenced On : 30-Nov-2020 Completion On: 04-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 24.11.2020				
Sulphur Dioxide	µg/m ³	80	5.14	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.31	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	52.0	IS 5183(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	23.05	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.46	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343122A of 1



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

10-11-2020 10:11:20 AM

TEST REPORT



NABL ULR NO : TC704320000005351P
 Test Report No : 661 | KLPL/11/20/ENVN/00839S
 Amendment No :
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 30-Nov-2020 Commenced On : 30 Nov-2020 Completion On: 04-Dec-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 25.11.2020				
Sulphur Dioxide	µg/m ³	80	5.16	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.23	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	55.0	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	26.21	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	84	0.66	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

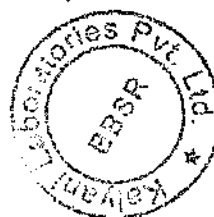
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343124A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

100/41, PANDIT, ITR, BANESWAR, KOLKATA-700014

TEST REPORT



NABL ULR NO : TC704320000005351P

Test Report No : 661 | KLPL/11/20/ENVN/00839T

Issue Date : 05-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 30-Nov-2020 Commenced On : 30-Nov-2020

Completion On : 04-Dec-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 26.11.2020				
Sulphur Dioxide	µg/m³	80	7.22	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	12.66	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	57.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	27.41	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.45	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	µg/m³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

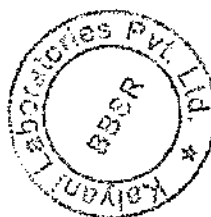
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By :
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory :
For Kalyani Laboratories Pvt. Ltd.



14E7535112347
KLPL- 343120A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 | KLPL/11/20/ENVN/00839U
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 30-Nov-2020
Commenced On : 30-Nov-2020
Completion On : 04-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 27.11.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.09	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	12.20	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	58.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	27.16	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	0.4	0.69	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

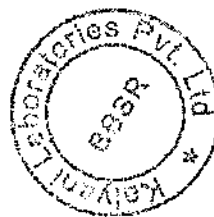
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL-343188A of 1



KALYANI LABORATORIES PVT. LTD.

21/60, PALLI, BIL, BHANSEN, CUTTACK, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005351P

Test Report No : 661 | KLPL/11/20/ENVN/00839V

Issue Date : 05 Dec 2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 Dt-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.

Date of receipt : 30-Nov-2020 Commenced On : 30-Nov-2020

Completion On: 04-Dec-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 28.11.2020				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.07	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	9.22	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	52.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.53	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs)	mg/m^3	04	0.45	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs)	$\mu\text{g}/\text{m}^3$	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anil
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Dr. Anil
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343148A of 1



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Central Office: 101, Kalyani Nagar, Pune-411 004

TEST REPORT



NABL ULR NO : TC704320000005351P
Test Report No : 661 / KLPL / 11 / 20 / ENVN / 00839W **Issue Date** : 03-Dec-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Dec-2020 **Commenced On** : 02-Dec-2020 **Completion On** : 04-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 30.11.2020				
Sulphur Dioxide	µg/m ³	80	5.12	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	9.09	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	µg/m ³	100	50.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.19	KLPL/SOP/AIR-07
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.41	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	1.5	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

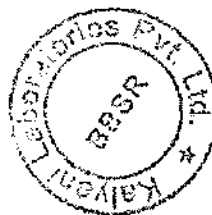
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Arvika
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Prof. V. S. Kulkarni
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



14E7535112347

KLPL- 343117A of 1

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

NABL ULR NO : TC704321000005687P
Test Report No : 696 | 68701637 KLPL/12/20/ENVN/00892
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Dec-2020 Commenced On : 07-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

TEST REPORT

Issue Date : 05-Jan-2021

Amendment Date : ..

Completion On: 12-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHNATRAPUR VILLAGE, 01.12.2020				
Sulphur Dioxide	µg/m³	80	4.29	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	9.25	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	50.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	22.43	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anil Kumar
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.

D. Anil Kumar
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1637568713067
 KLPL-343765A
 Page 1 of 1

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

NABL ULR NO : TC704321000005687P
Test Report No : 696 | 68701637 KLPL/12/20/ENVN/00892A
Amendment No :
Reference : ORDER NO-6600013488 DT 16 12 2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Dec-2020 Commenced On : 07-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref To Sampling Procedure : QSP-07

TEST REPORT



Issue Date : 05-Jan-2021

Amendment Date : -

Completion On: 12-Dec-2020

Parameters : **Unit** : **Standard Value** : **Results** : **Test Method**
Location & Date : MID DAY MEAL, 02.12.2020

Sulphur Dioxide	µg/m³	80	9.19	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	10.05	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m³	100	55.0	IS 5182(PART 23) :2006
Particulate Matter (PM2.5)	µg/m³	60	25.11	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.65	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL- 343754A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

NABL ULR NO

Test Report No

Amendment No

Reference

Customer Name

Address

Date of receipt

Sample Name

Sample Condition

Quantity

Ref. To Sampling Procedure

TEST REPORT

TC704321000005687P

696 | 69701637 KLPL/12/20/ENVN/00892C

ORDER NO-6600013488 DT-16.12.2019

VEDANTA LIMITED, LANJIGARH

PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

07-Dec-2020 Commenced On : 07-Dec-2020

AMBIENT AIR QUALITY MONITORING

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

1 NOS

QSP-07



Issue Date

05-Jan-2021

Amendment Date

Completion On: 12-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
		REHABILITATION COLONY, 04.12.2020		
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.51	IS 5102(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.31	IS 5102 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	93.0	IS 5102(PART-2) : 2001
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.23	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.63	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL-343752A

Page 1 of 1

KALYANI LABORATORIES PVT. LTD.

NABL UIR NO

Test Report No

Amendment No

Reference

Customer Name

Address

Date of receipt

Sample Name

Sample Condition

Quantity

Ref To Sampling Procedure

Parameters

Location & Date

TEST REPORT
TC704321000005687P
696 | 68701637 KLPL/12/20/ENVN/008928

Issue Date : 05-Jan-2021

Amendment Date

ORDER NO-6600011488 DT-16.12.2019

VEDANTA LIMITED, LANJIGARH

PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

07-Dec-2020 Commented On : 07-Dec-2020

Completion On: 12-Dec-2020

AMBIENT AIR QUALITY MONITORING

GASFOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

1 NOS

QSP-07

Unit

Standard Value

Results

Test Method

- LANJIGARH VILLAGE, 03.12.2020

Sulphur Dioxide	µg/m³	80	6.03	IS 5162(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	11.07	IS 5102 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	56.0	IS 5162(PART 2) : 2006
Particulate Matter (PM2.5)	µg/m³	60	26.21	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

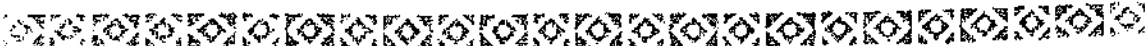
D. Ananta
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343753A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT

NABL ULR NO : TC704321000005687P
Test Report No : 696 | 68701637 KLPL/12/20/ENVN/00892D
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Dec-2020 Commenced On : 07-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. to Sampling Procedure: QSP-07

Issue Date : 05-Jan-2021
Amendment Date : -
Completion On: 12-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	BELAMBA VILLAGE, 05.12.2020			
Sulphur Dioxide	µg/m ³	80	4.79	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	9.35	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	51.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.37	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	7.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyzed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067
RCL-343781A

KALYANI LABORATORIES PVT. LTD.

NABL ULR NO

Test Report No

Amendment No

Reference

Customer Name

Address

Date of receipt

Sample Name

Sample Condition

Quantity

Ref. To Sampling Procedure

TEST REPORT
TC704921000005687P
596 | 68701637 KLPL/12/20/ENVN/00892E



Issue Date : 05-Jan-2021

Amendment Date : -

ORDER NO-6600013400 DT-16.12.2019

VEDANTA LIMITED, LANJIGARH

PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.

14-Dec-2020 Commenced On : 14-Dec-2020

Completion On: 19-Dec-2020

AMBIENT AIR QUALITY MONITORING

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

1 NOS

QSP-07

Parameters

Unit

Standard Value

Results

Test Method

Location & Date

PLANT SITE, 07.12.2020

Sulphur Dioxide	µg/m³	80	7.30	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	16.30	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	75.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	33.48	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs)	mg/m³	04	1.41	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	9.8	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	5.42	KLPL/SOP/AIR-10

Remarks

NIL

Any unusual feature observed during determination

NIL

End of Test Report

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

For Kalyani Laboratories Pvt. Ltd.



1637568713067
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Page 1 of 1

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

NABL ULR NO : TC704321000005687P
Test Report No : 696 | 68701637 KLPL/12/20/ENVN/00692
Amendment No :
Reference : ORDER NO-6600013488 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 14-Dec-2020 Commenced On : 14-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref To Sampling Procedure : QSP-07

Issue Date : 05-Jan-2021
Amendment Date :
Completion On : 19-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 08.12.2020				
Sulphur Dioxide	µg/m ³	80	4.84	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	3.40	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	µg/m ³	100	52.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	22.03	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.46	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-18
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analyse By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1637568713067
 KLPL- 343749A
 Page 1 of 1

KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000005687P
 Test Report No : 696 | 68701637 KLPL/12/20/ENVN/008926
 Amendment No :
 Reference : ORDER NO-6600013488 DT 16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 14-Dec-2020 Commenced On : 14-Dec-2020 Completion On: 19-Dec-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	MID DAY MEAL, 09.12.2020			
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.16	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.46	IS 5182 (PART 6) 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	83.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.33	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.63	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1637568713067
 KLPL- 343748A
 Page 1 of 1

KALYANI LABORATORIES PVT. LTD.

NABL ULR NO

Test Report No

Amendment No

Reference

Customer Name

Address

Date of receipt

Sample Name

Sample Condition

Quantity

Ref To Sampling Procedure

TEST REPORT
 : TC704921000005687P
 : 696 | 68701637 KLPL/12/20/ENVN/00892H



Issue Date : 05-Jan-2021

Amendment Date

ORDER NO-6600013488 DT-16.12.2019

VEDANTA LIMITED, LANJIGARH

PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

14-Dec-2020 Commenced On : 14-Dec-2020

Completion On: 19-Dec-2020

AMBIENT AIR QUALITY MONITORING

GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED

: 1 NOS

QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	: LANJIGARH VILLAGE, 10.12.2020			
Sulphur Dioxide	µg/m³	80	7.09	IS 5182(PART-7) : 2001
Nitrogen Dioxide	µg/m³	80	11.39	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	58.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	26.32	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.46	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By *D. Anil*
 For Kalyani Laboratories Pvt. Ltd.

D. Anil
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1637568713067
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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005687P
 Test Report No : 696 | 68701637 KLPL/12/20/ENVN/008921
 Amendment No :
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.
 Date of receipt : 14-Dec-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref. To Sampling Procedure : QSP-07
 Issue Date : 05-Jan-2021
 Amendment Date :
 Completion On : 19-Dec-2020
 Commenced On : 14-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
Sulphur Dioxide	µg/m³	80	5.19	IS 5182 (PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	10.11	IS 5182 (PART 4) : 2006
Particulate Matter (PM10)	µg/m³	100	55.0	IS 5182 (PART-23) : 2005
Particulate Matter (PM2.5)	µg/m³	60	21.28	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.65	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By : *[Signature]*
 For Kalyani Laboratories Pvt. Ltd.

[Signature]
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



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 KLPL-343746A
 Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

NABL ULR NO : TC704321000005687P
Test Report No : 696 [68701637 KLPL/12/20/ENVN/00892J
Amendment No :
Reference : ORDER NO-0600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 14-Dec-2020 **Commenced On** : 14-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

TEST REPORT



Issue Date : 05-Jan-2021

Amendment Date :

Completion On : 19-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 12.12.2020				
Sulphur Dioxide	µg/m ³	80	4.40	IS 5102(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	9.45	IS 5102 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	48.0	IS 5102(PART 23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.10	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	1.5	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL-343745A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

NABL ULR NO

: TC704321D00005687P

TEST REPORT

Test Report No

: 696 | 68701637 KLPL/12/20/ENVN/00892K

Issue Date : 05-Jan-2021

Amendment No

Amendment Date : -

Reference

: ORDER NO-6600013488 DT-16.12.2019

Customer Name

: VEDANTA LIMITED, LANJIGARH

Address

: PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt

: 21-Dec-2020 Commenced On : 21-Dec-2020

Completion On: 26-Dec-2020

Sample Name

: AMBIENT AIR QUALITY MONITORING

Sample Condition

: GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED

Quantity

: 1 NOS

Ref To Sampling Procedure:

: QSP-07

Parameters

Unit

Standard Value

Results

Test Method

Location & Date

: PLANT SITE, 14.12.2020

Sulphur Dioxide	µg/m ³	80	7.44	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.44	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	73.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	34.05	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.38	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	6.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	4.74	KLPL/SOP/AIR-10

Remarks

: NIL

Any unusual feature observed during determination

: NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL-3437449

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005687P
Test Report No : 696 | 68701637 KLPL/12/20/ENVN/00892L
Amendment No :
Reference : ORDER NO 6600013400 DT-16 12 2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Dec-2020 **Commenced On** : 21-Dec-2020 **Completion On** : 26-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 15.12.2020				
Sulphur Dioxide	µg/m ³	80	4.47	IS 5182 (PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	9.57	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	51.0	IS 5182 (PART 23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.37	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1637568713067
 KLPL- 343743A
 Page 1 of 1

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005687P
 Test Report No : 696 | 68701637 KLPL/12/20/ENVH/00892M
 Amendment No :
 Reference : ORDER NO-G60ND13488 DT 16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 21-Dec-2020 Commenced On : 21 Dec-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref. To Sampling Procedure : QSP-07

Issue Date : 05-Jan-2021
 Amendment Date : -

Completion On: 26-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 16.12.2020				
Sulphur Dioxide	µg/m ³	80	5.49	IS 5182(PART-2) :2001
Nitrogen Dioxide	µg/m ³	80	10.08	IS 5182 (PART 5) :2006
Particulate Matter (PM10)	µg/m ³	100	54.0	IS 5182(PART-21) :2006
Particulate Matter (PM2.5)	µg/m ³	60	22.43	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.64	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6H6)	µg/m ³	03	<1	CPLB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1637568713067
 KLPL-343742A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005687P
 Test Report No : 698 | 68701637 KLPL/12/20/ENVN/00892N
 Amendment No :
 Reference : ORDER NO-6600013488 DT 16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 21-Dec-2020 Commenced On : 21-Dec-2020
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref. To Sampling Procedure: QSP-07

Issue Date : 05-Jan-2021
 Amendment Date :

Completion On: 26-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 17.12.2020				
Sulphur Dioxide	µg/m³	80	6.07	IS 5182(PART-2) :2001
Nitrogen Dioxide	µg/m³	80	12.30	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m³	100	61.0	IS 5102(PART-23) :2006
Particulate Matter (PM2.5)	µg/m³	60	28.18	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.48	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1637568713067
 KLPL-343741A



KALYANI LABORATORIES PVT. LTD.

NABL ULR NO : TC704321000005687P
Test Report No : 696 | 68701637 KLPL/12/20/ENVN/008920

TEST REPORT



Issue Date : 05-Jan-2021

Amendment Date :

Reference : ORDER NO-6600013498 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.

Date of receipt : 21-Dec-2020 Commenced On : 21-Dec-2020

Completion On: 25-Dec-2020

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS
Ref To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date		REHABILITATION COLONY, 18.12.2020		
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.09	IS 5182 (PART 7) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.10	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	92.0	IS 5182 (PART 22) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.13	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.61	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By : D. Ananta
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory :
For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL- 343740A
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KALYANI LABORATORIES PVT. LTD.

NABL ULR NO

TC704321000005687P

Test Report No

696 | 68701537 KLPL/12/20/ENVH/00892P

Amendment No

Reference

ORDER NO-6500013488 DT 16.12.2019

Customer Name

VEDANTA LIMITED, LANJIGARH

Address

PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.

Date of receipt

21-Dec-2020 Commenced On: 21-Dec-2020

Issue Date 05-Jan-2021

Amendment Date

Completion On: 26-Dec-2020

Sample Name

AMBIENT AIR QUALITY MONITORING

Sample Condition

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity

1 NOS

Ref. To Sampling Procedure

QSP-07

Parameters

Unit

Standard Value

Results

Test Method

Location & Date

BELAMBA VILLAGE, 19.12.2020

Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	4.76	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	9.63	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	51.0	IS 5182(PART-7.3) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	21.28	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-18
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks

NIL

Any unusual feature observed during determination

NIL

End of Test Report

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

For Kalyani Laboratories Pvt. Ltd.



163/568713067
KLPL-349739A



KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC704321000005687P

Test Report No : 696 | 68701637 KLPL/12/20/ENVH/06B92Q

Issue Date : 05-Jan-2021

Amendment No

Amendment Date : -

Reference

ORDER NO-6600013488 DT-16-12-2019

Customer Name

VEDANTA LIMITED, LANJIGARH

Address

PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.

Date of receipt

28-Dec-2020 Commenced On : 28-Dec-2020

Completion On: 31-Dec-2020

Sample Name

AMBIENT AIR QUALITY MONITORING

Sample Condition

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity

1 NOS

Ref. To Sampling Procedure

QSP-07

Parameters

Unit

Standard Value

Results

Test Method

Location & Date

PLANT SITE, 21.12.2020

Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	8.14	IS 5182 (PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	18.22	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	74.0	IS 5182 (PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	35.09	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	1.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	7.3	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	4.54	KLPL/SOP/AIR-10

Remarks

NIL

Any unusual feature observed during determination

NIL

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL- 343738A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

NABL ULR NO : TC704321000005687P
Test Report No : 696 | 68701637 KLPL/12/20/ENVN/00892H
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 28-Dec-2020 **Commenced On** : 28-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

TEST REPORT



Issue Date : 05-Jan-2021

Amendment Date : -



Completion On : 31-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 22.12.2020				
Sulphur Dioxide	ppm ³	80	4.23	IS 5182(PART-2) : 2001
Nitrogen Dioxide	ppm ³	80	10.23	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	ppm ³	100	52.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	ppm ³	60	22.33	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.47	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	ppm ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	ppm ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	ppm ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	ppm ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	ppm ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	ppm ³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	ppm ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL- 343727A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

NABL ULR NO

Test Report No

Amendment No

Reference

Customer Name

Address

Date of receipt

Sample Name

Sample Condition

Quantity

Ref To Sampling Procedure

Parameters

Location & Date

TC7D432100005587P

596 | 687D1637 KLPL/12/20/ENVN/00892S

TEST REPORT



Issue Date : 05-Jan-2021

Amendment Date

ORDER NO-6600013488 DT 16-12-2019

VEDANTA LIMITED, LANJIGARH

PO - LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

28-Dec-2020 Commenced On : 28-Dec-2020

Completion On: 31-Dec-2020

AMBIENT AIR QUALITY MONITORING

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

1 NOS

QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
		MID DAY MEAL, 23.12.2020		
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.72	IS 5182 (PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.58	IS 5182 (PART-6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	36.0	IS 5182 (PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	23.48	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.66	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks

: NIL

Any unusual feature observed during determination

: NIL

END OF TEST REPORT

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067

KLPL-343736A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

NABL ULR NO

Test Report No

Amendment No

Reference

Customer Name

Address

Date of receipt

Sample Name

Sample Condition

Quantity

Ref. To Sampling Procedure:

TEST REPORT
TC704321000005687P
696 | 68701637 KLPL/12/20/ENVN/00892T
ORDER NO-6600013488 DT 16.12.2019
VEDANTA LIMITED, LANJIGARH
PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
28-Dec-2020 Commenced On: 28-Dec-2020
AMBIENT AIR QUALITY MONITORING
GAS/FLUO SAMPLE ABSORBING SOLUTIONS REFRIGERATED
1 NOS
QSP-07



Issue Date : 05-Jan-2021

Amendment Date :

Completion On: 31-Dec-2020

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
			- LANJIGARH VILLAGE, 24.12.2020	
Sulphur Dioxide	µg/m ³	80	7.12	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.04	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	63.0	IS 5182(PART-11) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	23.16	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.50	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067

KLPL-343735A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL UIR NO : TC704321000005687P
Test Report No : 695 | 68701637 KLPL/12/20/ENVN/00892U
Amendment No :
Reference : ORDER NO-6600013488 D1-16 12 2019

Issue Date : 05-Jan-2021

Amendment Date :

Customer Name : VEDANTA LIMITED, LANJIGARI
Address : PO - LANJIGARI, DIST - KALAHANDI, ODISHA-766027.

Date of receipt : 28-Dec-2020 Commenced On : 28-Dec-2020

Completion On : 31-Dec-2020

Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref To Sampling Procedure : QSP-07

Parameters : Unit : Standard Value : Results : Test Method :

Location & Date : BELAMBA VILLAGE, 26.12.2020

Sulphur Dioxide	µg/m ³	80	4.22	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.43	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	56.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.46	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.47	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By :
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL- 343734A
Page 1 of 1

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005687P
Test Report No : 696 | 58701637 KLPL/12/20/ENVN/00892V
Amendment No

Issue Date : 05-Jan-2021

Amendment Date

Reference : ORDER NO-G600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 31-Dec-2020 Commenced On : 31-Dec-2020

Completion On: 04-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref To Sampling Procedure : QSP-01

Parameters

Unit

Standard Value

Results

Test Method

Location & Date

PLANT SITE, 28.12.2020

Sulphur Dioxide	µg/m³	80	8.39	IS 5182(PART-2) :2001
Nitrogen Dioxide	µg/m³	80	17.43	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m³	100	77.0	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m³	60	27.28	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	1.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	6.6	KLPL/SOP/AIR-10
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	5.13	KLPL/SOP/AIR-10

Remarks

NIL

Any unusual feature observed during determination

: NIL

End of Test Report

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

For Kalyani Laboratories Pvt. Ltd.



1637568713067

KLPL-343733A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

NABL ULR NO : TC704321000005687P
Test Report No : 696 | 68701637 KLPL/12/20/ENVN/00892W
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.
Date of receipt : 31-Dec-2020 **Commenced On** : 31-Dec-2020
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

TEST REPORT



Issue Date : 05-Jan-2021
Amendment Date : -



Completion On : 04-Jan-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
		REHABILITATION COLONY, 29.12.2020		
Sulphur Dioxide	µg/m ³	80	6.19	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.41	IS 5182 (PART 6) : 2005
Particulate Matter (PM10)	µg/m ³	100	57.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	22.23	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.67	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1637568713067
KLPL- 343732A



KALYANI LABORATORIES PVT. LTD.

70/11, P.M. ST. BUILDING, BALASORE, ODISHA

TEST REPORT

NABL ULR NO : TC704321000006027P

Test Report No : 752 | 7306178B KLPL / 1/21/FNVN/00946

Amendment No : -

Issue Date : 04-Feb-2021

Reference : (MIMR) NO 6600013448 DT 16.12.2019

Amendment Date : -

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 04-Jan-2021 Commenced On : 04-Jan-2021

Completion On: 09-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				CHHATRAPUR VILLAGE, 01.01.2021
Sulphur Dioxide	µg/m³	50	7.46	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	50	10.34	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	59.0	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	26.41	KLPL/SOP/AIR-03
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	5.4	0.18	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	150	1.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benz(a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	05	<1	KLPL/SOP/AIR-13
Nickel (Ni)	µg/m³	20	<1	KLPL/SOP/AIR-10

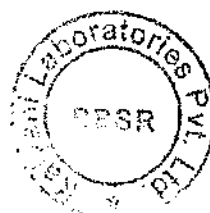
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



176B602713613
KLPL- 3439/9A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT

NABL ULR NO : TC704321000006027P

Test Report No : 752 / 73061788 KLPL / 1 / 21/ENVN/00948A

Amendment No : -

Issued Date : 04-Feb-2021

Reference :

ORDER NO-6600013488 DT-16.12.2019

Customer Name :

VEDANTA LIMITED, LANDIGARH

Address :

PO.- LANDIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt :

04-Jan-2021

Commenced On : 04-Jan-2021

Completion On : 09-Jan-2021

Sample Name :

AMBIENT AIR QUALITY MONITORING

Sample Condition :

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity :

1 NOS

Ref. To Sampling Procedure:

QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
			MID DAY MEAL, 02.01.2021	
Sulphur Dioxide	µg/m ³	80	6.59	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.56	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	25.0	IS 5182(PART-7) : 2005
Particulate Matter (PM2.5)	µg/m ³	50	25.52	KLPL/SOP/AIR-07
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.58	KLPL/SOP/AIR-15
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.5	KLPL/SOP/AIR-15
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-03
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<1	KLPL/SOP/AIR-13

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL-343978A

Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

73-06, PANDIT, MIDHANES, ANAPUR, ODISHA

TEST REPORT



NABL ULR NO : TC7043210000060277

Test Report No : 752 | 73061788 KLPL/1/21/ENVH/009456

Issue Date : 04-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-06000146311-10-17-2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST. - KALAHANDI, ODISHA-760027.

Date of receipt : 11-Jan-2021

Commenced On : 11-Jan-2021

Completion On : 16-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 04.01.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.14	IS 5182 (PART-2) : 2006
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.22	IS 5182 (PART-6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	51.0	IS 5182 (PART-75) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.97	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.0	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	40.92	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<1	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	55	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-04
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<1	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



17806027/13013
KLPL-343077A

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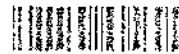


KALYANI LABORATORIES PVT. LTD.

75/40, PALLA, BIMPANESWAR, TILAK, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006027P

Test Report No : 752 : 74061788 KLPL/1/21/ENVN/008460

Issue Date : 04-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-0500013409 DT-16-11-2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST. KALAHANDI, ODISHA-760027.

Date of receipt : 11 Jan 2021

Commenced On : 11 Jan 2021

Completion On : 16-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure : QSP-07

Parameters : Unit : Standard Value : Results : Test Method

Location & Date : REHABILITATION COLONY, 05.01.2021

Sulphur Dioxide	µg/m ³	80	2.27	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	19.25	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	66.0	IS 5182(PART 7) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	33.54	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.76	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	µg/m ³	160	3.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-13
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<1	KLPL/SOP/AIR-10

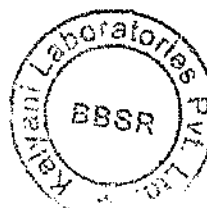
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By :
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory :
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343876A

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Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

79044, PABU, BHUBANESWAR-751011, ODISHA

TEST REPORT



NABL ULN NO : 10/04321000006027P

Test Report No : 752 | 7306178B KLPI / 1/21/FNVN/00948F

Issue Date : 04-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO 6600013483 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANDIGARH

Address : PO.- LANDIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 11-Jan-2021 Commenced On : 11-Jan-2021

Completion On : 16-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	PLANT SITE, 07.01.2021			
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	0.53	IS 5132(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.76	IS 5132 (PART-2) : 2001
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	76	IS 5132(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	55.63	KLPI/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	0.4	1.43	KLPI/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPI/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPI/SOP/AIR-13
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPI/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPI/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPI/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<1.5	KLPI/SOP/AIR-11

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1768602713613
KLPL-343874A

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KALYANI LABORATORIES PVT. LTD.

W-44, PATALI, KALAIANDI, DIST. KALAHANDI, ODISHA

NABL ULR NO

: TC70432100000601/P

TEST REPORT



Test Report No

: 752 | 73061788 KLPL/1/21/ENVN/00746F

Issue Date : 04 Feb 2021

Amendment No

: -

Amendment Date : -

Reference

: ORDER NO-G00001495101-11-2020

Customer Name

: VERANTA LIMITED, LANDIGARH

Address

: PO.- LANDIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt

: 11 Jan 2021

Commenced On : 11-Jan-2021

Completion On: 16-Jan-2021

Sample Name

: AMBIENT AIR QUALITY MONITORING

Sample Condition

: GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity

: 1 NOS

Ref. To Sampling Procedure:

: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 08.01.2021				
Sulphur Dioxide	µg/m ³	80	7.20	IS 5182(PART-2) : 2003
Nitrogen Dioxide	µg/m ³	80	10.13	IS 5182(PART-6) : 2005
Particulate Matter (PM10)	µg/m ³	100	27.0	IS 5182(PART-23) : 2005
Particulate Matter (PM2.5)	µg/m ³	60	22.13	KLPL/SCF/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.49	KLPL/SCF/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SCF/AIR-12
Lead (Pb)	µg/m ³	1.0	<0.01	KLPL/SCF/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SCF/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume I & II
Benz(a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SCF/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SCF/AIR-10
Nickel (Ni)	µg/m ³	20	<1	KLPL/SCF/AIR-10

Remarks

: NIL

Any unusual feature observed during determination

: NIL

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

For Kalyani Laboratories Pvt. Ltd.



1/H607713613
KLPL-343973A

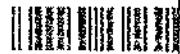
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

THANAL, BALASORE, ODISHA-751011, INDIA

TEST REPORT



NABL ULR NO : TC704321000006027P
Test Report No : 752 | 73061788 KLPL/1/21/ENVN/00948G
Amendment No : -
Reference : ORDER NO-6600013488 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANTIGARI
Address : PO.- LANTIGARI, DIST.- KALAHANDI, ODISHA 766027.
Date of receipt : 11-Jan-2021 **Commenced On** : 11-Jan-2021 **Completion On** : 16-Jan-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

Issue Date : 04 Feb-2021

Amendment Date : -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 09 01 2021				
Sulphur Dioxide	µg/m ³	80	7.02	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.24	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	65.0	IS 5132(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.37	IS 5132(PART-23) : 2006
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.64	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	100	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	10	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	100	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	GM Guidelines of Ambient Air Pollutants Volume I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<1	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1788602713613
 KLPL-343972A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Plot No. 1, Phase I, DRI BANSWARI, Dist. Odisha

TEST REPORT

NABL ULR NO : TC704321000006027P

Test Report No : 752 | 7306178B KLPL/1/21/ENVN/00948BH

Issue Date : 04-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO 6500013486 DT-10.12.2019

Customer Name : VEDANTA LIMITED, LANDIGARH

Address : PO.- LANDIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 18-Jan-2021

Commenced On : 18-Jan-2021

Completion On : 23-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
			- LANDIGARH VILLAGE, 11.01.2021	
Sulphur Dioxide	µg/m ³	50	17.30	IS 5182 (PART-3) : 2001
Nitrogen Dioxide	µg/m ³	50	11.16	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	160	62.10	IS 5182 (PART-24) : 2005
Particulate Matter (PM2.5)	µg/m ³	60	25.98	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.51	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	5.5	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	05	<1	KLPL/SOP/AIR-13
Nickel (Ni)	µg/m ³	20	<1	KLPL/SOP/AIR-13

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By :
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory :
For Kalyani Laboratories Pvt. Ltd.



1/88602713613
KLPL-343871A

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KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

NABL ULR NO : TC704521000006027P
Last Report No : 752 / 73061788 KLPL/1/21/ENVN/009481
Amendment No : -
Reference : ORDER NO 6600015488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-760027.
Date of receipt : 18-Jan-2021 (Commenced On : 18-Jan-2021)
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS PREPARED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

Issue Date : 04-Feb-2021
Amendment Date : -

Completion On : 23 Jan 2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 12.01.2021				
Sulphur Dioxide	µg/m ³	80	5.53	IS 5182 (PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.29	IS 5182 (PART-2) : 2001
Particulate Matter (PM10)	µg/m ³	100	67.0	IS 5182 (PART-2) : 2001
Particulate Matter (PM2.5)	µg/m ³	50	27.66	IS 5182 (PART-2) : 2001
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	0.1	0.07	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.1	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	66.02	KLPL/SOP/AIR-13
Ammonia (NH3)	µg/m ³	400	<19	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	IS 5182 (PART-2) : 2001
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-15
Nickel (Ni)	µg/m ³	70	<1	KLPL/SOP/AIR-18

Remarks : NIL

Any unusual feature observed during determination : Nil.

Analyzed By :
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory :
For Kalyani Laboratories Pvt. Ltd.



1785602713413
KLPL-343970A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

TEST REPORT

NABL ULR NO : TC704321000005027P
 Test Report No : 7521 / 73061/BU RLPL/1/21/LRVN/00948J
 Amendment No : -
 Reference : ORDER NO-0600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.
 Date of receipt : 18-Jan-2021
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref.To Sampling Procedure: QSP-07
 Issue Date : 04-Feb-2021
 Amendment Date : -
 Completed On : 23-Jan-2021

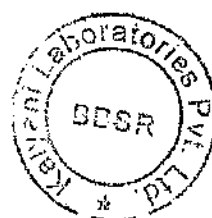
Parameters	Unit	Standard Value	Results	Test Method
Location & Date				
Sulphur Dioxide	µg/m ³	80	1.11	IS 5132(PART 2) : 2004
Nitrogen Dioxide	µg/m ³	80	11.57	IS 5132 (PART 6) : 2004
Particulate Matter (PM10)	µg/m ³	100	60.0	IS 5132(PART-25) : 2003
Particulate Matter (PM2.5)	µg/m ³	60	26.21	ISPL/SOP/AMB-02
Carbon Monoxide (CO) (61 Hrs.)	mg/m ³	04	0.50	ISPL/SOP/AMB-19
Ozone (O3) (01 Hrs.)	µg/m ³	160	1.0	ISPL/SOP/AMB-19
Lead (Pb)	µg/m ³	1.0	<0.52	ISPL/SOP/AMB-19
Ammonia (NH3)	µg/m ³	100	<10	ISPL/SOP/AMB-05
Benzene (C6H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	ISPL/SOP/AMB-07
Arsenic (As)	µg/m ³	05	<1	ISPL/SOP/AMB-19
Nickel (Ni)	µg/m ³	20	<1	ISPL/SOP/AMB-19

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



1788602713613
 KLPL-343968A



KALYANI LABORATORIES PVT. LTD.

RENEWAL PATHAL BIR DANIDWAP 75101 ODISHA

NABL ULR NO : TC704321000006027P
Test Report No : 752 | 73061788 KLPL/1/21/ENVN/00948K
Amendment No : -
Reference : ORDER NO-0600017488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO. LANJIGARH, DIST.- KAI AHANDI, ODISHA-766027.
Date of receipt : 18 Jan 2021 **Commenced On** : 18-Jan-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REPRESENTED
Quantity : 1 NOS
Ref. to Sampling Procedure : QSP-07

TEST REPORT

Issue Date : 04-Jan-2021

Amendment Date : -

Completion On : 23-Jan-2021



Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 1-1.01.2021				
Sulphur Dioxide	µg/m ³	80	1.23	IS 5102(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.18	IS 5102 (PART 2) : 2001
Particulate Matter (PM10)	µg/m ³	100	25	IS 5102(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	21.97	KLPL/CO/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	0.1	1.41	KLPL/SOP/AIR-19
Ozone (O ₃) (01 Hrs.)	µg/m ³	150	3.8	KLPL/SOP/AIR-17
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH ₃)	µg/m ³	600	<10	KLPL/SOP/AIR-05
Benzene (C ₆ H ₆)	µg/m ³	05	<1	CPCLs Guidelines of Ambient Air Pollutants Volume-I & II
Benzene (a) Pyrene (BaP)	µg/m ³	0.1	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	05	<1	KLPL/SOP/AIR-16
Nickel (Ni)	µg/m ³	20	5.75	KLPL/SOP/AIR-18

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anurag

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



178B602713613
KLPL-343868A

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KALYANI LABORATORIES PVT. LTD.

SO-44, PABU, KULU, BANSWAR, SP-1, ODISHA

NABL ULR NO

: TC704321000006627P

TEST REPORT

Test Report No

: 757 / 75061788 KLPL/1/21/ENVN/009481

Amendment No

: -

Issue Date

: 04-05-2021

Reference

: ORDER NO-6600013488 DT-16-12-2019

Amendment Date

Customer Name

: VEDANTA LIMITED, LANJIGARH

Address

: PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt

: 18-Jan-2021

Commenced On : 18-Jan-2021

Completion On: 23 Jan 2021

Sample Name

: AMBIENT AIR QUALITY MONITORING

Sample Condition

: GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity

: 1 NOS

Ref. To Sampling Procedure

: QSP-07

Parameters

Unit

Standard Value

Results

Test Method

Location & Date

: CHHATRAPUR VILLAGE, 15.01.2021

Sulphur Dioxide	µg/m ³	80	2.55	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.43	IS 5187 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	56.0	IS 5132(PART-23) : 2005
Particulate Matter (PM2.5)	µg/m ³	60	22.63	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (1 Hr.)	mg/m ³	0.1	0.45	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-12
Lead (Pb)	µg/m ³	10	40.02	KLPL/SOP/AIR-10
Amonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<1	KLPL/SOP/AIR-10

Remarks

: NIL

Any unusual feature observed during determination

: NIL

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL-343967A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

18, 11, PATEL, B-2, BHADRAWATI, RAIPUR, CHHISIA

TEST REPORT

NABL ULR NO : TC704321000006027P

Test Report No : 752 | 73061788 KLPL/1/21/ENVN/00946M

Amendment No : -

Reference : ORDER NO 6600013488 DT-10.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, CHHISIA-766027.

Date of receipt : 18-Jan-2021

Commenced On : 18-Jan-2021

Completion On : 23-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Issue Date : 04-Feb-2021

Amendment Date : -



Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 16.01.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	16.87	IS 5182(PART-3) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.60	IS 5182(PART-3) : 2001
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	51.0	IS 5182(PART-3) : 2001
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.53	ISIRI/SOP/AMB-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	0.4	0.12	ISIRI/SOP/AMB-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	130	1.5	ISIRI/SOP/AMB-13
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	00.82	ISIRI/SOP/AMB-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	ISIRI/SOP/AMB-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	0.5	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	0.1	<1	ISIRI/SOP/AMB-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	0.5	<1	ISIRI/SOP/AMB-16
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<1	ISIRI/SOP/AMB-10

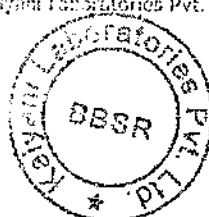
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



178B602713613
KLPL 343866A

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KALYANI LABORATORIES PVT. LTD.

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TEST REPORT

NABL ULR NO : TC704321.0000060271

Test Report No : 752 | 73061798 KLPL/1/21/ENVN/00948N

Amendment No : -

Reference : ORDER NO-6000015438 DT. 15.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

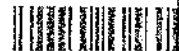
Date of receipt : 25-Jan-2021 Commenced On : 25-Jan-2021 Completion On : 30-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07



Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 18.01.2021				
Sulphur Dioxide	µg/m ³	80	7.20	IS 5182 (PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.10	IS 5182 (PART-6) : 2006
Particulate Matter (PM10)	µg/m ³	100	11.0	IS 5182 (PART-27) : 2005
Particulate Matter (PM2.5)	µg/m ³	60	35.13	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.50	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	150	7.3	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-19
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By : *P. Anurag*
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory : *[Signature]*
For Kalyani Laboratories Pvt. Ltd.



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KLPL-343985A

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KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000006027P
 Test Report No : 752 | 73051788 KLPL/1/21/LNJR/009460
 Amendment No : -
 Reference : ORDER NO 0000013-188 DT 18.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 25-Jan-2021 Commenced On : 25-Jan-2021

Issue Date : 04-Feb-2021
 Amendment Date : -

Completion On : 30-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref. To Sampling Procedure: QSP-07

Parameters : Unit : Standard Value : Results : Test Method :
 Location & Date : REHABILITATION COLONY, 19.01.2021

Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	5.90	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.81	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	63.0	IS 5182(PART-25) : 2005
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	26.91	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	ppm/m^3	04	0.55	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	ppm/m^3	130	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-19
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	430	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	ppm/m^3	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	70	<1	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By :
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory :
 For Kalyani Laboratories Pvt. Ltd.



178H602/1301
 KLPL- 343964A

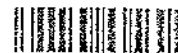
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KALYANI LABORATORIES PVT. LTD.

YELEGA PETA, VEDANTA LIMITED, KALAHANDI, ODISHA-766027

NABL ULR NO : TC704321000006027P
Test Report No : 752 / 73081780 KLPI/1/21/ENVN/00948P
Amendment No : -
Reference : ORDER NO-0000013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANDIGARH
Address : PO.- LANDIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Jan-2021 **Commenced On** : 25-Jan-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07



Issue Date : 04 Feb 2021

Amendment Date : -

Completion On : 30-Jan-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 20.01.2021				
Sulphur Dioxide	µg/m ³	80	7.36	IS 5182 (PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.86	IS 5182 (PART-2) : 2001
Particulate Matter (PM10)	µg/m ³	100	63.9	IS 5182 (PART-2) : 2001
Particulate Matter (PM2.5)	µg/m ³	60	29.29	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.53	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-12
Lead (Pb)	µg/m ³	1.0	49.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<1	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-13
Nickel (Ni)	µg/m ³	20	<1	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



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 KLPL- 343063A

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KALYANI LABORATORIES PVT. LTD.

7/100, P. CHAI, INDRAVATI, KARJUN, COCHIN

TEST REPORT



NABL ULR NO : TC704321000006027P

Test Report No : 752 | 73061785 KLPL/1/21/ENVH/00948Q

Issue Date : 04-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARRH

Address : PO - LANJIGARRH, DIST - KALAHANDI, ODISHA-766022

Date of receipt : 25-Jan-2021 Commenced On : 25 Jan 2021

Completion On : 30-Jan-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 21.01.2021				
Sulphur Dioxide	µg/m ³	80	7.20	IS 5182(PART-1) : 2001
Nitrogen Dioxide	µg/m ³	80	11.60	IS 5187 (PART-6) : 2004
Particulate Matter (PM10)	µg/m ³	100	24.0	IS 5187(PART-7) : 2005
Particulate Matter (PM2.5)	µg/m ³	60	30.57	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.40	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.01	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.62	KLPL/SOP/AIR-12
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-03
Benzene (C6 H6)	µg/m ³	05	<1	QPCB Guidelines of Ambient Air Pollutants Volume I & II
Banza (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	5.72	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyzed By :
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



178B602713013
KLPL- 343902A

Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

10/101, PATEL BORDA (W) CL, ANAPOL, CHHISA

TEST REPORT

NABL ULR NO : TC704321000006027P
 Test Report No : 752 | 7306178B KLPL/1/21/ENVR/00/46R
 Amendment No :
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 25-Jan-2021 Commenced On : 25-Jan-2021
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NOS
 Ref. To Sampling Procedure : QSP-07



Issue Date : 04 Feb 2021

Amendment Date : -

Completion On: 30 Jan 2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	CHHATRAPUR VILLAGE, 22.01.2021			
Sulphur Dioxide	µg/m³	80	7.14	IS 5132(PART-2) : 2001
Nitrogen Dioxide	µg/m³	60	12.45	IS 5132 (PART 2) : 2006
Particulate Matter (PM10)	µg/m³	120	60.9	IS 5132(PART-2) : 2006
Particulate Matter (PM2.5)	µg/m³	60	22.27	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	54	6.46	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	µg/m³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-19
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-13
Nickel (Ni)	µg/m³	30	<1	KLPL/SOP/AIR-19

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
 For Kalyani Laboratories Pvt. Ltd.



1788602/13613
 KL PL - 343961A

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KALYANI LABORATORIES PVT. LTD.

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NABL ULR NO : TC704321000006027P

TEST REPORT

Test Report No : 752 / 73061/88 KLPL/1/21/ENVN/009489

Issue Date : 04-Feb-2021

Amendment No :

Amendment Date :

Reference : ORDER NO-6600013488 D1-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Jan-2021 Commenced On : 25 Jan 2021

Completion On : 30 Jan 2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORPTION SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	MID DAY MCAL, 23.01.2021			
Sulphur Dioxide	µg/m³	80	7.95	IS 5132(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	19.43	IS 5132 (PART 2) : 2001
Particulate Matter (PM10)	µg/m³	100	22.8	IS 5132(PART-1) : 2001
Particulate Matter (PM2.5)	µg/m³	50	15.51	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.65	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<1	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I S. II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	10	<1	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed by
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL-343960A

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KALYANI LABORATORIES PVT. LTD.

78/43, PNHU, BILUPANAKAL, TADA, ODISHA

NABL IIR NO : TC704321000006027P

TEST REPORT



Test Report No : 752 | 730617BH KLPL/1/21/ENVN/0094BT

Issue Date : 01 Feb 2021

Amendment No :

Amendment Date : -

Reference : ORDER NO-6600013408 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 31-Jan-2021 Commenced On : 31-Jan-2021

Completion On: 04-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 25.01.2021				
Sulphur Dioxide	µg/m ³	80	7.08	IS 5182(PART-2) : 2004
Nitrogen Dioxide	µg/m ³	50	11.37	IS 5182 (PART 6) : 2005
Particulate Matter (PM10)	µg/m ³	100	50.0	IS 5182(PART-7) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	25.11	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	0.4	0.40	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	100	1.5	KLPL/SOP/AIR-18
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<1	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By : *D. Anubha*
For Kalyani Laboratories Pvt. Ltd.

hase, mae
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1788602713613
KLPL- 343959A

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KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000006027P
Test Report No : 752 / 73061/88 KLPL/1/21/LHVN/009460
Amendment No : -
Reference : ORDER NO-6600013468 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-765027.
Date of receipt : 31-Jan-2021 **Commenced On** : 31-Jan-2021 **Completion On** : 04-Feb-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref.To Sampling Procedure : QSP-07



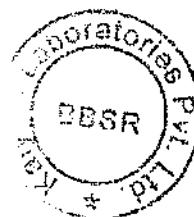
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BFLAMBA VILLAGE, 27.01.2021				
Sulphur Dioxide	µg/m ³	50	7.44	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.29	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	24.0	IS 5182(PART-2) : 2001
Particulate Matter (PM2.5)	µg/m ³	60	26.04	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.40	KLPL/SOP/AIR-10
Ozone (O ₃) (01 Hrs.)	µg/m ³	184	3.6	KLPL/SOP/AIR-10
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH ₃)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C ₆ H ₆)	µg/m ³	05	<1	OPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<1	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.



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 KLPL-343958A

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KALYANI LABORATORIES PVT. LTD.

WIND TUNNEL, 6th FLOOR, UNIT 101, SECTOR 10

TEST REPORT

NABL ULR NO : TC704321000006027P

Test Report No : 732 | 7306178D KLPL/1/21/ENVN/00548V

Issue Date : 04-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-0600013485 D-16.12.2020

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.

Date of receipt : 31-Jan-2021

Commenced On : 31-Jan-2021

Completion On : 04-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NOS

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 28.01.2021				
Sulphur Dioxide	µg/m³	50	7.02	IS 5162(PART-2) : 2001
Nitrogen Dioxide	µg/m³	50	11.52	IS 5162 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	72.0	IS 5162(PART-29) : 2006
Particulate Matter (PM2.5)	µg/m³	60	11.76	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	0.1	1.38	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	160	4.1	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-13
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	APCS Guidelines of Ambient Air Pollutants Volume I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	5.46	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By :
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory :
For Kalyani Laboratories Pvt. Ltd.



1788602713613
KLPL- 343957A
(Page 1 of 1)



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704321000006027P
Test Report No : 752 | 73061788 KLPL/1/21/ENVN/00048W
Amendment No : -
Reference : ORDER NO-6500013488 DT-15.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 31-Jan-2021 **Commenced On** : 31-Jan-2021 **Completion On** : 04-Feb-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NOS
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 29.01.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.30	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.53	IS 5182 (PART 2) : 2001
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	150	67.0	IS 5182(PART-23) : 2009
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	27.55	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (21 hrs.)	mg/m^3	5.4	0.95	KLPL/SOP/AIR-10
Ozone (O3) (01 hrs.)	$\mu\text{g}/\text{m}^3$	120	2.0	KLPL/SOP/AIR-10
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	0.07	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-03
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<1	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



1788602713613
KLPL- 343956A

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KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704321000006509P

Test Report No : 818 | 7033196D KLPL/2/21/ENVN/01005

Issue Date : 06-Mar-2021

Amendment No :

Amendment Date :

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Feb-2021

Commenced On : 08-Feb-2021

Completion On: 13-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 01.02.2021				
Sulphur Dioxide	µg/m ³	80	8.28	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.24	IS 5182 (PART 2) : 2001
Particulate Matter (PM10)	µg/m ³	100	72	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	38.47	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.39	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	5.70	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL 344380A



KALYANI LABORATORIES PVT. LTD.

TRA-44, RAJAL, BILUPANESWAR, 751016, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006509P
Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005A
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 08-Feb-2021 **Commenced On** : 08-Feb-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO.
Ref.To Sampling Procedure: QSP-07

Issue Date : 06 Mar 2021

Amendment Date : -

Completion On : 13-Feb-2021

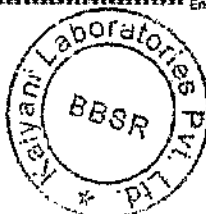
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 02.02.2021				
Sulphur Dioxide	µg/m ³	80	7.02	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.05	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	57	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	35.09	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.47	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Arulana
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.



Prasanna
 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.

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KALYANI LABORATORIES PVT. LTD.

APTE, PATEL, BILDAN, MAROTI, ODISHA

TEST REPORT



NAHILINK NO : TC704321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/010054

Issue Date : 06-Mar-2021

Amendment No :

Amendment Date :

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Feb-2021

Commenced On : 08-Feb-2021

Completion On: 13-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 03.02.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.98	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.59	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	58	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	33.90	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.69	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	5.1	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL 344358A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

14/544, PALLA, BRIDJANESWAR, CHHATTISGARH

TEST REPORT



NABL ULR NO : TC704321000006509P
Test Report No : 818 | 7833196D KLPL/2/21/ENVN/010050
Amendment No :
Reference : ORDER NO-6500013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 08-Feb-2021 **Commenced On** : 08-Feb-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO.
Ref. To Sampling Procedure : QSP-07

Issue Date : 06-Mar-2021
Amendment Date :

Completion On : 13-Feb-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 04.02.2021				
Sulphur Dioxide	µg/m ³	80	8.39	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.89	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	61	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	38.47	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.50	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	10	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KI PL-344367A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

9944 PARNAL, BURUBANI SWAN 751101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005D

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Feb-2021

Commenced On : 08-Feb-2021

Completion On : 13 Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 05.02.2021				
Sulphur Dioxide	µg/m³	80	7.80	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	10.85	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	µg/m³	100	67	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	30.15	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.71	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KL PL - 344358A

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KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704321000006509P
Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005D
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 08-Feb-2021 **Commenced On** : 08-Feb-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref. To Sampling Procedure : QSP-07

Issue Date : 06-Mar-2021

Amendment Date : -

Completion On : 13-Feb-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 06.02.2021				
Sulphur Dioxide	µg/m ³	80	9.47	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.88	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	57	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	34.05	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.47	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL - 344355A

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KALYANI LABORATORIES PVT. LTD.

BHUL BHAI BANSWAR ROAD, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005F

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766077.

Date of receipt : 15-Feb-2021

Commenced On : 15-Feb-2021

Completion On: 20-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 08.02.2021				
Sulphur Dioxide	µg/m ³	80	8.31	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.81	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	71	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	50	38.47	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.38	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR 10
Nickel (Ni)	µg/m ³	20	6.15	KLPL/SOP/AIR 10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPI - 344354A

Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

7044, RAHUL KUMARSWAR, 751011, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005G

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANIGARH

Address : PO.- LANIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 15-Feb-2021

Commenced On : 15-Feb-2021

Completion On : 20-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 09.02.2021				
Sulphur Dioxide	µg/m ³	80	7.30	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.08	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	59	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	33.76	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.49	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	4.4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL 344363A

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KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005H

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 15-Feb-2021

Commenced On : 15-Feb-2021

Completion On : 20-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 10.02.2021				
Sulphur Dioxide	µg/m ³	80	8.44	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.09	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	55	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	34.19	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.66	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	5.1	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR 10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL 344362A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TRADE MARK: GRI-MANTRA-ISO 17025:2015

TEST REPORT



NABL UIR NO : TC704321000006509P
 Test Report No : 818 | 7833196D KLPL/2/21/ENVN/D10051
 Amendment No :
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA - 766027.
 Date of receipt : 15 Feb 2021 Commenced On : 15-Feb-2021
 Issue Date : 06-Mar-2021
 Amendment Date :
 Completion On : 20-Feb-2021
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NO.
 Ref. To Sampling Procedure : QSP-01

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 11.02.2021				
Sulphur Dioxide	µg/m ³	80	8.20	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.18	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	56	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	35.41	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.45	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.

196D650914555
 KLPL 344361A

Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

70/401 PAFI VI, PAKHAPSWAR, DIST. KHURDA

TEST REPORT



NABL ULR NO : TC704321000006509P
Test Report No : 818 | 7833196D KLPL/2/21/ENVN/010053
Amendment No :
Reference : ORDER NO-6600013488 DT-16 12 2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 15-Feb-2021 **Commenced On** : 15-Feb-2021 **Completion On** : 20-Feb-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO.
Ref. To Sampling Procedure : QSP-07

Issue Date : 06-Mar-2021
Amendment Date : -

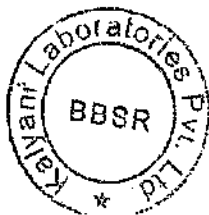
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 12.02.2021				
Sulphur Dioxide	µg/m ³	80	7.20	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.72	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	65	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	29.17	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.69	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.2	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (NI)	µg/m ³	20	<4	KLPL/SOP/AIR 10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.

196D650914555
 KL PL 344350A



KALYANI LABORATORIES PVT. LTD.

TRADE PATIAL, BILUBAN, JAWAR, 751011, ODISHA

TEST REPORT



NABL UIR NO : TC704321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005D

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST - KALAHANDI, ODISHA-766027.

Date of receipt : 15-Feb-2021

Commenced On : 15 Feb 2021

Completion On : 20-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. to Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 13.02.2021				
Sulphur Dioxide	µg/m ³	80	8.78	IS 5182(PART 2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.02	IS 5182 (PART 6) : 2005
Particulate Matter (PM10)	µg/m ³	100	53	IS 5182(PART-23) : 2005
Particulate Matter (PM2.5)	µg/m ³	60	35.72	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

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KLPL-344349A



KALYANI LABORATORIES PVT. LTD.

20000 PATIL BILVA SWAR TANDA GONDA

TEST REPORT



NABL ULR NO : TC704321000006500P
Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005L
Amendment No : -
Reference : ORDER NO-6600013408 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 22 Feb 2021
Commenced On : 22-Feb-2021
Completion On : 27 Feb 2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO.
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 15.02.2021				
Sulphur Dioxide	µg/m ³	80	9.42	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.85	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	74	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	39.14	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	5.29	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL- 344348A
Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL IIR NO : TC704321000006509P

Test Report No : S18 | 7833196D KLPL/2/21/ENVN/01005M

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 22 Feb 2021

Commenced On : 22 Feb 2021

Completion On : 27 Feb 2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 16.02.2021				
Sulphur Dioxide	µg/m ³	80	8.06	IS 5152(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.90	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	51	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	34.64	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By :
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory :
For Kalyani Laboratories Pvt. Ltd.

1960650914555
KLPL 344347A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704321000006509P

Test Report No : B18 | 7833196D KLPL/2/21/ENVN/01005N

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO 6600013488 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 22-Feb-2021

Commenced On : 22-Feb-2021

Completion On : 27-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. to Sampling Procedure: QSP 01

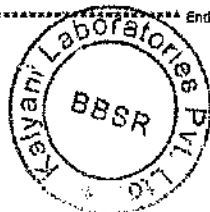
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 17.02.2021				
Sulphur Dioxide	µg/m ³	80	8.18	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.45	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	52	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	35.41	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.64	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL- 344348A

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KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000006509P

TEST REPORT



Test Report No : 818 | 7833196D KLPL/2/21/ENVN/010050 Issue Date : 06-Mar-2021
Amendment No : - Amendment Date : -
Reference : ORDER NO 6600013400 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 22-Feb-2021 Commenced On : 22-Feb-2021 Completion On: 27-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO.
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 18.02.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.56	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	10.45	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	53	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	33.76	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.47	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By :
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory :
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL - 344345A

Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

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TEST REPORT



NABL ULR NO : IC/04321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/010053

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 22-Feb-2021

Commenced On : 22-Feb-2021

Completion On : 27-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 19.02.2021				
Sulphur Dioxide	µg/m ³	80	7.05	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.09	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	60	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	27.58	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.64	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report.

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL-344344A



KALYANI LABORATORIES PVT. LTD.

DRUG PATEL BUILDING, SWARAJ ROAD, Bhubaneswar, Odisha

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006509P

Test Report No : S18 | 7833196D KLPL/2/21/ENVN/01005Q

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 22-Feb-2021

Commenced On : 22-Feb-2021

Completion On : 27-Feb-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : CASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 20.02.2021				
Sulphur Dioxide	µg/m ³	80	8.32	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.72	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	58	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	34.64	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.48	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By : *[Signature]*
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory : *[Signature]*
For Kalyani Laboratories Pvt. Ltd.

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KLPL- 344343A

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KALYANI LABORATORIES PVT. LTD.

INDIAN PHARMACY BOARD (KALYANI) ESTD 1984

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TEST REPORT



NABL ULR NO : TC704321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005R

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-G600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST. KALAHANDI, ODISHA 766027.

Date of receipt : 01-Mar-2021

Commenced On : 01-Mar-2021

Completion On : 06-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ADSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 22.02.2021				
Sulphur Dioxide	µg/m ³	80	9.85	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	17.15	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	75	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	40.25	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	5.1	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	5.35	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

196D650914555
KLPL-344342A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

100/1, PALLI, 101, HANDEWARI, NEW DELHI

TEST REPORT



NABL ULR NO : TC704321000006509P
Test Report No : 818 | 7833196D KLPL/2/21/ENVN/010055
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 01-Mar-2021 **Commenced On** : 01-Mar-2021 **Completion On** : 06-Mar-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO.
Ref. To Sampling Procedure : QSP-07

Issue Date : 06-Mar-2021
Amendment Date :

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 23.02.2021				
Sulphur Dioxide	µg/m ³	80	7.21	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.31	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	60	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	36.18	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.45	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By :
 For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory :
 For Kalyani Laboratories Pvt. Ltd.

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 KLPL-344341A

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TEST REPORT

NABL ULR NO : TC704321000006509P

Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005T

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 01-Mar-2021 Commenced On : 01-Mar-2021

Completion On: 06-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. to Sampling Procedure: QSP-01

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 24.02.2021				
Sulphur Dioxide	µg/m ³	80	7.59	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.51	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	51	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	35.32	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.62	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

(PVT) LIMITED, Bhubaneswar, Odisha, India

TEST REPORT

NABL ULR NO : TC704321000006509P



Test Report No : S18 | 7833196D KLPL/2/21/ENVN/010050

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 01-Mar-2021 Commenced On : 01-Mar-2021

Completion On: 06-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO.

Ref. To Sampling Procedure: QSP-07

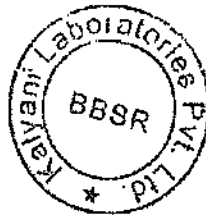
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 25.02.2021				
Sulphur Dioxide	µg/m ³	80	8.20	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.50	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	51	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	32.80	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.45	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

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KLPL- 344339A

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KALYANI LABORATORIES PVT. LTD.

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NABL ULR NO : TC704321000006509P

TEST REPORT



Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005V
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 01-Mar-2021 Commenced On : 01-Mar-2021 Completion On: 06-Mar-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO.
Ref. To Sampling Procedure: QSP-07

Issue Date : 06-Mar-2021
Amendment Date :

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 26.02.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.18	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	11.69	IS 5182 (PART 6) : 2008
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	62	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	28.02	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.66	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

7/11/11, PADAL, BIRUDANISWAR 751011, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006509P
 Test Report No : 818 | 7833196D KLPL/2/21/ENVN/01005W
 Amendment No : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 01 Mar 2021 Commenced On : 01 Mar 2021
 Issue Date : 06-Mar-2021
 Amendment Date : -
 Completion On : 06 Mar 2021

Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 1 NO.
 Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 27.02.2021				
Sulphur Dioxide	µg/m ³	80	8.04	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	10.09	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	54	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	32.64	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.46	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
 For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.

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 KLPL-344337A
 Page 1 of 1



KALYANI LABORATORIES PVT. LTD.

W-44, BALUWADI, BRINDHAN ENCLAVE, NEW DELHI, INDIA

TEST REPORT



NABL ULR NO : TC704321000007024P

Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT 16 17 2010

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Mar-2021

Commenced On : 08-Mar-2021

Completion On: 12-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure: -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	: PLANT SITE, 01.03.2021			
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	8.37	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.22	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	78	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	21.46	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	1.45	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	5.1	KLPL/SOP/AIR-19
Lead, (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	5.3	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 3447494



KALYANI LABORATORIES PVT. LTD.

REGD. OFFICE: SHRI DAKSHINAPATI, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007024P

Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050A

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Mar-2021

Commenced On : 08-Mar-2021

Completion On: 12-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 02.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.99	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	13.91	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	56	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	27.28	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.45	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344748A1



KALYANI LABORATORIES PVT. LTD.

ANALYST: BUDHAKSWAR PATTANAYAK

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050B

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Mar-2021

Commenced On : 08-Mar-2021

Completion On : 12-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure : -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 03.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.14	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.67	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	68	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	22.23	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.74	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	5.1	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 3447A7A1



KALYANI LABORATORIES PVT. LTD.

70/44, PANCHAL, BIL, BANGALURU, KARNATAKA

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050C

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO 6600013480 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 08-Mar-2021

Commenced On : 08-Mar-2021

Completion On : 12-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure: -

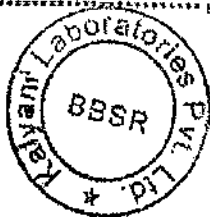
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE , 04.03.2021				
Sulphur Dioxide	µg/m ³	80	7.27	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.29	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	52	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	26.44	KLPL/SOP/AIR-07
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.46	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	5.8	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benz(a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By : *D. Anulaba*
For Kalyani Laboratories Pvt. Ltd.



hdfmce
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 34A746A



KALYANI LABORATORIES PVT. LTD.

W-401 PVT. IND. AREA, SWAMPAN, ODISHA

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050D
Amendment No : -
Reference : ORDER NO 6600013488 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO. LANJIGARH, DIST. - KALAJIANDI, ODISHA-766027.
Date of receipt : 08-Mar-2021 Commenced On : 08-Mar-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref. To Sampling Procedure: -

Issue Date : 06-Apr-2021

Amendment Date : -

Completion On: 12-Mar-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : REHABILITATION COLONY, 05.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.23	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	15.17	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	73	IS 5182(PART 23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.32	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.77	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	160	4.4	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560
KLPL- 344245A



KALYANI LABORATORIES PVT. LTD.

75A-11, PABAI, BILUPADA ROAD, PO. DUL, DIST. BILUPADA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000007024P

Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050E

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST. KALAHANDI, ODISHA-766027.

Date of receipt : 08-Mar-2021 Commenced On : 08-Mar-2021

Completion On : 12-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure : -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 06.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.93	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	13.86	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	62	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.87	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.52	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344744A1



KALYANI LABORATORIES PVT. LTD.

INDIAN PHARMEDICALS ASSOCIATION MEMBER

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050F

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST. KALAHANDI, ODISHA 766027.

Date of receipt : 15-Mar-2021

Commenced On : 15-Mar-2021

Completion On : 19-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure : -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 08.03.2021				
Sulphur Dioxide	µg/m ³	80	7.20	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.67	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	77	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	29.54	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	5.25	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344543A1



KALYANI LABORATORIES PVT. LTD.

78, B-1, RAHAT, BILDA, DIST. BILDA, PIN-751015, ODISHA

TEST REPORT

NABL ULR NO : TC704321000007024P



Test Report No : 863 | 86521870 KLPL/3/21/ENVN/01050G Issue Date : 06-Apr-2021

Amendment No : Amendment Date : -

Reference : ORDER NO-6600013488 DT-16 12 2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.

Date of receipt : 15-Mar-2021 Commenced On : 15-Mar-2021

Completion On : 19-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure : -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 09.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.02	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.22	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	55	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.11	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.43	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benza (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1870702415560
KLPL- 34470361



KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050H

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 15-Mar-2021 Commenced On : 15-Mar-2021

Completion On : 19-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure : -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 10.03.2021				
Sulphur Dioxide	µg/m ³	80	7.30	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.80	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	65	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	35.09	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.78	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	6.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 34470241



KALYANI LABORATORIES PVT. LTD.

76544 PABAL, BILASWARI DIST. INDIA

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/010501
Amendment No :
Reference : ORDER NO-5600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO - LANJIGARH, DIST - KALAHANDI, ODISHA 766027.
Date of receipt : 15-Mar-2021 Commenced On : 15-Mar-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref. To Sampling Procedure: -

Issue Date : 06-Apr-2021
Amendment Date : -

Completion On: 19-Mar-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 11.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.93	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.47	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	57	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	23.48	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.50	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	5.1	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By :
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory :
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344701A



1944. Pagan, B. B. *Acetone*. 272 pp. 1945.

TEST REPORT



Issue Date : 06-Apr-2021

Amendment No

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16 12 7019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address PO - LANJIGARH, DIST.- KALAHANDI, ODISHA 760027.

Date of receipt : 15-Mar-2021

Commenced On : 15-Mar-2021

Completion On: 19-Mar-2021

Sample Name: AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure:

Parameters	Unit	Standard Value	Results	Test Method
: REHABILITATION COLONY, 12.03.2021				
Sulphur Dioxide	µg/m³	80	7.11	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	14.22	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m³	100	61	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	21.37	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.67	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10


Remarks : NIL

Any unusual feature observed during determination : NTI

End of Test Report

D. Arunachalam
Analysed By
For Kalyani Laboratories Pvt. Ltd.




 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL-344709A.1



KALYANI LABORATORIES PVT. LTD.

78/7/4, RAJAL, BUDHANSWAR-TSINGI, ODISHA

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050K
Amendment No : -
Reference : ORDER NO-6600013488 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST. KALAHANDI, ODISHA-766027.
Date of receipt : 15-Mar-2021 Commented On : 15-Mar-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref To Sampling Procedure : -

Issue Date : 06-Apr-2021

Amendment Date : -

Completion On: 19-Mar-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 13.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.23	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.73	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	63	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.98	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.53	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344699A1



KALYANI LABORATORIES PVT. LTD.

75/211, PAMIA, BILKA, NEW, 751004, ODISHA

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050M

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16 12 2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.

Date of receipt : 22-Mar-2021 Commenced On : 22-Mar-2021

Completion On: 26-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: -

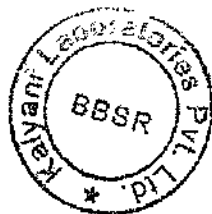
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 16.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	6.87	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.10	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	57	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	26.21	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.46	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	5.8	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B7070241E560

KLPL- 344799A1



KALYANI LABORATORIES PVT. LTD.

10/100, KALYANI BUILDING, 10/100, KALYANI, KOLKATA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000007024P

Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050H

Issue Date : 06-Apr-2021

Amendment No :

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16 17 2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 756027.

Date of receipt : 22-Mar-2021

Commenced On : 22-Mar-2021

Completion On: 26-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure: -

Parameters

Unit

Standard Value

Results

Test Method

Location & Date : MID DAY MEAL, 17.03.2021

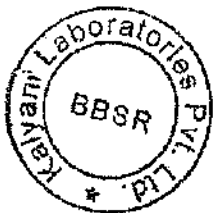
Sulphur Dioxide	µg/m ³	80	7.20	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.34	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	60	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	31.97	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.73	KLPL/SOP/AIR-10
Ozone (O3) (01 Hrs.)	µg/m ³	180	7.3	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344798A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

NABL ULR NO : TC704321000007024P
Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/010500
Amendment No : -
Reference : ORDER NO-6600013488 DT-15.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 22-Mar-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref. To Sampling Procedure : -

TEST REPORT



Issue Date : 06-Apr-2021
Amendment Date : -

Completion On : 26-Mar-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 18.03.2021				
Sulphur Dioxide	µg/m ³	80	6.90	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.28	IS 5182 (PART 6) : 2005
Particulate Matter (PM10)	µg/m ³	100	54	IS 5182(PART-23) : 2008
Particulate Matter (PM2.5)	µg/m ³	60	22.63	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.48	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	5.8	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344787A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED

TEST REPORT

NABL ULR NO : TC704321000007024P



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050P

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027

Date of receipt : 22-Mar-2021

Commenced On : 22-Mar-2021

Completion On: 26-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	REHABILITATION COLONY, 19.03.2021			
Sulphur Dioxide	µg/m ³	80	7.36	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	13.68	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	61	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	22.53	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.68	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344786A1

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

75/907 P. VIJAY, BHEL DANCEWAD, 752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007024P

Test Report No : 863 | 86521870 KLPL/3/21/ENVN/01050Q

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766077

Date of receipt : 22-Mar-2021

Commenced On : 22-Mar-2021

Completion On: 26-Mar-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 20.03.2021				
Sulphur Dioxide	µg/m ³	80	7.20	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.22	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	54	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	25.43	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.48	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1870702415560

KLPL- 344785A1



KALYANI LABORATORIES PVT. LTD.

WIND PATROL MONITORING LAB - PLANT, BONGRA

NABL ULR NO : TC704321000007024P **TEST REPORT**



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050R
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766077.
Date of receipt : 29-Mar-2021 Commenced On : 29-Mar-2021
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 1 NO
Ref. To Sampling Procedure: -

Issue Date : 06-Apr-2021

Amendment Date : -

Completion On: 03-Apr-2021

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : PLANT SITE, 22.03.2021				
Sulphur Dioxide	µg/m ³	80	7.14	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	13.86	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	76	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	26.91	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	1.41	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	2.9	KLPL/SOP/AIR-18
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	5.13	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344704A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

NABL ULR NO : TC704321000007024P **TEST REPORT**



Test Report No : 863 | 86521870 KLPL/3/21/ENVN/010505

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027

Date of receipt : 29-Mar-2021 Commenced On : 29-Mar-2021

Completion On: 03-Apr-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : CHHATRAPUR VILLAGE, 23.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.05	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	14.41	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	52	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	29.29	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.42	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anubha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



m. s. m. c.
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344793A1



KALYANI LABORATORIES PVT. LTD.

100/4, Pahal, Bulbani Road, T.1101, Odisha

NABL ULR NO : TC704321000007024P

TEST REPORT



Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050T Issue Date : 06-Apr-2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 29-Mar-2021 Commenced On : 29-Mar-2021 Completion On: 03-Apr-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : MID DAY MEAL, 24.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.03	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	13.68	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	61	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	30.57	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.74	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	4.4	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-1 & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1870702415560

KLPL- 344792A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED

TEST REPORT

NABL ULR NO : TC704321000007024P

Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050U

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 29-Mar-2021 Commenced On : 29-Mar-2021

Completion On: 03-Apr-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: -

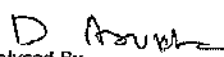


Parameters	Unit	Standard Value	Results	Test Method
Location & Date : - LANJIGARH VILLAGE, 25.03.2021				
Sulphur Dioxide	µg/m³	80	7.46	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	14.09	IS 5182 (PART 5) : 2006
Particulate Matter (PM10)	µg/m³	100	51	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m³	60	22.23	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.44	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m³	180	5.1	KLPL/SOP/AIR-19
Lead (Pb)	µg/m³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m³	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m³	20	<4	KLPL/SOP/AIR-10

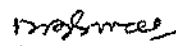
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344391A1



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED

TEST REPORT



NABL ULR NO : TC704321000007024P

Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050V

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 29-Mar-2021

Commenced On : 29-Mar-2021

Completion On: 03-Apr-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref.To Sampling Procedure: -

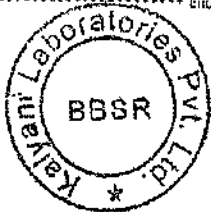
Parameters	Unit	Standard Value	Results	Test Method
Location & Date	REHABILITATION COLONY, 26.03.2021			
Sulphur Dioxide	µg/m ³	80	7.02	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.28	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	55	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	25.64	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.64	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	µg/m ³	180	3.6	KLPL/SOP/AIR-19
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	µg/m ³	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	µg/m ³	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	µg/m ³	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	µg/m ³	05	<1	KLPL/SOP/AIR-10
Nickel (Ni)	µg/m ³	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 34A290A



KALYANI LABORATORIES PVT. LTD.

78/11, PALLI, DIST. BANGALORE-560011, KARNATAKA

TEST REPORT



NABL ULR NO : TC704321000007024P

Test Report No : 863 | 86521B70 KLPL/3/21/ENVN/01050W

Issue Date : 06-Apr-2021

Amendment No :

Amendment Date :

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.

Date of receipt : 29 Mar 2021

Commenced On : 29-Mar-2021

Completion On: 03-Apr-2021

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 1 NO

Ref. To Sampling Procedure: -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BELAMBA VILLAGE, 27.03.2021				
Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	80	7.30	IS 5182(PART-2) : 2001
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	13.91	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	59	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	25.11	KLPL/SOP/AIR-02
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.50	KLPL/SOP/AIR-19
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	2.9	KLPL/SOP/AIR-19
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<10	KLPL/SOP/AIR-05
Benzene (C6 H6)	$\mu\text{g}/\text{m}^3$	05	<1	CPCB Guidelines of Ambient Air Pollutants Volume-I & II
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<1	KLPL/SOP/AIR-07
Arsenic (As)	$\mu\text{g}/\text{m}^3$	06	<1	KLPL/SOP/AIR-10
Nickel (Ni)	$\mu\text{g}/\text{m}^3$	20	<4	KLPL/SOP/AIR-10

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.

1B70702415560

KLPL- 344789A



KALYANI LABORATORIES PVT. LTD.

78/9-4, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006135P

Test Report No : 3493 | 7162177KLPL/1/21/WATER/D4013

Issue Date : 09-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013498 DT-15.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.

Date of receipt : 21-Jan-2021 Test Commenced On : 21 Jan 2021

Test Completion On: 31 Jan 2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 13-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

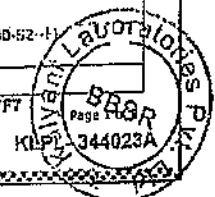
Place of Collection : OBSERVATION BOREWELL RED MUD POND MATERIAL GATE SIDE(NORTH) DT-13.01.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1991 RA 2009
II Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1991 RA 2009
III Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1991 RA 2009
CHEMICAL PARAMETER				
I Nitrate as NO3	mg/l, Max	45	1.5	IS 3025 (Part 34): 1998 RA 2003
II Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1998 RA 2003
III Calcium (as Ca)	mg/l, Max	75	43.2	IS 3025 (Part 40): 1991 RA 2009
IV Chloride (as Cl)	mg/l, Max	250	12.7	IS 3025 (Part 32): 1988 RA 2009
V Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1992 RA 2009
VI Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60): 2008
VII Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26): 1988 RA 2009
VIII Iron (as Fe)	mg/l, Max	1	0.74	IS 3025 (Part 53): 2003 RA 2014
IX Magnesium (as Mg)	mg/l, Max	30	12.64	IS 3025 (Part 46): 1994 RA 2003
X Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 2006 RA 2012
XI Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39): 1991 RA 2003
XII Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1992 RA 2009
XIII Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2003 RA 2009
XIV Sulphate (as SO4)	mg/l, Max	200	4	IS 3025 (Part 24): 1988 RA 2009
XV Total alkalinity (as CaCO3),	mg/l, Max	200	175	IS 3025 (Part 23): 1990 RA 2009
XVI Total hardness (as CaCO3),	mg/l, Max	200	160	IS 3025 (Part 21): 2009
XVII Zinc (as Zn)	mg/l, Max	5	0.024	IS 3025 (Part 49): 1994 RA 2009
XVIII Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
XIX Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-1)

3493 | 7162177





KALYANI LABORATORIES PVT. LTD.

URBAN KALYANI, KOLKATA-700015, INDIA

Test Report No : 3493 | 716217F7K1PL/1/21/WATER/04013



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.01	<0.01	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAs)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2017
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 506
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 506
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated Biphenyls	µg/l, Max	0.0005	<0.0005	ASTM D175

PHYSICAL PARAMETER

3493 | 716217





KALYANI LABORATORIES PVT. LTD.

74/41 P. BAL. T. P. B. S. S. V. A. G. S. P. D. D. S. S. A.

Test Report No

3493 | 716217F7KLPL/1/21/WATER/04013



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 4025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.7	IS 3025 (Part 11):1983 RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	236	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 37):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1986 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

Analyse By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3493 | 716217F7

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KLPL-344178A



KALYANI LABORATORIES PVT. LTD.

75044, PAHAL, BILUBANESWAR-751001, ODISHA

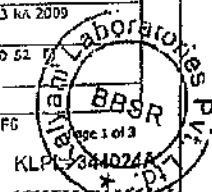
TEST REPORT



NABL ULR NO : TC704321000006134P
Test Report No : 3492 | 716917F6KLPL/1/21/WATER/U4020 **Issue Date:** 09-Feb-2021
Amendment No : - **Amendment Date :** -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.
Date of receipt : 21-Jan-2021 **Test Commenced On :** 21-Jan-2021 **Test Completion On:** 31-Jan-2021
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date :** 13-Jan-2021
Batch No , Lot No : NA **MFG Date :** NA **EXP Date :** NA
Received Quantity : 1LTR X 2 **Place of Collection :** OBSERVATION BORE WELL DIRTY WATER POND
Sample Collected By : By KLPL **DT-13.01.2021**
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	3.6	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	56	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	45.4	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.6	IS 3025 (Part 60):2009
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 25):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.87	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	7.78	IS 3025 (Part 46):1991 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1993 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	5.6	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	190	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCl2),	mg/l, Max	200	172	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.045	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500 S2)

3492 | 716917F6





KALYANI LABORATORIES PVT. LTD.

Kalyani laboratories

7/16917F6 KLPL/1/21/WATER/04020

Test Report No : 3492 | 716917F6 KLPL/1/21/WATER/04020



Parameters	Unit	Requirement	Result	Test Method
xx Aluminium (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428:2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (8440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.1	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428:2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 503
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.0005	ASTM D175

PHYSICAL PARAMETER

3492 | 716917F6

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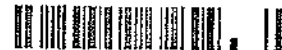


KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED ORGANIZATION

Test Report No : 3492 | 716917F6KLPL/1/21/WATER/04020



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1993 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1993 RA 2012
iii pH value	---	6.5-8.5	7.7	IS 3025 (Part 11):1993, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1993 RA 2006
v Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1993 RA 2006
vi Total dissolved solids	mg/l, Max	500	380	IS 3025 (Part 10):1993 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1993 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1993 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1993 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1993 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1993 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54):1993 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

78/9-11, PATIAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



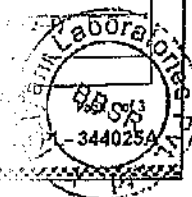
NABL ULR NO : TC704321000006193P

Test Report No : 3491 | 716817F5KLPL/1/21/WATER/04019 Issue Date: 09-Feb-2021
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.
 Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021 Test Completion On: 31-Jan-2021
 Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
 Sample Identification * : GROUND WATER Sampling Date : 13-Jan-2021
 Batch No, Lot No : NA MFG Date : NA EXP Date : NA
 Received Quantity : 1LTR X 2 Place of Collection : OBSERVATION BORE WELL ASHPOND (NORTH)
 Sample Collected By : By KLPL DT-13.01.2021
 Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	0.7	IS 3025 (Part 34): 1991 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1991 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	11.2	IS 3025 (Part 40): 1991 RA 2003
iv Chloride (as Cl)	mg/l, Max	250	5.5	IS 3025 (Part 32): 1991 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1991 RA 2009
vi Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60): 2009
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26): 1991 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.39	IS 3025 (Part 53): 2009 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	2.92	IS 3025 (Part 46): 1991 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 1991 RA 2009
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part 35): 1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1991 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2009 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	4	IS 3025 (Part 24): 1991 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	46	IS 3025 (Part 20): 1991 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	40	IS 3025 (Part 24): 1991 RA 2009
xvii Zinc (as Zn)	mg/l, Max	5	0.012	IS 3025 (Part 41): 1991 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (Part 52): 2009 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (1998) RA 2009

3491 | 716817F5KLPL/1/21/WATER/04019



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYTICAL (PHYSICAL & CHEMICAL) DEPT.

Test Report No : 3491 | 716S17F5KLPL/1/21/WATER/04019



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part 1)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 15559 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 15559 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition
xxiv Barium (as Ba)	mg/l, Max	0.2	<0.2	Annex F of IS 15559 RA 2009
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 15559 RA 2009

PESTICIDE

i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	20	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atroline	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.0005	ASTM 5175

PHYSICAL PARAMETER

3491 | 716S17F5KLPL/1/21/WATER/04019



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Kalyani Laboratories

MADE IN INDIA

Test Report No : 3491 | 716817F5KLPL/1/21/WATER/04019



Parameters	Unit	Requirement	Result	IS 3025 (Part 1) 2012
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 1) 2012
ii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 1) 2012
iii pH value	---	6.5-8.5	6.8	IS 3025 (Part 1) 2012
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 1) 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 1) 2006
vi Total dissolved solids	mg/l, Max	500	58	IS 3025 (Part 1) 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part 1) 2009
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part 1) 2009
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 1) 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 1) 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 1) 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 1) 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 1) 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 1) 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyzed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories



KALYANI LABORATORIES PVT. LTD.

78944, PATIAL, RILITANESWAR, PS 101, ODISHA

TEST REPORT

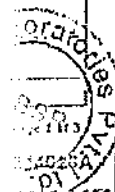


NABL ULR NO : TC704321000006132P

Test Report No : 3490 | 716717F4KLPL/1/21/WATER/04018 Issue Date : 10/01/2021
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021 Test Completion On : 21-Jan-2021
 Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
 Sample Identification * : GROUND WATER Sampling Date : 21/01/2021
 Batch No, Lot No : NA MFG Date : NA EXP Date : NA
 Received Quantity : 1LTR X 2 Place of Collection : OBSERVATION BORE WELL, VEDANTA, LANJIGARH, KALAHANDI, ODISHA
 Sample Collected By : By KLPL SIDE (EAST) DT-13.01.2021
 Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	IS 1622:1993
BACTERIOLOGICAL QUALITY				
I Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1993
II Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1993
III E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1993
CHEMICAL PARAMETER				
I Nitrate as NO3	mg/l, Max	45	3.5	IS 3025 (Part 1)
II Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 1)
III Calcium (as Ca)	mg/l, Max	75	70.4	IS 3025 (Part 1)
IV Chloride (as Cl)	mg/l, Max	250	67.3	IS 3025 (Part 1)
V Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 1)
VI Fluoride (as F)	mg/l, Max	1	0.26	IS 3025 (Part 1)
VII Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 1)
VIII Iron (as Fe)	mg/l, Max	1	0.17	IS 3025 (Part 1)
IX Magnesium (as Mg)	mg/l, Max	30	1.94	IS 3025 (Part 1)
X Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 1)
XI Mineral oil	mg/l, Max	0.5	<0.025	Clause 6.1.1 IS 3025 (Part 1)
XII Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 1)
XIII Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 1)
XIV Sulphate (as SO4)	mg/l, Max	200	16.2	IS 3025 (Part 1)
XV Total alkalinity (as CaCO3),	mg/l, Max	200	178	IS 3025 (Part 1)
XVI Total hardness (as CaCO3),	mg/l, Max	200	184	IS 3025 (Part 1)
XVII Zinc (as Zn)	mg/l, Max	5	0.036	IS 3025 (Part 1)
XVIII Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (Part 1)
XIX Sulphide	mg/l	2.0	<0.05	APHA 220.1



KALYANI LABORATORIES PVT. L

Kalyani Laboratories

INDIA PATIAL, INDIA

Test Report No : 3490 | 716717F4KLPL/1/21/WATER/04018

Parameters	Unit	Requirement	Result	Reference
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 23
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex

PESTICIDE

i p p DDE	µg/l, Max	1.0	<0.05	USEPA
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA
v o p DDD	µg/l, Max	1.0	<0.05	USEPA
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA
x Lindane	µg/l, Max	2.0	<0.01	USEPA
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA
xv Ethion	µg/l, Max	5.0	<0.01	USEPA
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA
xix Butachlor	µg/l, Max	125	<0.01	USEPA
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA
xxi Alachlor	µg/l, Max	20	<0.01	USEPA
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA
xxiv Malathion	µg/l, Max	190	<0.01	USEPA
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.0005	ASTM

PHYSICAL PARAMETER



Test Report No : 3490 | 716717F4KLPL/1/21/WATER/04018

Parameters	Unit	Requirement	Result	IS 3043
i Colour	Hazen, Max	5	<1.0	IS 3043
ii Odour	--	Agreeable	AGREEABLE	IS 3043
iii pH value	---	6.5-8.5	8.0	IS 3043
iv Taste	--	Agreeable	AGREEABLE	IS 3043
v Turbidity	NTU, Max	1	0.7	IS 3043
vi Total dissolved solids	mg/l, Max	500	446	IS 3043

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14706
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14706

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.001	<0.001	IS 3043
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3043
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3043
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3043
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3043
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3043

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Sign
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT.

78/944, PAHAL, BHUBANESWAR-752001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006131P
Test Report No : 3489 | 716617F3KLPL/1/21/WATER/04017 **Issue Date**
Amendment No : - **Amendment Date**
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Jan-2021 **Test Commenced On** : 21-Jan-2021 **Test Completed**
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sample**
Batch No, Lot No : NA **MFG Date** : NA **EXP Date**
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE
Sample Collected By : By KLPL **SIDE(WEST) DT-13.**
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	IS
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 10
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 10
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 10
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.4	IS 308
ii Ammonia	mg/l, Max	0.5	<0.3	IS 308
iii Calcium (as Ca)	mg/l, Max	75	32	IS 308
iv Chloride (as Cl)	mg/l, Max	250	9.1	IS 308
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 308
vi Fluoride (as F)	mg/l, Max	1	0.3	IS 308
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 308
viii Iron (as Fe)	mg/l, Max	1	0.35	IS 308
ix Magnesium (as Mg)	mg/l, Max	30	12.64	IS 308
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 308
xi Mineral oil	mg/l, Max	0.5	<0.025	IS 308
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 308
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 308
xiv Sulphate (as SO ₄)	mg/l, Max	200	4	IS 308
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	168	IS 308
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	132	IS 308
xvii Zinc (as Zn)	mg/l, Max	5	0.025	IS 308
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 308
xix Sulphide	mg/l	2.0	<0.05	IS 308

KALYANI LABORATORIES PVT

Kalyani Laboratories

30/11/2021 11:00 AM

Test Report No : 3489 | 716617F3KLPL/1/21/WATER/04017

Parameters	Unit	Requirement	Result
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1
xxii Boron (as B)	mg/l, Max	0.5	<0.1
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005
PESTICIDE			
i p p DDE	µg/l, Max	1.0	<0.05
ii p p DDD	µg/l, Max	1.0	<0.05
iii p p DDT	µg/l, Max	1.0	<0.05
iv o p DDT	µg/l, Max	1.0	<0.05
v o p DDD	µg/l, Max	1.0	<0.05
vi o p DDE	µg/l, Max	1.0	<0.05
vii α-HCH	µg/l, Max	0.01	<0.01
viii β-HCH	µg/l, Max	0.04	<0.01
ix γ-HCH	µg/l, Max	0.04	<0.01
x Lindane	µg/l, Max	2.0	<0.01
xi Endosulfan α	µg/l, Max	0.4	<0.01
xii Endosulfan β	µg/l, Max	0.4	<0.01
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01
xiv Monocrotophos	µg/l, Max	1.0	<0.01
xv Ethion	µg/l, Max	3.0	<0.01
xvi Chlorpyrifos	µg/l, Max	1.0	<0.01
xvii Phorate	µg/l, Max	2.0	<0.01
xviii 2,4-D	µg/l, Max	30	<0.05
xix Butachlor	µg/l, Max	125	<0.01
xx Isoproturon	µg/l, Max	9.0	<0.01
xxi Alachlor	µg/l, Max	20	<0.01
xxii Atrazine	µg/l, Max	2.0	<0.01
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01
xxiv Malathion	µg/l, Max	190	<0.01
xxv Aldrin	µg/l, Max	0.03	<0.01
xxvi Dieldrin	µg/l, Max	0.03	<0.01
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.0005

PHYSICAL PARAMETER

KALYANI LABORATORIES PVT

Kalyani Laboratories

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

Test Report No : 3489 | 716617F3KLPL/1/21/WATER/04017

Parameters	Unit	Requirement	Result	IS
i Colour	Hazen, Max	5	<1.0	IS
ii Odour	--	Agreeable	AGREEABLE	IS
iii pH value	---	6.5-8.5	7.5	IS
iv Taste	--	Agreeable	AGREEABLE	IS
v Turbidity	NTU, Max	1	0.8	IS
vi Total dissolved solids	mg/l, Max	500	172	IS

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized S.
For Kalyani L



KALYANI LABORATORIES PVT. LTD.

78941, RAIAL, BHUBANESWAR-752101, ODISHA

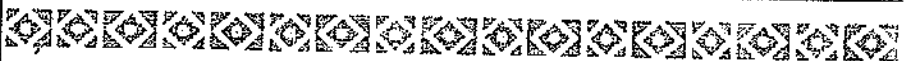
TEST REPORT



NABL ULR NO : TC704321000006130P
 Test Report No : 3488 | 716517F2KLPL/1/21/WATER/04016 Issue Date
 Amendment No : - Amendment Date
 Reference : ORDER NO-6600013488 DT-15.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021 Test Completed :
 Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
 Sample Identification * : GROUND WATER Sample
 Batch No, Lot No : NA MFG Date : NA EXP Date
 Received Quantity : 1LTR X 2 Place of Collection : OBSERVATION BORE
 Sample Collected By : By KLPL (EAST) DT-13.01.201
 Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	IS
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 100
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 100
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 100
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	2.5	IS 300
ii Ammonia	mg/l, Max	0.5	<0.2	IS 300
iii Calcium (as Ca)	mg/l, Max	75	14.4	IS 300
iv Chloride (as Cl)	mg/l, Max	250	20	IS 300
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 300
vi Fluoride (as F)	mg/l, Max	1	0.2	IS 300
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 300
viii Iron (as Fe)	mg/l, Max	1	0.65	IS 300
ix Magnesium (as Mg)	mg/l, Max	30	10.69	IS 300
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 300
xi Mineral oil	mg/l, Max	0.5	<0.025	IS 300
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 300
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 300
xiv Sulphate (as SO ₄)	mg/l, Max	200	5.2	IS 300
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	182	IS 300
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	80	IS 300
xvii Zinc (as Zn)	mg/l, Max	5	0.027	IS 300
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 300
xix Sulphide	mg/l	2.0	<0.05	API



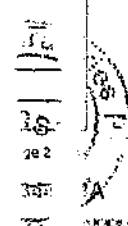
KALYANI LABORATORIES PVT

Kalyani Laboratories

INDIA, PUNE-411 004, NEW NO. 210/1, CHINHA

Test Report No : 3488 | 716517F2KLPL/1/21/WATER/04016

Parameters	Unit	Requirement	Result
xx Aluminum (as Al)	mg/l, Max	0.03	<0.03
xxi Antifolic Surface Active Agents (as MSAS)	mg/l, Max	0.2	<0.1
xxii Boron (as B)	mg/l, Max	0.5	<0.1
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005
PESTICIDE			
i p p DDE	µg/l, Max	1.0	<0.05
ii p p DDD	µg/l, Max	1.0	<0.05
iii p p DDT	µg/l, Max	1.0	<0.05
iv o p DDT	µg/l, Max	1.0	<0.05
v o p DDD	µg/l, Max	1.0	<0.05
vi o p DDE	µg/l, Max	1.0	<0.05
vii α-HCH	µg/l, Max	0.01	<0.01
viii β-HCH	µg/l, Max	0.04	<0.01
ix γ-HCH	µg/l, Max	0.04	<0.01
x Lindane	µg/l, Max	2.0	<0.01
xi Endosulfan a	µg/l, Max	0.4	<0.01
xii Endosulfan β	µg/l, Max	0.4	<0.01
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01
xiv Monocrotophos	µg/l, Max	1.0	<0.01
xv Ethion	µg/l, Max	3.0	<0.01
xvi Chlorpyrifos	µg/l, Max	30	<0.01
xvii Phorate	µg/l, Max	2.0	<0.01
xviii 2,4-D	µg/l, Max	30	<0.05
xix Butachlor	µg/l, Max	125	<0.01
xx Isoproturon	µg/l, Max	9.0	<0.01
xxi Alachlor	µg/l, Max	20	<0.01
xxii Atrazine	µg/l, Max	2.0	<0.01
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01
xxiv Malathion	µg/l, Max	190	<0.01
xxv Aldrin	µg/l, Max	0.03	<0.01
xxvi Dieldrin	µg/l, Max	0.03	<0.01
xxvii Polychlorinated biphenyls	µg/l, Max	6.0005	<0.0005
PHYSICAL PARAMETER			





KALYANI LABORATORIES PV

Kalyani Laboratories

10/11, POKAL, BHOIRAMASWAR, 701001, GUWAHATI

Test Report No : 3488 | 716517F2KLPL/1/21/WATER/04016

Parameters	Unit	Requirement	Result
i Colour	Placen, Max	5	<1.0
ii Odour	--	Agreeable	AGREEABLE
iii pH value	---	6.5-8.5	7.1
iv Taste	--	Agreeable	AGREEABLE
v Turbidity	NTU, Max	1	0.7
vi Total dissolved solids	mg/l, Max	500	294
RADIOACTIVITY SUBSTANCES			
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02
TOXIC SUBSTANCES			
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02
iii Lead (as Pb)	mg/l, Max	0.01	<0.005
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005
v Total arsenic (as As)	mg/l, Max	0.01	<0.001
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized
For Kalyani



KALYANI LABORATORIES PVT.

Kalyani Laboratories

78/944, PAHAL, BHUBANESWAR-751001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000005129P

Test Report No : 3487 | 716417F1KLPL/1/21/WATER/04015 **Issue** : 1

Amendment No : - **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Jan-2021 **Test Commenced On** : 21-Jan-2021 **Test Completed** : -

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER **Sample** : -

Batch No, Lot No : NA **MFG Date** : NA **EXP D.** : -

Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION B. (NORTH) DT-13.01.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result
BACTERIOLOGICAL QUALITY			
i Total Coliforms	NPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT
ii Faecal Coliform	NPN/100ml	Shall not be detected in any 100 ml sample	ABSENT
iii E.coli	NPN/100mL	Shall not be detected in any 100ml. Sample	ABSENT
CHEMICAL PARAMETER			
i Nitrate as NO ₃	mg/l, Max	45	0.6
ii Ammonia	mg/l, Max	0.5	<0.3
iii Calcium (as Ca)	mg/l, Max	75	11.2
iv Chloride (as Cl)	mg/l, Max	250	16.4
v Copper (as Cu)	mg/l, Max	0.05	<0.02
vi Fluoride (as F)	mg/l, Max	1	<0.05
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED
viii Iron (as Fe)	mg/l, Max	1	0.57
ix Magnesium (as Mg)	mg/l, Max	30	1.94
x Manganese (as Mn)	mg/l, Max	0.1	<0.05
xi Mineral oil	mg/l, Max	0.5	<0.025
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005
xiv Sulphate (as SO ₄)	mg/l, Max	200	3.6
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	41
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	36
xvii Zinc (as Zn)	mg/l, Max	5	0.012
xviii Total Chromium	mg/l, Max	0.05	<0.02
xix Sulphide	mg/l	2.0	<0.05



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Kalyani Laboratories

CHENNAI PARK, BILDAWAZ, 74TH CROSS

Test Report No : 3487 | 7164171KLPL/1/21/WATER/04015

Parameters	Unit	Requirement	Result
xx Aluminium (as Al)	mg/l, Max	0.03	<0.02
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1
xxii Boron (as B)	mg/l, Max	0.5	<0.1
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005

PESTICIDE

i	p p DDT	µg/l, Max	1.0	<0.05
ii	o p DDT	µg/l, Max	1.0	<0.05
iii	o p DDD	µg/l, Max	1.0	<0.05
iv	p p DDE	µg/l, Max	1.0	<0.05
v	p p DDD	µg/l, Max	1.0	<0.05
vi	o p DDE	µg/l, Max	1.0	<0.05
vii	α-HCH	µg/l, Max	0.01	<0.01
viii	β-HCH	µg/l, Max	0.04	<0.01
ix	γ-HCH	µg/l, Max	0.04	<0.01
x	Lindane	µg/l, Max	2.0	<0.01
xi	Endosulfan α	µg/l, Max	0.4	<0.01
xii	Endosulfan β	µg/l, Max	0.4	<0.01
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01
xiv	Monobactams	µg/l, Max	1.0	<0.01
xv	Etion	µg/l, Max	3.0	<0.01
xvi	Chlorpyrifos	µg/l, Max	30	<0.01
xvii	Phorate	µg/l, Max	2.0	<0.01
xviii	2,4-D	µg/l, Max	30	<0.05
xix	Butachlor	µg/l, Max	125	<0.01
xx	Isoproturon	µg/l, Max	9.0	<0.01
xxi	Alachlor	µg/l, Max	20	<0.01
xxii	Atrazine	µg/l, Max	2.0	<0.01
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01
xxiv	Malathion	µg/l, Max	190	<0.01
xxv	Aldrin	µg/l, Max	0.03	<0.01
xxvi	Dieldrin	µg/l, Max	0.09	<0.01
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0505	<0.0505

PHYSICAL PARAMETER

11/05/2021
A

Test Report No : 3487 | 716417P1KLPL/1/21/WATER/04015

Parameters	Unit	Requirement	Result
i Colour	Hazen, Max	5	<1.0
ii Odour		Agreeable	AGREEABLE
iii pH value		6.5-8.5	6.9
iv Taste		Agreeable	AGREEABLE
v Turbidity	NTU, Max	1	0.5
vi Total dissolved solids	mg/l, Max	500	50
RADIOACTIVITY SUBSTANCES			
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02
TOXIC SUBSTANCES			
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001
ii Cyanide (as CN)	mg/l, Max	0.05	<0.03
iii Lead (as Pb)	mg/l, Max	0.01	<0.005
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005
v Total arsenic (as As)	mg/l, Max	0.01	<0.001
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT.

8/244, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006128P
 Test Report No : 3486 | 716917F0KLPL/1/21/WATER/04014
 Amendment No : -
 Reference : ORDER NO-6600013486 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021
 Sample Description : DRINKING WATER (IS 10500:2012)
 Sample Condition : SEALED
 Sample Identification * : GROUND WATER
 Batch No , Lot No : NA
 Received Quantity : 1LTR X 1
 Sample Collected By : By KLPL
 Ref.To Sampling Procedure : QSP-07
 MFG Date : NA
 Place of Collection : OBSERVATION : RENGOPALI SID

Parameters	Unit	Requirement	Result
BACTERIOLOGICAL QUALITY			
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT
iii E.coli	MPN/100ml	Shall not be detected in any 100ml, Sample	ABSENT
CHEMICAL PARAMETER			
i Nitrate as NO3	mg/l, Max	45	2.0
ii Ammonia	mg/l, Max	0.5	<0.3
iii Calcium (as Ca)	mg/l, Max	75	28.8
iv Chloride (as Cl)	mg/l, Max	250	12.7
v Copper (as Cu)	mg/l, Max	0.05	<0.02
vi Fluoride (as F)	mg/l, Max	1	0.2
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED
viii Iron (as Fe)	mg/l, Max	1	<0.05
ix Magnesium (as Mg)	mg/l, Max	30	11.66
x Manganese (as Mn)	mg/l, Max	0.1	<0.05
xi Mineral oil	mg/l, Max	0.5	<0.025
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005
xiv Sulphate (as SO4)	mg/l, Max	200	3.6
xv Total alkalinity (as CaCO3),	mg/l, Max	200	120
xvi Total hardness (as CaCO3),	mg/l, Max	200	120
xvii Zinc (as Zn)	mg/l, Max	5	0.022
xviii Total Chromium	mg/l, Max	0.05	<0.02
xix Sulphide	mg/l	2.0	<0.05



KALYANI LABORATORIES P

ANALYTICAL LABORATORIES

Test Report No : 3486 | 716317F0KLPL/1/21/WATER/04014

Parameters	Unit	Requirement	Result
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1
xxii Boron (as B)	mg/l, Max	0.5	<0.1
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005
PESTICIDE			
i p p DDE	µg/l, Max	1.0	<0.05
ii p p DDD	µg/l, Max	1.0	<0.05
iii p p DDT	µg/l, Max	1.0	<0.05
iv o p DDT	µg/l, Max	1.0	<0.05
v o p DDD	µg/l, Max	1.0	<0.05
vi o p DDE	µg/l, Max	1.0	<0.05
vii a HCH	µg/l, Max	0.01	<0.01
viii β-HCH	µg/l, Max	0.04	<0.01
ix γ-HCH	µg/l, Max	0.04	<0.01
x Lindane	µg/l, Max	2.0	<0.01
xi Endosulfan a	µg/l, Max	0.4	<0.01
xii Endosulfan β	µg/l, Max	0.4	<0.01
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01
xiv Monocrotophos	µg/l, Max	1.0	<0.01
xv Ethion	µg/l, Max	3.0	<0.01
xvi Chlorpyrifos	µg/l, Max	30	<0.01
xvii Phorate	µg/l, Max	2.0	<0.01
xviii 2,4-D	µg/l, Max	30	<0.05
xix Butachlor	µg/l, Max	125	<0.01
xx Isoproturon	µg/l, Max	5.0	<0.01
xxi Alachlor	µg/l, Max	20	<0.01
xxii Atrazine	µg/l, Max	2.0	<0.01
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01
xxiv Malathion	µg/l, Max	150	<0.01
xxv Aldrin	µg/l, Max	0.03	<0.01
xxvi Dieldrin	µg/l, Max	0.01	<0.01
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.0005

PHYSICAL PARAMETER



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Kalyani Laboratories

10/10/2021 10:10:10 AM

Test Report No : 3486 | 716317F0KLPL/1/21/WATER/04014

Sl. No.	Parameter	Unit	Requirement	Result
i	Colour	Hazen, Max	5	<1.0
ii	Odour		Agreeable	AGREEABLE
iii	pH value	---	6.5-8.5	7.8
iv	Taste	--	Agreeable	AGREEABLE
v	Turbidity	NTU, Max	1	0.8
vi	Total dissolved solids	mg/l, Max	500	150

RADIOACTIVITY SUBSTANCES

i	Gross Alpha-activity	Bq/l, Max	0.1	<0.05
ii	Gross Beta-activity	Bq/l, Max	2.0	<0.02

TOXIC SUBSTANCES

i	Cadmium (as Cd)	mg/l, Max	0.003	<0.001
ii	Cyanide (as CN)	mg/l, Max	0.05	<0.02
iii	Lead (as Pb)	mg/l, Max	0.01	<0.005
iv	Mercury (as Hg)	mg/l, Max	0.001	<0.001
v	Total arsenic (as As)	mg/l, Max	0.01	<0.001
vi	Nickel (as Ni)	mg/l, Max	0.02	<0.01

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authd
For



KALYANI LABORATORIES PVT. LTD.

78/11, PAJIAL, BHUBANESWAR-751001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006127P
Test Report No : 3485 | 716117EFKLPL/1/21/WATER/04012 Issue Date :
Amendment No : - Amendment Date :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021 Test Centre :
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
Sample Identification * : GROUND WATER
Batch No, Lot No : NA MFG Date : NA
Received Quantity : 1LTR X 2 Place of Collection : OBSERVATION
Sample Collected By : By KLPL BASANTPRASAD
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result
BACTERIOLOGICAL QUALITY			
i E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT
ii Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT
iii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT
CHEMICAL PARAMETER			
i Nitrate as NO ₃	mg/l, Max	45	1.8
ii Ammonia	mg/l, Max	0.5	<0.5
iii Calcium (as Ca)	mg/l, Max	75	20.5
iv Chloride (as Cl)	mg/l, Max	250	39.2
v Copper (as Cu)	mg/l, Max	0.05	<0.05
vi Fluoride (as F)	mg/l, Max	1	0.2
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED
viii Iron (as Fe)	mg/l, Max	1	0.1
ix Magnesium (as Mg)	mg/l, Max	30	13.5
x Manganese (as Mn)	mg/l, Max	0.1	<0.1
xi Mineral oil	mg/l, Max	0.5	<0.5
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001
xiii Selenium (as Se)	mg/l, Max	0.01	<0.01
xiv Sulphate (as SO ₄)	mg/l, Max	200	3
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	1
xvi Total hardness (as CaCO ₃)	mg/l, Max	300	1
xvii Zinc (as Zn)	mg/l, Max	5	0
xviii Total Chromium	mg/l, Max	0.05	<0.05
xix Sulphide	mg/l	2.0	<0.05



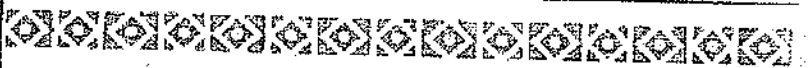
KALYANI LABORATORIES P

ANAL. PAPER, HINDUSTAN AWARD, AZADI, UDIP.

Test Report No : 3485 | 716117EPKLPL/1/21/WATER/04012

Parameter	Unit	Requirement	Result
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1
xxii Boron (as B)	mg/l, Max	0.5	<0.1
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.7
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005
PESTICIDE			
i p p DDE	µg/l, Max	1.0	<0.05
ii p p DDD	µg/l, Max	1.0	<0.05
iii p p DDT	µg/l, Max	1.0	<0.05
iv o p DDT	µg/l, Max	1.0	<0.05
v o p DDD	µg/l, Max	1.0	<0.05
vi o p DDE	µg/l, Max	1.0	<0.05
vii α-HCH	µg/l, Max	0.01	<0.01
viii β-HCH	µg/l, Max	0.04	<0.01
ix δ-HCH	µg/l, Max	0.04	<0.01
x Lindane	µg/l, Max	2.0	<0.01
xi Endosulfan a	µg/l, Max	0.4	<0.01
xii Endosulfan B	µg/l, Max	0.4	<0.01
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01
xiv Monocrotophos	µg/l, Max	1.0	<0.01
xv Ethion	µg/l, Max	1.0	<0.01
xvi Chlorpyrifos	µg/l, Max	30	<0.01
xvii Phorate	µg/l, Max	2.0	<0.01
xviii 2,4-D	µg/l, Max	30	<0.05
xix Butachlor	µg/l, Max	125	<0.01
xx Isoproturon	µg/l, Max	0.0	<0.01
xxi Alachlor	µg/l, Max	20	<0.01
xxii Atrazine	µg/l, Max	2.0	<0.01
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01
xxiv Malathion	µg/l, Max	190	<0.01
xxv Aldrin	µg/l, Max	0.03	<0.01
xxvi Dieldrin	µg/l, Max	0.03	<0.01
xxvii Polychlorinated Biphenyls	µg/l, Max	0.0005	<0.0005
PHYSICAL PARAMETER			

105-11-11



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

THIRU PAMAI INDUSTRIAL ESTATE, CHENNAI - 600 031

Test Report No : 3485 | 716117EFKLPL/1/21/WATER/04012

Parameters	Unit	Requirement
i Colour	Hazen, Max	5
ii Odour		Agreeable
iii pH value	---	6.5-8.5
iv Taste	--	Agreeable
v Turbidity	NTU, Max	1
vi Total dissolved solids	mg/l, Max	500

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1
ii Gross Beta-activity	Bq/l, Max	1.0

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003
ii Cyanide (as CN)	mg/l, Max	0.05
iii Lead (as Pb)	mg/l, Max	0.01
iv Mercury (as Hg)	mg/l, Max	0.001
v Total arsenic (as As)	mg/l, Max	0.01
vi Nickel (as Ni)	mg/l, Max	0.02

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analytical By
For Kalyani Laboratories Pvt. Ltd.





Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

78/44, PAHAL, BHUDANESWAR-752101, ODISHA

TEST REPORT

NABL ULR NO : TC704321000006126P

Test Report No : 3484 | 716017EEKLPL/1/21/WATER/04011

Amendment No : -

Reference : ORDER NO-6600013488 DT-15.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST - KALAHANDI, ODISHA-766027.

Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

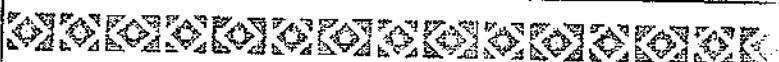
Batch No, Lot No : NA MFG Date : NA

Received Quantity : 1LTR X 2 Place of Collection : OBSERVATION

Sample Collected By : By KLPL DT-15.01.21

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result
BACTERIOLOGICAL QUALITY			
I Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT
II Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT
III E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT
CHEMICAL PARAMETER			
I Nitrate as NO ₃	mg/l, Max	45	4.0
II Ammonia	mg/l, Max	0.5	<0.5
III Calcium (as Ca)	mg/l, Max	75	59.7
IV Chloride (as Cl)	mg/l, Max	250	157.1
V Copper (as Cu)	mg/l, Max	0.05	0.001
VI Fluoride (as F)	mg/l, Max	1	0.001
VII Free residual chlorine	mg/l, Min	0.2	NO. DET.
VIII Iron (as Fe)	mg/l, Max	1	0.001
IX Magnesium (as Mg)	mg/l, Max	30	0.001
X Manganese (as Mn)	mg/l, Max	0.1	0.001
XI Mineral oil	mg/l, Max	0.5	0.001
XII Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	0.001
XIII Selenium (as Se)	mg/l, Max	0.01	0.001
XIV Sulphate (as SO ₄)	mg/l, Max	200	170.0
XV Total alkalinity (as CaCO ₃)	mg/l, Max	200	170.0
XVI Total hardness (as CaCO ₃)	mg/l, Max	200	170.0
XVII Zinc (as Zn)	mg/l, Max	5	0.001
XVIII Total Chromium	mg/l, Max	0.05	0.001
XIX Sulphide	mg/l	2.0	0.001



KALYANI LABORATORIES

20041, PARAL, BHILANDAWAR, 731004, INDIA

Test Report No

3484 | 716017FEK1PL/1/21/WATER/0401

Parameters	Unit	Requirement
xx Aluminium (as Al)	mg/l, Max	0.03
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2
xxii Boron (as B)	mg/l, Max	0.5
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001
xxiv Barium (as Ba)	mg/l, Max	0.7
xxv Silver (as Ag)	mg/l, Max	0.1

PESTICIDE

i	p p DDE	µg/l, Max	1.0
ii	p p DDD	µg/l, Max	1.0
iii	p p DDT	µg/l, Max	1.0
iv	o p DDT	µg/l, Max	1.0
v	o p DDB	µg/l, Max	1.0
vi	o p DDB	µg/l, Max	1.0
vii	a-HCH	µg/l, Max	0.01
viii	β-HCH	µg/l, Max	0.04
ix	γ-HCH	µg/l, Max	0.04
x	Lindane	µg/l, Max	2.0
xi	Endosulfan a	µg/l, Max	0.4
xii	Endosulfan B	µg/l, Max	0.4
xiii	Endosulfan sulphate	µg/l, Max	0.4
xiv	Monocrotophos	µg/l, Max	1.0
xv	Ethion	µg/l, Max	0.0
xvi	Chlorpyrifos	µg/l, Max	30
xvii	Phorate	µg/l, Max	2.0
xviii	2,4-D	µg/l, Max	30
xix	Butochlor	µg/l, Max	125
xx	Isoproturon	µg/l, Max	9.0
xxi	Alachlor	µg/l, Max	20
xxii	Atrazine	µg/l, Max	2.0
xxiii	Methyl Parathion	µg/l, Max	0.3
xxiv	Malathion	µg/l, Max	190
xxv	Aldrin	µg/l, Max	0.03
xxvi	Dieldrin	µg/l, Max	0.03
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005

PHYSICAL PARAMETER



KALYANI LABORATORIES

Kalyani Laboratories

10/10, PALLI, BIR, RAIPUR, JHARKHAND

Test Report No : 3484 | 716017EEKLPL/1/21/WATER/04

Parameters	Unit	Requirement	Result
i Colour	Hazen, Max	5	4.5
ii Odour	-	Agreeable	Agreeable
iii pH value	-	6.5-8.5	-
iv Taste	-	Agreeable	-
v Turbidity	NTU, Max	1	-
vi Total dissolved solids	mg/l, Max	500	-

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	-
ii Gross Beta-activity	Bq/l, Max	1.0	-

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	-
ii Cyanide (as CN)	mg/l, Max	0.05	-
iii Lead (as Pb)	mg/l, Max	0.01	-
iv Mercury (as Hg)	mg/l, Max	0.001	-
v Total arsenic (as As)	mg/l, Max	0.01	-
vi Nickel (as Ni)	mg/l, Max	0.02	-

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

10/11, PAMATI, NEW BANENWAR, 751013, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006490P

Test Report No : 3621 | 7734195AKLPL/2/21/WATER/04214

Issue Date: 05-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021 Test Commenced On : 26 Feb 2021

Test Completion On: 04-Mar-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 25-Feb-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : OBSERVATION BOREWELL RED MUD POND
BASANTPADA SIDE(EAST) DT-25.02.2021

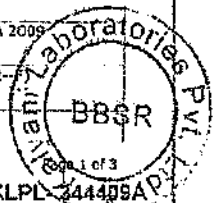
Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.4	IS 3025 (PART 34): 1988 RA 2009
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	33.6	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	19.2	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.2	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.63	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	5.83	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	ABSENT(<0.02%)	Clause 6 of IS 3025 (Part- 39):1991 RA 2009
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	4	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	113	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	108	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -

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KLPL-244498A





KALYANI LABORATORIES PVT. LTD.

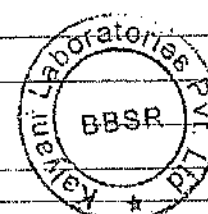
Kalyani Laboratories

Plot No. 1, Phase II, Bhubaneswar - 751007, Odisha

Test Report No : 3621 | 7734195AKLPL/2/21/WATER/04214



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APIA 22nd Edition (6-440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex I of IS 13478 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	40	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



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KALYANI LABORATORIES PVT. LTD.

220041 RAHAT BHUPANESWAR 751001, ODISHA

Test Report No : 3621 | 7734195AKLPL/2/21/WATER/04214



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	< 10	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.5	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	170	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed by
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

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KLPL- 344407A



KALYANI LABORATORIES PVT. LTD.

38-9/1, PATIAL, BHUBANESWAR-751001, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006491P

Test Report No : 3622 | 7735195BKPL/2/21/WATER/04215

Issue Date : 05-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021 Test Commenced On : 26-Feb-2021 Test Completion On: 04-Mar-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALCD

Sample Identification * : GROUND WATER

Sampling Date : 25-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : OBSERVATION BORE WELL RED MUD POND
RENGOPALI SIDE (SOUTH) DT-25.02.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
II Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
III E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
I Nitrate as NO ₃	mg/l, Max	45	2.4	IS 3025 (Part 34): 1988 RA 2003
II Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
III Calcium (as Ca)	mg/l, Max	75	41.6	IS 3025 (Part 40):1991 RA 2009
IV Chloride (as Cl)	mg/l, Max	250	9.6	IS 3025 (Part 32):1988 RA 2009
V Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
VI Fluoride (as F)	mg/l, Max	1	0.23	IS 3025 (Part 60):2008
VII Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
VIII Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53): 2003 RA 2014
IX Magnesium (as Mg)	mg/l, Max	30	12.64	IS 3025 (Part 46):1994 RA 2009
X Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
XI Mineral oil	mg/l, Max	0.5	<0.025	Clause G of IS 3025 (Part 35):1991 RA 2003
XII Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
XIII Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
XIV Sulphate (as SO ₄)	mg/l, Max	200	6	IS 3025 (Part 24):1986 RA 2009
XV Total alkalinity (as CaCO ₃),	mg/l, Max	200	144	IS 3025 (Part 23):1986 RA 2009
XVI Total hardness (as CaCO ₃),	mg/l, Max	200	156	IS 3025 (Part 21):2009
XVII Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
XVIII Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (Part 52): 2003 RA 2009
XIX Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -04)

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KLPL- 344406A





KALYANI LABORATORIES PVT. LTD.

18-944 PATAI, SOH RANJWAR 751016, ODISHA

Kalyani Laboratories

Test Report No : 3622 | 7735195BKPL/2/21/WATER/04215

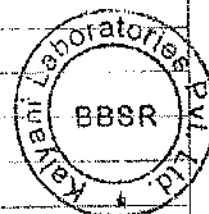


Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.05	<0.02	IS 3025 (part-55)
xxi Boron (as B)	mg/l, Max	0.5	<0.1	Annex II OF IS 13420 : 2005 RA 2009
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiii Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13420 RA 2012
xxiv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13420 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 512
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 3175
PHYSICAL PARAMETER				
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4:1983 RA 2012)

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KLPL- 344405A





KALYANI LABORATORIES PVT. LTD.

78/44 PATEL BUILDING, BHARUCHA ROAD, DODDERA

Test Report No : 3622 | 7735195BKPL/2/21/WATER/04215

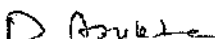


Parameters	Unit	Requirement	Result	Test Method
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.5	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	164	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

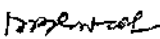
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



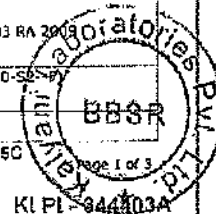
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Test Report No : 3623 | 7736195CKLPL/2/21/WATER/04216 **Issue Date:** 05-Mar-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 26-Feb-2021 **Test Commenced On** : 26-Feb-2021 **Test Completion On** : 04-Mar-2021
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : STALLU
Sample Identification * : GROUND WATER **Sampling Date** : 25-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL PROCESS WATER LAKE (NORTH) DT-25.02.2021
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	0.72	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	14.4	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	5.8	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.6	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	0.97	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2009
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	5	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	43	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	40	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -09)

3623 | 7736195C

KL PL-844103A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANAL. PARTIAL, BUREAU OF STANDARDS, NEW DELHI

Test Report No : 3623 | 7736195CKLPL/2/21/WATER/04216



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.14	<0.01	IS 3025 (part-5)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER



3623 | 7736195C

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KLPL- 344402A



KALYANI LABORATORIES PVT. LTD.

20/20, PALLADI, DURGAMCHERU, HYDRABAD-500015

Test Report No : 3623 | 7736195CKLPL/2/21/WATER/04216



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.8	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	66	IS 3075 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part 2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

37/11, PATIAL, BHUBANESWAR 751014, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006493P

Test Report No : 3624 | 7737195DKLPL/2/21/WATER/04217

Issue Date : 05-Mar-2021

Amendment No :

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021 **Test Commenced On** : 26-Feb-2021 **Test Completion On** : 04-May-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 25-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

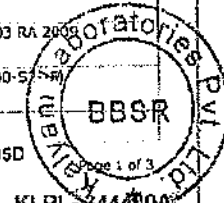
Place of Collection : OBSERVATION BOREWELL PROCESS WATER LAKE (EAST) DT-25.02.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP 07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	2.8	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	14.4	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	17.3	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.18	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.68	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	12.64	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part 30):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	8	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	142	IS 3025 (Part 25):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	88	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂)

3624 | 7737195D



KI PL - 344400A



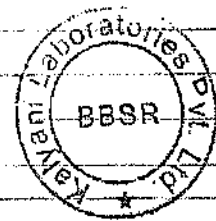
KALYANI LABORATORIES PVT. LTD.

WATER ANALYSIS REPORT

Test Report No : 3624 | 7737195DKLPL/2/21/WATER/04217



Parameters	Unit	Requirement	Result	Test Method
xx Aluminium (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-95)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1607 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Dacthal	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



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KLPL- 344399A



KALYANI LABORATORIES PVT. LTD.

100B, PALADI, KOLHAPUR DISTRICT, MAHARASHTRA

Test Report No : 3624 | 7737195DKLPL/2/21/WATER/04217



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.0	IS 3025 (Part 11):1983 RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 6):1984 RA 2006
v Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	306	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Reported By
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

3/400, PATAL BHABHA LANE, CUTTACK (ODISHA)

Kalyani Laboratories

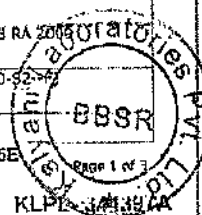
TEST REPORT



NABL ULR NO : IC/04321000006494P
Test Report No : 3625 | 7738195EKLPL/2/21/WATER/04218 **Issue Date** : 05-Mar-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 26-Feb-2021 **Test Commenced On** : 26-Feb-2021 **Test Completion On** : 04-Mar-2021
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 25-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BOREWELL ASHPOND KASIDADI
Sample Collected By : By KLPL **SIDE(WEST) DT-25.02.2021**
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
iii Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.6	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	40	IS 3025 (Part 40): 1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	9.6	IS 3025 (Part 32): 1900 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.35	IS 3025 (Part 60): 2000
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26): 1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.4	IS 3025 (Part 53): 2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	5.83	IS 3025 (Part 46): 1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39): 1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	8	IS 3025 (Part 24): 1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	198	IS 3025 (Part 27): 1906 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	124	IS 3025 (Part 21): 2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49): 1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -04)

3625 | 7738195E



KLPL-24-19-21



KALYANI LABORATORIES PVT. LTD.

36/44, PATEL, DEEPAK SWAR, 3RD FLOOR, GURGAO

Test Report No

3625 | 7738195EKLPL/2/21/WATER/04218



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex I of IS 13428 : 2005 RA 2009

PESTICIDE

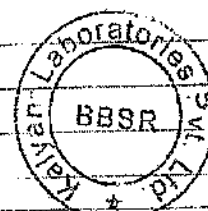
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monobrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3625 | 7738195E

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KLPL 344386A



KALYANI LABORATORIES PVT. LTD.

3044, PATIAL, SRI RAMESHWAR, Bhubaneswar, ODISHA

Kalyani Laboratories

Test Report No : 3625 | 773819SEKLPL/2/21/WATER/04218



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	< 1.0	IS 3025 (Part 4):1981 RA 2012
ii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.2	IS 3025 (Part 11):1983 RA 2012
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	182	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Arora
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Imogenet
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3625 | 7738195E

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KLPL- 344395A

KALYANI LABORATORIES PVT. LTD.

WAPAL, PATIALA, DIST. JALANDEH, PUNJAB, INDIA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006495P

Test Report No : 3626 | 7740195FKLPL/2/21/WATER/04219

Issue Date: 05 Mar 2021

Amendment Date : -

Amendment No : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021 Test Commenced On : 26-Feb-2021

Test Completion On: 04-Mar-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sampling Date : 25-Feb-2021

Sample Identification * : GROUND WATER

EXP Date : NA

Batch No, Lot No : NA

MFG Date : NA

Received Quantity : 1LTR X 2

Place of Collection : OBSERVATION BORE WELL ASHPOND KENDUGUDA
SIDE (EAST) DT-25.02.2021

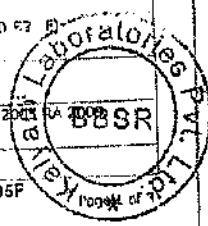
Sample Collected By : By KLPL

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	3.8	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	67.2	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	70.9	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.3	IS 3025 (Part 60):2008
vii Magnesium (as Mg)	mg/l, Max	30	5.83	IS 3025 (Part 46):1994 RA 2003
viii Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
ix Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
x Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xi Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xii Sulphate (as SO ₄)	mg/l, Max	200	19	IS 3025 (Part 24):1986 RA 2009
xiii Total alkalinity (as CaCO ₃),	mg/l, Max	200	187	IS 3025 (Part 23):1986 RA 2009
xiv Total hardness (as CaCO ₃),	mg/l, Max	200	192	IS 3025 (Part 21):2009
xv Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Sulphide	mg/l	2.0	<0.05	APHA 77nd Edition (1998) 82
xviii Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xix Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2003 RA 2009

3626 | 7740195F

KLPL- 344394A





KALYANI LABORATORIES PVT. LTD.

WATER ANALYSIS REPORT

Kalyani Laboratories

Test Report No : 3626 | 7740195FKI PL / 2/21/WATER/04219



Parameters	Unit	Requirement	Result	Test Method
xx Boron (as B)	mg/l, Max	0.5	<0.1	Annex II of IS 13428 : 2005 RA 2009
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxiii Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
xxiv Iron (as Fe)	mg/l, Max	1	0.2	IS 3025 (Part 53):2003 RA 2014

PESTICIDE

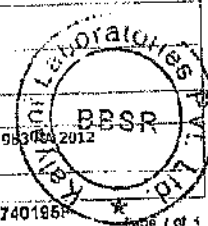
i p p DDF	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
v u p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv I thion	µg/l, Max	1.0	<0.01	USEPA 8141 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	AETM 5175

PHYSICAL PARAMETER

i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1980 RA 2012
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3626 | 7740195FKI PL

KI PL - 344393A



KALYANI LABORATORIES PVT. LTD.

3011, PATEL BIRBHAI NAGAR, TANDRA, COCHIN

Kalyani Laboratories

Test Report No : 3626 | 7740195FKLPL/2/21/WATER/04219



Parameters	Unit	Requirement	Result	Test Method
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.5	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	460	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed by
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3626 | 7740195F

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KLPL- 344302A



KALYANI LABORATORIES PVT. LTD.

8004 PALLA, BIK, BANSWAR, TENDU ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006496P

Test Report No : 3627 | 77411960KLPL/2/21/WATER/04220

Issue Date: 05 Mar 2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-0600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021 Test Commenced On : 26-Feb-2021

Test Completion On: 04-Mar-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sampling Date : 25-Feb-2021

Sample Identification : GROUND WATER

MFG Date : NA

EXP Date : NA

Batch No, Lot No : NA

Place of Collection : OBSERVATION BORE WELL ASHPOND (NORTH)
DT-25.02.2021

Received Quantity : 1LTR X 2

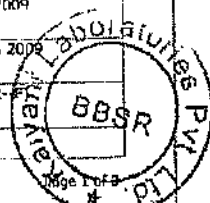
Sample Collected By : By KLPL

Ref To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Iron (as Fe)	mg/l, Max	1	0.42	IS 3025 (Part 53):2003 RA 2014
ii Magnesium (as Mg)	mg/l, Max	30	2.92	IS 3025 (Part 46):1994 RA 2003
iii Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
iv Nitrate as NO3	mg/l, Max	45	0.8	IS 3025 (PART 34): 1998 RA 2003
v Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1998 RA 2003
vi Calcium (as Ca)	mg/l, Max	75	14.4	IS 3025 (Part 40):1991 RA 2009
vii Chloride (as Cl)	mg/l, Max	250	7.7	IS 3025 (Part 32):1988 RA 2009
viii Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
ix Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60):2000
x Free residual Chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1906 RA 2009
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	5	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	50	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	48	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 40): 1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-

3627 | 77411960

KLPL - 344391A





KALYANI LABORATORIES PVT. LTD.

30/14, PATIL, DIBBANE, WARD NO. 1, KOLHATA

Test Report No : 3627 / 77411960KLPL/2/21/WATER/04220

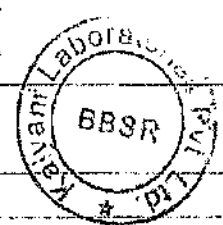


Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.05	Annex I of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.0005	ASTM 5175
PHYSICAL PARAMETER				

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KALYANI LABORATORIES PVT. LTD.

DR. KALYANI BIRJANESWAR RAJOPADHYAY

Test Report No : 3627 | 77411960KLPL/2/21/WATER/04220



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.0	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	GB	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1982 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1986 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

TEST REPORT



NABL ULR NO : TC704321000006497P

Test Report No : 3628 | 77431961KLPL/2/21/WATTR/04771 **Issue Date** : 05-Mar-2021

Amendment No : - **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021 **Test Commenced On** : 26-Feb-2021 **Test Completion On** : 04-Mar-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification : GROUND WATER **Sampling Date** : 25-Feb-2021

Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA

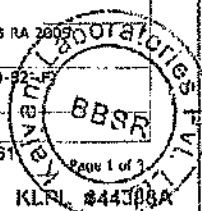
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL DIRTY WATER POND

Sample Collected By : By KLPL **DT-25.02.2021**

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	3.8	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	60.8	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	48	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.68	IS 3025 (Part 60):2000
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.9	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	6.80	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2009
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	8	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	192	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	180	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 40):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-F)

3628 | 77431961





KALYANI LABORATORIES PVT. LTD.

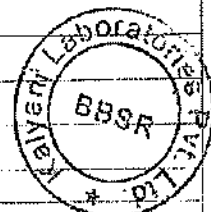
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Kalyani Laboratories

Test Report No : 3628 | 77431961KLPL/2/21/WATER/04221



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex I of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDC	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii B-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 937
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



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KLPL- 344367A



KALYANI LABORATORIES PVT. LTD.

10/11, RAJAL, DILIPNAGAR, KOLKATA-700014

Test Report No : 3628 | 77431961KLPL/2/21/WATER/04221



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<10	IS 3025 (Part 4):1983 RA 2012
ii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.6	IS 3025 (Part-11):1983, RA 2012
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.9	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	396	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed by
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

38-9/1, PATIALA, BIKTANTRA, VARANASI-221004, UTTAR PRADESH

TEST REPORT



NABL ULR NO : TC704321000006488P
Test Report No : 3629 | 77451962KLPL/2/21/WATER/04222 **Issue Date** : 05-Mar-2021
Amendment No : - **Amendment Date** :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 26-Feb-2021 **Test Commenced On** : 26-Feb-2021 **Test Completion On** : 04-Mar-2021
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 25-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BOREWELL RED MUD POND
Sample Collected By : By KLPL **MATERIAL GATE SIDE(NORTH) DT-25.02.2021**
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1677:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.7	IS 3025 (Part 34): 1980 RA 2009
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1980 RA 2009
iii Calcium (as Ca)	mg/l, Max	75	48	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	15.3	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.8	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	11.66	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral Oil	mg/l, Max	0.5	<0.075	Clause 6 of IS 3025 (Part- 30):1981 RA 2009
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	7	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	180	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	168	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -03)

3629 | 77451962

KI PL - 344385A





KALYANI LABORATORIES PVT. LTD.

TRADE PATTAL, BOHRIWASTI, KAR-752101, ODISHA

Test Report No : 3629 | 77451962KLPL/2/21/WATER/04222



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex I of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1857 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	3.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



3629 | 77451962

Page 2 of 3

KLPL- 344384A



KALYANI LABORATORIES PVT. LTD.

TRADE MARK: BBSR

Test Report No : 3629 | 77451962KLPL/2/21/WATER/04222

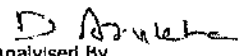


Parameters	Unit	Requirement	Result	Test Method
i Colour	Izzen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.8	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	240	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 IIA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 IIA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

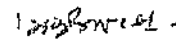
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

38014, PAHAL, BIL, BANESWAL, JALPAIGURI, GUJARAT

Kalyani Laboratories

TEST REPORT

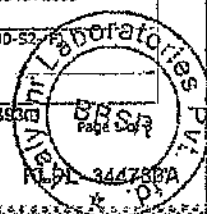


NABL ULR NO : TC704321000007059P
 Test Report No : 3811 | 82321B93K | PL/3/21/WATER/04436 Issue Date : 06-Apr-2021
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021 Test Completion On: 05-Apr-2021
 Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
 Sample Identification * : GROUND WATER Sampling Date : 24-Mar-2021
 Batch No, Lot No : NA MFG Date : NA EXP Date : NA
 Received Quantity : 1LTR X 2 Place of Collection : OBSERVATION BOREWELL RED MUD POND
 Sample Collected By : By KLPL BASANTPADA SIDE(EAST) DT-24.03.2021
 Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.5	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	30.4	IS 3025 (Part 40): 1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	8.5	IS 3025 (Part 52): 1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.25	IS 3025 (Part 60): 2008
vii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26): 1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.7	IS 3025 (Part 53): 2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	10.69	IS 3025 (Part 46): 1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 58): 2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39): 1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	5	IS 3025 (Part 24): 1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	142	IS 3025 (Part 23): 1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	120	IS 3025 (Part 21): 2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49): 1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂)

3811 | 82321B93K





KALYANI LABORATORIES PVT. LTD.

SMALL PANEL BUILDING, BANESWAR, PO. FALDI, ODISHA

Kalyani Laboratories

Test Report No : 3811 | 82321B93KLPL/3/21/WATER/04436



Parameters	Unit	Requirement	Result	Test Method
xxi Aluminum (as Al)	mg/l, Max	0.04	<0.04	IS 1024 (part-55)
xxii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex C of IS 11470: 2005 RA 2009
xxiii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428: 2005 RA 2009
xxiv Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxvi Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428: 2005 RA 2009

PESTICIDE

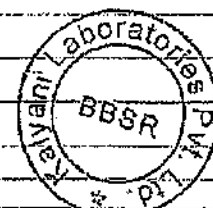
i	p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	50	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methidathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3811 | 82321B93

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KLPL- 344779A





KALYANI LABORATORIES PVT. LTD.

70/44, PABAI, BIR BANANWA-721101, CHHISLA

Kalyani Laboratories

Test Report No : 3811 | 82321B93KLPL/3/21/WATER/04436

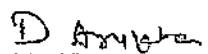


Parameters	Unit	Requirement	Result	Test Method
I Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
II Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
III pH value		6.5-8.5	8.5	IS 3025 (Part 11):1983 RA 2012
IV Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
V Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
VI Total dissolved solids	mg/l, Max	500	180	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
I Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
II Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
I Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
II Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
III Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
IV Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
V Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
VI Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

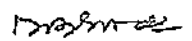
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3811 | 82321B93

Page 3 of 3

KLPL- 344778A



KALYANI LABORATORIES PVT. LTD.

734434 PATAAL, BHUBANESWAR-751001, ODISHA

Kalyani Laboratories

TEST REPORT



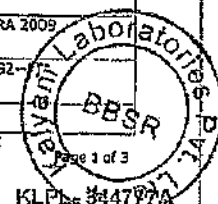
NABL ULR NO : TC704321000007061P
Last Report No : JR17 | 82341B95K1 P1 / 3 / 21 / WATER / 04438
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Mar-2021 **Test Commenced On** : 25-Mar-2021
Sample Description : DRINKING WATER (IS 10500:2012)

Issue Date : 06 Apr 2021
Amendment Date : -

Sample Condition : SEALED
Sample Identification * : GROUND WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07
MFG Date : NA
EXP Date : NA
Place of Collection : OBSERVATION BORE WELL PROCESS WATER LAKE (NORTH) DT-24.03.2021
Sampling Date : 24-Mar-2021

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	0.8	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	17.6	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	8.5	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.55	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	1.94	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.08	IS 3025 (Part 50):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	5	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	72	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	52	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-

3813 | 82341B95



KLPL-344797A



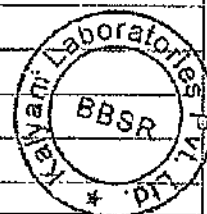
KALYANI LABORATORIES PVT. LTD.

FORMAL PAHAL BHUBANESWAR-751001 INDIA

Test Report No : 3813 | 82341B95KLPL/3/21/WATER/04438



Parameters	Unit	Requirement	Result	Test Method
ixx Aluminium (as Al)	mg/l, Max	0.05	<0.02	IS 3025 (part 35)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1637 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Bolachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.5	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



3813 | 82341B95

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KLPL-344776A



KALYANI LABORATORIES PVT. LTD.

TRADE PALM BIL BATESWAR-751013 ODISHA

Test Report No : 3813 | 82341B95KLPL/3/21/WATER/04438



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.9	IS 3025 (Part-11):1983, RA 2012
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2005
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2005
vi Total dissolved solids	mg/l, Max	500	74	IS 3025 (Part 16):1984 RA 2005

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anupama
Analysed By
For Kalyani Laboratories Pvt. Ltd.



[Signature]
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

B-14, PULI, BHUBANESWAR-751001, ODISHA

TEST REPORT



NABL URL NO : TC704321000007062P

Test Report No : 3814 | 82351896KLPL/3/21/WATER/04439

Issue Date: 05-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 24-Mar-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

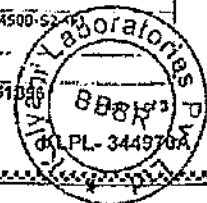
Place of Collection : OBSERVATION BOREWELL PROCESS WATER LAKE (EAST) DT-24.03.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2003
ii Fecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml, Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	3.0	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	19.2	IS 3025 (Part 40): 1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	19.2	IS 3025 (Part 32): 1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.2	IS 3025 (Part 60): 2008
vii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26): 1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.72	IS 3025 (Part 53): 2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	7.78	IS 3025 (Part 46): 1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 8 of IS 3025 (Part 39): 1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	10	IS 3025 (Part 24): 1988 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	187	IS 3025 (Part 23): 1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	80	IS 3025 (Part 21): 2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49): 1994 RA 2003
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂)

3814 | 82351896





KALYANI LABORATORIES PVT. LTD.

78/94, PADAL, BHILANESWAR, 752061, ODISHA

Test Report No

3814 | 82351B96KLPL/3/21/WATER/04439



Parameters	Unit	Requirement	Result	Test Method
xxi Aluminum (as Al)	mg/l, Max	0.07	<0.02	IS 3075 (part-55)
xxii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428 : 2005 RA 2009
xxiii Boreon (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiv Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 23rd Edition (644D)
xxv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i	p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

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KLPL- 344773A





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

70/94, PATIAL, BHUBANESWAR-751011, ODISHA

Test Report No : 3814 | 82351B96KLPL/3/21/WATER/04439

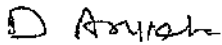


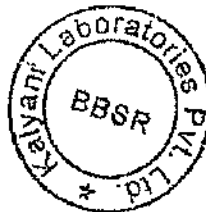
Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	--	6.5-8.5	7.1	IS 3025 (Part 13):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	320	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1986 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

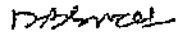
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3814 | 82351B96

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KLPL- 344772A



KALYANI LABORATORIES PVT. LTD.

MOORE PATIL, BHUBANESWAR-751010, ODISHA

TEST REPORT



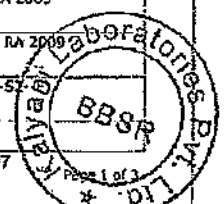
NABL ULR NO : TC704321000007063P
Test Report No : 3815 | 8236189/KLPL/3/21/WATER/04440 Issue Date: 06-Apr-2021
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021 Test Completion On: 05-Apr-2021
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
Sample Identification * : GROUND WATER Sampling Date : 24-Mar-2021
Batch No , Lot No : NA MFG Date : NA EXP Date : NA
Received Quantity : 1LTR X 2 Place of Collection : OBSERVATION BOREWELL ASHPOND KASIBADI
Sample Collected By : By KLPL SIDE(WEST) DT-24.03.2021
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.5	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	49.6	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	8.5	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.32	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.38	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	3.89	IS 3025 (Part 45):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	7	IS 3025 (Part 74):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	122	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	140	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂)

3815 | 82361897

KLPL- 344771A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/44, RAJAL BHUBARH SWAP-750161 ODISHA

Test Report No : 3815 | 82361B97KLPL/3/21/WATER/04440



Parameters	Unit	Requirement	Result	Test Method
ix Aluminum (as Al)	mg/l, Max	0.05	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Oxon (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

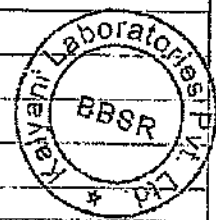
i	p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3815 | 82361B97

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KLPL- 344770A





KALYANI LABORATORIES PVT. LTD.

75/44, RAHAL, BIR BANESWAR, 752001, ODISHA

Test Report No : 3815 | 82361B97KLPL/3/21/WATER/04440



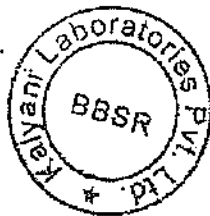
Parameters	Unit	Requirement	Result	Test Method
i Colour	Platzen, Max	5	<1.0	IS 3025 (Part 1):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.4	IS 3025 (Part-11):1983, RA 2012
iv Taste	---	Agreeable	Agreeable	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	176	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D Anuraj
Analysed By
For Kalyani Laboratories Pvt. Ltd.



M. S. S. S.
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3815 | 82361B97

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KLPL- 344769A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ASMA KAPAL, BHUBANESWAR-751001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007065P

Test Report No : 3817 | 82381B99KLPL / 3/21/WATER/04442

Issued Date: 05 Apr 2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766077.

Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : BOREWELL WATER

Sampling Date : 24-Mar-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : OBSERVATION BORE WELL ASHPOND KENDUGUDA
SIDE (EAST) DT-24.03.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
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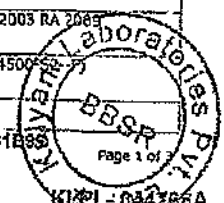
BACTERIOLOGICAL QUALITY

i	Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii	Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii	E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009

CHEMICAL PARAMETER

i	Nitrate as NO ₃	mg/l, Max	45	4.0	IS 3025 (Part 34): 1988 RA 2003
ii	Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii	Calcium (as Ca)	mg/l, Max	75	68.8	IS 3025 (Part 40): 1991 RA 2009
iv	Chloride (as Cl)	mg/l, Max	250	42.6	IS 3025 (Part 32): 1986 RA 2009
v	Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1992 RA 2009
vi	Fluoride (as F)	mg/l, Max	1	0.33	IS 3025 (Part 60): 2008
vii	Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26): 1985 RA 2009
viii	Iron (as Fe)	mg/l, Max	1	0.24	IS 3025 (Part 53): 2003 RA 2014
ix	Magnesium (as Mg)	mg/l, Max	30	5.83	IS 3025 (Part 46): 1994 RA 2003
x	Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 2006 RA 2012
xi	Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39): 1991 RA 2003
xii	Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1992 RA 2009
xiii	Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2003 RA 2009
xiv	Sulphate (as SO ₄)	mg/l, Max	200	22	IS 3025 (Part 24): 1986 RA 2009
xv	Total alkalinity (as CaCO ₃)	mg/l, Max	200	192	IS 3025 (Part 23): 1986 RA 2009
xvi	Total hardness (as CaCO ₃)	mg/l, Max	200	196	IS 3025 (Part 21): 2009
xvii	Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49): 1994 RA 2009
xviii	Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix	Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -07)

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KALYANI LABORATORIES PVT. LTD.

70/1, RAHAL, BILKANEWAR, PS-101, ODISHA

Test Report No : 3817 | 82381B99KLPL/3/21/WATER/04442



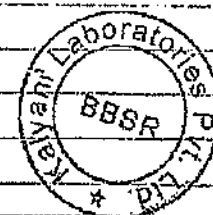
Parameters	Unit	Requirement	Result	Test Method
xx Aluminium (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part 99)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

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KLPL- 344767A





KALYANI LABORATORIES PVT. LTD.

7/944, PAHAL, BHUBANESWAR-751001, ODISHA

Test Report No : 3817 | 82381B99KLPL/3/21/WATER/04442

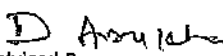


Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Neph	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.6	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.9	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	474	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2006

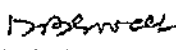
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

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KLPL- 344766A



KALYANI LABORATORIES PVT. LTD.

70/1, PATEL BLDG, BANERJATOLA, ODISHA

TEST REPORT

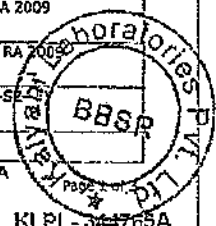


NABL ULR NO : TC704321000007066P
Test Report No : 3818 | 82391B9AKI PI/3/21/WATER/04443 **Issue Date** : 06 Apr 2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANIA LIMITED, LANDIGARH
Address : PO.- LANDIGARH, DIST.- KALAHANDI, ODISHA-766027
Date of receipt : 25-Mar-2021 **Test Commenced On** : 25-Mar-2021 **Test Completion On** : 05-Apr-2021
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 24-Mar-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL ASHPOND (NORTH)
Sample Collected By : By KLPL **DT-24.03.2021**
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	0.75	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	17.6	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	8.5	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.5	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	1.94	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	300	6	IS 3025 (Part 34):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	60	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	52	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S)

3818 | 82391B9A



KLPL-344765A



KALYANI LABORATORIES PVT. LTD.

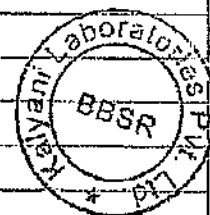
Kalyani Laboratories

38/4, PANAI BHUBANESWAR-752001 ODISHA

Test Report No : 3818 | 82391B9AKLPL/3/21/WATER/04443



Parameters	Unit	Requirement	Result	Test Method
xx Aluminium (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Barium (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan b	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Dacthal	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



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KLPL- 344764A



KALYANI LABORATORIES PVT. LTD.

PRINCE PATIL, DILIPGONESWAR, 2101, GURUKA

Test Report No : 3818 | 82391B9AKLPL/3/21/WATER/04443



Parameters	Unit	Requirement	Result	Test Method
i Colour	Platen, Max	5	<1.0	IS 3025 (Part 9:1983) RA 2012
ii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.1	IS 3025 (Part-11):1983, RA 2012
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	78	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Arora
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Prashant
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

15048, PATAI, BILBAKSWA, DIST. ODISHA

TEST REPORT



NABL ULR NO : TC704321000007067P

Test Report No : 3819 | 82401B9BKLP/3/21/WATER/04444

Issue Date : 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021

Test Completion On : 05-Apr-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 24-Mar-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

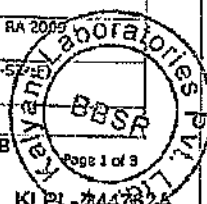
Place of Collection : OBSERVATION BORE WELL DIRTY WATER POND
DT-24.03.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	3.5	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	57.6	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	42.6	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.65	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.85	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	9.72	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	7	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	187	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	194	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 48):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
ix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -05)

3819 | 82401B9B



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KLPL-2447824



KALYANI LABORATORIES PVT. LTD.

79/4M, PAHAL, BIL, GANESHWAR-751101, ODISHA

Test Report No

3819 | 82401B9BKLP/3/21/WATER/04444

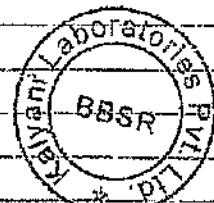


Parameters	Unit	Requirement	Result	Test Method
xx Aluminium (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part 5b)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii B-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix G-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				

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KLPL- 344761A





KALYANI LABORATORIES PVT. LTD.

71994, PAMAL, Bhubaneswar-751014, ODISHA

Kalyani Laboratories

Test Report No : 3819 | 82401B9BKLP/3/21/WATER/04444



Parameters	Unit	Requirement	Result	Test Method
I Colour	Hazen, Max	5	<1.0	IS 3035 (Part 4):1983 RA 2012
II Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
III pH value	---	6.5-8.5	7.4	IS 3025 (Part-11):1983, RA 2012
IV Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 6):1984 RA 2006
V Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
VI Total dissolved solids	mg/l, Max	500	382	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
I Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
II Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
I Cadmium (as Cd)	mg/l, Max	0.005	<0.001	IS 3025 (Part 41):1992 RA 2009
II Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
III Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
IV Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
V Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
VI Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Arunika
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Sanjiv Kumar
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

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KLPL- 344760A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78944, PAHAL, BILUBANESWAR-751061, ODISHA

TEST REPORT

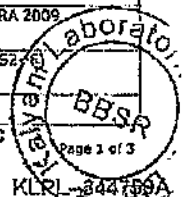


NABL ULR NO : TC704321000007068P
Test Report No : 3820 | 82411B9CKLPL/3/Z1/WATER/04445 **Issue Date** : 06-Apr-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 D1-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.
Date of receipt : 25-Mar-2021 **Test Commenced On** : 25-Mar-2021 **Test Completion On** : 05-Apr-2021
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
Sample Identification # : GROUND WATER **Sampling Date** : 24-Mar-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BOREWELL RED MUD POND
Sample Collected By : By KLPL **MATERIAL GATE SIDE(NORTH) DT-24.03.2021**
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	1.8	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	51.2	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	17	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60):2006
vii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.84	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	11.52	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	6	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	185	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	176	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2)

3820 | 82411B9C





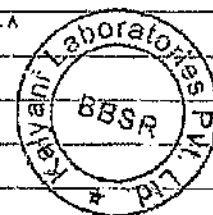
KALYANI LABORATORIES PVT. LTD.

39/4, PADAL, DULBANESWAR, 75101, ODISHA

Test Report No : 3820 | 82411B9CKLPL/3/Z1/WATER/04445



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part 55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan b	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	150	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



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KLPL- 344758A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/VI, RAHAL, BHILAI, BILASPUR-752101, CHHISIA

Test Report No : 3820 | 82411B9CKLPL/3/21/WATER/04445



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<10	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.9	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	260	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-3):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag
Analysed By
For Kalyani Laboratories Pvt. Ltd.



m. ganesan
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

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KLPL- 344757A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/941 PALLA, BILBA NESWAR-752101 ODISHA

TEST REPORT



NABL ULR NO : TC704321000007060P

Test Report No : 3812 | 82331894KLPL/3/21/WATER/04437 **Issue Date**: 06-Apr-2021

Amendment No : - **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Mar-2021 **Test Commenced On** : 25-Mar-2021 **Test Completion On**: 06-Apr-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER **Sampling Date** : 24-Mar-2021

Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA

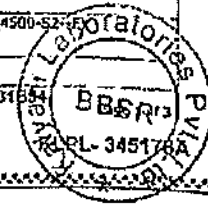
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL RED MUD POND

Sample Collected By : By KLPL **RENGOPALI SIDE (SOUTH) DT-24.03.2021**

Ref. To Sampling Procedure:

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	NPT/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	NPT/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
iii E.coli	NPT/100ml	Shall not be detected in any 100ml Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	2.5	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	43.2	IS 3025 (Part 40):1991 RA 2000
iv Chloride (as Cl)	mg/l, Max	250	10	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2000
vi Fluoride (as F)	mg/l, Max	1	0.25	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	13.61	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	7	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	150	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	164	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -05)

3812 | 82331894





KALYANI LABORATORIES PVT. LTD.

78/44, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No

3812 | 82331B94KLPL/3/21/WATER/04437



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MOAS)	mg/l, Max	0.2	<0.1	Annex - K Of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H Of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex I of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				

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KLPL-345177A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78944, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 3812 | 82331B94KLPL/3/21/WATER/04437



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1903 RA 2012
ii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1903 RA 2012
iii pH value	---	6.5-8.5	7.4	IS 3025 (Part 11):1983, RA 2012
iv Taste	---	Agreeable	0.7	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	170	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks

Any unusual feature observed during determination

***** End of Test Report *****

Analyzed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3812 | 82331B94

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KLPL- 345111A

KALYANI LABORATORIES PVT. LTD.

78 914, PAHAL, BHUBANESWAR-752101, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000007070P

Test Report No : 3812A | 82331895K1PL/3/21/WATER/04437A

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 24-Mar-2021

Batch No. Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

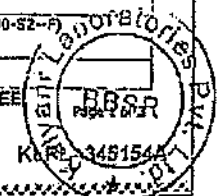
Place of Collection : OBSERVATION BORE WELL RED MUD POND (WEST)
DT-24.03.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1522:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	4.2	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	64	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	28	IS 3025 (Part 32):1986 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.1	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.7	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	7.78	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	38	IS 3025 (Part 23):1986 RA 2009
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	170	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	184	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.065	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F)

3484 | 715017EE



KALYANI LABORATORIES PVT. LTD.

78944, PAHAL, BHUBANESWAR-752101, ODISHA

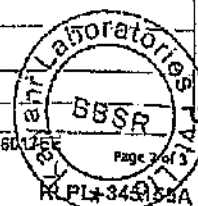
Kalyani Laboratories

Test Report No : 3812A [82331895KLP1/3/21/WATER/04437A]



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APITA 22nd Edition (5440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 0141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				

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KALYANI LABORATORIES PVT. LTD.

76/44, PAHAL, BHL.BANESWAR-752101, ODISHA

Kalyani Laboratories

Test Report No : 3812A | 82331895KLPL/3/21/WATER/04437A



Parameters	Unit	Requirement	Result	Test Method
I Colour	Hazen, Max	5	<1.0	IS 3025 (Part 5):1983 RA 2012
II Odour	''	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
III pH value	---	6.5-8.5	7.0	IS 3025 (Part 11):1983, RA 2012
IV Taste	''	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
V Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
VI Total dissolved solids	mg/l, Max	500	480	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
I Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
II Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
I Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1982 RA 2009
II Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
III Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1984 RA 2009
IV Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 40):1994 RA 2009
V Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
VI Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. B. S. L. C.
Analysed By
For Kalyani Laboratories Pvt. Ltd.



[Signature]
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3484 | 716017EE

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KLPL- 345158A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005080F

Test Report No : 2867 [KLPL/10/20/WATER/03155

Issue Date: 14-Oct-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO - LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.

Date of receipt : 07 Oct 2020 Test Commenced On : 07 Oct 2020

Test Completion On: 14 Oct 2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 06-Oct-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 3

Place of Collection : OBSERVATION BORE WELL RED MUD POND (WEST)
DT-06.10.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
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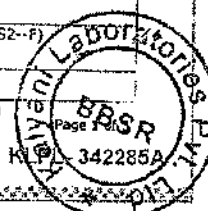
BACTERIOLOGICAL QUALITY

i	Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii	Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii	E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009

CHEMICAL PARAMETER

i	Nitrate as NO3	mg/l, Max	45	3.1	IS 3025 (PART 34): 1988 RA 2003
ii	Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii	Calcium (as Ca)	mg/l, Max	75	59.2	IS 3025 (Part 40):1991 RA 2009
iv	Chloride (as Cl)	mg/l, Max	250	17.6	IS 3025 (Part 32):1988 RA 2009
v	Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi	Fluoride (as F)	mg/l, Max	1	0.18	IS 3025 (Part 60):2008
vii	Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii	Iron (as Fe)	mg/l, Max	1	0.62	IS 3025 (Part 53):2003 RA 2014
ix	Magnesium (as Mg)	mg/l, Max	30	9.72	IS 3025 (Part 46):1994 RA 2003
x	Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi	Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 34):1981 RA 2003
xii	Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii	Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv	Sulphate (as SO4)	mg/l, Max	200	16	IS 3025 (Part 24):1986 RA 2009
xv	Total alkalinity (as CaCO3)	mg/l, Max	200	174	IS 3025 (Part 23):1986 RA 2009
xvi	Total hardness (as CaCO3)	mg/l, Max	200	128	IS 3025 (Part 21):2009
xvii	Zinc (as Zn)	mg/l, Max	5	0.051	IS 3025 (Part 49):1994 RA 2009
xviii	Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix	Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2--F)

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KALYANI LABORATORIES PVT. LTD.

WADA PITAL, KOLKATA-700016 (INDIA)

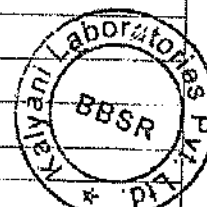
Test Report No

2867 | KLPL/10/20/WATER/03155



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Barium (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F OF IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Undane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	4.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER



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KLPL- 342282A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2008 CERTIFIED COMPANY

Test Report No

2867 | KLPL/10/20/WATER/03155



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	6.9	IS 3025 (Part 11):1983, RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	426	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anil Kumar

Analysed By
Sr Kalyani Laboratories Pvt Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

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KLPL- 342281A

FILE#-343285

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYTICAL CHEMISTRY

Test Report No

2868 JKLP/10/20/WATER/03156



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MDAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex I of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

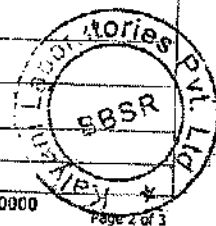
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

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KLPL-342279A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

28588 PARTIAL PURBANSWAR, TELUGU DESHA

Test Report No

2868 JKLP/10/20/WATER/03156



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	..	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.9	IS 3025 (Part 11):1983 RA 2012
iv Taste	..	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	100	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-3):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 46):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anurag
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2868 | 554713000000000

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KLPL- 342278A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

10/11 PEARL SRI RAYSWAR ROAD, Bhubaneswar

TEST REPORT



NABL ULR NO : TC70432000005082F

Test Report No : 2869 | 554813DAKLPL/10/20/WATER/03157 **Issue Date** : 14-Oct-2020

Amendment No : - **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST.- KALAHANDI, ODISHA - 766027.

Date of receipt : 07 Oct 2020 **Test Commenced On** : 07-Oct-2020 **Test Completion On** : 14-Oct-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Batch No., Lot No : NA **MFG Date** : NA **Sampling Date** : 06-Oct-2020

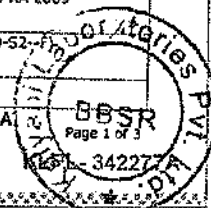
Received Quantity : 1LTR X 3 **EXP Date** : NA

Sample Collected By : By KLPL **Place of Collection** : OBSERVATION BOREWELL RED MUD POND MATERIAL GATE SIDE(NORTH) DT-06.10.2020

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.6	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	35.2	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	7.8	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.06	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.76	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	10.69	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause G of IS 3025 (Part 19): 1991 RA 2009
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	32	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	164	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	132	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.027	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F) Laboratories

2869 | 554813DA





KALYANI LABORATORIES PVT. LTD.

78-941 PABDI, BILHARISWAR, P.O. DIST. ODISHA

Test Report No

2869 | 554813DAKLP/10/20/WATER/03157



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-58)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428:2005 RA 2009
xxii Uron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 169 / A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	0.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

2869 | 554813DA

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KLPL- 342276A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

WATER ANALYSIS REPORT FOR (SAMPLE)

Test Report No

2869 | 554813DAKLPL/10/20/WATER/03157



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	6.9	IS 3025 (Part 11):1983, RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.4	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	240	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1986 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2869 | 554813DA

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KLPL- 342275A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

WATER ANALYSIS REPORT

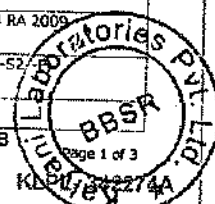
TEST REPORT



NABL ULR NO : TC704320000005083F
Test Report No : 2870 | 554913DBKLPL/10/20/WATER/03158
Amendment No :
Reference : ORDER NO-6600019488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI,
Date of receipt : 07-Oct-2020 **Test Commenced On** : 07-Oct-2020 **Test Completion On** : 14-Oct-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER
Batch No , Lot No : NA
Received Quantity : 1LIT X 3
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07
Issue Date : 14-Oct-2020
Amendment Date : -
Sampling Date : 06-Oct-2020
EXP Date : NA
Place of Collection : OBSERVATION BORE WELL RED MUD POND
 RENGOPALI SIDE (SOUTH) DT-06.10.2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Fecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.8	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	28.8	IS 3025 (Part 40): 1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	3.9	IS 3025 (Part 32): 1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.4	IS 3025 (Part 60): 2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26): 1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53): 2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	9.72	IS 3025 (Part 46): 1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 19): 1981 RA 2009
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	6.0	IS 3025 (Part 24): 1986 RA 2009
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	117	IS 3025 (Part 23): 1986 RA 2009
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	112	IS 3025 (Part 21): 2009
xvii Zinc (as Zn)	mg/l, Max	5	0.025	IS 3025 (Part 49): 1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂)

2870 | 554913DB



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

WATER ANALYSIS REPORT

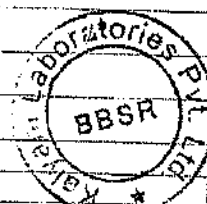
Test Report No

2870 | 554913DB | KLPL/10/20/WATER/03158



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MDAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex II OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (8440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Etion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	5.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER



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KLPL- 342273A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TRADE PALACE, BUDHACHOWAN 712 001, COIMBATUR

Test Report No

2870 | 554913DBKLPL/10/20/WATER/03158



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.2	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.4	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	166	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part 2):2013
ii Gross Beta activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part 1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2870 | 554913DB

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KLPL- 342261A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704320000005084F

Test Report No : 2871 | 555013DCKLPL/10/20/WATER/03159 **Issue Date:** 14-Oct-2020

Amendment No : **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-16 12 2019

Customer Name : VEDANIA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 07-Oct-2020 **Test Commenced On** : 07-Oct-2020 **Test Completion On** : 14-Oct-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Batch No, Lot No : NA **MFG Date** : NA **Sampling Date** : 06-Oct-2020

Received Quantity : 1LIT X 3 **EXP Date** : NA

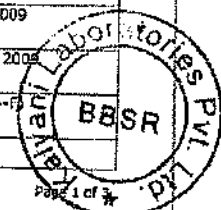
Sample Collected By : By KLPL **Place of Collection** : OBSERVATION BORE WELL PROCESS WATER LAKE (NORTH) DT-06.10.2020

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1642:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<1	IS 1671:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	0.6	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	8.0	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	3.9	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.17	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.7	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	5.83	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 19) 1981 RA 2009
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1982 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	49	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	44	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.013	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F)

2871 | 555013DC

KLPL- 342272A





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

100/11, PALLI, BIRJAN, DIST. RAIPUR, CHHATTISGARH

Test Report No : 2871 | 555013DCKLPL/10/20/WATER/03159

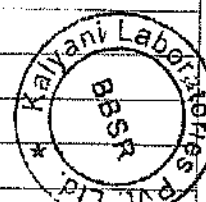


Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428:2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428:2005 RA 2009

PESTICIDE

i	p p ODE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDI	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	γ-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	µg/l, Max	9.0	<0.01	USEPA 542
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER



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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

9042, PAFAL, BILBAWARI, TILAK, GUJARAT

Test Report No

2871 | 555013DC/LPL/10/20/WATER/US159



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	--	6.5-8.5	6.8	IS 3025 (Part 11):1984, IIA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.3	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	68	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part 2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2871 | 555013DC

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KLPL- 342270A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

8041 PAFAL BODHAYANWAR, RAJ. CHENNAI

TEST REPORT



NABL ULR NO : TC704320000005085F

Test Report No : 2872 | 555113DDKLPL/10/20/WATER/03160

Issue Date: 14-Oct-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO 6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARI

Address : PO.- LANJIGARI, DIST.- KALAHANDI, ODISHA-766077

Date of receipt : 07-Oct-2020

Test Commenced On : 07 Oct 2020

Test Completion On: 14-Oct-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 06-Oct-2020

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 3

Place of Collection : OBSERVATION BOREWELL PROCESS WATER LAKE (EAST) DT-06.10.2020

Sample Collected By : By KLPL

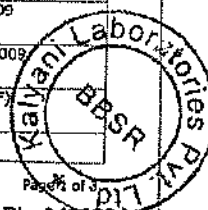
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	2.6	IS 3025 (Part 34): 1988 RA 2009
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2009
iii Calcium (as Ca)	mg/l, Max	75	19.2	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	7.8	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.5	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 28):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.68	IS 3025 (Part 53):2009 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	9.72	IS 3025 (Part 46):1994 RA 2009
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.4	<0.05	IS 3025 (Part 53):2009 RA 2014
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	10	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	190	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	88	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.028	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-F)

2872 | 555113DD

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

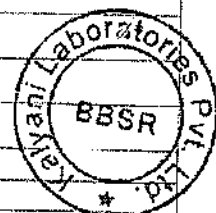
7/10/1, PAVAN, BHOJANESWAR, 726001, ODISHA

Test Report No : 2872 | 555113DDKLPL/10/20/WATER/03160



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex II OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 77nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER



2872 | 555113DD

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KLPL- 342268A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

W-11, PRAJAPATI, BHILAI, RAJASTHAN - 342001

Test Report No : 2872 | 555113DDI (P1/10/20/WATER/03160)



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	--	6.5-8.5	7.1	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.0	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	310	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1982 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1984 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

SONB, PADAL, BILKASIPUR - 751001, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005086F

Test Report No : 2873 | 555213DEKLPL/10/20/WATER/03161 Issue Date: 14-Oct-2020

Amendment No : - Amendment Date : -

Reference : ORDER NO GG00013488 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA- 766027.

Date of receipt : 07-Oct-2020 Test Commenced On : 07-Oct-2020 Test Completion On: 14-Oct-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 06-Oct-2020

Batch No, Lot No : NA

MFG Date : NA.

EXP Date : NA

Received Quantity : 1LTR X 3

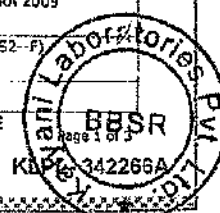
Place of Collection : OBSERVATION BOREWELL ASHPOND KASIBADI
SIDE(WEST) DT-06.10.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	1.2	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	27.2	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	3.9	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.34	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.27	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	11.66	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.8	<0.025	Clause 6 of IS 3025 (Part 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	135	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	116	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.023	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-F)

2873 | 555213DE





KALYANI LABORATORIES PVT. LTD.

10042 PATAI (BILIPAKSWAR) 751012 INDIA

Test Report No

2873 | 555213DEKLP/10/20/WATER/03161



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APIA 22nd Ed(Uda) (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 500
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 500
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	4.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	100	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



2873 | 555213DE

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KLPL- 342265A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

1044, PATEL BIRDAI SQUARE, CHH. KANUN

Test Report No : 2873 | 555213DEKLPL/10/20/WATER/03161



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	--	6.5 to 8.5	7.2	IS 3025 (Part 11):1981, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 6):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	152	IS 3025 (Part 10):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part 2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 46):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

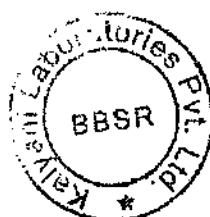
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anil Kumar

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2873 | 555213DE

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KLPL- 342077A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC70432000005087F

Test Report No : 2874 | 555413DFKLPL/10/20/WATER/03163

Issue Date: 14-Oct-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANIGARH

Address : PO - LANIGARH, DIST.- KALAHANDI, ODISHA 766027.

Date of receipt : 07-Oct-2020

Test Commenced On : 07-Oct-2020

Test Completion On : 14-Oct-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Batch No, Lot No : NA

MFG Date : NA

Sampling Date : 06-Oct-2020

Received Quantity : 1LTR X 3

EXP Date : NA

Sample Collected By : By KLPL

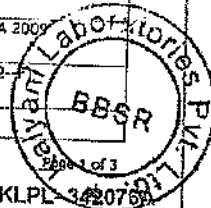
Place of collection : OBSERVATION BORE WELL DIRTY WATER POND
DT-06.10.2020

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Fecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	3.2	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	60.8	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	25.5	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.3	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.9	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	9.72	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part 10):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	12	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	192	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	192	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.043	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2)

2874 | 555413DF

KLPL 3420768



Test Report No

2874 | 555413DFKLPL/10/20/WATER/03163



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.1	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 . 2005 RA 2009

PESTICIDE

i	p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDI	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDB	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	mg/l, Max	0.0	<0.01	USEPA 532
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER



2874 | 555413DF

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KLPL-342075A



KALYANI LABORATORIES PVT. LTD.

10/44, PATAL BHU BANGWAR, NITD, INDIA

Kalyani Laboratories

Test Report No

2874 | 555413DFKI PL/10/20/WATER/03163



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.6	IS 3025 (Part 11):1983 RA 2012
iv Taste	-	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	360	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D Anyrcha

Analysed By
For Kalyani Laboratories Pvt. Ltd.



13/02/2021
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

2874 | 555413DF

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KLPL- 342074A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

3RD FLOOR, PALLADIUM, BANGALORE, KARNATAKA, INDIA

TEST REPORT



NABL ULR NO : TC704320000005088F

Test Report No : 2875 | 55530013KLPL/10/20/WATER/03162

Issue Date: 14-Oct-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST - KALAHANDI, ODISHA-766027.

Date of receipt : 07-Oct-2020 Test Commenced On : 07 Oct 2020

Test Completion On: 14-Oct-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 06-Oct-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 3

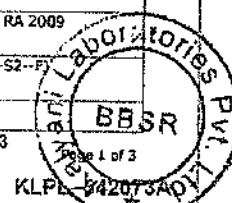
Place of Collection : OBSERVATION BORE WELL ASHPOND KENDUGUDA SIDE (EAST) DT-06.10.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	2.4	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	56	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	49	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.45	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.07	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	2.92	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.075	Clause 6 of IS 3025 (Part 39):1991 RA 2009
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	100	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	156	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	172	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.03	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2--F)

2875 | 66530013



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KLPL-04207340V



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

SWAT PATHAL, KUDANISWAR, P.O. BILGA

Test Report No

2875 | 55530013KLPL/10/20/WATER/03162



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex II of IS 13428:2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428:2005 RA 2009
PESTISIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 500
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1627 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 517
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

2875 | 55530013

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KLPL-342072A





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYTICAL DIVISION, BANGALORE, INDIA

Test Report No : 2875 | 55530013 (KLPL/10/20/WATER/03182)



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	7.5	IS 3025 (Part-11):1983 RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	392	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part 2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1996 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54):2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

NEW, PABAI, KULBARKSWAR, DIST. ODISHA

Kalyani Laboratories

TEST REPORT



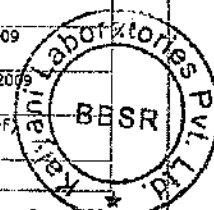
NABL ULR NO : TC70432000005089F
Test Report No : 2876 | 55550130KLPL/10/20/WATER/03164 **Issue Date**: 14-Oct-2020
Amendment No : - **Amendment Date** :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Oct-2020 **Test Commenced On** : 07-Oct-2020 **Test Completion On**: 14-Oct-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 06-Oct-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 3 **Place of Collection** : OBSERVATION BORE WELL ASHPOND (NORTH)
Sample Collected By : By KLPL **DT-06.10.2020**
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	0.8	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	11.2	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	3.9	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.2	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.4	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	4.86	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2009
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	3	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	52	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	48	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.014	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2--F)

2876 | 55550130

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KLPL- 342070A



KLPL-342069A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYSIS REPORT

Test Report No : 2876 | 55550130KLPL/10/20/WATER/03164



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.0	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.3	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	70	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 1075 (Part 47):1984 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total Arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1980 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyse
Analysed by
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

766044 PARAL BHUBANESWAR-751011 ODISHA

TEST REPORT

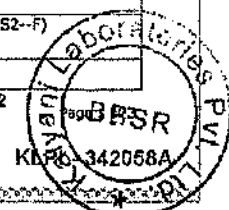


NABL ULR NO : TC704320000005378P
 Test Report No : 3087 | 61421502KLPL/11/20/WATER/03521 Issue Date: 07-Dec-2020
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 21-Nov-2020 Test Commenced On : 21-Nov-2020 Test Completion On: 28 Nov 2020
 Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
 Sample Identification * : GROUND WATER Sampling Date : 18-Nov-2020
 Batch No , Lot No : NA MFG Date : NA EXP Date : NA
 Received Quantity : 1LTR X 2 Place of Collection : OBSERVATION BORE WELL RED MUD POND
 Sample Collected By : By KLPL RENGOPALI SIDE (SOUTH) DT-18.11.2020
 Ref.To Sampling Procedure:

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	1.5	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	23.0	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	6	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.35	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	12.15	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	5.0	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	96	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	100	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.024	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F)

3087 | 61421502





KALYANI LABORATORIES PVT. LTD.

75004, PATIALA, DHUBANESWAR-752101, ODISHA

Test Report No : 3087 | 61421502(KPL/11/20/WATER/03521)



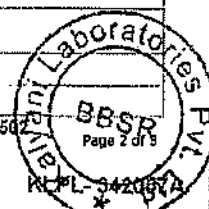
Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.07	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBA5)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i	p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.01	ASTM 5175

PHYSICAL PARAMETER

3087 | 61421502





KALYANI LABORATORIES PVT. LTD.

78-904, RAJAL BHUBANESWAR-751061, ODISHA

Test Report No

3087 | 61421502KLPL/11/20/WATER/03521



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.5	IS 3025 (Part-11):1983, RA 2012
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.2	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	158	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1986 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

D. Anujak

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



3087 | 61421502

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KLPL- 342056A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TRANSA PATAL DEHURANENIVAR-75101 ODISHA

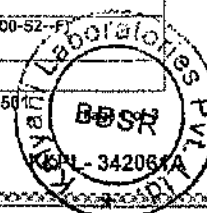
TEST REPORT



NABL ULR NO : TC704320000005377P
Test Report No : 3086 | 61411501KLPL/11/20/WATER/03520 **Issue Date**: 07-Dec-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO. LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On**: 28-Nov-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Nov-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BOREWELL RED MUD POND
Sample Collected By : By KLPL **MATERIAL GATE SIDE(NORTH) DT-18.11.2020**
Ref.To Sampling Procedure:

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	2.0	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	30.2	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	12	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.08	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1988 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.8	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	16.52	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	35	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	168	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	144	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.029	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F)

3086 | 61411501





KALYANI LABORATORIES PVT. LTD.

3086, PATIAL, SHUBHAKESWAR 751001, ODISHA

Kalyani Laboratories

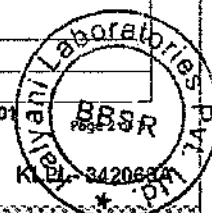
Test Report No : 3086 | 61411501KLPL/11/20/WATER/04520



Parameters	Unit	Requirement	Result	Test Method
xx Aluricium (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part 55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (5440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTISIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	3.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3086 | 61411501





KALYANI LABORATORIES PVT. LTD.

28/94, PATIAL, BHUBANESWAR-751004, ODISHA

Test Report No : 3086 | 61411501KLPL/11/20/WATER/03520



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.05	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 6):1984 RA 2006
v Turbidity	NTU, Max	1	0.3	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	252	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

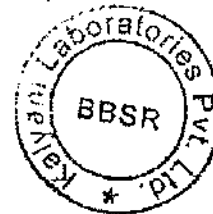
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

PD Anand
Analysed By
For Kalyani Laboratories Pvt. Ltd.

12/08/2021
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



3086 | 61411501

Page 3 of 3

KLPL- 342059A



KALYANI LABORATORIES PVT. LTD.

78914, RAJAL BILBANESWAR-75101 (ODISHA)

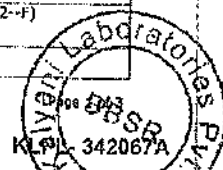
TEST REPORT



NABL ULR NO : IC/04320000005375P
Test Report No : 3084 | 613914FFKLPL/11/20/WATER/03518
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref.To Sampling Procedure:
Issue Date: 07-Dec-2020
Amendment Date : -
Test Commenced On : 21-Nov-2020
Test Completion On: 28-Nov-2020
Sampling Date : 18-Nov-2020
MFG Date : NA
EXP Date : NA
Place of Collection : OBSERVATION BORE WELL RED MUD POND (WEST) DT-18.11.2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
iii Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	3.3	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	60.5	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	18	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.18	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.66	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	9.72	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	18	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	156	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	191	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.053	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F)

3084 | 613914FF





KALYANI LABORATORIES PVT. LTD.

38944, PARUL, BILUBANESWAR-751061, ODISHA

Test Report No

3084 | 613914FFKLPL/11/20/WATER/03518



Parameters

Unit

Requirement

Result

Test Method

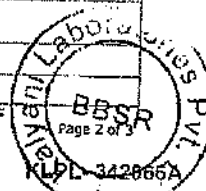
xx	Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3075 (part-55)
xxi	Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii	Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii	Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (5440)
xxiv	Barium (as Ba)	mg/l, Max	0.2	<0.2	Annex F of IS 13428 RA 2012
xxv	Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i	p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	B-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan b	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Ethion	µg/l, Max	3.0	<0.01	USEPA 1557 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3084 | 613914FF





KALYANI LABORATORIES PVT. LTD.

78/54, RAJAL, BHUBANESWAR-751001, ODISHA

Test Report No : 3084 | 613914FFKLPL/11/20/WATER/03518



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2017
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.8	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	440	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D Anil Kumar
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

TRIAL PATH, BILASPUR, RAIPUR, JHARKHAND, INDIA

TEST REPORT



NABL ULR NO : TC704320000005376P

Test Report No : 3085 | 61401500KLPL/11/20/WATER/03519 Issue Date: 07-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Nov-2020 Test Commenced On : 21 Nov 2020 Test Completion On: 28 Nov 2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 18-Nov-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

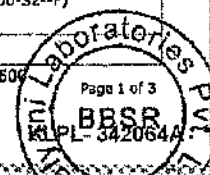
Place of Collection : OBSERVATION BOREWELL RED MUD POND
BASANTPADA SIDE(EAST) DT-18.11.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure:

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Chloride (as Cl)	mg/l, Max	250	18	IS 3025 (Part 32):1988 RA 2009
ii Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
iii Fluoride (as F)	mg/l, Max	1	0.33	IS 3025 (Part 60):2008
iv Nitrate as NO3	mg/l, Max	45	2.0	IS 3025 (PART 34): 1988 RA 2003
v Ammonia	mg/l, Max	0.5	<0.1	IS 3025 (Part 34): 1990 RA 2003
vi Calcium (as Ca)	mg/l, Max	75	28.8	IS 3025 (Part 40):1991 RA 2009
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.88	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	7.05	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 45):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	8	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	144	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	101	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.027	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2--F)

3085 | 61401500





KALYANI LABORATORIES PVT. LTD.

29/1A, PADAL, BIL BAKESWAR, 751001, ODISHA

Kalyani Laboratories

Test Report No : 3085 | 61401500KLPL/11/20/WATER/03519

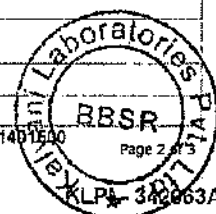


Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part 55)
xxi Anionic Surface Active Agents (as MBA5)	mg/l, Max	0.2	<0.1	Annex K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTISIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1697 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.0005	ASTM 5175

PHYSICAL PARAMETER

3085 | 61401500

Page 2 of 3





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BILHAKESWAR, 751091, ODISHA

Test Report No : 3085 | 61401500KLPL/11/20/WATER/03519

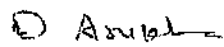


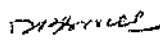
Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5 to 8.5	7.0	IS 3025 (Part 11):1983, RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.4	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	160	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.


Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

TRA-44, PAHAL, BHUBANESWAR-751011, ODISHA

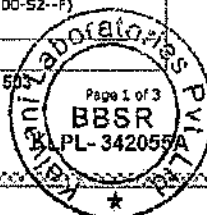
TEST REPORT



NABL ULR NO : TC704320000005379P
Test Report No : 3088 | 61431503KLPL/11/20/WATER/03522 **Issue Date** : 07-Dec-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28-Nov-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Nov-2020
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL PROCESS WATER LAKE (NORTH) DT-18.11.2020
Sample Collected By : By KLPL
Ref.To Sampling Procedure :

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	0.7	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	11.5	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	6	IS 3025 (Part 32):1989 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.15	IS 3025 (Part 60):2009
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.65	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	4.37	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃)	mg/l, Max	200	62	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃)	mg/l, Max	200	47	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.014	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F)

3088 | 61431503





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

10/234, PADAL, DILLI RANGSWARI, NEW DELHI

Test Report No : 3088 | 61431503KLPL/11/20/WATER/03522



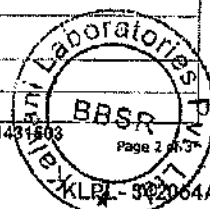
Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (8440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix δ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Dacthal	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

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KALYANI LABORATORIES PVT. LTD.

18/044, PAHAL, BHUBANESWAR-752101, ODISHA

Kalyani Laboratories

Test Report No : 3088 | 61431503KLPL/11/20/WATER/03522

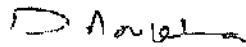


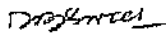
Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.7	IS 3025 (Part 11):1903, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.4	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	76	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.


Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342053A



KALYANI LABORATORIES PVT. LTD.

30TH FLOOR, BANGSWAR, TECHNICAL ODISHA

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TEST REPORT

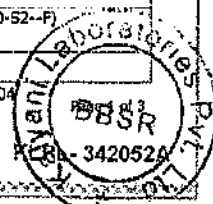


NABL ULR NO : TC704320000005380P
Test Report No : 3089 | 61441504KLPL/11/20/WATER/03523 **Issue Date** : 07-Dec-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28-Nov-2020
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Nov-2020
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BOREWELL PROCESS WATER LAKE (EAST) DT-18.11.2020
Sample Collected By : By KLPL
Ref.To Sampling Procedure :

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml, Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	3.0	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	21.6	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	6	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.64	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 28):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.82	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	8.75	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	15	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	192	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	90	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.03	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F)

3089 | 61441504





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

75/44 PAHAL SRI BANGSWAR-751001, ODISHA

Test Report No : 3089 | 61441504KLPL/11/20/WATER/03523



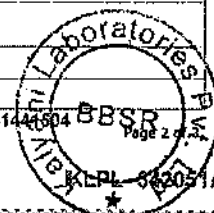
Parameters	Unit	Requirement	Result	Test Method
xx Aluminium (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part 55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13426:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex I of IS 13428 : 2005 RA 2009

PESTISIDE

i	p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Chlorthion	µg/l, Max	3.0	<0.01	USEPA 1647 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3089 | 61441504





KALYANI LABORATORIES PVT. LTD.

1876B, PATIAL, BHUBANESWAR 751016, ODISHA

Test Report No

3089 | 61441504KLPL/11/20/WATER/03523



Parameters	Unit	Requirement	Result	Test Method
i Colour	Plazon, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.2	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.9	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	336	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks

: NIL

Any unusual feature observed during determination

: NIL

***** End of Test Report *****

ED Amin

Analysed By
For Kalyani Laboratories Pvt. Ltd.

1702/2021
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



3089 | 61441504

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KLPL- 342050A



KALYANI LABORATORIES PVT. LTD.

3092, PAHAL, BILBAJESWAR, 751001, ODISHA

Kalyani Laboratories

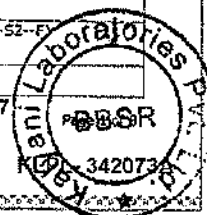
TEST REPORT



NABL ULR NO : TC704320000005383P
Test Report No : 3092 | 61471507KLPL/11/20/WATER/03526 **Issue Date** : 07-Dec-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28-Nov-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Nov-2020
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL ASHPOND (NORTH)
Sample Collected By : By KLPL **DT-18.11.2020**
Ref.To Sampling Procedure:

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	0.85	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	5.8	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	8	IS 3025 (Part 32):1986 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.16	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.36	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	7.05	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	2	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	38	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	43	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.012	IS 3025 (Part 49):1984 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -F)

3092 | 61471507





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

INDIA: PAFAL, SHIBDANGSM, RA-751002, ODISHA

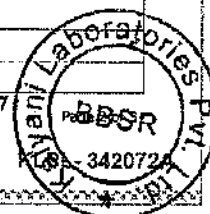
Test Report No : 3092 | 61471507KLPL/11/20/WATER/03526



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (8440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTISIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3092 | 61471507





KALYANI LABORATORIES PVT. LTD.

TRADE: PAHAL BHU BANSWAR, ODISHA

Test Report No : 3092 | 61471507KLPL/11/20/WATER/03526



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	6.8	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	60	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-3):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Ananta
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Informal
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

78/44, PAHAL BHU DANESWAR, 751001, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005381P

Test Report No : 3090 | 61451505KLPL/11/20/WATER/D3524

Issue Date: 07-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766127

Date of receipt : 21-Nov-2020 Test Commenced On : 21-Nov-2020

Test Completion On: 28-Nov-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 18-Nov-2020

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

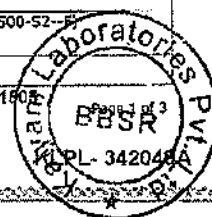
Place of Collection : OBSERVATION BOREWELL ASHPOND KASIBADI
SIDE(WEST) DT-18.11.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure:

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	1.4	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	27.4	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	6	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.4	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 28):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.33	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	14.09	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 35):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	122	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	126	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.024	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-B)

3090 | 61451505





KALYANI LABORATORIES PVT. LTD.

78940, PATNAI, DHUBANESWAR-752001, ODISHA

Test Report No

3090 | 61451505KLPL/11/20/WATER/03524



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

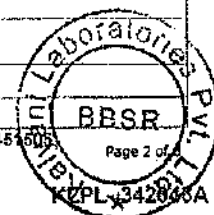
PESTICIDE

i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	30	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3090 | 61451505

Page 2 of 2





KALYANI LABORATORIES PVT. LTD.

78/944, PAILAL, BHUBANESWAR-752101, ODISHA

Kalyani Laboratories

Test Report No : 3090 | 61451505KLPL/11/20/WATER/03324



Parameters	Unit	Requirement	Result	Test Method
i Colour	Plazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.0	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.7	IS 3025 (Part 16):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	162	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

78/854, RAJAL BHUBANESWAR-751 001, ODISHA

Kalyani Laboratories

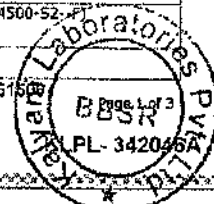
TEST REPORT



NABL ULR NO : TC704320000005382P
Test Report No : 3091 | 61461506KLPL/11/20/WATER/03525 **Issue Date** : 07-Dec-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 D1-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28 Nov 2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Nov-2020
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL ASHPOND KENDUGUDA
Sample Collected By : By KLPL **SIDE (EAST) DT-18.11.2020**
Ref.To Sampling Procedure :

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	2.8	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	61.9	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	74	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.6	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.09	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	6.08	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	90	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	173	IS 3025 (Part 23):1985 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	180	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.032	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -07)

3091 | 61461506





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

7/901, PAHAL, BHUBANESWAR-751011, ODISHA

Test Report No : 3091 | 61461506KLPL/11/20/WATER/03525



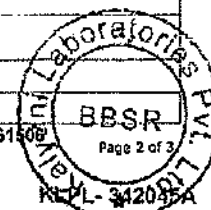
Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part 55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00001	ASTM 5175

PHYSICAL PARAMETER

3091 | 61461506



Page 2 of 3

KLPL-342035A



KALYANI LABORATORIES PVT. LTD.

8044, PAHAL, BHUBANESWAR-751001, ODISHA

Kalyani Laboratories

Test Report No : 3091 | 61461506KLPL/11/20/WATER/03525

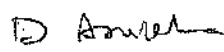


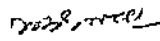
Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	7.4	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	410	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report


Analysed By
For Kalyani Laboratories Pvt. Ltd.


Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

PH-04, PADAL, BHUBANESWAR-751014, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320800005364P

Test Report No : 3093 | 61481508KLPL/11/20/WATER/03527

Issue Date : 07-Dec-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST. KALAHANDI, ODISHA-766027.

Date of receipt : 21-Nov-2020 Test Commenced On : 21-Nov-2020

Test Completion On: 28-Nov-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 18-Nov-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 1

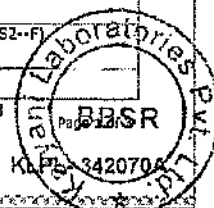
Place of Collection : OBSERVATION BORE WELL DIRTY WATER POND
DT-18.11.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure:

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Fecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	3.5	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	64.8	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	30	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.42	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	0.2	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.82	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	7.78	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.025	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	14	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	194	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	194	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.045	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (Part 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2--F)

3093 | 61481508





KALYANI LABORATORIES PVT. LTD.

38/94, PAHAL, BIRUPANISWAS-752101 ODISHA

Kalyani Laboratories

Test Report No : 3093 | 61481508KLPL/11/20/WATER/03527



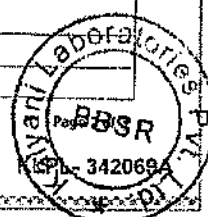
Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i	p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii	p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii	p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv	o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v	o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi	o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii	α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii	β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix	γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x	Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi	Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii	Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii	Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv	Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv	Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi	Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii	Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii	2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix	Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx	Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi	Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii	Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii	Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv	Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv	Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi	Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii	Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

3093 | 61481508





KALYANI LABORATORIES PVT. LTD.

18044 PARUL BHIMANESWAR STREET, CHENNAI

Kalyani Laboratories

Test Report No : 3093 | 61481508KLPL/11/20/WATER/03527



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3075 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.7	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	379	IS 3025 (Part 16):1984 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

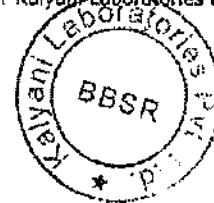
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3093 | 61481508

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KLPL- 342068A



KALYANI LABORATORIES PVT. LTD.

WATER ANALYSIS REPORT

TEST REPORT



NABL ULR NO : TC704321000005655P

Test Report No : 3253 | 64621617KLPL/12/20/WATER/03704

Issue Date: 02-Jan-2021

Amendment No :

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19-Dec-2020 Test Commenced On : 19-Dec-2020 Test Completion On: 26-Dec-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 18-Dec-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

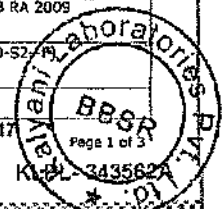
Place of Collection : OBSERVATION BORE WELL RED MUD POND (WEST)
DT-18.12.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	3.6	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	57.6	IS 3025 (Part 40): 1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	25.9	IS 3025 (Part 32): 1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.48	IS 3025 (Part 60): 2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26): 1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.7	IS 3025 (Part 53): 2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	12.15	IS 3025 (Part 46): 1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 38): 1991 RA 2009
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	40	IS 3025 (Part 24): 1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	187	IS 3025 (Part 23): 1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	194	IS 3025 (Part 21): 2009
xvii Zinc (as Zn)	mg/l, Max	5	0.057	IS 3025 (Part 49): 1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-19)

3253 | 64621617





KALYANI LABORATORIES PVT. LTD.

101, PALLADI, VILVANKUNTA ROAD, CHENNAI - 600 094

Test Report No.

3253 | 6462161/KLPL/12/20/WATER/03704



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as M&AC)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Dacthal	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	0.0	<0.01	USEPA 532
xxi Atrachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



3253 | 64621617*

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KLPL- 343561A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYST: DR. BANSARI K. SHARMA

Test Report No

3253 | 6462161/KLPL/12/20/WATER/03704



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	7.0	IS 3025 (Part 11):1983 RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	464	IS 3025 (Part 18):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part 2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part 1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3253 | 64621617

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KLPL- 343560A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005656P

Test Report No : 3254 | 64631618KLPL/12/20/WATER/03705 **Issue Date** : 02-Jan-2021

Amendment No : - **Amendment Date** : -

Reference : ORDER NO 6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19 Dec 2020 **Test Commenced On** : 19 Dec 2020 **Test Completion On** : 26-Dec-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER **Sampling Date** : 18-Dec-2020

Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA

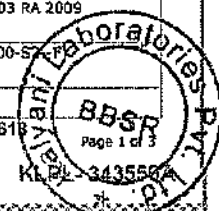
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BOREWELL RED MUD POND BASANTPADA SIDE(EAST) D1-18.12.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	2.0	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	27.4	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	6.5	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.35	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.84	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	10.69	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2009
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	13	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	115	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	112	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.026	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S)

3254 | 64631618



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KLPL-3435504



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED

Test Report No

3254 | 64631618KLP/17/20/WATER/03705

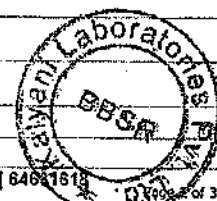


Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13420:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p,p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p,p ODD	µg/l, Max	1.0	<0.05	USEPA 508
iii p,p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o,p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o,p ODD	µg/l, Max	1.0	<0.05	USEPA 508
vi o,p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				

3254 | 64631618

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KLPL-343558A





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

3011, PATEL BUILDING, VANDANA, PUNE-411 004

Test Report No

3254 | 64631618KLP/12/20/WATER/03705



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.4	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	182	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1982 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. D. D. D.
Analysed By
For Kalyani Laboratories Pvt. Ltd.



P. P. P. P.
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3254 | 64631618

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KLPL- 343557A



KALYANI LABORATORIES PVT. LTD.

700411, PATEL, DURGAPUR, KOLKATA, INDIA

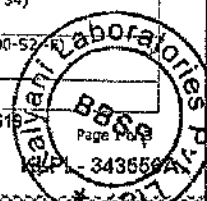
TEST REPORT



NABL ULR NO : TC704321000005657P
Test Report No : 3255 | 64641619KLPL/12/20/WATER/03706 **Issue Date** : 02-Jan-2021
Amendment No : **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 19-Dec-2020 **Test Commenced On** : 19-Dec-2020 **Test Completion On** : 26-Dec-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Dec-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BOREWELL RED MUD POND
Sample Collected By : By KLPL **MATERIAL GATE SIDE(NORTH) DT-18.12.2020**
Ref. To Sampling Procedure :

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1980 RA 2003
ii Calcium (as Ca)	mg/l, Max	75	31.7	IS 3025 (Part 40):1991 RA 2009
iii Chloride (as Cl)	mg/l, Max	250	15.1	IS 3025 (Part 32):1988 RA 2009
iv Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
v Fluoride (as F)	mg/l, Max	1	0.18	IS 3025 (Part 60):2008
vi Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
vii Iron (as Fe)	mg/l, Max	1	0.77	IS 3025 (Part 53):2003 RA 2014
viii Magnesium (as Mg)	mg/l, Max	30	11.42	IS 3025 (Part 46):1994 RA 2003
ix Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
x Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xi Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 41):1992 RA 2009
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO ₄)	mg/l, Max	200	15	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO ₃),	mg/l, Max	200	185	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO ₃),	mg/l, Max	200	126	IS 3025 (Part 21):2009
xvi Zinc (as Zn)	mg/l, Max	5	0.026	IS 3025 (Part 49):1994 RA 2009
xvii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xviii Nitrate Nitrogen as NO ₃	mg/l, Max	---	1.6	Cl. 3.0 of IS 3025 (Part 34)
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -05)

3255 | 64641619





KALYANI LABORATORIES PVT. LTD.

ANALYTICAL BSR BANGALORE TAMIL NADU

Test Report No

3255 | 64641614KLPL/17/10/WATER/03706

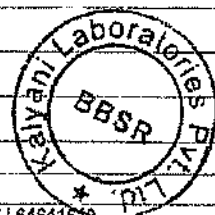


Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAB)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDL	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDF	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	5.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

NO. 11, PALLADI, THIRUVANANTHAPURAM 700 001

Test Report No

3255 | 84641619KLPL/12/20/WATER/03706



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	7.2	IS 3025 (Part 11):1983 RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.4	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	228	IS 3025 (Part 16):1904 RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

Analyser By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3255 | 84641619

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KLPL- 343554A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

10/10, PATAAL, BILUPAN, KALAHANDI, ODISHA, INDIA

TEST REPORT

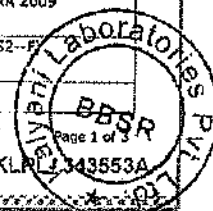


NABL ULR NO : TC704321000005658P
Test Report No : 3256 | 6465161AKLPL/12/20/WATER/03707 **Issue Date** : 02-Jan-2021
Amendment No : **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST. KALAHANDI, ODISHA 766027.
Date of receipt : 19-Dec-2020 **Test Commenced On** : 19 Dec 2020 **Test Completion On** : 26-Dec-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Dec-2020
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL RED MUD POND
Sample Collected By : By KLPL **RENGOPALI SIDE (SOUTH) DT-18.12.2020**
Ref.To Sampling Procedure :

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<7	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	2.4	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 4675 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	33.1	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	4.3	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.25	IS 3025 (Part 60):2006
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	12.15	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 58):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	10	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	168	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	133	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.025	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2--F)

3256 | 6465161A

KLPL 343553A





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYTICAL DIVISION

Test Report No : 3256 | 6465161AKLPL/12/20/WATER/03707

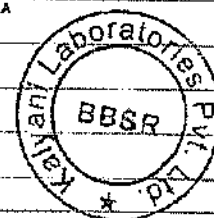


Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i p p DDE	µg/l, Max	1.0	<0.05	USEPA 500
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii o-HCH	µg/l, Max	0.01	<0.01	USEPA 500
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 500
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.0005	ASTM 5175

PHYSICAL PARAMETER



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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

15/10/2012 10:00:00 AM

Test Report No

3256 | 6465161AKLPL/12/20/WATER/03707



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	8.0	IS 3025 (Part-11):1983, RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	170	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks

: NIL

Any unusual feature observed during determination

: NIL

***** End of Test Report *****

Analysed By

For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory

For Kalyani Laboratories Pvt. Ltd

3256 | 6465161A

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KLPL- 343551A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED

TEST REPORT



NABL ULR NO : TC704321000005659P

Test Report No : 3257 | 6466161BKLPL/12/20/WATER/03708

Issue Date: 02-Jan-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST. KALAHANDI, ODISHA-766027.

Date of receipt : 19 Dec 2020 Test Commenced On : 19-Dec-2020

Test Completion On: 02-Dec-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Batch No, Lot No : NA

MFG Date : NA

Sampling Date : 18-Dec-2020

Received Quantity : 1LTR X 2

EXP Date : NA

Sample Collected By : By KLPL

Place of Collection : OBSERVATION BORE WELL PROCESS WATER LAKE (NORTH) DT-18.12.2020

Ref.To Sampling Procedure: QSP-07

Parameters

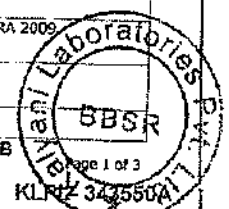
BACTERIOLOGICAL QUALITY

	Unit	Requirement	Result	Test Method
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009

CHEMICAL PARAMETER

i Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
ii Anionic Surface Active Agents (as MBA5)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
iii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
iv Nitrate as NO3	mg/l, Max	45	0.68	IS 3025 (PART 34): 1988 RA 2003
v Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
vi Calcium (as Ca)	mg/l, Max	75	15.8	IS 3025 (Part 40):1991 RA 2009
vii Chloride (as Cl)	mg/l, Max	250	6.5	IS 3025 (Part 32):1988 RA 2009
viii Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
ix Fluoride (as F)	mg/l, Max	1	0.13	IS 3025 (Part 60):2008
x Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
xi Iron (as Fe)	mg/l, Max	1	0.64	IS 3025 (Part 53):2003 RA 2014
xii Magnesium (as Mg)	mg/l, Max	30	5.10	IS 3025 (Part 46):1994 RA 2003
xiii Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xiv Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xv Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xvi Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xvii Sulphate (as SO4)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
xviii Total alkalinity (as CaCO3),	mg/l, Max	200	67	IS 3025 (Part 23):1986 RA 2009
xix Total hardness (as CaCO3),	mg/l, Max	200	61	IS 3025 (Part 21):2009

3257 | 6466161B



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

100/1, PLOT NO. 100/1, PHASE II, INDUSTRIAL AREA, CHENNAI - 600 020

Test Report No : 3257 | 6466161BKLP/12/20/WATER/03/08

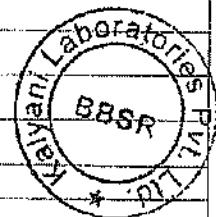


Parameters	Unit	Requirement	Result	Test Method
xx Zinc (as Zn)	mg/l, Max	5	0.014	IS 3025 (Part 49):1994 RA 2009
xxi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xxii Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500 S2 F)
xxiii phosphate as (PO ₄)	mg/l	---	<0.1	APHA 22nd Edition (4500-P-D)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDI	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER



3257 | 6466161B

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KLPL- 343549A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

1941 PUNE, DIST. KALYAN, M.C. 400101

Test Report No : 3257 | 6466161BKLPL/12/20/WATER/03708



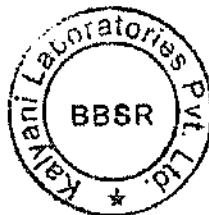
Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.9	IS 3025 (Part 11):1983, RA 2012
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	72	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

100-11, PARIK, BHOIRAMDA, VIL, 2003, ODISHA

TEST REPORT



NABL ULR NO : TC704321000005660P

Test Report No : 3258 | 6467161CKLPL/12/20/WATER/03709

Issue Date: 02-Jan-2021

Amendment No

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19-Dec-2020 Test Commenced On : 19-Dec-2020

Last Completion On: 26-Dec-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 18-Dec-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : OBSERVATION BOREWELL PROCESS WATER LAKE (EAST) DT-18.12.2020

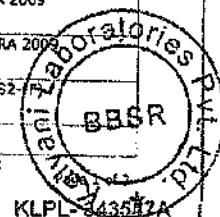
Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	2.6	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	21.6	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	10.8	IS 3025 (Part 37):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.37	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.67	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	7.78	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part 39):1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	9	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	180	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	86	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.028	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂)

3258 | 6467161C

KLPL-343572A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No : 3258 | 6467161CKLPL/12/20/WATER/03709



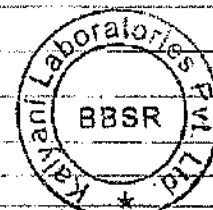
Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDB	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	0.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	3.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.01	ASTM 5175

PHYSICAL PARAMETER

3258 | 64671616

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KLPL- 343546A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYSIS REPORT

Test Report No : 3258 | 6467161CKLPL/12/20/WATER/03709



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.4	IS 3025 (Part 11):1983, RA 2012
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	306	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyse By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

NOTE: PARTIAL BUREAU OF STANDARDS APPROVED

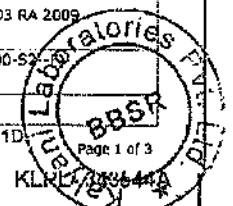
TEST REPORT



NABL ULR NO : TC704321000005661P
Test Report No : 3259 | 6468161DKLPL/12/20/WATER/03710 **Issue Date** : 02-Jan-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-5600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO. LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 19 Dec 2020 **Test Commenced On** : 19-Dec-2020 **Test Completion On** : 02 Dec 2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Dec-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BOREWELL ASHPOND KASIBADI
Sample Collected By : By KLPL **SIDE(WELL)** DT-18.12.2020
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	1.2	IS 3025 (PART 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.1	IS 3025 (Part 14): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	28.8	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	6.5	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.36	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.28	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	10.45	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.4	<0.025	CLASCO 6 of IS 1025 (Part 14): 1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	120	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	115	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.022	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2)

3259 | 6468161D





KALYANI LABORATORIES PVT. LTD.

WATER ANALYSIS REPORT

Test Report No : 3259 | 6468161DKLPL/12/20/WATER/03710



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



3259 | 6468161D

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KLPL- 343543A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

WATER ANALYSIS REPORT (FOR DOMESTIC USE)

Test Report No : 3259 | 6468161DKLPL/12/20/WATER/03710



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	--	6.5-8.5	7.2	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	152	IS 3025 (Part 10):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.005	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag
Analysed By
For Kalyani Laboratories Pvt. Ltd.



D. Anurag
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3259 | 6468161D

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KLPL- 343542A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

10/11, PATA, BHOJANPUR, DIST. JHARKHAND

TEST REPORT



NABL ULR NO : TC704321000005662P
Test Report No : 3260 | 6469161EKLPL/12/20/WATER/03711 **Issue Date** : 02-Jan-2021
Amendment No : **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 19-Dec-2020 **Test Commenced On** : 19 Dec 2020 **Test Completion On** : 26 Dec 2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 18-Dec-2020
Batch No. / Lot No : NA **MFG Date** : NA **EXP Date** : 1LTR X 2
Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL ASHPOND KENDUGUDA
Sample Collected By : By KLPL **Side (EAST) DT-18.12.2020**
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO ₃	mg/l, Max	45	3.2	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	69.1	IS 3025 (Part 40): 1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	82	IS 3025 (Part 32): 1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42): 1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.72	IS 3025 (Part 60): 2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26): 1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.11	IS 3025 (Part 53): 2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	1.70	IS 3025 (Part 46): 1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39): 1991 RA 2003
xii Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43): 1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56): 2003 RA 2009
xiv Sulphate (as SO ₄)	mg/l, Max	200	11	IS 3025 (Part 24): 1986 RA 2009
xv Total alkalinity (as CaCO ₃),	mg/l, Max	200	170	IS 3025 (Part 23): 1986 RA 2009
xvi Total hardness (as CaCO ₃),	mg/l, Max	200	180	IS 3025 (Part 21): 2009
xvii Zinc (as Zn)	mg/l, Max	5	0.034	IS 3025 (Part 49): 1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (Part 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S ₂ -08)

3260 | 6469161E

BBSR

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KLPL- 34854

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No : 3260 | 6469161EKLPL/12/20/WATER/03711



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MDAS)	mg/l, Max	0.2	<0.1	Annex K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009

PESTICIDE

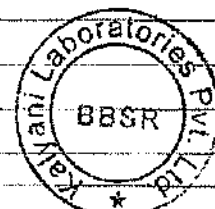
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Temprifluron	µg/l, Max	0.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175

PHYSICAL PARAMETER

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No : 3250 | 6469161EKLPL/12/20/WATER/03711



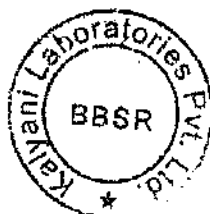
Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	7.6	IS 3025 (Part-11):1983, RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 6):1984 RA 2006
v Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	430	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1986 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3250 | 6469161E

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KLPL- 343539A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704321000005663P

Test Report No : 3261 | 6470161FKLPL/12/20/WATER/03712

Issue Date: 02-Jan-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-G600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.

Date of receipt : 19 Dec 2020 Test Commenced On : 19-Dec-2020

Test Completion On: 26-Dec-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 18-Dec-2020

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : OBSERVATION BORE WELL ASHPOND (NORTH)

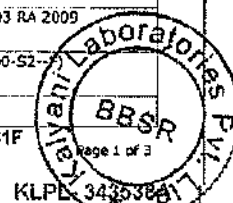
Sample Collected By : By KLPL

DT-18.12.2020

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	0.9	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	14.4	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	10.8	IS 3025 (Part 32):1988 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.27	IS 3025 (Part 60):2008
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.42	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	2.67	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	9	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	58	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	47	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.014	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2--5)

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KLPL 34353841



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

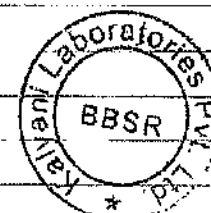
10/11, PAKHAR, BHUBANESWAR-751001, INDIA

Test Report No

3261 | 6470161FKLPL/12/20/WATER/03712



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
PESTICIDE				
i p p DDC	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii B -HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix S-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



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KALYANI LABORATORIES PVT. LTD.

ANALYTICAL RESEARCH & TESTING SERVICES

Test Report No : 3261 | 6470161F | KLPL/12/20/WATER/03712



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1903 RA 2012
iii pH value	---	6.5-8.5	7.0	IS 3025 (Part 11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	74	IS 3025 (Part 16):1904 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-4):2013
ii Gross Beta-activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54):2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyzed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

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KLPL- 343536A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704321000005664P

Test Report No : 3262 | 64711620KLPL/12/20/WATER/03713 **Issue Date** : 02-Jan-2021

Amendment No : - **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 19 Dec 2020 **Test Commenced On** : 19 Dec 2020 **Test Completion On** : 26 Dec 2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : **GROUND WATER** **Sampling Date** : 18-Dec-2020

Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA

Received Quantity : 1LTR X 2 **Place of Collection** : OBSERVATION BORE WELL DIRTY WATER POND

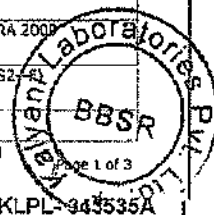
Sample Collected By : By KLPL **DI-18.12.2020**

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
iii E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	4.0	IS 3025 (Part 34): 1988 RA 2003
ii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
iii Calcium (as Ca)	mg/l, Max	75	69.1	IS 3025 (Part 40):1991 RA 2009
iv Chloride (as Cl)	mg/l, Max	250	32.4	IS 3025 (Part 32):1986 RA 2009
v Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vi Fluoride (as F)	mg/l, Max	1	0.52	IS 3025 (Part 60):2006
vii Free residual chlorine	mg/l, Min	0.2	NOT DETECTED	IS 3025 (Part 26):1986 RA 2009
viii Iron (as Fe)	mg/l, Max	1	0.86	IS 3025 (Part 53):2003 RA 2014
ix Magnesium (as Mg)	mg/l, Max	30	4.37	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Mineral oil	mg/l, Max	0.5	<0.025	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xii Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xiii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiv Sulphate (as SO4)	mg/l, Max	200	18	IS 3025 (Part 24):1986 RA 2009
xv Total alkalinity (as CaCO3),	mg/l, Max	200	192	IS 3025 (Part 23):1986 RA 2009
xvi Total hardness (as CaCO3),	mg/l, Max	200	191	IS 3025 (Part 21):2009
xvii Zinc (as Zn)	mg/l, Max	5	0.048	IS 3025 (Part 49):1994 RA 2009
xviii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xix Sulphide	mg/l	2.0	<0.05	APHA 22nd Edition (4500-S2-03)

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KLPL-343535A





KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED

Test Report No : 3262 | 64711620KLPL/12/20/WATER/03/13



Parameters	Unit	Requirement	Result	Test Method
xx Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xxi Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex K of IS 13428:2005 RA 2009
xxii Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428:2005 RA 2009
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxiv Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428:2005 RA 2009
PESTICIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii α-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii β-HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan β	µg/l, Max	0.4	<0.01	USEPA 508
xiii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiv Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xv Ethion	µg/l, Max	3.0	<0.01	USEPA 1657 A
xvi Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xvii Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xviii 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1
xix Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xx Isoproturon	µg/l, Max	100	<0.01	USEPA 8141 A
xxi Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxii Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxiii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xxiv Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xxv Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvii Polychlorinated biphenyls	µg/l, Max	0.0005	<0.00005	ASTM 5175
PHYSICAL PARAMETER				



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KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

Test Report No

3262 | 64711620KLPL/12/20/WATER/03/13



Parameters	Unit	Requirement	Result	Test Method
i Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value		6.5-8.5	8.0	IS 3025 (Part 11):1983, RA 2012
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.9	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	392	IS 3025 (Part 16):1984 RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	Bq/l, Max	0.1	<0.004	IS 14194 (Part-2):2013
ii Gross Beta activity	Bq/l, Max	1.0	<0.02	IS 14194 (Part-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54):2003 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anuleha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3262 | 64711620

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KLPL- 343533A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

T. NALLAPATI, BOREWELL, KARAVATHA, VENTURA

TEST REPORT



NABL ULR NO : TC704321000005623P
Test Report No : 3236 | 627415F7KLPL/12/20/WATER/03612 **Issue Date** : 01-Jan-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANIGARH
Address : PO - LANIGARH, DIST - KALAHANDI, ODISHA-766077
Date of receipt : 04-Dec-2020 **Test Commenced On** : 04-Dec-2020 **Test Completion On** : 03-Dec-2020
Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED
Sample Identification * : GROUND WATER **Sampling Date** : 03-Dec-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : BOREWELL AT BANDHAGUDA, DT-03.12.2020
Sample Collected By : By KLPL
Ref. to Sampling Procedure : QSP-U/

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988, RA 2009
iii Nitrate as NO ₃	mg/l, Max	45	3.4	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	30.7	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	12.95	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	0.64	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	8.75	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2005 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 1076 (Part 56):2003 RA 2009
xiii Sulphate (as SO ₄)	mg/l, Max	200	10	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO ₃),	mg/l, Max	200	106	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO ₃),	mg/l, Max	200	112	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO ₄)	mg/l	---	<0.1	APHA 22nd Edition (4500-P-06)

3236 | 627415F7

KLPL-343520A





KALYANI LABORATORIES PVT. LTD.

(N) 93, PATAL BHILAINI SWAR, (T) 101, CHHISIA

Test Report No

3236 | 627415F7KLPL/12/20/WATER/03612



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTISIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.257	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	7.0	IS 3025 (Part 11):1983 RA 2012
v Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	178	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C		23	

Remarks

: NIL

Any unusual feature observed during determination

: NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3236 | 627415F7

Page 2 of 2

KLPL- 343619A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU OF VERIFICATION

TEST REPORT

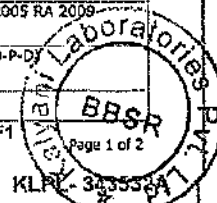


NABL ULR NO : TC704321000005617P

Test Report No : 3230 | 626815F1KLPL/12/20/WATER/03606 Issue Date : 01-Jan-2021
Amendment No : - Amendment Date : -
Reference : ORDER NO-5500013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO - LANJIGARH, DIST - KALAHANDI, JHARKHAND-766022.
Date of receipt : 04-Dec-2020 Test Commenced On : 04-Dec-2020 Test Completion On : 11-Dec-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification + : GROUND WATER Sampling Date : 03-Dec-2020
Batch No , Lot No : NA MFG Date : NA EXP Date : NA
Received Quantity : 1LIT X 2 Place of Collection : PLANT SITE , DT-03.12.2020
Sample Collected By : By KLPL
Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1986, RA 2009
iii Nitrate as NO3	mg/l, Max	45	0.85	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	30.2	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	23.7	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	0.9	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	6.08	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO4)	mg/l, Max	200	15	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO3),	mg/l, Max	200	115	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO3),	mg/l, Max	200	101	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l,Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO4)	mg/l	---	<0.1	APHA 22nd Edition (4500-P-D)

3230 | 626815F1





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED COMPANY

Test Report No

:

3230 | 626815F1KLPL/12/20/WATER/03606



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii RITAL PLUSIDE	mg/l, max	0.0005	<0.0001	US EPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.283	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	8.0	IS 3025 (Part 11):1983 RA 2012
v Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	160	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	23	---

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704321000005618P

Test Report No : 3231 | 626915F2KLPL/12/20/WATER/03607

Issue Date : 01-Jan-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO, LANJIGARH, DIST. KALAHANDI, Odisha - 766027.

Date of receipt : 04-Dec-2020 Test Commenced On : 04-Dec-2020 Test Completion On : 11-Dec-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 03-Dec-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : BOREWELL At LANJIGARH, DT-03.12.2020

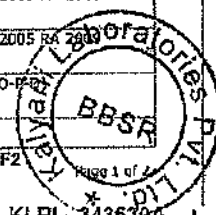
Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1522:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1522:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 4):1988 RA 2009
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
iii Nitrate as NO ₃	mg/l, Max	45	6.0	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	57	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	47.5	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	0.7	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	0.36	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	12.15	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO ₄)	mg/l, Max	200	18	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO ₃),	mg/l, Max	200	197	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO ₃),	mg/l, Max	200	194	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l,Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO ₄)	mg/l	---	<0.1	APHA 22nd Edition (4500-P)

3231 | 626915F2

KLPL-343530A





KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

Test Report No : 3231 | 626915F2KLPL/12/20/WATER/03607



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PLSTICIN	mg/l, max	0.0005	<0.0001	USFPA

PHYSICAL PARAMETER

i Conductivity	ms/cm	---	0.729	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	7.1	IS 3025 (Part-11):1983, RA 2012
v Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.3	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	294	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	23	

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005619P

Test Report No : 3232 | 627015F3KLPL/12/20/WATER/03608 Issue Date : 01-Jan-2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 04-Dec-2020 Test Commenced On : 04-Dec-2020 Test Completion On: 11-Dec-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Sampling Date : 03-Dec-2020

Batch No, Lot No : NA MFG Date : NA

EXP Date : NA

Received Quantity : 1LIR X 2

Place of Collection : BOREWELL AT RENGOPALI, DT-03.12.2020

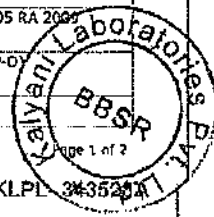
Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
II Fecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
I Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
II Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988, RA 2009
III Nitrate as NO3	mg/l, Max	45	0.35	IS 3025 (PART 34): 1988 RA 2003
IV Calcium (as Ca)	mg/l, Max	75	17.3	IS 3025 (Part 40):1991 RA 2009
V Chloride (as Cl)	mg/l, Max	250	4.3	IS 3025 (Part 32):1988 RA 2009
VI Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
VII Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60) 2008
VIII Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
IX Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
X Magnesium (as Mg)	mg/l, Max	30	5.35	IS 3025 (Part 46):1994 RA 2003
XI Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
XII Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
XIII Sulphate (as SO4)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
XIV Total alkalinity (as CaCO3),	mg/l, Max	200	41	IS 3025 (Part 23):1986 RA 2009
XV Total hardness (as CaCO3),	mg/l, Max	200	65	IS 3025 (Part 21):2009
XVI Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
XVII Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
XVIII Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
XIX Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
XX phosphate as (PO4)	mg/l	---	<0.1	APHA 22nd Edition (4500-P-O)

3232 | 627015F3

KLPL 3435204





KALYANI LABORATORIES PVT. LTD.

WATER, PAINT, MEDICINE, FOOD, FERTILIZER, CHEMICALS

Test Report No : 3232 | 62/015F3KLPL/12/20/WATER/03608

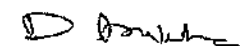


Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTICIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.159	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1984 RA 2012
iii Odour		Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value		6.5-8.5	6.5	IS 3025 (Part 11):1983, RA 2012
v Taste		Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.2	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	92	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	23	

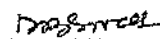
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005620P

Test Report No : 3233 | 627115F4KI PL/12/20/WATER/03609 **Issue Date** : 01-Jan-2021

Amendment No : - **Amendment Date** :

Reference : ORDER NO-6600013488 DT-15.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST. KALAHANDI, Odisha-766027.

Date of receipt : 04-Dec-2020 **Test Commenced On** : 04-Dec-2020 **Test Completion On** : 11-Dec-2020

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER

Batch No , Lot No : NA **MFG Date** : NA **Sampling Date** : 03 Dec-2020

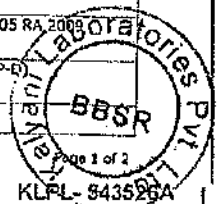
Received Quantity : 1LTR X 2 **EXP Date** : NA

Sample Collected By : By KLPL **Place of Collection** : BOREWELL AT CHHATRAPUR , DT-03.12.2020

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Fecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
iii Nitrate as NO3	mg/l, Max	45	4.5	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	51.8	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	15.1	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	0.02	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	15.55	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO4)	mg/l, Max	200	12	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO3),	mg/l, Max	200	190	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO3),	mg/l, Max	200	194	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l,Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO4)	mg/l	---	<0.1	APHA 22nd Edition (4500-P-0)

3233 | 627115F4





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED

Test Report No

3233 | 627115F4KLPL/12/20/WATER/03609



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTICIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.512	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<10	IS 3025 (Part 4):1983 RA 2012
iii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 9):1983 RA 2012
iv pH value	---	6.5-8.5	7.4	IS 3025 (Part 11):1983, RA 2012
v Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 9):1984 RA 2006
vi Turbidity	NTU, Max	1	0.4	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	312	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	23	---

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

D. Arora

Analysed By
For Kalyani Laboratories Pvt. Ltd.



D. Arora
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3233 | 627115F4

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KLPL- 343525A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

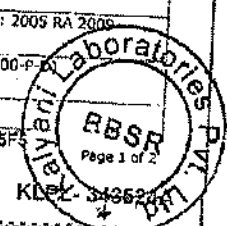
TEST REPORT



NABL ULR NO : TC704321000005621P
Test Report No : 3234 | 627215F5KLPL/12/20/WATER/03610
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : P.O. LANJIGARH, DIST. - KALAHANDI, ODISHA 766027.
Date of receipt : 04-Dec-2020 Test Commenced On : 04-Dec-2020
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07
Issue Date : 01 Jan-2021
Amendment Date :
Test Completion On : 11-Dec-2020
Sampling Date : 03-Dec-2020
EXP Date : NA
Place of Collection : BOREWELL AT CHANALIMA, DT-03.12.2020
MFG Date : NA

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Fecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988, RA 2009
iii Nitrate as NO3	mg/l, Max	45	0.65	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	17.3	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	23.7	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	0.58	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	0.62	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	3.65	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO4)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO3),	mg/l, Max	200	43	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO3),	mg/l, Max	200	58	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO4)	mg/l	---	<0.1	APHA 22nd Edition (4500-P-07)

3234 | 627215F5



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

PO BOX 111, BBSR, INDIA - 751001

Test Report No : 3234 | 627215F5KLPL/12/20/WATER/03610



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (8440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTICIDE	mg/l, max	0.0005	<0.0001	USEPA

PHYSICAL PARAMETER

i Conductivity	ms/cm	---	0.165	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	6.5	IS 3025 (Part-11):1983, RA 2012
v Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	122	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	--	23	---

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Arora
Analyzed By
For Kalyani Laboratories Pvt. Ltd.



D. Arora
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3234 | 627215F5

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KLPL- 343523A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU OF VERIFICATION

Kalyani Laboratories

TEST REPORT

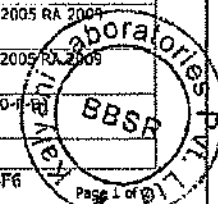


NABL ULR NO : TC704321000005622P

Test Report No : 3235 | 6273151 KLPL/12/20/WATER/03611 Issue Date: 01 Jan 2021
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT 16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 04-Dec-2020 Test Commenced On : 04-Dec-2020 Test Completion On: 11-Dec-2020
 Sample Description : DRINKING WATER (IS 10500:2012)
 Sample Condition : SEALED
 Sample Identification * : GROUND WATER Sampling Date : 03-Dec-2020
 Batch No , Lot No : NA MFG Date : NA EXP Date : NA
 Received Quantity : 1LTR X 2 Place of Collection : BOREWELL AT BATERLIMA , DT-03.12.2020
 Sample Collected By : By KLPL
 Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988, RA 2009
iii Nitrate as NO ₃	mg/l, Max	45	4.8	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	4.9	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	25.9	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	0.86	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	0.74	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	10.69	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 36):2003 RA 2009
xiii Sulphate (as SO ₄)	mg/l, Max	200	16	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO ₃),	mg/l, Max	200	149	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO ₃),	mg/l, Max	200	166	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l,Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO ₄)	mg/l	---	<0.1	APHA 22nd Edition (4500-P-03)

3235 | 627315F6



KLPL- 343522A



KALYANI LABORATORIES PVT. LTD.

W-14, PLOT-1, MIDC, PANDHARWADI, SHIRDI, KARNATAKA

Kalyani Laboratories

Test Report No : 3235 | 627315F6KLPL/12/20/WATER/03611



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (8440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTICIDE	mg/l, max	0.0005	<0.0001	ISCPA

PHYSICAL PARAMETER

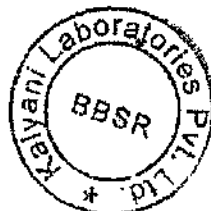
i Conductivity	ms/cm	---	0.375	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	6.75	IS 3025 (Part 11):1983, RA 2012
v Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.8	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	246	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	.	23	

Remarks : NIL

Any unusual feature observed during determination : NIL

----- End of Test Report -----

D. Boubha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Dr. S. V. S. S. S.
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3235 | 627315F6

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KLPL- 343521A

TEST REPORT



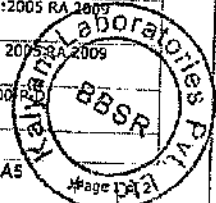
NABL ULR NO : TC704321000007077P
 Test Report No : 3829 | 82501BA5KLPL/3/21/WATER/04454
 Amendment No : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 25-Mar-2021
 Sample Description : DRINKING WATER (IS 10500:2012)
 Issue Date: 06-Apr-2021
 Amendment Date : -
 Test Commenced On : 25-Mar-2021
 Test Completion On: 05-Apr-2021

Sample Condition : SEALED
 Sample Identification * : GROUND WATER
 Batch No , Lot No : NA
 Received Quantity : 1LTR X 2
 Sample Collected By : By KLPL
 Ref.To Sampling Procedure : QSP-07
 MFG Date : NA
 Sampling Date : 23-Mar-2021
 EXP Date : NA
 Place of Collection : PLANT SITE , DT-23.03.2021

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988, RA 2009
iii Nitrate as NO ₃	mg/l, Max	45	0.9	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	59.2	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	14.9	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	<0.05	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	0.85	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	2.92	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO ₄)	mg/l, Max	200	18	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO ₃),	mg/l, Max	200	161	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO ₃),	mg/l, Max	200	160	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO ₄)	mg/l		<0.1	APHA 22nd Edition (4500-P)

3829 | 82501BA5

KLPL- 344708A





KALYANI LABORATORIES PVT. LTD.

REMA PUNJAL, DIII GANESHWAR 751014 ODISHA

Test Report No

3829 | 82501BA5KLPL/3/21/WATER/D4454



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTICIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.339	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	7.9	IS 3025 (Part-11):1983, RA 2012
v Taste	---	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	176	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	25	---

Remarks

: NIL

Any unusual feature observed during determination

: NIL

End of Test Report

D. Anil
Analysed By
For Kalyani Laboratories Pvt. Ltd.



M. S. Meher
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3829 | 82501BA5

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KLPL- 344707A

TEST REPORT

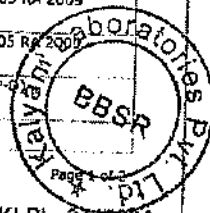


NABL ULR NO : TC704321000007078P
Test Report No : 3830 | 82511BA6KLPL/3/21/WATER/04455
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.
Date of receipt : 25-Mar-2021
Sample Description : DRINKING WATER (IS 10500:2012)
Sample Condition : SEALED
Sample Identification * : GROUND WATER
Batch No , Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07
Issue Date : 06-Apr-2021
Amendment Date : -
Test Completion On : 05-Apr-2021
Sampling Date : 23-Mar-2021
EXP Date : NA
Place of Collection : BOREWELL AT LANJIGARH , DT-23.03.2021
MFG Date : NA

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Fecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
iii Nitrate as NO ₃	mg/l, Max	45	6.5	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	64	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	74.6	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	0.35	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	0.4	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	5.83	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59): 2006 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO ₄)	mg/l, Max	200	24	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO ₃),	mg/l, Max	200	190	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO ₃),	mg/l, Max	200	184	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l,Max	0.03	<0.02	IS 3025 (part 55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO ₄)	mg/l		<0.1	APHA 22nd Edition (4500-P-0)

3830 | 82511BA6

KLPL- 344706A





KALYANI LABORATORIES PVT. LTD.

ANALYSIS REPORT

Test Report No : 3830 | 82511BA6KLPL/3/21/WATER/04455



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTICIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.800	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	---	Agreeable	agreeable	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	7.3	IS 3025 (Part-11):1983, RA 2012
v Taste	---	Agreeable	agreeable	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.4	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	340	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	25	---

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3830 | 82511BA6

Page 2 of 2

KLPL- 344705A

TEST REPORT



NABL ULR NO

: TC704321000007079P

Test Report No

: 3831 | 82521BA7KLPL/3/21/WATER/04456

Issue Date: 06-Apr-2021

Amendment No

: -

Amendment Date :

Reference

: ORDER NO-6600013488 DT-16.12.2019

Customer Name

: VEDANTA LIMITED, LANJIGARH

Address

: PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt

: 25-Mar-2021

Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description

: DRINKING WATER (IS 10500:2012)

Sample Condition

: SEALED

Sample Identification *

: GROUND WATER

Batch No , Lot No

: NA

MFG Date : NA

Sampling Date : 23-Mar-2021

Received Quantity

: 1LTR X 2

EXP Date : NA

Sample Collected By

: By KLPL

Place of Collection : BOREWELL AT RENGOPALI , DT-23.03.2021

Ref.To Sampling Procedure

: QSP-07

Parameters

Unit

Requirement

Result

Test Method

BACTERIOLOGICAL QUALITY

i Total Coliforms

MPN/100 ml

Shall not be detected in any 100 ml sample

ABSENT

IS 1622:1981 RA 2009

ii Faecal Coliform

MPN/100ml

Shall not be detected in any 100 ml sample

ABSENT

IS 1622:1981 RA 2009

CHEMICAL PARAMETER

i Lead (Pb)

mg/l, max

0.01

<0.005

IS 3025 (Part 47)

ii Arsenic (As)

mg/l, max

0.01

<0.001

IS 3025 (Part 37):1988, RA 2009

iii Nitrate as NO3

mg/l, Max

45

0.3

IS 3025 (PART 34): 1988 RA 2003

iv Calcium (as Ca)

mg/l, Max

75

20.8

IS 3025 (Part 40):1991 RA 2009

v Chloride (as Cl)

mg/l, Max

250

4.3

IS 3025 (Part 32):1988 RA 2009

vi Copper (as Cu)

mg/l, Max

0.05

<0.02

IS 3025 (Part 42):1992 RA 2009

vii Fluoride (as F)

mg/l, Max

1

<0.05

IS 3025 (Part 60):2008

viii Free residual chlorine

mg/l, Min

0.2

Not Detected

IS 3025 (Part 26):1986 RA 2009

ix Iron (as Fe)

mg/l, Max

1

<0.05

IS 3025 (Part 53):2003 RA 2014

x Magnesium (as Mg)

mg/l, Max

30

5.83

IS 3025 (Part 46):1994 RA 2003

xi Manganese (as Mn)

mg/l, Max

0.1

<0.05

IS 3025 (Part 59):2006 RA 2012

xii Selenium (as Se)

mg/l, Max

0.01

<0.005

IS 3025 (Part 56):2003 RA 2009

xiii Sulphate (as SO4)

mg/l, Max

200

<1.0

IS 3025 (Part 24):1988 RA 2009

xiv Total alkalinity (as CaCO3),

mg/l, Max

200

38

IS 3025 (Part 23):1986 RA 2009

xv Total hardness (as CaCO3),

mg/l, Max

200

76

IS 3025 (Part 21):2009

xvi Total Chromium

mg/l, Max

0.05

<0.02

IS 3025 (PART 52): 2003 RA 2009

xvii Aluminum (as Al)

mg/l,Max

0.03

<0.02

IS 3025 (part 55)

xviii Anionic Surface Active Agents (as MBAS)

mg/l, Max

0.2

<0.1

Annex H OF IS 13428:2005 RA 2009

xix Boron (as B)

mg/l, Max

0.5

<0.1

Annex H OF IS 13428 : 2005 RA 2009

xx phosphate as (PO4)

mg/l

<0.1

APHA 22nd Edition (4500-P-07)

3831 | 82521BA7

KLPL- 344704A



Test Report No : 3831 | 82521BA7KLPL/3/21/WATER/04456



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APIA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTICIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.149	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	6.65	IS 3025 (Part-11):1983, RA 2012
v Taste	---	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.3	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	88	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	25	---

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag
Analysed By
For Kalyani Laboratories Pvt. Ltd.



M. Srinivas
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

TEST REPORT



NABL ULR NO : TC704321000007080P
Test Report No : 3832 | 82531BA8KLPL/3/21/WATER/04457
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Mar-2021
Sample Description : DRINKING WATER (IS 10500:2012)
Issue Date : 06-Apr-2021
Amendment Date : -
Test Commenced On : 25-Mar-2021
Test Completion On : 05-Apr-2021

Sample Condition : SEALED
Sample Identification * : GROUND WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07
MFG Date : NA
Sampling Date : 23-Mar-2021
EXP Date : NA
Place of Collection : BOREWELL AT CHHATRAPUR, DT-23.03.2021

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988, RA 2009
iii Nitrate as NO ₃	mg/l, Max	45	3.8	IS 3025 (PART 34): 1986 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	62.4	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	8.5	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	0.75	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	7.78	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO ₄)	mg/l, Max	200	10	IS 3025 (Part 24):1996 RA 2009
xiv Total alkalinity (as CaCO ₃)	mg/l, Max	200	197	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO ₃)	mg/l, Max	200	188	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO ₄)	mg/l	---	<0.1	APHA 22nd Edition (4500-PO-04)

3832 | 82531BA8

KLPL- 344685A



KALYANI LABORATORIES PVT. LTD.

70/11, PALLAB, BACHA PESTILAR, SORE, GUJARAT

Test Report No : 3832 | 82531BA8KLPL/3/21/WATER/04457



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTISIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.489	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	7.1	IS 3025 (Part-11):1983, RA 2012
v Taste	--	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	300	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	--	25	---

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Souleha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Prabhu
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3832 | 82531BA8

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KLPL- 344742A

TEST REPORT



NABL ULR NO : TC70432100007081P
Test Report No : 3833 | 82541BA9KLPL/3/21/WATER/04458
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Mar-2021
Sample Description : DRINKING WATER (IS 10500:2012)
Issue Date : 06-Apr-2021
Amendment Date :
Test Commenced On : 25-Mar-2021
Test Completion On : 05-Apr-2021

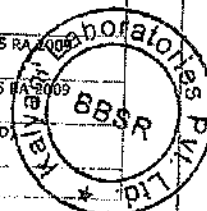
Sample Condition : SEALED
Sample Identification * : GROUND WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 7
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07
MFG Date : NA
Sampling Date : 23-Mar-2021
EXP Date : NA
Place of Collection : BOREWELL AT CIANALIMA, DT-23.03.2021

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	ABSENT	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Lead (Pb)	mg/l, max	0.01	<0.005	IS 3025 (Part 47)
ii Arsenic (As)	mg/l, max	0.01	<0.001	IS 3025 (Part 37):1988, RA 2009
iii Nitrate as NO3	mg/l, Max	45	0.6	IS 3025 (PART 34): 1988 RA 2003
iv Calcium (as Ca)	mg/l, Max	75	20.8	IS 3025 (Part 40):1991 RA 2009
v Chloride (as Cl)	mg/l, Max	250	14.9	IS 3025 (Part 32):1988 RA 2009
vi Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
vii Fluoride (as F)	mg/l, Max	1	0.5	IS 3025 (Part 60):2008
viii Free residual chlorine	mg/l, Min	0.2	Not Detected	IS 3025 (Part 26):1986 RA 2009
ix Iron (as Fe)	mg/l, Max	1	0.52	IS 3025 (Part 53):2003 RA 2014
x Magnesium (as Mg)	mg/l, Max	30	5.83	IS 3025 (Part 46):1994 RA 2003
xi Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2005 RA 2012
xii Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xiii Sulphate (as SO4)	mg/l, Max	200	<1.0	IS 3025 (Part 24):1986 RA 2009
xiv Total alkalinity (as CaCO3),	mg/l, Max	200	36	IS 3025 (Part 23):1986 RA 2009
xv Total hardness (as CaCO3),	mg/l, Max	200	76	IS 3025 (Part 21):2009
xvi Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xvii Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xviii Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009
xix Boron (as B)	mg/l, Max	0.5	<0.1	Annex H OF IS 13428 : 2005 RA 2009
xx phosphate as (PO4)	mg/l	--	<0.1	APHA 22nd Edition (4500-P-D)

3833 | 82541BA9

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KLPL-344741A





KALYANI LABORATORIES PVT. LTD.

10/41, PAHAL, BIR, DANTWAR, T201, ODISHA

Test Report No : 3833 | 82541BA9KLPL/3/21/WATER/04458




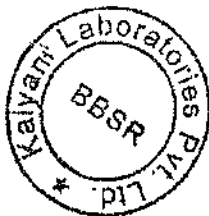
Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APIA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTISIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.152	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	6.6	IS 3025 (Part 11):1983, RA 2012
v Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.6	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	112	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	25	---


Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3833 | 82541BA9

Page 2 of 2

KLPL- 344740A

Kalyani Laboratories

1. 1990年12月1日以前，在《中华人民共和国民法通则》施行以前，即1986年4月1日以前，发生民事法律行为，适用行为发生时的法律。

U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

1. The first step is to identify the key components of the system. This includes understanding the hardware, software, and data involved.

2. The second step is to analyze the system's performance. This involves measuring various metrics such as response time, throughput, and resource utilization.

3. The third step is to identify bottlenecks. These are areas where the system's performance is significantly degraded, often due to resource constraints or inefficient algorithms.

4. The fourth step is to implement optimizations. This can involve upgrading hardware, rewriting code, or changing system configurations to improve performance.

5. The fifth step is to monitor the system's performance after optimizations. This ensures that the changes have the desired effect and helps identify any new issues that may arise.

6. The sixth step is to document the results. This includes creating reports and logs that detail the performance improvements and the steps taken to achieve them.

7. The seventh step is to maintain the system. Regular updates and monitoring are necessary to ensure the system continues to perform optimally over time.

8. The eighth step is to communicate the findings. Sharing the results of the performance analysis and optimization efforts with stakeholders is crucial for transparency and informed decision-making.

9. The ninth step is to iterate. Performance optimization is an ongoing process, and it's important to regularly reassess the system and make adjustments as needed.

10. The tenth step is to conclude. Summarizing the overall findings and lessons learned from the performance analysis and optimization process.

Issue Date: 06-Apr-2021

Amendment Date : -

Address : VEDANTA LIMITED, LANJIGARH
: PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Identification * : **GROUND WATER**

MFG Date : NA

Sampling Date : 23-Mar-2021

Received Quantity : 1LTR X 2

EXP Date : NA

Sample Collected By : By KLPL

Place of Collection :BOREWELL AT BATERLIMA , DT-23.03.2021

Ref. To Sampling Procedure : QSP-07

3834 | 82551BAA

KLFL-344739A

KLAL-344739A
p1



KALYANI LABORATORIES PVT. LTD.

20/44 PATALI, 97/1 RAIPUR, 752 001, ODISHA

Test Report No : 3834 | 82551BAAKLPL/3/21/WATER/04459

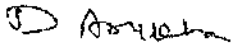


Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0011	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTISIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.302	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	6.95	IS 3025 (Part 11):1983, RA 2012
v Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.7	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	226	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	25	---

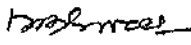
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3834 | 82551BAA

Page 2 of 2

KLPL- 344738A

TEST REPORT



NABL ULR NO

: TC704321000007083P

Test Report No

: 3835 | 82561BABLPL/3/21/WATER/04460

Issue Date: 06-Apr-2021

Amendment No

:

Amendment Date : -

Reference

: ORDER NO-6600013488 DT-16.12.2019

Customer Name

: VEDANTA LIMITED, LANJIGARH

Address

: PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766021.

Date of receipt

: 25-Mar-2021

Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description

: DRINKING WATER (IS 10500:2012)

Sample Condition

: SEALED

Sample Identification *

: GROUND WATER

Batch No, Lot No

: NA

MFG Date : NA

Sampling Date : 23-Mar-2021

Received Quantity

: 1LTR X 2

EXP Date : NA

Sample Collected By

: By KLPL

Place of Collection : BOREWELL AT BANDHAGUDA, DT-23.03.2021

Ref. To Sampling Procedure

: QSP-07

Parameters

Unit

Requirement

Result

Test Method

BACTERIOLOGICAL QUALITY

I Total Coliforms

MPN/100 ml

Shall not be detected in any 100 ml sample

ABSENT

IS 1622:1981 RA 2009

II Fecal Coliform

MPN/100ml

Shall not be detected in any 100 ml sample

ABSENT

IS 1622:1981 RA 2009

CHEMICAL PARAMETER

I Lead (Pb)

mg/l, max

0.01

<0.005

IS 3025 (Part 47)

II Arsenic (As)

mg/l, max

0.01

<0.001

IS 3025 (Part 37):1988, RA 2009

III Nitrate as NO₃

mg/l, Max

45

3.6

IS 3025 (PART 34): 1988 RA 2003

IV Calcium (as Ca)

mg/l, Max

75

33.6

IS 3025 (Part 40):1991 RA 2009

V Chloride (as Cl)

mg/l, Max

250

8.5

IS 3025 (Part 32):1988 RA 2009

VI Copper (as Cu)

mg/l, Max

0.05

<0.02

IS 3025 (Part 42):1992 RA 2009

VII Fluoride (as F)

mg/l, Max

1

0.7

IS 3025 (Part 60):2008

VIII Free residual chlorine

mg/l, Min

0.2

Not Detected

IS 3025 (Part 26):1986 RA 2009

IX Iron (as Fe)

mg/l, Max

1

<0.05

IS 3025 (Part 53):2003 RA 2014

X Magnesium (as Mg)

mg/l, Max

30

9.72

IS 3025 (Part 46):1994 RA 2003

XI Manganese (as Mn)

mg/l, Max

0.1

<0.05

IS 3025 (Part 59):2006 RA 2012

XII Selenium (as Se)

mg/l, Max

0.01

<0.005

IS 3025 (Part 56):2003 RA 2009

XIII Sulphate (as SO₄)

mg/l, Max

200

11

IS 3025 (Part 24):1986 RA 2009

XIV Total alkalinity (as CaCO₃),

mg/l, Max

200

156

IS 3025 (Part 23):1986 RA 2009

XV Total hardness (as CaCO₃),

mg/l, Max

200

124

IS 3025 (Part 21):2009

XVI Total Chromium

mg/l, Max

0.05

<0.02

IS 3025 (PART 52): 2003 RA 2009

XVII Aluminum (as Al)

mg/l, Max

0.03

<0.02

IS 3025 (part-55)

XVIII Anionic Surface Active Agents (as MBAS)

mg/l, Max

0.2

<0.1

Annex - K OF IS 13428:2005 RA 2009

XIX Boron (as B)

mg/l, Max

0.5

<0.1

Annex H OF IS 13428 : 2005 RA 2009

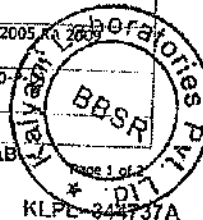
XX phosphate as (PO₄)

mg/l

<0.1

APHA 22nd Edition (4500-

3835 | 82561BABL





Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

KALYANI LABORATORIES PVT. LTD. BBSR

Test Report No

3835 | 82561BABKLPL/3/21/WATER/04460



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxii Mercury	mg/l, max	0.001	<0.0005	IS 3025 (Part 48)
xxiii TOTAL PESTICIDE	mg/l, max	0.0005	<0.0001	USEPA
PHYSICAL PARAMETER				
i Conductivity	ms/cm	---	0.275	IS 3025 (Part 11):1983 RA 2012
ii Colour	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
iii Odour	---	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iv pH value	---	6.5-8.5	6.7	IS 3025 (Part-11):1983, RA 2012
v Taste	---	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
vi Turbidity	NTU, Max	1	0.4	IS 3025 (Part 10):1984 RA 2006
vii Total dissolved solids	mg/l, Max	500	188	IS 3025 (Part 16):1984 RA 2006
viii Temperature	deg C	---	25	---

Remarks

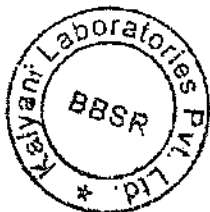
: NIL

Any unusual feature observed during determination

: NIL

***** End of Test Report *****

D. Anuradha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



M. Srinivas
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3835 | 82561BAB

Page 2 of 2

KLPL- 344736A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005150F

Test Report No : 2924 | 5630141EKLPL/10/20/WATER/03211
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI,
Date of receipt : 10-Oct-2020
Sample Description : STP WATER
Test Commenced On : 10-Oct-2020
Test Completion On : 15-Oct-2020

Issue Date : 04-Nov-2020
Amendment Date : -

Sample Condition : SEALED
Sample Identification * : STP OUTLET
Batch No, Lot No : NA
Receival Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07
MFG Date : NA
EXP Date : NA
Sampling Date : 09-Oct-2020
Place of Collection : PLANT, DT-09.10.2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Faecal Coliform	MPN/100ml	<1000	23	IS 622:1981, RA 2009
CHEMICAL PARAMETER				
i Total Suspended Solids	mg/l, Max	50	6	APHA 23rd Edition (2540 D), 2012
ii Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
iii TOTAL Nitrogen	mg/l, Max	10	1.12	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
iv Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
v Chemical Oxygen Demand	mg/l, Max	50	15	APHA 23rd Edition (5220 B), 2017
vi Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	3	APHA 23rd Edition (5210 B), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.8	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyzed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



2924 | 5630141E

Page 1 of 1

KLPL-342477A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC70432000005151F

Test Report No : 2925 | 5631141FKLPL/10/20/WATER/03212
 Amendment No : - Issue Date: 04-Nov-2020
 Reference : UORDER NO-5500013488 DT-16.12.2019 Amendment Date : -
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI,
 Date of receipt : 10-Oct-2020 Test Commenced On : 10-Oct-2020 Test Completion On: 15-Oct-2020
 Sample Description : STP WATER

Sample Condition : SEALED
 Sample Identification * : STP WATER
 Batch No , Lot No : NA MFG Date : NA Sampling Date : 09-Oct-2020
 Received Quantity : 1LTR X 2 EXP Date : NA
 Sample Collected By : By KLPL Place of Collection : TOWNSHIP , DT-09.10.2020
 Ref.To Sampling Procedure: QSP-07

Parameters	Units	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml.	<1000	33	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	33	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	40.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	6.16	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.24	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.25	APHA 23rd Edition (4500-H+ B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
 For Kalyani Laboratories Pvt. Ltd.



2925 | 5631141F

Page 1 of 1

KLPL-342476A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005153F

Test Report No : 2927 | 56991421KLPL/10/20/WATER/03264 Issue Date: 04-Nov-2020
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI,
 Date of receipt : 14-Oct-2020 Test Commenced On : 14-Oct-2020 Test Completion On: 19-Oct-2020
 Sample Description : STP WATER
 Sample Condition : SEALED
 Sample Identification * : STP WATER
 Batch No, Lot No : NA MFG Date : NA Sampling Date : 13-Oct-2020
 Received Quantity : 1LTR X 1 EXP Date : NA
 Sample Collected By : By KLPL Place of Collection : TOWNSHIP, DT-13.10.2020
 Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml	<1000	40	IS 1522:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	35	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	6	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	6.72	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.24	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value		5.5-9.0	7.3	APHA 23rd Edition (4500-H+8), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By : *Asyika*
 For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory : *Recha Jayar*
 For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

78944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005152F
Test Report No : 2926 | 56981420KLPL/10/20/WATER/03263 **Issue Date** : 04-Nov-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI,
Date of receipt : 14-Oct-2020 **Test Commenced On** : 14-Oct-2020 **Test Completion On** : 19-Oct-2020
Sample Description : STP WATER

Sample Condition : SEALED
Sample Identification * : STP WATER **Sampling Date** : 13-Oct-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 1 **Place of Collection** : PLANT, DT-13.10.2020
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Faecal Coliform	MPN/100ml	<1000	22	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	17	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	6	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.12	APHA 23rd Edition (4500-NH ₄ -B, 4500-NO ₂ -B, 4500-NO ₃ -B), 2017
vi Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH ₃ -C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.85	APHA 23rd Edition (4500-H ₊ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342475A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005152F
Test Report No : 2926 | 56981420KLPL/10/20/WATER/03328A **Issue Date**: 04-Nov-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI,
Date of receipt : 23-Oct-2020 **Test Commenced On** : 23-Oct-2020 **Test Completion On**: 27-Oct-2020
Sample Description : STP WATER

Sample Condition : SEALED
Sample Identification * : STP WATER **Sampling Date** : 22-Oct-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 1 **Place of Collection** : PLANT, DT-22.10.2020
Sample Collected By : By KLPL
Ref. To Sampling Procedure: QSP-07

Parameters	Units	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Faecal Coliform	MPN/100ml.	<1000	26	1622:1981, RA 2009
CHEMICAL PARAMETER				
I Chemical Oxygen Demand	mg/l, Max	50	20	APHA 23rd Edition (5220 B), 2017
II Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4	APHA 23rd Edition (5210 B), 2017
III Total Suspended Solids	mg/l, Max	50	6	APHA 23rd Edition (2540 D), 2012
IV Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
V TOTAL Nitrogen	mg/l, Max	10	1.12	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
VI Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
I pH value	---	6.5-9.0	7.9	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342478A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ILR NO : YC704320000005152F

Test Report No : 2926 | 56981420KLPL/10/20/WATER/033286 Issue Date: 04-Nov-2020

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI,

Date of receipt : 23-Oct-2020 Test Commenced On : 23-Oct-2020 Test Completion On: 27-Oct-2020

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP WATER

Sampling Date : 22-Oct-2020

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 1

Place of Collection : TOWNSHIP , DT-22.10.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Fecal Coliform	MPN/100ml.	<1000	50	IS 1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	40	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	7	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	10	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	6.72	APHA 23rd Edition (4500-NHorg-B, 4500-NH2-B, 4500-NH3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.80	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.3	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342479A



KALYANI LABORATORIES PVT. LTD.

78/544, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005154F

Test Report No : 2928 | 58431422KLPL/10/20/WATER/03346 Issue Date: 04-Nov-2020

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI,

Date of receipt : 28-Oct-2020 Test Commenced On : 28-Oct-2020 Test Completion On: 02-Nov-2020

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP WATER

Sampling Date : 27-Oct-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 1

Place of Collection : PLANT, DT-27.10.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters Unit Requirement Result Test Method

BACTERIOLOGICAL QUALITY

i	Faecal Coliform	MPN/100ml.	<1000	27	IS 1522:1981, RA 2009
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CHEMICAL PARAMETER

i	Chemical Oxygen Demand	mg/l, Max	50	25	APHA 23rd Edition (5220 B), 2017
ii	Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4.5	APHA 23rd Edition (5210 B), 2017
iii	Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv	Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v	TOTAL Nitrogen	mg/l, Max	10	1.4	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi	Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017

PHYSICAL PARAMETER

i	pH value		6.5-9.0	7.9	APHA 23rd Edition (4500-H4-B), 2017
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Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Ananta
Analysed By
For Kalyani Laboratories Pvt. Ltd.

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Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 342473A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005155F

Test Report No : 2929 | 58441423KLPL/10/20/WATER/09347

Issue Date: 04-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI,

Date of receipt : 28-Oct-2020

Test Commenced On : 28-Oct-2020

Test Completion On: 02-Nov-2020

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP WATER

Sampling Date : 27-Oct-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 1

Place of Collection : TOWNSHIP, DT-27.10.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Feecal Coliform	MPN/100ml	<1000	60	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	40	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	8	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	12	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	7.28	APHA 23rd Edition (4500-NH ₃ -B, 4500-NO ₂ -B, 4500-NO ₃ -B), 2017
vi Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	3.36	APHA 23rd Edition (4500-NH ₃ -C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.3	APHA 23rd Edition (4500-H ⁺ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

70049, PALLI, BILKAL, JAWAHAR NAGAR, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : IC/D4320000005363F
Test Report No : KLPL/11/20/WATER/03434B **Issue Date** : 12 Nov 2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VFDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Nov-2020 **Test Commenced On** : 07-Nov-2020 **Test Completion On** : 12-Nov-2020
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification * : STP WATER **Sampling Date** : 06-Nov-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT, DT-06.11.2020
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Faecal Coliform	MPN/100ml	<1000	22	1622:1981, RA 2009
CHEMICAL PARAMETER				
Chemical Oxygen Demand	mg/l, Max	50	12	APHA 23rd Edition (5220 B), 2017
Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	2	APHA 23rd Edition (5210 B), 2017
Total Suspended Solids	mg/l, Max	50	4	APHA 23rd Edition (2540 B), 2012
Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
TOTAL Nitrogen	mg/l, Max	10	0.84	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
pH value		6.5-9.0	7.35	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

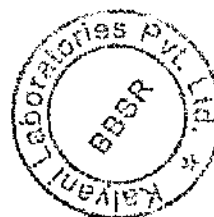
***** End of Test Report *****

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory

For Kalyani Laboratories Pvt. Ltd



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KLPL-343118A



KALYANI LABORATORIES PVT. LTD.

TRIGAL PATEL BLD BANGSAR/2ND FLOOR

TEST REPORT



NABL ULR NO : TC704320000005363F
Test Report No : KLPL/11/20/WATER/034348
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 07-Nov-2020
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification * : STP WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref.To Sampling Procedure: QSP-07
Issue Date : 12-Nov-2020
Amendment Date : -
Test Commenced On : 07-Nov-2020
Test Completion On : 12-Nov-2020
Sampling Date : 06-Nov-2020
MFG Date : NA
EXP Date : NA
Place of Collection : TOWNSHIP, DT-06.11.2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Feecal Coliform	MPN/100ml	<1000	32	1622.1901, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	28	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	5.88	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	1.96	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.2	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3073 | 817314F3

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KLPL- 343115A



KALYANI LABORATORIES PVT. LTD.

78/01, PATAL BHADANESWAR, JALPAIGURI, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005363F

Test Report No : KLPL/11/20/WATER/03445A

Issue Date: 16-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 11-Nov-2020

Test Commenced On : 11-Nov-2020

Test Completion On: 16-Nov-2020

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP WATER

Sampling Date : 10-Nov-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : PLANT, DT-10.11.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml.	<1000	25	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	16	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	3	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	4	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.12	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.9	APHA 23rd Edition (4500-H4-B), 2017

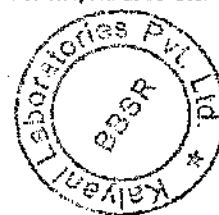
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Dr. Anurag
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343114A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

2044, PAHAL, BH. BANDHAWAR, INDIA

TEST REPORT



NABL ULR NO : TC704320000003363F

Test Report No : KLPL/11/20/WATER/03445B

Issue Date: 16-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 11-Nov-2020

Test Commenced On : 11-Nov-2020

Test Completion On: 16-Nov-2020

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP WATER

Sampling Date : 10-Nov-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : TOWNSHIP, DT-10.11.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
1. Faecal Coliform	MPN/100ml	<1000	34	1622:1981, RA 2009
CHEMICAL PARAMETER				
i. Chemical Oxygen Demand	mg/l, Max	50	32	APHA 23rd Edition (5220 B), 2017
ii. Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	5	APHA 23rd Edition (5210 B), 2017
iii. Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2017
iv. Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v. TOTAL Nitrogen	mg/l, Max	10	6.16	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi. Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.24	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i. pH value	--	6.5-9.0	7.75	APHA 23rd Edition (4500-H4-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anuradha
Analysed By
For Kalyani Laboratories Pvt. Ltd.

17/11/2020
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3073 | 617314F3

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KLPL- 343113A



KALYANI LABORATORIES PVT. LTD.

30/44, PABAI, BALI, KALYANWAKTAP, ODISHA

TEST REPORT



NABL ULR NO : IC/04320000005364F
Test Report No : 30/4 | 614914F4KLPL/11/20/WATER/03528 **Issue Date**: 26-Nov-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VFDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On**: 26-Nov-2020
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification * : STP OUTLET **Sampling Date** : 20-Nov-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT, DT-20.11.2020
Sample Collected By : By KLPL
Ref To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Faecal Coliform	MPN/100ml.	<1000	27	IS 1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	20	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days at 27°C)	mg/l, Max	30	4	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	6	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.4	APHA 23rd Edition (4500-Nitro-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.95	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag

Analysed By
For Kalyani Laboratories Pvt. Ltd.

M. Anurag

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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Page 1 of 1

KLPL- 343112A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78-40, PAMAL, P.H. DARGA, AR. PATNA, ODISHA

TEST REPORT



NABL ULR NO : TC70432000005365F
Test Report No : 3075 | 615014F5KLPL/11/20/WATER/03529 **Issue Date**: 26-Nov-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On**: 26-Nov-2020
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification * : STP OUTLET **Sampling Date** : 20-Nov-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : TOWNSHIP, DT-20.11.2020
Sample Collected By : By KLPL
Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml.	<1000	40	IS 1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	36	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days, 27deg C)	mg/l, Max	30	5.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	10	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	6.44	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.52	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value		6.5 to 9.0	7.3	APHA 23rd Edition (4500-H+-D), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3075 | 615014F6

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KLPL- 343111A

TEST REPORT



NABL ULR NO : TC704320000005362P

Test Report No : 3072 | 617214F2KLPL/11/20/WATER/03539 **Issue Date** : 01-Dec-2020

Amendment No : - **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Nov-2020 **Test Commenced On** : 25-Nov-2020 **Test Completion On** : 01-Dec-2020

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification # : STP WATER **Sampling Date** : 24-Nov-2020

Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA

Received Quantity : 1LTR X 2 **Place of Collection** : PLANT, DT-24.11.2020

Sample Collected By : By KLPL

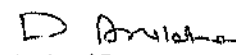
Ref.To Sampling Procedure : QSP-07

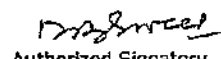
Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml	<1000	29	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	24	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.68	APHA 23rd Edition (4500-NH ₃ -B, 4500-NO ₂ -B, 4500-NO ₃ -B), 2017
vi Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH ₃ -C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.95	APHA 21rd Edition (4500-H ⁺ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.


Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYTICAL, PHYSICAL, MICROBIOLOGICAL, CHEMICAL, ENVIRONMENTAL, CLINICAL, FOOD, WATER, SOIL, AND WASTE ANALYSIS

TEST REPORT



NABL ULR NO : TC704320000005363F

Test Report No : 3073 | 617314F3KLPL/11/20/WATER/03540 **Issue Date** : 01-Dec-2020

Amendment No : - **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Nov-2020 **Test Commenced On** : 25-Nov-2020 **Test Completion On** : 01-Dec-2020

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP WATER **Sampling Date** : 24-Nov-2020

Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA

Received Quantity : 1LTR X 2 **Place of Collection** : TOWNSHIP, DT-74 11.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml	<1000	60	IS 1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	43	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	7	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	12	APHA 23rd Edition (2540 D), 2017
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	7.28	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	3.92	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.3	APHA 23rd Edition (4500 H+ D), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anil
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anil
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343172A



KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000005692P
Test Report No : 3279 | 6371163C|KLPL/12/20/WATER/03663 Issue Date: 17 Dec 2020
Amendment No : . Amendment Date :
Reference : ORDER NO-G600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 12-Dec-2020 Test Commenced On : 12-Dec-2020 Test Completion On: 17-Dec-2020
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification * : STP WATER Sampling Date : 11-Dec-2020
Batch No. Lot No : NA MFG Date : NA EXP Date : NA
Received Quantity : 1LTR X 2 Place of Collection : PLANT, DATE-11.12.2020
Sample Collected By : By KLPL
Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Faecal Coliform	MPN/100ml.	<1000	23	IS 1522:1901, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	12	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days, 27deg C)	mg/l, Max	30	2.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	4	APHA 23rd Edition (2540 D), 2017
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.0	APHA 23rd Edition (4500-N-Horg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.9	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Arulalan
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343731A



KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC704321000005693P
Test Report No : 3280 | 6372163DKLPL/12/20/WATER/03664 Issue Date: 17-Dec-2020
Amendment No : Amendment Date :
Reference : ORDER NO: 6600013408 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO- LANJIGARH, DIST- KALAHANDI, ODISHA-766027.
Date of receipt : 12-Dec-2020 Test Commenced On : 12-Dec-2020 Test Completion On: 17-Dec-2020
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification : STP WATER Sampling Date : 11-Dec-2020
Batch No., Lot No : NA MFG Date : NA EXP Date : NA
Received Quantity : 1LTR X 2 Place of Collection : TOWNSHIP, DATE-11 12 2020
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Faecal Coliform	MPN/100ml	<1000	34	IS 1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	30	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	5.37	APHA 23rd Edition (4500-NH ₄ -B, 4500-NO ₂ -B, 4500-NO ₃ -B), 2017
vi Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	2.0	APHA 23rd Edition (4500-NH ₃ -C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.25	APHA 23rd Edition (4500-H ₊ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anilaka
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anilaka
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343730A



KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC70432100005692P
Test Report No : 3310A | 6371163CKLP/12/20/WATER/03694A
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 18-Dec-2020
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification : STP WATER
Batch No., Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07
Issue Date : 22 Dec 2020
Amendment Date :
Test Commenced On : 18-Dec-2020
Test Completion On : 22-Dec-2020
Sampling Date : 17-Dec-2020
MFG Date : NA
EXP Date : NA
Place of Collection : PLANT, DATE-17.12.2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Fecal Coliform	MPN/100ml.	<1000	26	1622:1981, RA 2009
CHEMICAL PARAMETER				
I Chemical Oxygen Demand	mg/l, Max	50	17	APHA 23rd Edition (5210 B), 2017
II Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	3	APHA 23rd Edition (5210 B), 2017
III Total Suspended Solids	mg/l, Max	50	6	APHA 23rd Edition (2540 D), 2012
IV Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
V TOTAL Nitrogen	mg/l, Max	10	1.0	APHA 23rd Edition (4500-NH ₄ -B, 4500-NH ₂ -B, 4500-NO ₃ -B), 2017
VI Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH ₃ -C), 2017
PHYSICAL PARAMETER				
I pH value	---	6.5-9.0	7.95	APHA 23rd Edition (4500-H ₊ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343792A



KALYANI LABORATORIES PVT. LTD.

TEST REPORT



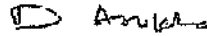
NABL ULR NO : TC704321000005693P
Test Report No : 3310B | 6372163DKLPL/12/20/WATER/03694B Issue Date: 22-Dec-2020
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO. LANJIGARH, DIST. KALAHANDI, ODISHA-766027.
Date of receipt : 18-Dec-2020 Test Commenced On : 18-Dec-2020 Test Completion On: 22-Dec-2020
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification : STP WATER
Batch No, Lot No : NA MFG Date : NA Sampling Date : 17 Dec 2020
Received Quantity : 1LTR X 2 EXP Date : NA
Sample Collected By : By KLPL Place of Collection : TOWNSHIP, DATE-17.12.2020
Ref. To Sampling Procedure: QSP-07


Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml	<1000	40	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	33	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days, 20deg C)	mg/l, Max	30	5.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	10	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	5.71	APHA 23rd Edition (4500-NH ₄ -B, 4500-NO ₂ -B, 4500-NO ₃ -B), 2017
vi Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	2.0	APHA 23rd Edition (4500-NH ₄ -C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.3	APHA 23rd Edition (4500-H ₊ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.


Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL-343791A

KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000005694P
 Test Report No : 3281 | 6571163EKLPL/12/20/WATER/03763 Issue Date: 31-Dec-2020
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6500013468 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 25-Dec-2020 Test Commenced On : 26-Dec-2020 Test Completion On: 31-Dec-2020
 Sample Description : STP WATER
 Sample Condition : SEALED
 Sample Identification * : STP WATER Sampling Date : 25-Dec-2020
 Batch No , Lot No : NA MFG Date : NA EXP Date : NA
 Received Quantity : 1LTR X 2 Place of Collection : PLANT , DATE-25.12.2020
 Sample Collected By : By KLPL
 Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml.	<1000	21	IS 622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	10	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	2	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	4	APHA 23rd Edition (2540 D), 2017
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	0.67	APHA 23rd Edition (4500-Nitrog-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.85	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Ambika
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
 For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343729A

KALYANI LABORATORIES PVT. LTD.

TEST REPORT

NABL ULR NO : TC704321000005695P
 Test Report No : 3282 | 6572163FKLPL/12/20/WATER/03764 Issue Date: 31-Dec-2020
 Amendment No : Amendment Date :
 Reference : ORDER NO-6600013480 DT-16-12-2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 26-Dec-2020 Test Commenced On : 26-Dec-2020 Test Completion On: 31-Dec-2020
 Sample Description : STP WATER
 Sample Condition : SEALED
 Sample Identification : STP WATER Sampling Date : 25-Dec-2020
 Batch No, Lot No : NA MFG Date : NA EXP Date : NA
 Received Quantity : 1LTR X 2 Place of Collection : TOWNSHIP, DATE-25.12.2020
 Sample Collected By : By KLPL
 Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i. Faecal Coliform	MPN/100ml	<1000	30	IS 622:1981, RA 2009
CHEMICAL PARAMETER				
i. Chemical Oxygen Demand	mg/l, Max	50	25	APHA 23rd Edition (5220 B), 2017
ii. Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4	APHA 23rd Edition (5210 B), 2017
iii. Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 B), 2017
iv. Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v. TOTAL Nitrogen	mg/l, Max	10	5.04	APHA 23rd Edition (4500-NHarg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi. Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	1.68	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i. pH value		6.5-9.0	7.2	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Aranya
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.

D. Aranya
 Authorized Signatory
 For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC704321000005696P
Test Report No : 3283 | 67871640KLPL/12/20/WATER/03899 Issue Date: 05-Jan-2021
Amendment No : - Amendment Date : -
Reference : ORDER NO-G600013488 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 30-Dec-2020 Test Commenced On : 30-Dec-2020 Test Completion On: 04 Jan 2021
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification : STP WATER
Batch No, Lot No : NA MFG Date : NA Sampling Date : 29-Dec-2020
Received Quantity : 1LTR X 2 EXP Date : NA
Sample Collected By : By KLPL Place of Collection : PLANT, DATE-29.12.2020
Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml	<1000	27	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	20	APHA 23rd Edition (5220 B), 2017
k Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 C), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.34	APHA 23rd Edition (4500-NH ₄ -B, 4500-NO ₂ -B, 4500-NO ₃ -B), 2017
vi Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH ₃ -C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	8.0	APHA 23rd Edition (4500-H ⁺ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Pro. B. Patel
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343794A



KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC704321000005697P
Test Report No : 3284 | 67881641KLPL/12/20/WATER/03900 Issue Date: 05-Jan-2021
Amendment No : - Amendment Date : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 30-Dec-2020 Test Commenced On : 30-Dec-2020 Test Completion On: 04-Jan-2021
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification : STP WATER
Batch No., Lot No : NA MFG Date : NA Sampling Date : 29-Dec-2020
Received Quantity : 1LTR X 2 EXP Date : NA
Sample Collected By : By KLPL Place of Collection : TOWNSHIP, DATE-29.12.2020
Ref.To Sampling Procedure: QSP-07

Parameters

BACTERIOLOGICAL QUALITY

	Unit	Requirement	Result	Test Method
i Fecal Coliform	MPH/100ml	<1000	40	IS 1622:1981, RA 2009

CHEMICAL PARAMETER

i Chemical Oxygen Demand	mg/l, Max	50	36	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	6	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	10	APHA 23rd Edition (2540 B), 2017
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	6.05	APHA 23rd Edition (4500-Nitro-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.35	APHA 23rd Edition (4500-NH3-C), 2017

PHYSICAL PARAMETER

i pH value		6.5-9.0	7.2	APHA 23rd Edition (4500-NH-B), 2017
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Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By : Anurag K
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343793A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704321000086074P

Test Report No : 3358A | 708517BAKLPL/1/21/WATER/03925A Issue Date: 05-Feb-2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013498 DT 16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 09-Jan-2021 Test Commenced On : 09 Jan 2021 Test Completion On: 14 Jan 2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET

Sampling Date : 08-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : PLANT, DATE-08 01 2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml.	<1000	23	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	16	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	6	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.3	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	-	6.5-9.0	7.9	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Amrita

Analyzed By
For Kalyani Laboratories Pvt. Ltd.



1208/2021

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3465 | 718517DA

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KLPL- 343899A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC704321000006075P

Test Report No : 3356B | 708617BBKLPL/1/21/WATER/03925B Issue Date: 05-Feb-2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 09-Jan-2021 Test Commenced On : 09-Jan-2021 Test Completion On: 14-Jan-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTFLET

Sampling Date : 08-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : TOWNSHIP, DATE-08.01.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml	<1000	30	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	29	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	6	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	5.4	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	1.68	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.15	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

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For Kalyani Laboratories Pvt. Ltd.



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For Kalyani Laboratories Pvt. Ltd

3466 | 718617BB

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KLPL- 343898A



KALYANI LABORATORIES PVT. LTD.

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TEST REPORT



NABL ULR NO : IC704321000006074P

Test Report No : 3375A | 710217BAKLPL/1/21/WATER/03942A Issue Date: 05 Feb 2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST. KALAHANDI, ODISHA 766027.

Date of receipt : 13-Jan-2021 Test Commenced On : 13-Jan-2021 Test Completion On: 18-Jan-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET

Sampling Date : 12-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LIR X 2

Place of Collection : PLANT, DATE-12.01.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml.	<1000	21	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	10	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	2	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	4	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	0.67	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.85	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



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For Kalyani Laboratories Pvt. Ltd.

3465 | 718517BA

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KLPL- 343897A



KALYANI LABORATORIES PVT. LTD.

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TEST REPORT



NABL ULR NO : IC704321000006075P
Test Report No : 3375B | 710317BBKLPL/1/21/WATER/03942B **Issue Date** : 05-Feb-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO 6600013408 DT 16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 13-Jan-2021 **Test Commenced On** : 13 Jan 2021 **Test Completion On** : 18 Jan 2021
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification * : STP OUTLET **Sampling Date** : 12-Jan-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : TOWNSHIP, DATE-12 01 2021
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Fecal Coliform	MPN/100ml	<1000	33	1622:1981, RA 2009
CHEMICAL PARAMETER				
I Chemical Oxygen Demand	mg/l, Max	50	34	APHA 23rd Edition (5220 B), 2017
II Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	6.5	APHA 23rd Edition (5210 B), 2017
III Total Suspended Solids	mg/l, Max	50	10	APHA 23rd Edition (2540 D), 2012
IV Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
V TOTAL Nitrogen	mg/l, Max	10	5.7	APHA 23rd Edition (4500-NH3-B, 4500-NO2-B, 4500-NO3-B), 2017
VI Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.0	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
I pH value	---	6.5-9.0	7.5	APHA 23rd Edition (4500-H+ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANAL. PATH. LAB. BANGSAPUR, BALASORE, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006074P

Test Report No : 3465 | 718517BAKLP1/1/21/WATER/04032 Issue Date : 05-Feb-2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 23-Jan-2021 Test Commenced On : 23-Jan-2021 Test Completion On : 28-Jan-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET

Sampling Date : 22-Jan-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LIR X 2

Place of Collection : PLANT, DATE 22.01.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP 07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Fecal Coliform	MPN/100ml	<1000	22	IS 222-1981, KA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	13	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days, 27deg C)	mg/l, Max	30	3	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	6	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.0	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.95	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



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For Kalyani Laboratories Pvt. Ltd.

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KLPL- 343896A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

75, NALANDA, BHUBANESWAR-751005, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006075P

Test Report No : 3466 / 1861/BBKLPL/1/21/WATER/04033

Issue Date: 05-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 23-Jan-2021

Test Commenced On : 23-Jan-2021

Test Completion On: 28-Jan-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET

Sampling Date : 22-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : TOWNSHIP, DATE-22.01.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml.	<1000	27	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	24	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	4.7	APHA 23rd Edition (4500-NHorg-D, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	1.68	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.25	APHA 23rd Edition (4500-H+ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



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For Kalyani Laboratories Pvt. Ltd

3466 / 18617BB

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KLPL- 343895A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NAHL ULR NO : IC704321000006076P

Test Report No : 3467 | 728517BCKLPL/1/21/WATER/04073 Issue Date: 05-Feb-2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST. KALAHANDI,

Date of receipt : 29-Jan-2021 Test Commenced On : 29-Jan-2021 Test Completion On: 02-Feb-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP WATER

Sampling Date : 28-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : PLANT, DATE-28.01.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml.	<1000	26	IS 1632:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	19	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	30	4.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	50	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.3	APHA 23rd Edition (4500-Nitro-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.85	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analyzed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3467 | 728517BC

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KLPL 343804A



KALYANI LABORATORIES PVT. LTD.

78744, RAJAL, BBN, BAHENWAR-751101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006450P
Test Report No : 3579A | 76011970KLPL/2/21/WATER/04098A **Issue Date**: 06-Mar-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 06-Feb-2021 **Test Commenced On** : 06-Feb-2021 **Test Completion On**: 11-Feb-2021
Sample Description : STP WATER

Sample Condition : SEALED
Sample Identification # : STP OUTLET WATER **Sampling Date** : 05-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT, DATE-05.02.2021
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml.	<100	21	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	13	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	2.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	4	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.0	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	8.0	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurkha
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.



D. Anurkha
 Authorized Signatory
 For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC704321000006451P
Test Report No : 3579B | 76021971KLPL/2/21/WATER/04098B **Issue Date** : 06-Mar-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 06-Feb-2021 **Test Commenced On** : 06-Feb-2021 **Test Completion On** : 11-Feb-2021
Sample Description : STP WATER
Sample Condition : SEALED
Sample Identification * : STP OUTLET WATER **Sampling Date** : 05-Feb-2021
Batch No, Lot No : NA **MPG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : TOWNSHIP, DATE-05.02.2021
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Fecal Coliform	MPN/100ml.	<100	33	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	28	APHA 23rd Edition (5220 B), 2017
II Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	Q	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	5.7	APHA 23rd Edition (4500-NH ₃ -B, 4500-NO ₂ -B, 4500-NO ₃ -B), 2017
vi Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	1.68	APHA 23rd Edition (4500-NH ₃ -C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.25	APHA 23rd Edition (4500-H ₊ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704321000006468P
Test Report No : 3897A | 76011970KLPL/2/21/WATER/04116A **Issue Date** : 06-Mar-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 10-Feb-2021 **Test Commenced On** : 10-Feb-2021 **Test Completion On** : 15-Feb-2021
Sample Description : STP WATER

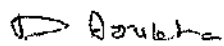
Sample Condition : SEALED
Sample Identification * : STP OUTLET WATER **Sampling Date** : 09-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT, DATE-09.02.2021
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml.	<100	22	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	15	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	3	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	6	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.3	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.95	APHA 23rd Edition (4500-H+-B), 2017

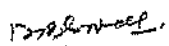
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

25744 RAJAL BHUJANESWAR-751061 ODISHA

TEST REPORT



NABL ULR NO : TC704321000006469P
Test Report No : 3597B | 76021971KLPL/2/21/WATER/04116B **Issue Date** : 06-Mar-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 10-Feb-2021 **Test Commenced On** : 10-Feb-2021 **Test Completion On** : 15-Feb-2021
Sample Description : STP WATER

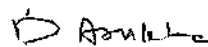
Sample Condition : SEALED
Sample Identification * : STP OUTLET WATER **Sampling Date** : 09-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : TOWNSHIP, DATE-09.02.2021
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Faecal Coliform	MPN/100ml.	<100	34	1622:1981, RA 2009
CHEMICAL PARAMETER				
I Chemical Oxygen Demand	mg/l, Max	50	34	APHA 23rd Edition (5220 B), 2017
II Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	6	APHA 23rd Edition (5210 B), 2017
III Total Suspended Solids	mg/l, Max	20	10	APHA 23rd Edition (2540 D), 2012
IV Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
V TOTAL Nitrogen	mg/l, Max	10	6.05	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
VI Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.0	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
I pH value	---	6.5-9.0	7.2	APHA 23rd Edition (4500-H+-B), 2017

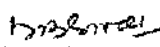
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

EXPORT POLYMER BIR, BANGALORE-560001, KARNATAKA

TEST REPORT



NABL ULR NO : TC704321000006512P
Test Report No : 3641 | 76011970KLPL/2/21/WATER/04160 **Issue Date**: 06-Mar-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 20-Feb-2021 **Test Commenced On** : 20-Feb-2021 **Test Completion On**: 24-Feb-2021
Sample Description : STP WATER

Sample Condition : SEALED
Sample Identification * : STP OUTLET WATER **Sampling Date** : 19-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT, DATE-19.02.2021
Sample Collected By : By KLPL
Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml.	<100	23	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	11	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	2	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	4	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.0	APHA 23rd Edition (4500-NHarg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	8.0	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Arun b. A.
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.



D. Arun b. A.
 Authorized Signatory
 For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

75/14, PATHAL, BHUBANESWAR-751011, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006513P

Test Report No : 3642 | 76021971KLPL/2/21/WATER/04161 **Issue Date**: 06-Mar-2021

Amendment No : - **Amendment Date** : -

Reference : ORDER NO-6600013488 DT-18.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 20-Feb-2021 **Test Commenced On** : 20-Feb-2021 **Test Completion On**: 24-Feb-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET WATER **Sampling Date** : 19-Feb-2021

Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA

Received Quantity : 1LTR X 2 **Place of Collection** : TOWNSHIP, DATE-19.02.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Feecal Coliform	MPN/100ml.	<100	30	IS 622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	30	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	5.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	5.4	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	1.68	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.3	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Amisha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



[Signature]
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3642 | 76021971

Page 1 of 1

KLPL- 344312A



KALYANI LABORATORIES PVT. LTD.

78941 KALYANI, BILGIRI SWAR, ODISHA

TEST REPORT



NABL ULR NO : TC7D4321000006532P

Test Report No : 3661A | 76011970KLPL/2/21/WATER/04180A Issue Date: 06-Mar-2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Feb-2021 Test Commenced On : 25-Feb-2021 Test Completion On: 01-Mar-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET WATER

Sampling Date : 24-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : PLANT, DATE-24.02.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml.	<100	23	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	17	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	4	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.3	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.9	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By : *Doutaha*
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory : *[Signature]*
For Kalyani Laboratories Pvt. Ltd.

3641 | 76011970

Page 1 of 1

KLPL- 344311A



KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC704321000006533P

Test Report No : 3661B | 76021971KLPL/2/21/WATER/04180B

Issue Date : 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Feb-2021

Test Commenced On : 25-Feb-2021

Test Completion On: 01-Mar-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET WATER

Sampling Date : 24-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : TOWNSHIP, DATE-24.02.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Faecal Coliform	MPN/100ml.	<100	40	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	37	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	6.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	12	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	6.05	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	2.0	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.3	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3642 | 76021971

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KLPL- 344264A

TEST REPORT



NABL ULR NO : TC704321000007089P

Test Report No : 3836 | 78841BB1KLPL/3/21/WATER/04273

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : -

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 06-Mar-2021 Test Commenced On : 06-Mar-2021

Test Completion On: 13-Mar-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET WATER

Sampling Date : 05-Mar-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : PLANT, DATE-05.03.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml	<100	22	1622:1901, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	12	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	2	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	4	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	0.84	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.95	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By *D. Anil Kumar*
For Kalyani Laboratories Pvt. Ltd.



Recha Kalyan
Authorized Signatory *6/04/2021*
For Kalyani Laboratories Pvt. Ltd

3836 | 78841BB1

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KLPL- 344973A



KALYANI LABORATORIES PVT. LTD.

78941, PAULI, BHU BANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC70432100007090P

Test Report No : 3837 | 78851BB2KLPL/3/21/WATER/04274

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : -

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 06-Mar-2021

Test Commenced On : 06-Mar-2021

Test Completion On: 13-Mar-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET WATER

Sampling Date : 05-Mar-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : TOWNSHIP, DATE-05.03.2021

Sample Collected By : By KLPL

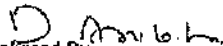
Ref. To Sampling Procedure : QSP-07

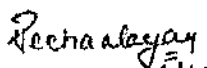
Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml.	<100	39	1627-1981, RA 2006
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	25	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	5.6	APHA 23rd Edition (4500-NHorg-B, 4500-NH2-B, 4500-NH3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	1.68	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.2	APHA 23rd Edition (4500-H+-B), 2017

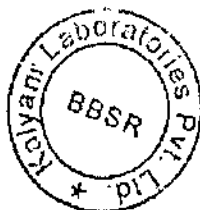
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analyzed By 
For Kalyani Laboratories Pvt. Ltd.


Authorized Signatory 6/04/2021
For Kalyani Laboratories Pvt. Ltd.



3837 | 78851BB2

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KLPL- 344972A

TEST REPORT

NABL ULR NO : TC704321000007091P
 Test Report No : 3838 | 79681B83KLPL/3/21/WATER/04325
 Amendment No : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI,
 Date of receipt : 10-Mar-2021
 Sample Description : STP WATER
 Issue Date : 06-Apr-2021
 Amendment Date : -
 Test Commenced On : 10-Mar-2021
 Test Completion On : 18-Mar-2021

Sample Condition : SEALED
 Sample Identification * : STP OUTLET
 Batch No, Lot No : NA
 Received Quantity : 1LTR X 2
 Sample Collected By : By KLPL
 Ref.To Sampling Procedure : QSP-07
 MFG Date : NA
 Sampling Date : 09-Mar-2021
 EXP Date : NA
 Place of Collection : PLANT, DATE-09.03.2021

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml	<100	23	1622:1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	15	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	2.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	4	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	0.84	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.9	APHA 23rd Edition (4500-H+D), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anil Kumar
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.



Preeti Chatterjee
 Authorized Signatory
 For Kalyani Laboratories Pvt. Ltd.

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78944, PAHAL, BHU BANSWAR-752101, ODISHA

TEST REPORT

NABL ULR NO : TC704321000007092P

Test Report No : 3839 | 79691BB4KLPL/3/21/WATER/04326 Issue Date: 06-Apr-2021

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013489 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 10-Mar-2021 Test Commenced On : 10-Mar-2021 Test Completion On: 18-Mar-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET

Batch No , Lot No : NA MFG Date : NA Sampling Date : 09-Mar-2021

Received Quantity : 1LTR X 2 EXP Date : NA

Sample Collected By : By KLPL Place of Collection : TOWNSHIP, DATE-09.03.2021

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Feecal Coliform	MPN/100ml	<100	34	IS 1624:1981, IS 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	28	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	5.5	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	8	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	5.9	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	1.68	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.25	APHA 23rd Edition (4500-It-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3839 | 79691BB4

Page 1 of 1

KLPL- 344970A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/944, PAHAL, BHU BANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007093P

Test Report No : 3840 | 81841BB5KLPL/3/21/WATER/04414

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 20-Mar-2021

Test Commenced On : 20-Mar-2021

Test Completion On: 25-Mar-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET

Batch No, Lot No : NA

MFG Date : NA

Sampling Date : 19-Mar-2021

Received Quantity : 1LTR X 2

EXP Date : NA

Sample Collected By : By KLPL

Place of Collection : PLANT, DATE-19.03.2021

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Fecal Coliform	MPN/100ml	<100	26	1622-1981, RA 2009
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l, Max	50	16	APHA 23rd Edition (5220 D), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	3	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	6	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	1.12	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	8.0	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Ananta
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Pooja Chatterjee
Authorized Signatory 6/04/2021
For Kalyani Laboratories Pvt. Ltd

3840 | 81841BB5

Page 1 of 1

KLPL- 344969A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT

NABL ULR NO : TC704321000007094P
 Test Report No : 3841 | 81851BD6KLPL/3/21/WATER/04415
 Amendment No :
 Reference : ORDER NO-6600013480 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027,
 Date of receipt : 20-Mar-2021 Test Commenced On : 20-Mar-2021
 Sample Description : STP WATER
 Sample Condition : SEALED
 Sample Identification : STP OUTLET
 Batch No, Lot No : NA
 Received Quantity : 1LTR X 2
 Sample Collected By : By KLPL
 Ref. To Sampling Procedure : QSP-07

Issue Date: 06-Apr-2021

Amendment Date : -

Test Completion On: 25-Mar-2021

Sampling Date : 19-Mar-2021

EXP Date : NA

HFG Date : NA

Place of Collection : TOWNSHIP, DATE-19.03.2021

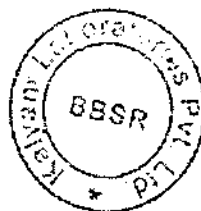
Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Faecal Coliform	MPN/100ml	<100	40	IS 3211:1981, IIA 2009
CHEMICAL PARAMETER				
I Chemical Oxygen Demand	mg/l, Max	50	30	APHA 23rd Edition (5220 B), 2017
ii Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	6	APHA 23rd Edition (5210 B), 2017
iii Total Suspended Solids	mg/l, Max	20	10	APHA 23rd Edition (2540 D), 2012
iv Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
v TOTAL Nitrogen	mg/l, Max	10	6.2	APHA 23rd Edition (4500-Nitro-B, 4500-NO2-B, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	1.96	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
i pH value		6.5-9.0	7.3	APHA 23rd Edition (4500-HI-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

..... End of Test Report

Analyzed By
 For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
 For Kalyani Laboratories Pvt. Ltd.

3841 | 81851BD6

Page 1 of 1

KLPL- 344968A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78944, PAHAL, BHUPANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007095P

Test Report No : 3842 | 82231BB7KLPL/3/21/WATER/04427

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 24-Mar-2021

Test Commenced On : 24-Mar-2021

Test Completion On: 30-Mar-2021

Sample Description : STP WATER

Sample Condition : SEALED

Sample Identification * : STP OUTLET

Batch No, Lot No : NA

MFG Date : NA

Sampling Date : 23-Mar-2021

Received Quantity : 1LTR X 2

EXP Date : NA

Sample Collected By : By KLPL

Place of Collection : PLANT, DATE-23.03.2021

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Fecal Coliform	MPN/100ml.	<100	27	IS 422:1981, RA 2009
CHEMICAL PARAMETER				
I Chemical Oxygen Demand	mg/l, Max	50	17	APHA 23rd Edition (5220 B), 2017
II' Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	3.5	APHA 23rd Edition (5210 B), 2017
III Total Suspended Solids	mg/l, Max	20	6	APHA 23rd Edition (2540 D), 2012
IV Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
V TOTAL Nitrogen	mg/l, Max	10	1.12	APHA 23rd Edition (4500-NHorg-B, 4500-NO2-D, 4500-NO3-B), 2017
vi Ammonium Nitrogen (as NH4-N)	mg/l, Max	5	<0.3	APHA 23rd Edition (4500-NH3-C), 2017
PHYSICAL PARAMETER				
I pH value	---	6.5-9.0	8.05	APHA 23rd Edition (4500-H+ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analyzed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3842 | 82231BB7

Page 1 of 1

KLPL- 344967A

TEST REPORT



NABL ULR NO : TC704321000007096P
 Test Report No : 3843 | 82241BBSKLPL/3/21/WATER/04428 Issue Date: 06-Apr-2021
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI,
 Date of receipt : 24-Mar-2021 Test Commenced On : 24-Mar-2021 Test Completion On: 30-Mar-2021
 Sample Description : STP WATER

Sample Condition : SEALED
 Sample Identification * : STP OUTLET
 Batch No, Lot No : NA MFG Date : NA Sampling Date : 23-Mar-2021
 Received Quantity : 1LTR X 2 EXP Date : NA
 Sample Collected By : By KLPL Place of Collection : TOWNSHIP, DATE-23.03.2021
 Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Fecal Coliform	MPN/100ml.	<100	40	1622:1981, RA 2009
CHEMICAL PARAMETER				
I Chemical Oxygen Demand	mg/l, Max	50	32	APHA 23rd Edition (5220 B), 2017
II Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	10	6	APHA 23rd Edition (5210 B), 2017
III Total Suspended Solids	mg/l, Max	20	10	APHA 23rd Edition (2540 D), 2012
IV Oil & Grease	mg/l, Max	10	<0.4	APHA 23rd Edition (5520 B), 2017
V TOTAL Nitrogen	mg/l, Max	10	6.44	APHA 23rd Edition (4500-NH ₄ -B, 4500-NO ₂ -B, 4500-NO ₃ -B), 2017
VI Ammonium Nitrogen (as NH ₄ -N)	mg/l, Max	5	1.96	APHA 23rd Edition (4500-NH ₃ -C), 2017
PHYSICAL PARAMETER				
I pH value	---	6.5-9.0	7.3	APHA 23rd Edition (4500-H ⁺ -B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag
 Analysed By
 For Kalyani Laboratories Pvt. Ltd.



Recha Nayak
 Authorized Signatory 6/4/2021
 For Kalyani Laboratories Pvt. Ltd.

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KLPL- 344966A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

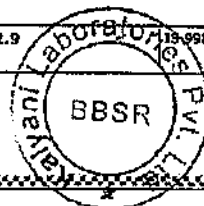
NABL ULR NO : TC704320000005417P

TEST REPORT



Amendment No : KLPL/11/20/ENVN/00842C Issue Date : 05-Dec-2020
 Reference : ORDER NO-6600013488 DT-16.12.2019 Amendment Date : -
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 30-Nov-2020 Commenced On : 30-Nov-2020 Completion On: 30-Nov-2020
 Sample Name : NOISE
 Sample Condition : -
 Quantity : 10 NOS
 Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : BALABHADRAPUR, 28.11.2020				
Noise Level Indl. Area (Day)	dB	55	49.6	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	37.4	IS 9989:1981 (RA 2014)
Location & Date : BASANTAPADA, 28.11.2020				
Noise Level Indl. Area (Day)	dB	55	48.5	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	34.3	IS 9989:1981 (RA 2014)
Location & Date : CHHATRAPUR, 28.11.2021				
Noise Level Indl. Area (Day)	dB	55	49.2	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	36.6	IS 9989:1981 (RA 2014)
Location & Date : HAREKRISHANAPUR, 28.11.2020				
Noise Level Indl. Area (Day)	dB	55	46.3	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	36.4	IS 9989:1981 (RA 2014)
Location & Date : KASIBADI, 28.11.2020				
Noise Level Indl. Area (Day)	dB	55	48.2	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	35.4	IS 9989:1981 (RA 2014)
Location & Date : LANJIGARH, 28.11.2020				
Noise Level Indl. Area (Day)	dB	55	54.1	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	44.7	IS 9989:1981 (RA 2014)
Location & Date : MASKAPADAR, 28.11.2020				
Noise Level Indl. Area (Day)	dB	55	54.3	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	42.9	IS 9989:1981 (RA 2014)
Location & Date : NIYAMAGIRI VEDANTA NAGAR, 28.11.2020				
Noise Level Indl. Area (Day)	dB	55	51.7	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	40.9	IS 9989:1981 (RA 2014)
Location & Date : PLANT SITE, 28.11.2020				
Noise Level Indl. Area (Day)	dB	75	72.9	IS 9989:1981 (RA 2014)



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 KLPL- 345431A



KALYANI LABORATORIES PVT. LTD.

78/044, PAHAL, DHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704320000005417P

TEST REPORT



Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 30-Nov-2020
Sample Name : NOISE
Sample Condition : -
Quantity : 10 NOS
Ref.To Sampling Procedure: QSP-07

Issue Date : 05-Dec-2020
Amendment Date : -

Commenced On : 30-Nov-2020
Completion On: 30-Nov-2020

Parameters	Unit	Standard Value	Results	Test Method
Noise Level Indl. Area (Night)	dB	70	66.5	IS 9989:1981 (RA 2014)
Location & Date : RENGOPALI, 28.11.2020				
Noise Level Indl. Area (Day)	dB	55	47.5	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	33.9	IS 9989:1981 (RA 2014)

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By : *D. Anuragha*
For Kalyani Laboratories Pvt. Ltd.


Authorised Signatory
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



1342493011502
KLPL-345671A
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Kalyan Laboratories

TEST REPORT



KLFL-344964A-2

TEST REPORT



NABL ULR NO : TC704321000007310P

Test Report No : B89 | 87801CSE KLPL/4/21/ENVN/01079

Issue Date : 10-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Mar-2021

Commenced On : 26-Mar-2021

Completion On : 26-Mar-2021

Sample Name : NOISE

Sample Condition : --

Quantity : 10 NOS

Ref To Sampling Procedure : QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Noise Level Indl. Area (Night)	dB	70	63.5	IS 9989:1981 (RA 2014)
Location & Date : RENGOPALI, 25.03.2021				
Noise Level Indl. Area (Day)	dB	55	50.1	IS 9989:1981 (RA 2014)
Noise Level Indl. Area (Night)	dB	45	36.3	IS 9989:1981 (RA 2014)

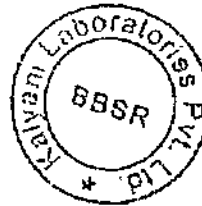
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anupama
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Recha Chayya
Authorised Signatory 10/4/2021
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 344960A02



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC70432000005098F

Test Report No : 2884 | 55631SEAKLPL/10/20/WATER/03172

Issue Date: 14-Oct-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 07-Oct-2020

Test Commenced On : 07-Oct-2020

Test Completion On: 14-Oct-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Batch No, Lot No : NA

MFG Date : NA

Sampling Date : 06-Oct-2020

Received Quantity : 1LTR X 3

EXP Date : NA

Sample Collected By : By KLPL

Place of Collection : STREAM NEAR TENTULIPADAR, DATE-06.10.2020

Ref. To Sampling Procedure: QSP-07

Parameters Unit Requirement Result Test Method

BACTERIOLOGICAL QUALITY

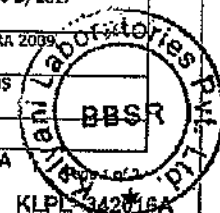
Parameters	Unit	Requirement	Result	Test Method
Total Coliforms	MPN/100ml	5000	40	IS: 1622:1981 RA 2009

CHEMICAL PARAMETER

Parameters	Unit	Requirement	Result	Test Method
i Sulphate as SO ₄	mg/l, Max	400	3	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.1	APHA 23rd Edition (4500-NO ₃ -B), 2017
iii Electrical Conductivity	µs/cm	-	56	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F--D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	46	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	8.0	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	1.94	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	6.4	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	1.6	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	28	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	2.0	IS 3025 (Part 32):1986, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.1	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2005 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

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KLPL-342016A





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 2884 | 556313EAKLPL/10/20/WATER/03172



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0007	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.57	
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-9.5	7.0	APHA 23rd Edition (4500-H+-8), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2884 | 556313EA

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KLPL- 342015A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC70432000005097F

Test Report No : 2883 | KLPL/10/20/WATER/03171 Issue Date: 14-Oct-2020

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 07-Oct-2020 Test Commenced On : 07-Oct-2020 Test Completion On: 14-Oct-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 06-Oct-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 3

Place of Collection : STREAM NEAR KENDUBADI, DATE-06.10.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	34	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	2	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.1	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	22	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F - D-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	18	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	3.2	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	0.97	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.3	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.7	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	12	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	500	2.0	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	<0.05	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

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KLPL-342018A





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No

2883 [KLPL/10/20/WATER/03171



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13420:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0006	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.75	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13420:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.2	APHA 23rd Edition (4500-H++-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1994, RA 2005
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-3):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1985 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1985 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2883 | 556218000300000

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KLPL- 342017A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005096F

Test Report No : 2882 [KLPL/10/20/WATER/03170] Issue Date: 14-Oct-2020

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 07-Oct-2020 Test Commenced On : 07-Oct-2020 Test Completion On: 14-Oct-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 06-Oct-2020

Batch No, Lot No : NA

MPG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 3

Place of Collection : STREAM NEAR RENGOPALI, DATE-06.10.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters Unit Requirement Results Test Method

BACTERIOLOGICAL QUALITY

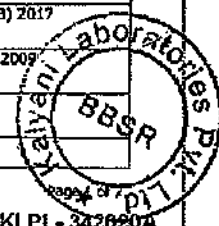
I	Total Coliforms	MPN/100ml.	5000	28	IS: 1622:1981 RA 2009
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CHEMICAL PARAMETER

I	Sulphate as SO ₄	mg/l, Max	400	2	APHA 23rd Edition (4500-SO ₄ -E), 2017
II	Nitrate as NO ₃	mg/l, Max	50	0.06	APHA 23rd Edition (4500-NO ₃ -E), 2017
III	Electrical Conductivity	µs/cm	-	37	APHA 23rd Edition (2510 B) 2017
IV	Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
V	Total Dissolved Solid	mg/l, Max	1500	32	APHA 23rd Edition (2540 C), 2017
VI	Calcium as Ca	mg/l, Max	-	4.8	APHA 23rd Edition (3500-Ca-B), 2017
VII	Magnesium as Mg	mg/l, Max	-	1.94	APHA 23rd Edition (3500-Mg-B), 2017
VIII	Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
IX	Dissolved Oxygen	mg/l, Max	4.0	7.6	APHA 23rd Edition (4500-O-C), 2017
X	Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.4	APHA 23rd Edition 2012 (5210 B), 2017
XI	Total Hardness as CaCO ₃	mg/l, Max	--	20	APHA 23rd Edition (2340 C), 2017
XII	Chloride (as Cl)	mg/l, Max	600	2.0	IS 3025 (Part 32):1999, RA 2009
XIII	Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
XIV	Iron (as Fe)	mg/l, Max	50	0.25	APHA 23rd Edition (3500-Fe-B, 3111 B) 2017
XV	Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
XVI	Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
XVII	Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
XVIII	Free Ammonia (as NH ₃)	mg/l, Max	--	<0.01	APHA 23rd Edition (4500-NH ₃ -B) 2017
XIX	Oil & Grease	mg/l, Max	--	<0.025	APHA 23rd Edition (5520 B) 2017
XX	Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
XXI	Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

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KLPL- 342620A





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 2882 | KLPL/10/20/WATER/03170



Parameter	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0004	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.39	
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	6.8	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Boudha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Prasanna
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

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KLPL-342019A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005094F

Test Report No : 2881 | 556013000000KLPL/10/20/WATER/03169 Issue Date: 14-Oct-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 07-Oct-2020 Test Commenced On : 07-Oct-2020

Test Completion On: 14-Oct-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 06-Oct-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 3

Place of Collection : VAMSADHARA RIVER NEAR BALABHADRAPUR, DT-06.10.2020

Sample Collected By : By KLPL

Ref To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
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BACTERIOLOGICAL QUALITY

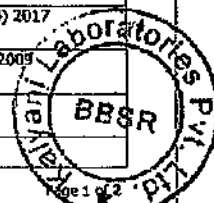
I	Total Coliforms	MPN/100ml	5000	80	IS: 1622:1981 RA 2009
---	-----------------	-----------	------	----	-----------------------

CHEMICAL PARAMETER

i	Sulphate as SO ₄	mg/l, Max	400	13	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii	Nitrate as NO ₃	mg/l, Max	50	1.0	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii	Electrical Conductivity	µs/cm	-	169	APHA 23rd Edition (2510 B), 2017
iv	Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F-B, -C), 2017
v	Total Dissolved Solid	mg/l, Max	1500	112	APHA 23rd Edition (2540 C), 2017
vi	Calcium as Ca	mg/l, Max	-	22.4	APHA 23rd Edition (3500-Ca-B), 2017
vii	Magnesium as Mg	mg/l, Max	-	5.83	APHA 23rd Edition (3500-Mg-B), 2017
viii	Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix	Dissolved Oxygen	mg/l, Max	4.0	7.0	APHA 23rd Edition (4500-D-C), 2017
x	Biochemical Oxygen Demand (For 3 days, 20deg C)	mg/l, Max	-	2.6	APHA 23rd Edition 2012 (5210 B), 2017
xi	Total Hardness as CaCO ₃	mg/l, Max	-	80	APHA 23rd Edition (2540 C), 2017
xii	Chloride (as Cl)	mg/l, Max	600	2.0	IS 3025 (Part 32):1988, RA 2009
xiii	Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv	Iron (as Fe)	mg/l, Max	50	0.32	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv	Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi	Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii	Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii	Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -D) 2017
xix	Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx	Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi	Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

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KLPL- 342022A





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 2881 | 556013000000KLPL/10/20/WATER/03169



Parameters	Unit	Requirement	Result	Test Method
xxiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0011	CL 5.0 of IS 3025(Part 43):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.53	
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.1	APHA 23rd Edition (4500-H ⁺ -B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1985 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2881 | 556013000000

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KLPL- 342021A



KALYANI LABORATORIES PVT. LTD.

78/544, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC70432000005093F

Test Report No : 2880 | 55591300000KLPL/10/20/WATER/03168 Issue Date: 14-Oct-2020
 Amendment No : - Amendment Date : -
 Reference : ORDER NO-6600013488 DT-15.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 07-Oct-2020 Test Commenced On : 07-Oct-2020 Test Completion On: 14-Oct-2020
 Sample Description : SURFACE WATER

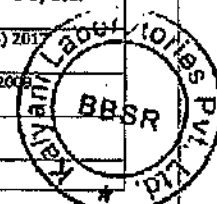
Sample Condition : SEALED
 Sample Identification * : SURFACE WATER Sampling Date : 06-Oct-2020
 Batch No, Lot No : NA MFG Date : NA EXP Date : NA
 Received Quantity : 1LTR X 3 Place of Collection : VAMSADHARA RIVER NEAR NARAYANPUR
 Sample Collected By : By KLPL CULVERT(UPSTREAM), DATE-06.10.2020
 Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	33	IS: 1822:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	8	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.4	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	160	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F--D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	102	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	20.8	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	4.86	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.8	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	2.0	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	72	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	7.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	3.5	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

2880 | 55591300000

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KLPL- 342024A





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 2880 | 55591300000KLPL/10/20/WATER/03168



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0007	CL 5.0 of IS 3025(Part 43):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.36	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.2	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Gupta
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2880 | 55591300000

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KLPL- 342023A



KALYANI LABORATORIES PVT. LTD.

78944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005092F

Test Report No : 2879 | 5558130000KLPL/10/20/WATER/03167 Issue Date: 14-Oct-2020

Amendment No : - Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 07-Oct-2020 Test Commenced On : 07-Oct-2020 Test Completion On: 14-Oct-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 06-Oct-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 3

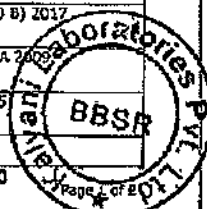
Place of Collection : VAMSADHARA RIVER NEAR CHHATRAPUR
CULVERT(DOWNSTREAM), DATE-06.10.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirements	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	50	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	10	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.85	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm		188	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.18	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	160	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	20.8	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	4.86	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	8.0	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	2.7	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	72	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	7.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	6.4	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2008 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13429:2005

2879 | 5558130000



KLPL-342026A



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 2879 | 5558130000KLPL/10/20/WATER/03167



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 8440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0012	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.61	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.4	APHA 23rd Edition (4500-H ⁺ -B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2879 | 5558130000

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KLPL- 342025A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC70432000005091F

Test Report No : 2878 | 555713000KLPL/10/20/WATER/03166

Issue Date: 14-Oct-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.

Date of receipt : 07-Oct-2020 Test Commenced On : 07-Oct-2020

Test Completion On: 14-Oct-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 06-Oct-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 3

Place of Collection : TURI NALA NEAR RAGHUNATHPUR,
DATE-06.10.2020

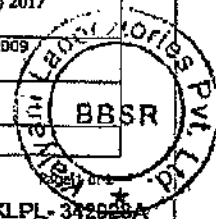
Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	60	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	10	APHA 23rd Edition (4500-SO ₄ -B), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.6	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	139	APHA 23rd Edition (2510 D) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	110	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	14.4	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	6.80	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	5.4	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.2	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	64	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	500	2.0	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.7	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

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KLPL-342020A





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-751001, ODISHA

Test Report No

2878 | 555713000KLPL/10/20/WATER/03166



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0007	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.38	--
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.5	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

2078 | 555713000

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KLPL- 342027A



KALYANI LABORATORIES PVT. LTD.

18/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704320000005090F

Test Report No : 2877 | 55561300KLPL/10/20/WATER/03165

Issue Date: 14-Oct-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 07-Oct-2020 Test Commenced On : 07-Oct-2020

Test Completion On: 14-Oct-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Batch No, Lot No : NA

MFG Date : NA

Sampling Date : 06-Oct-2020

Received Quantity : 1LTR X 3

EXP Date : NA

Sample Collected By : By KLPL

Place of Collection : POND NEAR HAREKRUSHNAPUR, DATE-06.10.2020

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
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BACTERIOLOGICAL QUALITY

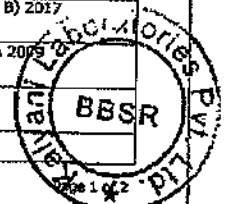
Total Coliforms	MPN/100ml.	5000	50	IS: 1622:1981 RA 2009
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CHEMICAL PARAMETER

i	Sulphate as SO ₄	mg/l, Max	400	15	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii	Nitrate as NO ₃	mg/l, Max	50	1.2	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii	Electrical Conductivity	µs/cm	-	164	APHA 23rd Edition (2510 B) 2017
iv	Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
v	Total Dissolved Solid	mg/l, Max	1500	132	APHA 23rd Edition (2540 C), 2017
vi	Calcium as Ca	mg/l, Max	-	17.6	APHA 23rd Edition (3500-Ca-B), 2017
vii	Magnesium as Mg	mg/l, Max	-	7.78	APHA 23rd Edition (3500-Mg-B), 2017
viii	Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix	Dissolved Oxygen	mg/l, Max	4.0	4.3	APHA 23rd Edition (4500-O-C), 2017
x	Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.7	APHA 23rd Edition 2012 (5210 B), 2017
xi	Total Hardness as CaCO ₃	mg/l, Max	--	76	APHA 23rd Edition (2340 C), 2017
xii	Chloride (as Cl)	mg/l, Max	600	3.9	IS 3025 (Part 32):1988, RA 2009
xiii	Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv	Iron (as Fe)	mg/l, Max	50	1.4	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv	Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi	Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii	Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii	Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix	Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx	Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi	Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

2877 | 55561300

KLPL-342030A





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No

2877 | 55561300KLPL/10/20/WATER/03163



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0010	CL 5.0 of IS 3025 (Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.50	--
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.2	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2005
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2005
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

2877 | 55561300

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KLPL- 342029A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

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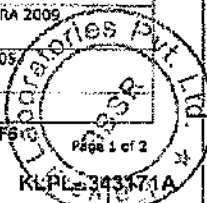
TEST REPORT



NABL ULR NO : TC70432000005366F
Test Report No : 3076 | 613114F6KLPL/11/20/WATER/03510 **Issue Date** : 28-Nov-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21 Nov 2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28-Nov-2020
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification : SURFACE WATER **Sampling Date** : 18-Nov-2020
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : STREAM NEAR TENTULIPADAR, DATE-18.11.2020
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	50	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	5	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.15	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	79	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F--D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	56	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	8.6	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	2.43	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	6.3	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days, 20deg C)	mg/l, Max	-	1.8	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	32	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	8	IS 3025 (Part 32):1986, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1994 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.13	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3076 | 613114F6



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No : 3076 | 613114F6KLPL/11/20/WATER/03510



Parameters	Unit	Requirement	Result	Test Method
xxi Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0008	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ADSORPTION RATIO	--	--	0.07	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.2	APHA 23rd Edition (4500-H ⁺ -B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 6): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1998 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Aswaha
Analysed By
For Kalyani Laboratories Pvt. Ltd.

M. S. S. S.
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ANALYTICAL & CHEMICAL SERVICES, ODISHA

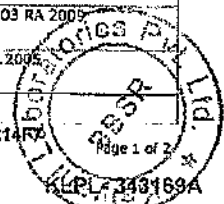
TEST REPORT



NABL ULR NO : TC70432000005367F
Test Report No : 3077 | 613214F7KLPL/11/20/WATER/03511
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-756027.
Date of receipt : 21 Nov 2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28-Nov-2020
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification : SURFACE WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07
Issue Date : 28-Nov-2020
Amendment Date : -
MFG Date : NA
EXP Date : NA
Place of Collection : STREAM NEAR KENDUBADI, DATE-18.11.2020
Sampling Date : 18-Nov-2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Total Coliforms	MPN/100ml	5000	33	IS: 1522:1901 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	3	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.09	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	25	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	20	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	2.9	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	1.70	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.4	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 20deg C)	mg/l, Max	-	1.6	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	14	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	6	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	<0.05	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Antonic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 31420:2005

3077 | 613214F7



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No : 3077 | 613214F7KLPL/11/20/WATER/03511



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l		<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%		0.0005	CL 5.0 of IS 3025 (Part 45):1993
xxvi SODIUM ABSORPTION RATIO			0.57	
xxvii barium	mg/l		<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l		<0.0001	USEPA

PHYSICAL PARAMETER

i Color		300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value		6.5-8.5	7.5	APHA 23rd Edition (4500-11+-B), 2017
iii Odour		Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max		<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1998 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Arunka

Analysed By
For Kalyani Laboratories Pvt. Ltd.

M. S. S. S. S.
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3077 | 613214F7

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KLPL- 343168A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

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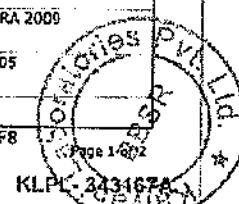
TEST REPORT



NABL ULR NO : TC704320000005368F
Test Report No : 3078 | 613314FRKI PI / 11/20/WATER/03512
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI,
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28-Nov-2020
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification * : SURFACE WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 1
Sample Collected By : By KLML
Ref. To Sampling Procedure : QSP-07
Issue Date : 28-Nov-2020
Amendment Date : -
MFG Date : NA
EXP Date : NA
Place of Collection : STREAM NEAR RENGOPALI, DATE-18.11.2020
Sampling Date : 18-Nov-2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	29	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	3	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.07	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	40	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F - -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	34	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	4.3	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	2.64	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500 B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.5	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	1.5	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	22	APHA 23rd Edition (2540 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.27	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 45):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MDA5)	mg/l	-	<0.1	Annex K of IS 13420:2005

3078 | 613314F8



Test Report No

3078 | 613314FWKLPL/11/20/WATER/03512



Parameters

Unit

Requirement

Result

Test Method

xxii	Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii	Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv	Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv	PERCENT SODIUM (%)	%	--	0.0005	CL 5.0 of IS 3025(Part 45):1993
xxvi	SODIUM ABSORPTION RATIO	--	--	0.47	
xxvii	barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii	TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i	Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii	pH Value	--	6.5-8.5	7.0	APHA 23rd Edition (4500-H+-B), 2017
iii	Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv	Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i	Gross Alpha-activity	µCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii	Gross Beta-activity	µCi/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i	Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii	Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii	Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv	Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v	Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi	Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2004

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Prabha
Analysed By
For Kalyani Laboratories Pvt. Ltd.

M. S. Suresh
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd





KALYANI LABORATORIES PVT. LTD.

7, VILAS NAGAR, 3RD FLOOR, BALABHADRAPUR, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005369F

Test Report No : 3079 | 613414F9KLP1/11/20/WATER/03513

Issue Date: 28 Nov 2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Nov-2020 Test Commenced On : 21-Nov-2020 Test Completion On: 28-Nov-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 18-Nov-2020

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : VAMSADHARA RIVER NEAR BALABHADRAPUR, DT-18.11.2020

Sample Collected By : Dy KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
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BACTERIOLOGICAL QUALITY

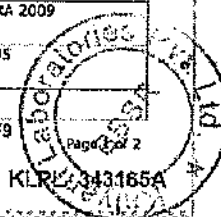
i	Total Coliforms	MPN/100ml.	5000	90	IS: 1622:1981 RA 2009
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CHEMICAL PARAMETER

i	Sulphate as SO ₄	mg/l, Max	400	15	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii	Nitrate as NO ₃	mg/l, Max	50	1.2	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii	Electrical Conductivity	µs/cm	-	188	APHA 23rd Edition (2510 B) 2017
iv	Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -B, -C), 2017
v	Total Dissolved Solid	mg/l, Max	1500	124	APHA 23rd Edition (2540 C), 2017
vi	Calcium as Ca	mg/l, Max	-	18.7	APHA 23rd Edition (3500-Ca-B), 2017
vii	Magnesium as Mg	mg/l, Max	-	12.15	APHA 23rd Edition (3500-Mg-B), 2017
viii	Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix	Dissolved Oxygen	mg/l, Max	4.0	6.9	APHA 23rd Edition (4500-O-C), 2017
x	Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	2.7	APHA 23rd Edition 2012 (5210 B), 2017
xi	Total Hardness as CaCO ₃	mg/l, Max	-	97	APHA 23rd Edition (2340 C), 2017
xii	Chloride (as Cl)	mg/l, Max	600	10	IS 3025 (Part 32):1980, RA 2009
xiii	Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv	Iron (as Fe)	mg/l, Max	50	0.4	APHA-23rd Edition (3500-Fe-D, 3111 B) 2017
xv	Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi	Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii	Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 44):1994 RA 2009
xviii	Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix	Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx	Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi	Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13420:2005

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KLPL/343165A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

DRUGS CONTROL BOARD, GOVT. OF INDIA

Test Report No : 3079 | 613414F9KLPL/11/20/WATER/03513



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l		<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%		0.0013	Cl 5.0 of IS 3025 (Part 43):1993
xxvi SODIUM ABSORPTION RATIO	--		0.57	
xxvii Barium	mg/l		<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l		<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.3	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max		<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



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KLPL- 343164A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

ISO 9001:2015 CERTIFIED BY BUREAU VERITAS

TEST REPORT



NABL ULR NO : TC704320000005370F

Test Report No : 3080 | 613514FAKLPL/11/20/WATER/03514

Issue Date: 28-Nov-2020

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Nov-2020 Test Commenced On : 21-Nov-2020

Test Completion On: 28-Nov-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 18-Nov-2020

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LIT X 2

Place of Collection : VAMSADHARA RIVER NEAR NARAYANPUR
CULVERT(UPSTREAM) , DATE-18.11.2020

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	34	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	10	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.44	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	171	APHA 23rd Edition (2510 D) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	112	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	17.3	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	8.02	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.9	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	1.8	APHA 23rd Edition 2012(5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	76	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	12	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	3.6	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2009

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KLPL-343463A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No : 3080 | 613514FAKLPL/11/20/WATER/03514



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0008	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.40	
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.4	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 6): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343162A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704320000005371F
Test Report No : 3081 | 613614FBKLPL/11/20/WATER/G3515
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VCDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28-Nov-2020
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification * : SURFACE WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07
Issue Date : 28-Nov-2020
Amendment Date : -
MFG Date : NA
EXP Date : NA
Place of Collection : VAMSADIARA RIVER NEAR CHHATRAPUR CULVERT(DOWNSTREAM), DATE-18.11.2020
Sampling Date : 18-Nov-2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	60	IS: 1522:1901 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	13	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.9	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	207	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.22	APHA 23rd Edition (4500-F--D, C), 2017
v Total Dissolved Solid	mg/l, Max	1500	176	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	14.4	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	10.45	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.8	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 5 days 27deg C)	mg/l, Max	-	2.8	APHA 23rd Edition 2012(5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	79	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	12	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	6.5	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -D) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3081 | 613614FB
KLPL-343161A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No : 3081 | 613614FBKLPL/11/20/WATER/03515



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0015	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.73	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.7	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 5): 1984, RA 2005

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2003
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2003

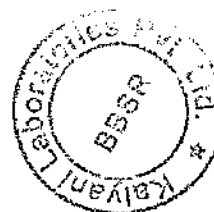
Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343160A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC70432000005373F
Test Report No : 3083 | 613814FDKLPL/11/20/WATER/03517 **Issue Date** : 28-Nov-2020
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020 **Test Commenced On** : 21-Nov-2020 **Test Completion On** : 28 Nov 2020
Sample Description : SURFACE WATER

Sample Condition : SEALED
Sample Identification * : SURFACE WATER
Batch No, Lot No : NA **MFG Date** : NA **Sampling Date** : 18-Nov-2020
Received Quantity : ILTR X 2 **EXP Date** : NA
Sample Collected By : By KLPL **Place of Collection** : POND NEAR HARP-KRISHNAPUR, DATE-18.11.2020
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	60	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	16	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	1.4	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	174	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -B, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	138	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	17.3	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	8.75	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	4.5	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	1.5	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	79	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	1.5	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520B) 2017
xx Total Chlorine	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

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KLPL- 343157A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

S-103, HANU, PLOT 1, SURANA, 77, 1ST FLOOR, B-1

Test Report No : 3083 | 613814FDKLPL/11/20/WATER/03517



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 8440
xxiii Silver (as Ag)	mg/l		<0.01	Annex I of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%		0.0011	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO			0.54	
xxvii Iron(III)	mg/l		<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l		<0.0001	USEPA
PHYSICAL PARAMETER				
i Color		1300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value		6.5-8.5	7.25	APHA 23rd Edition (4500-H+-B), 2017
iii Odour		Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 6): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/ml	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1985 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max		<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL- 343155A



KALYANI LABORATORIES PVT. LTD.

ISO 9001:2015 CERTIFIED COMPANY

TEST REPORT



NABL ULR NO : TC7043200000053/2F
Test Report No : 3082 | 613/14FCKLPL/11/20/WATER/03516
Amendment No : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Nov-2020
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification * : SURFACE WATER
Batch No , Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref.To Sampling Procedure: QSP-07

Issue Date: 28-Nov-2020
Amendment Date : -
Test Completion On: 28 Nov 2020
Sampling Date : 18-Nov-2020
EXP Date : NA
Place of Collection : TURI NALA NEAR RAGHUNATHPUR ,
 DATE-18.11.2020
MFG Date : NA

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Total Coliforms	MPN/100ml	5000	50	IS: 1522:1981 RA 2009
CHEMICAL PARAMETER				
i Sulfate as SO ₄	mg/l, Max	400	11	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.7	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	us/cm		154	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	126	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max		17.3	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max		6.08	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max		<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	5.3	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 20 deg C)	mg/l, Max	--	1.3	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	68	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.85	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	--	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2015

3082 | 613714FC

KLPL- 343159A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No

1

3082 | 613714FCKLPL/11/20/WATER/03516



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA G440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex F of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0008	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.42	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.4	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 27):1986 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anubha
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Signature
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3082 | 613714FC

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KLPL- 343158A

KALYANI LABORATORIES PVT. LTD.

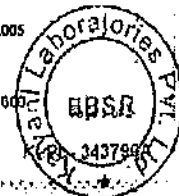
TEST REPORT



NABL ULR NO : TC704321000005632P
Test Report No : 3245 | 64841606KLPL/12/20/WATER/03696
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-768027.
Date of receipt : 19-Dec-2020 **Test Commenced On** : 19-Dec-2020 **Test Completion On** : 26-Dec-2021
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification : SURFACE WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07
Issue Date : 01-Jan-2021
Amendment Date :
MFG Date : NA
Place of Collection : STREAM NEAR TENTULIPADAR, DATE-18.12.2020
Sampling Date : 18-Dec-2020
EXP Date : NA

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Total Coliforms	MPN/100ml	5000	60	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
Sulphate as SO ₄	mg/l, Max	400	7	APHA 23rd Edition (4500-SO ₄ -E), 2017
Nitrate as NO ₃	mg/l, Max	50	0.21	APHA 23rd Edition (4500-NO ₃ -E), 2017
Electrical Conductivity	µs/cm		99	APHA 23rd Edition (2510-B), 2017
Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F-D, C), 2017
Total Dissolved Solid	mg/l, Max	1500	70	APHA 23rd Edition (2540-C), 2017
Calcium as Ca	mg/l, Max		10.1	APHA 23rd Edition (3500-Ca-B), 2017
Magnesium as Mg	mg/l, Max		5.35	APHA 23rd Edition (3500-Mg-B), 2017
Boron as B	mg/l, Max		<0.1	APHA 23rd Edition (4500-B), 2017
Dissolved Oxygen	mg/l, Min	4.0	6.1	APHA 23rd Edition (4600-O), 2017
Biochemical Oxygen Demand (For 3 days, 27deg C)	mg/l, Max	3.0	2	APHA 23rd Edition 2012(5210-B), 2017
Total Hardness as CaCO ₃	mg/l, Max		47	APHA 23rd Edition (2340-C), 2017
Chloride (as Cl)	mg/l, Max	600	12.95	IS 3025 (Part 32):1988, RA 2009
Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
Iron (as Fe)	mg/l, Max	50	0.16	APHA-23rd Edition (3500-Fe-B, 3111-B), 2017
Manganese (as Mn)	mg/l, Max		<0.1	IS 3025 (Part 59):2006 RA 2012
Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
Free Ammonia (as NH ₃)	mg/l, Max	...	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
Oil & Grease	mg/l, Max		<0.025	APHA-23rd Edition (5520-B) 2017
Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
Anionic Surface Active Agents (as MBAS)	mg/l		<0.1	Annex K of IS 13428:2005

3245 | 64841606



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No

3245 | 6454160DKLPL/12/20/WATER/03696



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0009	CL 5.0 of IS 3025 (Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.57	
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.5	APHA 23rd Edition (4500-1H-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 6): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anil Kumar
Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3245 | 64541600

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KLPL- 343789A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000005633P
 Test Report No : 3246 | 64551601KLPL/12/20/WATER/03697
 Amendment No :
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 19-Dec-2020 Test Commenced On : 19-Dec-2020 Test Completion On : 26-Dec-2020
 Sample Description : SURFACE WATER
 Sample Condition : SEALED
 Sample Identification : SURFACE WATER
 Batch No., Lot No : NA
 Received Quantity : 1LTR X 2
 Sample Collected By : By KLPL
 Ref.To Sampling Procedure: QSP-07
 Issue Date: 01-Jan-2021
 Amendment Date : -
 MFG Date : NA
 Sampling Date : 18-Dec-2020
 EXP Date : NA
 Place of Collection : STREAM NEAR KENDUBADI, DATE-18.12.2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Total Coliforms	MPN/100ml	5000	30	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
Sulphate as SO ₄	mg/l, Max	3400	2	APHA 23rd Edition (4500-SO ₄ -E), 2017
Nitrate as NO ₃	mg/l, Max	50	0.07	APHA 23rd Edition (4500-NO ₃ -E), 2017
Electrical Conductivity	µs/cm		22	APHA 23rd Edition (2510 B) 2017
Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
Total Dissolved Solid	mg/l, Max	1500	18	APHA 23rd Edition (2540 C), 2017
Calcium as Ca	mg/l, Max		4.3	APHA 23rd Edition (3500-Ca-B), 2017
Magnesium as Mg	mg/l, Max		1.70	APHA 23rd Edition (3500-Mg-B), 2017
Boron as B	mg/l, Max		<0.1	APHA 23rd Edition (4500B-B), 2017
Dissolved Oxygen	mg/l, Min	4.0	7.5	APHA 23rd Edition (4500-O-C), 2017
Biochemical Oxygen Demand (For 5 days 27deg C)	mg/l, Max	3.0	1.5	APHA 23rd Edition 2012 (5210 B), 2017
Total Hardness as CaCO ₃	mg/l, Max		18	APHA 23rd Edition (2340 C), 2017
Chloride (as Cl)	mg/l, Max	600	8.6	IS 3025 (Part 32):1988, RA 2009
Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
Iron (as Fe)	mg/l, Max	50	<0.05	APHA 23rd Edition (3500-Fe-B, 3111 B) 2017
Manganese (as Mn)	mg/l, Max		<0.1	IS 1025 (Part 59):2006 RA 2012
Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
Free Ammonia (as NH ₃)	mg/l, Max		<0.01	APHA 23rd Edition (4500-NH ₃ -B) 2017
Oil & Grease	mg/l, Max		<0.025	APHA 23rd Edition (5520 B) 2017
Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
Anionic Surface Active Agents (as MBAS)	mg/l		<0.1	Annex K of IS 13428:2005

3246 | 64551601



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No

3246 | 64551601KLPL/12/20/WATER/03697



Parameters

SL No	Parameter	Unit	Requirement	Result	Test Method
XXII	Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 6140
XXIII	Silver (as Ag)	mg/l		<0.01	Annex I of IS 13428:2005
XXIV	Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
XXV	PERCENT SODIUM (%)	%		0.0004	CL 5.0 of IS 3025(Part 45):1993
XXVI	SODIUM ADSORPTION RATIO			0.41	
XXVII	Barium	mg/l		<0.2	Annex F of IS 13428:2005
XXVIII	TOTAL PESTICIDE	µg/l		<0.0001	USEPA

PHYSICAL PARAMETER

I	Color		300	<1.0	APHA 23rd Edition (2120 B), 2017
II	pH Value		6.5-8.5	7.75	APHA 23rd Edition (4500-H ⁺ -0), 2017
III	Odour		Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
IV	Taste		Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

I	Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
II	Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

I	Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
II	Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
III	Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
IV	Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
V	Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
VI	Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

..... End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3246 | 64551601

Page 2 of 2

KLPL-343787A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEST REPORT



NABL ULK NO : TC704321000005634P

Test Report No : 3247 | 64561602KLPL/12/20/WATER/03698

Issue Date: 01-Jan-2021

Amendment No

Amendment Date : -

Reference : ORDER NO-0600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO- LANJIGARH, DIST- KALAHANDI, Odisha-766027.

Date of receipt : 19-Dec-2020 Test Commenced On : 19-Dec-2020

Test Completion On: 26-Dec-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification : SURFACE WATER

Sampling Date : 18-Dec-2020

Batch No. Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : STREAM NEAR RENGOPALI, DATE-18.12.2020

Sample Collected By : By KLPL

Ref To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	27	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	<1.0	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.05	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	35	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F-D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	30	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	4.3	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	4.37	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500-B), 2017
ix Dissolved Oxygen	mg/l, Min	4.0	7.7	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days @ 20°C)	mg/l, Max	3.0	1.3	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	29	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	4.3	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.054	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA 23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MDAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3247 | 6456160



KALYANI LABORATORIES PVT. LTD.

Test Report No

3247 | 64561602KLPL/12/20/WATER/03698



Parameters

Sl. No	Parameter	Unit	Requirement	Result	Test Method
XXIII	Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 8440
XXIV	Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
XXV	Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
XXVI	PERCENT SODIUM (%)	%	--	0.0006	CL 5.0 of IS 3025(Part 45):1993
XXVII	SODIUM ABSORPTION RATIO	--	--	0.40	--
XXVIII	Barium	mg/l	--	<0.2	Annex F of IS 13420:2005
XXIX	TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER					
i	Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii	pH Value	--	6.5-8.5	7.3	APHA 23rd Edition (4500-If)-B, 2017
iii	Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv	Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES					
i	Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii	Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES					
i	Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii	Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii	Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv	Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v	Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi	Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3247 | 64561602

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KLPL- 343785A



KALYANI LABORATORIES PVT. LTD.

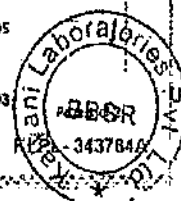
TEST REPORT



NABL ULR NO : TC704321000005635P
Test Report No : 3248 | 64571603KLPL/12/20/WATER/03699 **Issue Date** : 01-Jan-2021
Amendment No : **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 19-Dec-2020 **Test Commenced On** : 19-Dec-2020 **Test Completion On** : 26-Dec-2020
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification : SURFACE WATER
Batch No, Lot No : NA **MFG Date** : NA **Sampling Date** : 18-Dec-2020
Received Quantity : 1LTR X 2 **EXP Date** : NA
Sample Collected By : By KLPL **Place of Collection** : VAMSADHARA RIVER NEAR BALABHADRAPUR, DT-18.12.2020
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Total Coliforms	MPN/100ml	5000	80	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	12	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	1.0	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm		161	APHA 23rd Edition (2510-B), 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	102	APHA 23rd Edition (2540-C), 2017
vi Calcium as Ca	mg/l, Max		23	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max		2.43	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max		<0.1	APHA 23rd Edition (4500-B), 2017
ix Dissolved Oxygen	mg/l, Min	4.0	7.0	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 20deg C)	mg/l, Max	3.0	2.5	APHA 23rd Edition 2012 (5210-B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max		68	APHA 23rd Edition (2540-C), 2017
xii Chloride (as Cl)	mg/l, Max	600	6.5	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.30	APHA-23rd Edition (3500-Fe-B, 3111-B) 2017
xv Manganese (as Mn)	mg/l, Max		<0.1	IS 3025 (Part 50):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max		<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max		<0.0025	APHA-23rd Edition (5520-B) 2017
xx Total Chlorophyll	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l		<0.1	Annex K of IS 13428:2005

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KALYANI LABORATORIES PVT. LTD.

Test Report No : 3248 | 64571603KLPL/12/20/WATER/03699



Parameters	Unit	Requirement	Result	Test Method
XXV Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 8440
XXVI Silver (as Ag)	mg/l		<0.01	Annex 1 of IS (3478:2005)
XXVII Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
XXVIII PERCENT SODIUM (%)	%		0.0010	CI 5.0 of IS 3025(PART 45):1993
XXIX SODIUM ABSORPTION RATIO	--		0.53	
XXX Lithium	mg/l		<0.2	Annex F of IS (1128:2005)
XXXI TOTAL PESTICIDE	µg/l		<0.0001	USEPA
PHYSICAL PARAMETER				
i Color		300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.5	APHA 23rd Edition (4500-H ⁺ -B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

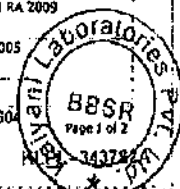
TEST REPORT



NABL ULR NO : TC704331000005636P
Test Report No : 3249 | 64581604KLPL/17/20/WATER/03700
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO. LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.
Date of receipt : 19-Dec-2020 **Test Commenced On** : 19-Dec-2020 **Test Completion On** : 26-Dec-2020
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification : SURFACE WATER
Batch No. Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref To Sampling Procedure : QSP-U/
Issue Date : 01-Jan-2021
Amendment Date :
MFG Date : NA
Place of Collection : VAMSADHARA RIVER NEAR NARAYANPUR CULVERT(UPSTREAM), DATE-18.12.2020
Sampling Date : 18-Dec-2020
EXP Date : NA

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Total Coliforms	MPN/100ml	5000	33	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
Sulphate as SO ₄	mg/l, Max	400	10	APHA 23rd Edition (4500-SO ₄ -E), 2017
Nitrate as NO ₃	mg/l, Max	50	0.45	APHA 23rd Edition (4500-NO ₃ -E), 2017
Electrical Conductivity	µs/cm		160	APHA 23rd Edition (2510 B) 2017
Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F-D, C), 2017
Total Dissolved Solid	mg/l, Max	3500	106	APHA 23rd Edition (2540 C), 2017
Calcium as Ca	mg/l, Max		20.2	APHA 23rd Edition (3500-Ca-B), 2017
Magnesium as Mg	mg/l, Max		5.35	APHA 23rd Edition (3500-Mg-B), 2017
Boron as B	mg/l, Max		<0.1	APHA 23rd Edition (4300B-B), 2017
Dissolved Oxygen	mg/l, Min	4.0	7.7	APHA 23rd Edition (4500-O-C), 2017
Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	3.0	2.1	APHA 23rd Edition 2012 (5210 B), 2017
Total Hardness as CaCO ₃	mg/l, Max		72	APHA 23rd Edition (2340 C), 2017
Chloride (as Cl)	mg/l, Max	600	8.6	IS 3025 (Part 32):1988, RA 2009
Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
Iron (as Fe)	mg/l, Max	50	3.7	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
Manganese (as Mn)	mg/l, Max		<0.1	IS 3025 (Part 59):2006 RA 2012
Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
Free Ammonia (as NH ₃)	mg/l, Max		<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
Oil & Grease	mg/l, Max		<0.025	APHA-23rd Edition (5520 B) 2017
Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
Anionic Surface Active Agents (as MBAS)	mg/l		<0.1	Annex K of IS 13428:2005

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No

3249 | 64581604KLPL/12/10/WATER/03700



Parameters	Unit	Requirement	Result	Test Method
xiii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 6140
xviii Silver (as Ag)	mg/l		<0.01	Annex J of IS 13428:2005
xix Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%		0.0007	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO			0.36	
xxvii Barium	mg/l		<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	ug/l		<0.0001	USEPA
PHYSICAL PARAMETER				
i Color		100	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value		6.5-8.5	7.65	APHA 23rd Edition (4500-H+-B), 2017
iii Odour		Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max		<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Anubha
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Anubha
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

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TEST REPORT



NAHL ULR NO : TC704321000005637P
 Test Report No : 3250 | 64591605KLPL/12/20/WATER/03701
 Amendment No : -
 Reference : ORDER NO-6600013488 DT-16.12.2019
 Customer Name : VEDANTA LIMITED, LANJIGARH
 Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
 Date of receipt : 19-Dec-2020 Test Commenced On : 19-Dec-2020
 Sample Description : SURFACE WATER

Issue Date: 01-Jan-2021
 Amendment Date : -

Test Completion On: 26-Dec-2020

Sample Condition : SEALED
 Sample Identification : SURFACE WATER
 Batch No., Lot No : NA
 Received Quantity : 1LTR X 2
 Sample Collected By : By KLPL
 Ref. To Sampling Procedure: QSP-07

MFG Date : NA

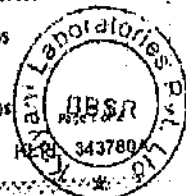
Sampling Date : 18 Dec-2020

EXP Date : NA

Place of Collection : VAMSADHARA RIVER NEAR CHHATRAPUR
 CULVERT(DOWNSTREAM), DATE-18.12.2020

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Total Coliforms	MPN/100ml	5000	50	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	10	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.65	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm		173	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.4	APHA 23rd Edition (4500-F-D-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	0.68	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max		20.2	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max		4.37	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max		<0.1	APHA 23rd Edition (4500-B), 2017
ix Dissolved Oxygen	mg/l, Min	4.0	8.1	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 5 days 20deg C)	mg/l, Max	3.0	2.6	APHA 23rd Edition (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max		68	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	10.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.35	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max		<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max		<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max		<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l		<0.1	Annex K of IS 13428:2005

3250 | 64591605



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No

3250 | 6459160SKLPL/12/20/WATER/03701



Parameters

Parameters	Unit	Requirement	Result	Test Method
XXII Polymethyl Arsenate Hydrolysis	mg/l, Max		<0.001	APHA 6440
XXIII Silver (as Ag)	mg/l		<0.01	Annex 3 of IS 13428:2005
XXIV Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
XXV PERCENT SODIUM (%)	%		0.0013	CL 5.0 of IS 3025 (Part 45):1993
XXVI SODIUM ABSORPTION RATIO			0.00	
XXVII Cadmium	mg/l		<0.2	Annex F of IS 13428:2005
XXVIII TOTAL PESTICIDE	µg/l		<0.0001	USEPA

PHYSICAL PARAMETER

Color		300	<1.0	APHA 23rd Edition (2120 B), 2017
pH Value		6.5-8.5	8.0	APHA 23rd edition (4500-H ₊ -B), 2017
Odour		Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
Taste		Agreeable	AGREEABLE	IS 3025 (Part B): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	µCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µCi/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max		<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1986 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

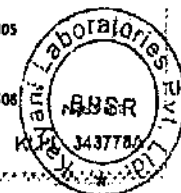
TEST REPORT



NABL IIR NO : TC704321000009630P
Test Report No : 3251 | 54601606KLPL/12/20/WATER/03702
Amendment No :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, Odisha-766027.
Date of receipt : 19-Dec-2020 **Test Commenced On** : 19-Dec-2020 **Test Completion On** : 26-Dec-2020
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification : SURFACE WATER
Batch No. / Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL
Ref. To Sampling Procedure : QSP-07
Issue Date : 01-Jan-2021
Amendment Date :
MFG Date : NA
Place of Collection : TURI NALA NEAR RAGHUNATHPUR,
DATE : 18.12.2020
Sampling Date : 18-Dec-2020
EXP Date : NA

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
Total Coliforms	MPN/100ml	5000	90	IS 1622:1981 (A) 2009
CHEMICAL PARAMETER				
Sulphate as SO ₄	mg/l, Max	400	6	APHA 23rd Edition (4500-SO ₄ -E), 2017
Nitrate as NO ₃	mg/l, Max	50	0.63	APHA 23rd Edition (4500-NO ₃ -E), 2017
Electrical Conductivity	µs/cm		154	APHA 23rd Edition (2510 B) 2017
Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
Total Dissolved Solid	mg/l, Max	1500	112	APHA 23rd Edition (2540 C), 2017
Calcium as Ca	mg/l, Max		23	APHA 23rd Edition (3500-Ca-B), 2017
Magnesium as Mg	mg/l, Max		3.40	APHA 23rd Edition (3500-Mg-B), 2017
Boron as B	mg/l, Max		<0.1	APHA 23rd Edition (4500-B), 2017
Dissolved Oxygen	mg/l, Min	4.0	5.3	APHA 23rd Edition (4500-O-C), 2017
Biochemical Oxygen Demand (For 5 days 20deg C)	mg/l, Max	3.0	1.2	APHA 23rd Edition 2012 (5210 B), 2017
Total Hardness as CaCO ₃	mg/l, Max		72	APHA 23rd Edition (2340 C), 2017
Chloride (as Cl)	mg/l, Max	600	4.3	IS 3025 (Part 32):1998, RA 2009
Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
Iron (as Fe)	mg/l, Max	50	0.48	APHA 23rd Edition (3500-Fe-B, 3111 B) 2017
Manganese (as Mn)	mg/l, Max		<0.1	IS 3025 (Part 59):2006 RA 2012
Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 55):2003 RA 2009
Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
Free Ammonia (as NH ₃)	mg/l, Max		<0.01	APHA 23rd Edition (4500-NH ₃ -B) 2017
Oil & Grease	mg/l, Max		<0.025	APHA 23rd Edition (5520 B) 2017
Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
Anionic Surface Active Agents (as MBAS)	mg/l		<0.1	Annex K of IS 13428:2005

3251 | 54601606



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

Test Report No

3251 | 64601606KLPL/12/20/WATER/03702



Parameters	Unit	Requirement	Result	Test Method
XXX- Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 5440
XXX- Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
XXX- Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
XXX- PERCENT SODIUM (%)	%	--	0.0007	CL 5.0 of IS 3025 (Part 45):1993
XXX- SODIUM ABSORPTION RATIO	--	--	0.36	
XXX- Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
XXX- TOTAL PESTICIDE	ug/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i- Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii- pH Value	--	6.5-8.5	7.70	APHA 23rd Edition (4500-H ⁺ -8), 2017
iii- Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv- Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 5): 1994, RA 2006

RADIOACTIVITY SUBSTANCES

i- Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii- Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i- Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii- Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii- Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv- Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v- Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi- Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1986 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



3251 | 64601606

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KLPL 343777A

KALYANI LABORATORIES PVT. LTD.

TEST REPORT



NABL ULR NO : TC704921000005639P

Test Report No : 3252 | 64611607KLPL/11/20/WATER/03703

Issue Date : 01-Jan-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, Odisha-766027.

Date of receipt : 19 Dec 2020 Test Commenced On : 19-Dec-2020 Test Completion On : 26-Dec-2020

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification : SURFACE WATER

Sampling Date : 18-Dec-2020

Batch No. / Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

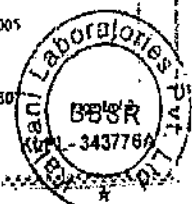
Place of Collection : POND NEAR HAREKRUSHNAPUR, DATE-18.12.2020

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	50	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	16	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	1.3	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	167	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	132	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	21.6	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	5.35	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500-B), 2017
ix Dissolved Oxygen	mg/l, Min	4.0	4.1	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	3.0	1.7	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	76	APHA 23rd Edition (2540 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	10.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.9	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	1.5	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA 23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13478-2005

3252 | 64611607



KALYANI LABORATORIES PVT. LTD.

Test Report No : 3252 | 64611607KLPL/12/20/WATER/03703



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex 1 of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0010	Cl. 5.0 of IS 3025 (Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.50	--
xxvii Barium	mg/l	--	<0.2	Annex 1 of IS 13120:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.3	APHA 23rd Edition (4500-H+ -B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1994, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1988 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 49):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

78941, PAHAL, BRUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006099P

Test Report No : 3482 | 717717000KLPL/1/21/WATER/04028

Issue Date: 05-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Jan-2021

Test Commenced On : 21-Jan-2021

Test Completion On : 31-Jan-2021

Sample Description : SURFACE WATER

Sample Condition : HEALTHY

Sample Identification * : SURFACE WATER

Sampling Date : 13-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

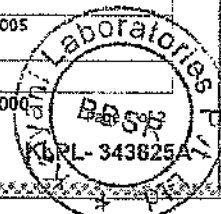
Place of Collection : POND NEAR HAREKRUSHNAPUR , DATE-13.01.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	60	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	17	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	1.5	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	177	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	138	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	20.8	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	7.78	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	4.2	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	1.8	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	84	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	9.1	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.96	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3482 | 717717000





KALYANI LABORATORIES PVT. LTD.

78-941, PAMAL, BHUBANESWAR-751011, ODISHA

Kalyani Laboratories

Test Report No : 3482 | 717717000KLPL/1/21/WATER/04028



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex I of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0011	CI 5.0 of IS 3025 (Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.52	
xxvii barium	mg/l	--	<0.2	Annex I of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value		6.5-8.5	7.4	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8), 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1998 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

12 Anubha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Diagnosed
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78004 PATAI BHUDANSWAR 75101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006096P

Test Report No : 3481 | 71760017KLPL/1/21/WATER/04027

Issue Date: 06-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021

Test Completion On: 31-Jan-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 13-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LIR X 2

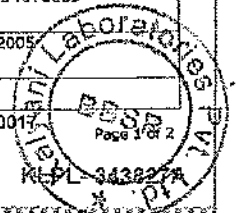
Place of Collection : TURI NALA NEAR RAGHUNATHPUR ,
DATE-13.01.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	90	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	7	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.65	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	157	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F-D-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	116	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	19.2	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	6.80	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	5.2	APHA 23rd Edition (4500 O C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.3	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	76	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	5.5	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.52	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	--	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3481 | 71760017





KALYANI LABORATORIES PVT. LTD.

28/94 PAHAL BHUBANESWAR-751011, ODISHA

Test Report No : 3481 | 71760017KLPL/1/21/WATER/04027



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex I of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0007	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO			0.35	
xxvii Barium	mg/l	--	<0.2	Annex F of IS 14428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	8.1	APHA 23rd Edition (4500 H+ B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anurag
Analysed By
For Kalyani Laboratories Pvt. Ltd.



D. Anurag
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3481 | 71760017

Page 2 of 2

KLPL- 343828A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78994, RAJAL, BHUPANESWAR-751001, ODISHA

TEST REPORT

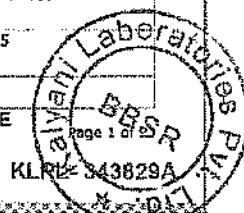


NABL ULR NO : IC/04321000006094F
Test Report No : 3480 | 717517CEKLPL/1/21/WATER/04026 **Issue Date** : 06-Feb-2021
Amendment No : - **Amendment Date** :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARI
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Jan-2021 **Test Commenced On** : 21-Jan-2021 **Test Completion On** : 31-Jan-2021
Sample Description : SURFACE WATER

Sample Condition : SEALED
Sample Identification * : SURFACE WATER **Sampling Date** : 13-Jan-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : VAMSADHARA RIVER NEAR CHHATRAPUR
Sample Collected By : By KLPL **CULVERT(DOWNSTREAM), DATE 13.01.2021**
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	60	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	12	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.7	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	ps/cm	-	184	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.5	APHA 23rd Edition (4500-F--D-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	160	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	24	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	7.78	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	8.0	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days, 27deg C)	mg/l, Max	--	2.7	APHA 23rd Edition 2012(5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	92	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	12.7	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.39	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 58):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3480 | 717517CE



KLPL 343629A



KALYANI LABORATORIES PVT. LTD.

789941, PAHALI, BHUBANESWAR-751001, ODISHA

Test Report No : 3480 | 717517CEKLP/1/21/WATER/04026



Parameters	Unit	Requirement	Result	Test Method
xxli Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxlii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxliii Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxiv PERCENT SODIUM (%)	%	--	0.0014	CL 5.0 of IS 3025(Part 45):1993
xxv SODIUM ABSORPTION RATIO	--	--	0.63	
xxvi barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxvii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.8	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1986 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78-44, PAHAL, BILUBANESWAR 751001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006084P

Test Report No : 3474 | 717017C4KLPL/1/21/WATER/04021

Issue Date: 06-Feb-2021

Amendment No : -

Amendment Date :

Reference : ORDER NO 6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021

Test Completion On: 31-Jan-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification : SURFACE WATER

Sampling Date : 13-Jan-2021

Batch No. Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LIR X 2

Place of Collection : STREAM NEAR TINTULIPADAR, DATE 13.01.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP 07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	50	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	5	APHA 23rd Edition (4500-SO ₄ -B), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.15	APHA 23rd Edition (4500-NO ₃ -B), 2017
iii Electrical Conductivity	µs/cm	-	74	APHA 23rd Edition (2510 B), 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F-B), 2017
v Total Dissolved Solid	mg/l, Max	1500	54	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	6.4	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	0.97	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	6.0	APHA 23rd Edition (4500-G-C), 2017
x Biochemical Oxygen Demand (For 3 days at 27deg C)	mg/l, Max	-	1.8	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	20	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	5.5	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.13	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3474 | 717017C4



KALYANI LABORATORIES PVT. LTD.

78934, PATIAL, BOURHANESWAR-752101, ODISHA

Kalyani Laboratories

Test Report No : 3474 | 717017C4KLPL/1/21/WATER/04021



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 47):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0007	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.68	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.65	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2005
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2005

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/9/4, PAHAL, BHUBANESWAR-751001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006093P

Test Report No : 3479 | 717417CDKLPL/1/21/WATER/04025

Issue Date: 06-Feb-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Jan-2021 Test Commenced On : 21-Jan-2021 Test Completion On: 31-Jan-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 13-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : VAMSADHARA RIVER NEAR NARAYANPUR
CULVERT(UPSTREAM) , DATE 13.01.2021

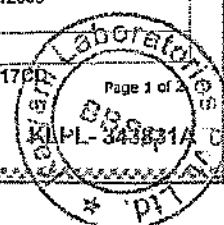
Sample Collected By : By KLPL

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	40	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	12	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.6	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	195	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	120	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	28.8	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	4.86	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.5	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 20°C)	mg/l, Max	--	2.4	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	92	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	9.1	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	3.5	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

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KALYANI LABORATORIES PVT. LTD.

75/911, RAJAL, BIR, BANESWAR 752101, ODISHA

Kalyani Laboratories

Test Report No : 3479 | 717417CDKLPL/1/21/WATER/04025



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APIA G440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0009	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ADSORPTION RATIO	--	--	0.41	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0011	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APIA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	8.0	APIA 23rd Edition (4500 H+ B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APIA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

79404, RAHAL, BILUPANESWAR 752004, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006092P
Test Report No : 3478 | 717317CCKLPL/1/21/WATER/04024 **Issue Date:** 06-Feb-2021
Amendment No : - **Amendment Date :** -
Reference : ORDER NO-GG00013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 21-Jan-2021 **Test Commenced On :** 21-Jan-2021 **Test Completion On:** 31 Jan 2021
Sample Description : SURFACE WATER
Sample Condition : SEALED
Sample Identification * : SURFACE WATER **Sampling Date :** 13-Jan-2021
Batch No , Lot No : NA **MFG Date :** NA **EXP Date :** NA
Received Quantity : 1LTR X 2 **Place of Collection :** VAMSADHARA RIVER NEAR BALABHADRAPUR ,
Sample Collected By : By KLPL **DT-13.01.2021**
Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	70	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	11	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.9	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	157	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	96	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	24	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	2.92	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.1	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	2.4	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	72	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	9.1	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.26	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 45):2005 RA 2009
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	--	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.075	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

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Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

78/011, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 3478 | 717317CCKLPL/1/21/WATER/04024




Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6410
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex I of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0009	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.46	--
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.8	APHA 23rd Edition (4500-H ⁺ -B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009


Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

76914, PATIAL, BHUDANESWAR-752101, ODISHA

TEST REPORT



NABL UIR NO : TC704321000006091P

Test Report No : 3477 | 717217CBKLPL/1/21/WATER/04023

Issue Date: 06-Feb-2021

Amendment No : -

Amendment Date :

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Jan-2021 Test Commenced On : 21 Jan 2021

Test Completion On: 31-Jan-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 13-Jan-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

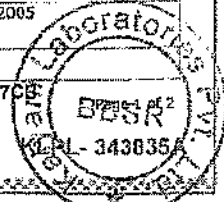
Place of Collection : STREAM NEAR RENGOPALI , DATE-13.01.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirament	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	30	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO4	mg/l, Max	400	<1.0	APHA 23rd Edition (4500-SO4.2 - -E), 2017
ii Nitrate as NO3	mg/l, Max	50	0.06	APHA 23rd Edition (4500-NO3 - -E), 2017
iii Electrical Conductivity	µs/cm	-	31	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F - -D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	28	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	4.8	APHA 23rd Edition (3500-Ca-D), 2017
vii Magnesium as Mg	mg/l, Max	-	0.97	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- D), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.8	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	1.2	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO3	mg/l, Max	-	16	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	5.5	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.087	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH3)	mg/l, Max	-	<0.01	APHA-23rd Edition (4500-NH3-B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3477 | 717217CB





KALYANI LABORATORIES PVT. LTD.

75744, PALLAL, BHUDANESWAR, 752101, ODISHA

Kalyani Laboratories

Test Report No : 3477 | 717217CBKPL/1/21/WATER/04023



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 8440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex 3 of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0006	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ADSORPTION RATIO		--	0.65	
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.3	APHA 23rd Edition (4500-HI-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Boudha

Analysed By
For Kalyani Laboratories Pvt. Ltd.



D. Boudha

Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

77001 PATIALA, BUKHARINAGAR-751001, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : IC/04321000006090P

Test Report No : 3476 | 717117CAKLPL/1/21/WATER/04022

Issue Date: 06-Feb-2021

Amendment No :

Amendment Date :

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 21-Jan-2021

Test Commenced On : 21-Jan-2021

Test Completion On: 31-Jan-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 13-Jan-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

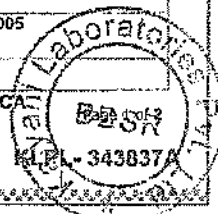
Place of Collection : STREAM NEAR KENDUBADI, DATE-13.01.2021

Sample Collected By : By KLPL

Ref To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	33	IS: 1622:1991 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	3.6	APHA 23rd Edition (4500-SO ₄ -2 -B), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.06	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	25	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	20	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	4.8	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	0.97	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.4	APHA 23rd Edition (4500 O C), 2017
x Biochemical Oxygen Demand (For 3 days, 27deg C)	mg/l, Max	-	1.6	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	16	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	5.5	IS 3025 (Part 32):1998, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	<0.05	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 50):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3476 | 717117CA





KALYANI LABORATORIES PVT. LTD.

78A-4, PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 3476 | 717117CAKLPL/1/21/WATER/04022



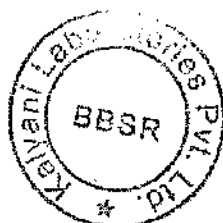
Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l		<0.01	Annex I of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0005	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.54	
xxvii barium	mg/l	--	<0.2	Annex I of IS 13428:2005
xxviii TOTAL PESTISIDE	ug/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.4	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

78549, PATIAL, BIRJANESWAR, 752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006510P

Test Report No : 3640 | 7760196KLPL/2/21/WATER/04230

Issue Date: 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO. LANJIGARH, DIST - KALAHANDI, ODISHA-766027.

Date of receipt : 26 Feb 2021

Test Commenced On : 26 Feb 2021

Test Completion On : 04 Mar 2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 25-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LIT X 2

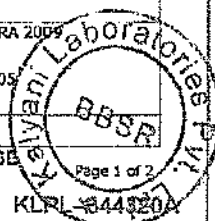
Place of Collection : POND NEAR HAREKKUSHNAPUR , DATE-25.02.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP 07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	70	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	20	APHA 23rd Edition (4500 So42 E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	1.9	APHA 23rd Edition (4500 NO3 E), 2017
iii Electrical Conductivity	µs/cm	-	194	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.18	APHA 23rd Edition (4500-F --D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	146	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	24	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	6.80	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	4.1	APHA 13rd Edition (4500 O C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	2	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	88	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	7.7	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	1.0	APHA 23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH3-B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3640 | 7760196



Page 1 of 2

KLPL-344820A



KALYANI LABORATORIES PVT. LTD.

78/44, PAHAL, BHUBANESWAR - 751011, INDIA

Test Report No : 3640 | 7760196EKLPL/2/21/WATER/04230



Parameters	Unit	Requirement	Result	Test Method
xiii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0012	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.56	--
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.4	APHA 23rd Edition (4500-H ⁺ -B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

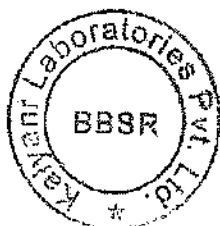
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 57):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

78/44, PAHAL, BHUVANESWAR-751001, ODISHA

Kalyani Laboratories

TEST REPORT

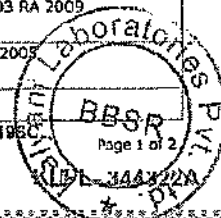


NABL ULR NO : TC704321000006508P
Test Report No : 3639 | 7759196CKLPL/2/21/WATER/04229 **Issue Date** : 06-Mar-2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.
Date of receipt : 26-Feb-2021 **Test Commenced On** : 26 Feb 2021 **Test Completion On** : 04 Mar 2021
Sample Description : SURFACE WATER

Sample Condition : SEALED
Sample Identification * : SURFACE WATER **Sampling Date** : 25-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : TURI NALA NEAR RAGHUNATHPUR,
Sample Collected By : By KLPL **DATE** : 25.02.2021
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	110	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	8	APHA 23rd Edition (4500-SO ₄ -2 - -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.72	APHA 23rd Edition (4500-NO ₃ - -E), 2017
iii Electrical Conductivity	µS/cm	-	170	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.23	APHA 23rd Edition (4500-F - -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	126	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	22.4	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	4.86	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500-B - B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	5.0	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.5	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	76	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	500	3.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.58	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3639 | 7759196





KALYANI LABORATORIES PVT. LTD.

60/04, PATIAL, BHUBANESWAR 752001, ODISHA

Kalyani Laboratories

Test Report No : 3639 | 7759196CKLPL/2/21/WATER/04229



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex I of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0008	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.40	--
xxvii barium	mg/l	--	<0.2	Annex I of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.6	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1986 RA 2006

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Boudha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



D. Boudha
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3639 | 7759196C

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KLPL- 344321A



KALYANI LABORATORIES PVT. LTD.

78/94, PATIAL, BHUDANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006507P

Test Report No : 3638 | 7757196BKPL/2/21/WATER/04228

Issue Date: 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO - LANJIGARH, DIST. - KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021 Test Commenced On : 26-Feb-2021

Test Completion On: 04 Mar 2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 25-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

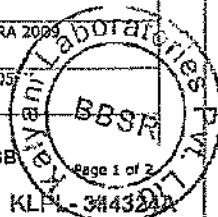
Place of Collection : VAMSADHARA RIVER NEAR CHHATRAPUR
CULVERT(DOWNSTREAM) , DATE-25.02.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	50	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	11	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.66	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electric Conductivity	µs/cm	-	199	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.23	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	150	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	20.8	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	3.89	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.9	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	2.8	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	68	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	9.6	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.45	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 54):2006 RA 2017
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3638 | 7757196B





Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

25A/II, PAHAL, BHUBANESWAR-751001, ODISHA

Test Report No : 3638 | 7757196BKLP/2/21/WATER/04228



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0013	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.68	
xxvii Barium	mg/l		<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.8	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	µC/mL	0.001	DDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	DDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27): 1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1986 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

20944, PALAL BIDDANESWAR, 751001, ODISHA

TEST REPORT



NABL UIR NO : IC704521000006506P

Test Report No : 3637 | 7756196AKLPL/2/21/WATER/04227

Issue Date: 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANIA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.

Date of receipt : 26-Feb-2021

Test Commenced On : 26-Feb-2021

Test Completion On: 04 Mar 2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 25-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : VAMSADHARA RIVER NEAR NARAYANPUR

Sample Collected By : By KLPL

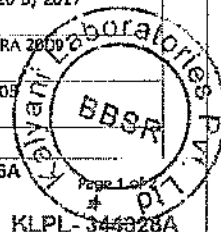
CULVERT(UPSTREAM) , DATE-25.02.2021

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	34	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	9	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.5	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	us/cm	-	178	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F -D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	108	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	17.6	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	8.75	APHA 23rd Edition (3500-Mg-U), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.6	APHA 23rd Edition(4500-O-C), 2017
x Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	--	2.3	APHA 23rd Edition 2012(5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	80	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	500	5.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 47):1997 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	3.0	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	--	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA 23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2009

3637 | 7756196A

KLPL-344328A





KALYANI LABORATORIES PVT. LTD.

80341, PAHAL, BILBAJESWAR-752101, ODISHA

Test Report No : 3637 | 7756196AKLPL/2/21/WATER/U4227




Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0000	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.39	--
xxvii Barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.6	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 17) :1988 RA 2009

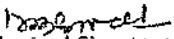
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

76/44, PATIAL, BHUBANESWAR 752001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006505P

Test Report No : 3636 | 77541969KLPL/2/21/WATER/04226

Issue Date : 06-Mar-2021

Amendment No :

Amendment Date :

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANIA LIMITED, LANJIGARH

Address : PO.- LANTIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021 **Test Commenced On** : 26-Feb-2021 **Test Completion On** : 04-Mar-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 25-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : VAMSADHARA RIVER NEAR BALABHADRAPUR ,
DT-25.02.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	60	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	10	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.8	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µS/cm		163	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.14	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	90	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	19.2	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	5.83	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.3	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	2.2	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	72	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	3.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.22	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	-	<0.01	APHA 23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3636 | 77541969

KI PI - 344376A





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TRADE BAHAL, BHUBANESWAR 751011, ODISHA

Test Report No : 3636 | 77541969KLPL/2/21/WATER/04226



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex I of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0008	CI 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.41	
xxvii barium	mg/l	--	<0.2	Annex I of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA

PHYSICAL PARAMETER

i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.7	APHA 23rd Edition (4500 H ⁺ -B), 2017
iii Odour	--	(In) objectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2005

RADIOACTIVITY SUBSTANCES

i Gross Alpha-activity	µCi/mL	0.061	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µCi/mL	0.01	BDL	IS 14194 (PART-1):2013

TOXIC SUBSTANCES

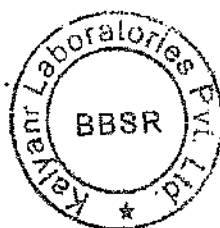
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37) :1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

(MIDAL PALLAL, BILUPANESWAR, 752101, ODISHA)

TEST REPORT



NABL IIR NO : TC704321000006504P
Test Report No : 3635 | 77521968KLPL/2/21/WATER/04225 **Issue Date**: 06 Mar 2021
Amendment No : - **Amendment Date** : -
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 26-Feb-2021 **Test Commenced On** : 26-Feb-2021 **Test Completion On**: 04-Mar-2021
Sample Description : SURFACE WATER

Sample Condition : SEALED
Sample Identification * : SURFACE WATER **Sampling Date** : 25-Feb-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : STREAM NEAR RENGUPALI, DATE-25.02.2021
Sample Collected By : By KLPL
Ref. To Sampling Procedure: QSP 07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	33	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	<1.0	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.08	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	34	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.065	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	30	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	6.4	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	1.94	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.6	APHA 23rd Edition (4500 O C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.4	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	24	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	3.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.09	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3635 | 77521968

Page 1 of 2

KLPL- 3443/8A





KALYANI LABORATORIES PVT. LTD.

75204, PATIAL, BHUVANESWAR-75101, ODISHA

Test Report No

3635 | 77521968KLPL/2/21/WATER/04225

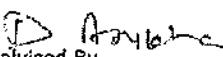


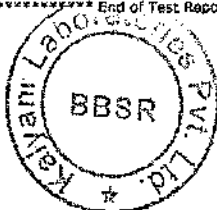
Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 8440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0007	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.62	
xxvii barium	mg/l	--	<0.7	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color		300	<1.0	APHA 23rd Edition (2120 B), 2017
II pH Value	--	6.5-8.5	7.7	APHA 23rd Edition (4500-H+-B), 2017
III Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste		Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2005
RADIOACTIVITY SUBSTANCES				
I Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
II Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2000

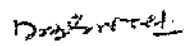
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

PAHAL, PAHAL, BHUBANESWAR-751011, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000006503P

Test Report No : 3634 | 77511967KLPL/2/21/WATER/04224

Issue Date: 06-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : P.O. LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26-Feb-2021

Test Commenced On : 26-Feb-2021

Test Completion On: 04-Mar-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 25-Feb-2021

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : STREAM NEAR KENDUBADI , DATE-25.02.2021

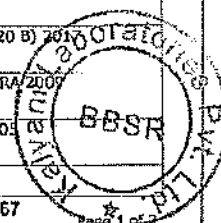
Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Total Coliforms	MPN/100ml.	5000	34	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
I Sulphate as SO ₄	mg/l, Max	400	4.4	APHA 23rd Edition (4500-SO ₄ -E), 2017
II Nitrate as NO ₃	mg/l, Max	50	0.1	APHA 23rd Edition (4500-NO ₃ -E), 2017
III Electrical Conductivity	µs/cm	-	35	APHA 23rd Edition (2510 B) 2017
IV Fluoride as F	mg/l, Max	1.5	0.061	APHA 23rd Edition (4500-F -D, -C), 2017
V Total Dissolved Solid	mg/l, Max	1500	26	APHA 23rd Edition (2540 C), 2017
VI Calcium as Ca	mg/l, Max	-	8.0	APHA 23rd Edition (3500-Ca-B), 2017
VII Magnesium as Mg	mg/l, Max	-	0.97	APHA 23rd Edition (3500-Mg-B), 2017
VIII Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
IX Dissolved Oxygen	mg/l, Max	1.0	7.5	APHA 23rd Edition (4500-O-C), 2017
X Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.7	APHA 23rd Edition 2012 (5210 B), 2017
XI Total Hardness as CaCO ₃	mg/l, Max	--	24	APHA 23rd Edition (2340 C), 2017
XII Chloride (as Cl)	mg/l, Max	600	1.9	IS 3025 (Part 32):1988, RA 2009
XIII Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
XIV Iron (as Fe)	mg/l, Max	50	<0.05	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
XV Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
XVI Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
XVII Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
XVIII Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
XIX Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
XX Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
XXI Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2003

3634 | 77511967

KLPL- 344380A





KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

76/34, DAILAL, BILI BANESWAR, CUTTACK, ODISHA

Test Report No : 3634 | 77511967KLPL/2/21/WATER/04224

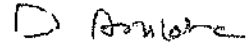


Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	---	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	---	<0.01	Annex J of IS 15428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	---	0.0004	CL 5.0 of IS 3025(Part 43) (1991)
xxvi SODIUM ABSORPTION RATIO	---	---	0.35	---
xxvii barium	mg/l	---	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	ug/l	---	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	---	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	---	6.5-8.5	7.5	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	---	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1986 RA 2009

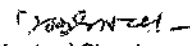
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

9/99A, PAHALI, BILUBANESWAR-751001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000006499P

Test Report No : 3630 | 77471963KLPL/2/21/WATER/04223

Issue Date: 05-Mar-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 26 Feb 2021 Test Commenced On : 26 Feb 2021 Test Completion On : 04-Mar-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 25-Feb-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

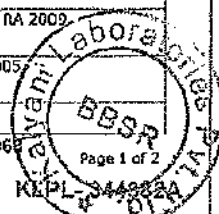
Place of Collection : STREAM NEAR TENTULIPADAR, DATE-25.02.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	40	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	4	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.12	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	59	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F ⁻	mg/l, Max	1.5	0.087	APHA 23rd Edition (4500-F -D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	44	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	9.6	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	3.89	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	6.2	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.6	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	40	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	3.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.1	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 50):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5920 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3630 | 77471963





KALYANI LABORATORIES PVT. LTD.

73/44, PATIAL, BHUBANESWAR-751001, ODISHA

Test Report No : 3630 | 77471963KLPL/2/21/WATER/04223

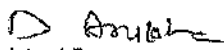


Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0006	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.41	
xxvii barium	mg/l		<0.7	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	8.0	APHA 23rd Edition (4500-H ⁺ -B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 6): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27): 1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 17): 1988 RA 2009

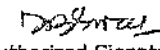
Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


Analysed By
For Kalyani Laboratories Pvt. Ltd.




Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/1/1, PATIAL, BHUBANESWAR-752 001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007069P

Test Report No : 3821 | 82421B9DKLPL/3/21/WATER/04446

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date :

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VIDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.

Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 24-Mar-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : STREAM NEAR TENTULIPADAR, DATE-24.03.2021

Sample Collected By : By KLPL

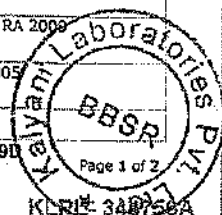
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	50	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	5	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.15	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	61	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.09	APHA 23rd Edition (4500-F-D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	48	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	16	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	1.94	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	6.1	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	-	1.7	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	-	48	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	8.5	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.14	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	-	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	-	<0.1	Annex K of IS 13428:2005

3821 | 82421B9D

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KLRIT-340750A





KALYANI LABORATORIES PVT. LTD.

TRADE, PAHAL, BHUDANESWAR-752101, ODISHA

Kalyani Laboratories

Test Report No : 3821 | B2421B9DKLPL/3/21/WATER/04446



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APIIA 6440
xxiii Silver (as Ag)	mg/l	---	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	---	0.0007	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	---	---	0.44	
xxvii barium	mg/l	---	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	---	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	---	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	---	6.5-8.5	8.2	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	---	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D Anayata
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3821 | B2421B9D

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KLPL- 344755A



KALYANI LABORATORIES PVT. LTD.

74344, PABAI, BILUPANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007070P
Test Report No : 3822 | 82431B9EKPL/3/21/WATER/04447 **Issue Date**: 06-Apr-2021
Amendment No : **Amendment Date** :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.
Date of receipt : 25-Mar-2021 **Test Commenced On** : 25-Mar-2021 **Test Completion On**: 05-Apr-2021
Sample Description : SURFACE WATER

Sample Condition : SEALED
Sample Identification * : SURFACE WATER **Sampling Date** : 24-Mar-2021
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : STREAM NEAR KENDUBADI , DATE-24.03.2021
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
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BACTERIOLOGICAL QUALITY

i	Total Coliforms	MPN/100mL	5000	40	IS: 1622:1981 RA 2009
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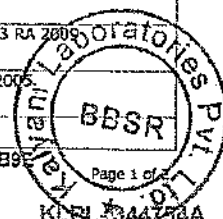
CHEMICAL PARAMETER

i	Sulphate as SO ₄	mg/l, Max	400	5	APHA 23rd Edition (4500-So42 - -E), 2017
ii	Nitrate as NO ₃	mg/l, Max	50	0.15	APHA 23rd Edition (4500-NO3 - -E), 2017
iii	Electrical Conductivity	us/cm	-	36	APHA 23rd Edition (2510 B) 2017
iv	Fluoride as F	mg/l, Max	1.5	0.07	APHA 23rd Edition (4500-F - -D,-C), 2017
v	Total Dissolved Solid	mg/l, Max	1500	28	APHA 23rd Edition (2540 C), 2017
vi	Calcium as Ca	mg/l, Max	-	8	APHA 23rd Edition (3500-Ca-B), 2017
vii	Magnesium as Mg	mg/l, Max	-	1.94	APHA 23rd Edition (3500-Mg-B), 2017
viii	Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix	Dissolved Oxygen	mg/l, Max	4.0	7.4	APHA 23rd Edition(4500-O-C), 2017
x	Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	--	1.8	APHA 23rd Edition 2012(5210 B), 2017
xi	Total Hardness as CaCO ₃	mg/l, Max	--	28	APHA 23rd Edition (2340 C), 2017
xii	Chloride (as Cl)	mg/l, Max	600	8.5	IS 3025 (Part 32):1968, RA 2009
xiii	Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv	Iron (as Fe)	mg/l, Max	50	<0.05	APHA-23rd Edition (3500-Fe-B , 3111 B) 2017
xv	Manganese (as Mn)	mg/l, Max	-	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi	Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii	Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii	Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH3-B) 2017
xix	Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx	Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi	Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex IC of IS 13428:2005

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KLPL 344754A





KALYANI LABORATORIES PVT. LTD.

78/111, PALLA, BILUPANSWAR-751101, ODISHA

Kalyani Laboratories

Test Report No : 3822 | 82431B9EKLPL/3/21/WATER/04447



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max		<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0004	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.33	
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.3	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BOL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BOL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27): 1985 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

3822 | 82431B9E

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KLPL- 344622A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78944, PALLAL, BHUBANESWAR-751011, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007071P

Test Report No : 3823 | 82441B9FKLPL/3/21/WATER/04448

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI,

Date of receipt : 25-Mar-2021

Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 24-Mar-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : STREAM NEAR RENGOPALI, DATE-24.03.2021

Sample Collected By : By KLPL

Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
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BACTERIOLOGICAL QUALITY

i	Total Coliforms	MPN/100ml	5000	40	IS: 1622:1981 RA 2009
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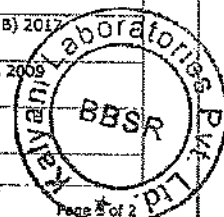
CHEMICAL PARAMETER

i	Sulphate as SO ₄	mg/l, Max	400	<1.0	APHA 23rd Edition (4500-SO ₄ 2 - -E), 2017
ii	Nitrate as NO ₃	mg/l, Max	50	0.1	APHA 23rd Edition (4500-NO ₃ - -E), 2017
iii	Electrical Conductivity	us/cm	-	48	APHA 23rd Edition (2510 B) 2017
iv	Fluoride as F	mg/l, Max	1.5	0.08	APHA 23rd Edition (4500-F - -D,-C), 2017
v	Total Dissolved Solid	mg/l, Max	1500	40	APHA 23rd Edition (2540 C), 2017
vi	Calcium as Ca	mg/l, Max	-	8	APHA 23rd Edition (3500-Ca-B), 2017
vii	Magnesium as Mg	mg/l, Max	-	0.97	APHA 23rd Edition (3500-Mg-B), 2017
viii	Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix	Dissolved Oxygen	mg/l, Max	4.0	7.4	APHA 23rd Edition (4500-O-C), 2017
x	Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.6	APHA 23rd Edition 2012(5210 B), 2017
xi	Total Hardness as CaCO ₃	mg/l, Max	--	24	APHA 23rd Edition (2340 C), 2017
xii	Chloride (as Cl)	mg/l, Max	600	8.5	IS 3025 (Part 32):1988, RA 2009
xiii	Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv	Iron (as Fe)	mg/l, Max	50	0.1	APHA 23rd Edition (3500-Fe-B, 3111 B) 2017
xv	Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 58):2006 RA 2012
xvi	Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii	Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii	Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA 23rd Edition (4500-NH ₃ -B) 2017
xix	Oil & Grease	mg/l, Max	-	<0.025	APHA 23rd Edition (5520 B) 2017
xx	Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi	Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

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KLPL- 344621A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

7374, PAHAL, BIR BANUSWAR-751001, ODISHA

Test Report No : 3823 | 82441B9FKLPL/3/21/WATER/04448



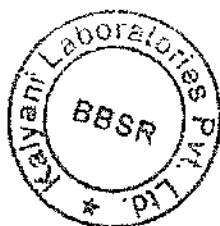
Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l		< 0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0008	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.71	
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.4	APHA 23rd Edition (4500-H4-B), 2017
iii Odour		Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2005
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1985 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

TRADE, PATENT, DESIGN AND SERVICE MARK, ODISHA

Kalyani Laboratories

TEST REPORT

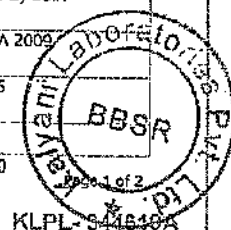


NABL ULR NO : TC704321000007072P
Test Report No : 3824 | 82451BA0KLPL/3/21/WATER/04449 **Issue Date**: 06-Apr-2021
Amendment No : - **Amendment Date** :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027,
Date of receipt : 25-Mar-2021 **Test Commenced On** : 25-Mar-2021 **Test Completion On**: 05-Apr-2021
Sample Description : SURFACE WATER

Sample Condition : SEALED
Sample Identification * : SURFACE WATER **Sampling Date** : 24-Mar-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : VAMSADHARA RIVER NEAR BALABHADRAPUR, DT-24.03.2021
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	70	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	11	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.9	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	161	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.16	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	100	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	28.8	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	2.92	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.1	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	2.4	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	84	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	12.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.25	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3824 | 82451BA0



KLPL-544640A

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

MANAL, PATIAL, BHUBANESWAR-751001, ODISHA

Test Report No : 3824 | 82451BA0KLPL/3/21/WATER/04449



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex I of IS 17428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0009	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.43	--
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.4	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D Anuraha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



[Signature]
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd



KALYANI LABORATORIES PVT. LTD.

75042, PANAL, BHUBANESWAR-751001, ODISHA

Kalyani Laboratories

TEST REPORT



NABL ULR NO : TC704321000007073P

Test Report No : 3825 | 82461BA1KLPL/3/21/WATER/04450

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DT-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI,

Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 24-Mar-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : VAMSADHARA RIVER NEAR NARAYANPUR
CULVERT(UPSTREAM), DATE-24.03.2021

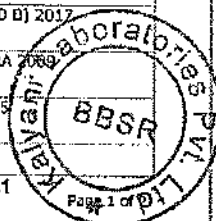
Sample Collected By : By KLPL

Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	50	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	11	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.6	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	172	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	<0.05	APHA 23rd Edition (4500-F-D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	116	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	30.4	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	2.92	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.5	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days, 27deg C)	mg/l, Max	--	2.5	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	88	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	10.7	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	3.2	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA 23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3825 | 82461BA1

KLPL- 344617A





KALYANI LABORATORIES PVT. LTD.

78/44, PANAL, BHUBANESWAR-752101, ODISHA

Kalyani Laboratories

Test Report No : 3825 | 82461BA1KLPL/3/21/WATER/04450



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%		0.0009	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.42	
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTICIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.4	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	---	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D Arora
Analysed By
For Kalyani Laboratories Pvt. Ltd.



[Signature]
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3825 | 82461BA1

Page 2 of 2

KLPL- 344616A



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

7/1/11, P. JAL, BIL, BAHESWAR, 751 051, ODISHA

TEST REPORT

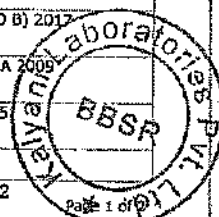


NABL ULR NO : TC704321000007074P
Test Report No : 3826 | 82471BA2KLPL/3/21/WATER/04451 **Issue Date**: 06-Apr-2021
Amendment No : - **Amendment Date** :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST - KALAHANDI, ODISHA-766027, ODISHA 766027.
Date of receipt : 25-Mar-2021 **Test Commenced On** : 25-Mar-2021 **Test Completion On**: 05-Apr-2021
Sample Description : SURFACE WATER

Sample Condition : SEALED
Sample Identification * : SURFACE WATER **Sampling Date** : 24-Mar-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : VAMSADHARA RIVER NEAR CHHATRAPUR
Sample Collected By : By KLPL **CULVERT(DOWNSTREAM) , DATE-24.03.2021**
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml.	5000	60	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	12	APHA 23rd Edition (4500-SO ₄ 2 - -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.7	APHA 23rd Edition (4500-NO ₃ - -E), 2017
iii Electrical Conductivity	µs/cm	-	200	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.25	APHA 23rd Edition (4500-F - -D,-C), 2017
v Total Dissolved Solid	mg/l, Max	1500	162	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	32	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	0.97	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B- B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	7.8	APHA 23rd Edition(4500-O-C), 2017
x Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	--	2.9	APHA 23rd Edition 2012(5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	84	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	17	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.5	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Antonic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3826 | 82471BA2



KLPL- 344615A



KALYANI LABORATORIES PVT. LTD.

RAJUL PAHAL, PHULBATESWAR-752191, ODISHA

Test Report No : 3826 | 82471BA2KLPL/3/21/WATER/04451



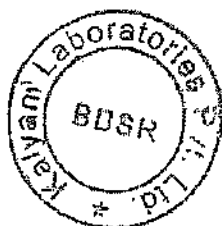
Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0014	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.66	
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	8.1	APHA 23rd Edition (4500-H++B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 6): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	uCi/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	uCi/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Anyalaha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

3826 | 82471BA2

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KLPL- 344614A



KALYANI LABORATORIES PVT. LTD.

75/44, PAIDAL, BRUBANESWAR-752001, ODISHA

Kalyani Laboratories

TEST REPORT



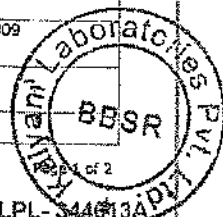
NABL ULR NO : TC704321000007075P
Test Report No : 3827 | 82481BA3KLPL/3/21/WATER/04452 **Issue Date** : 06-Apr-2021
Amendment No : - **Amendment Date** :
Reference : ORDER NO-6600013488 DT-16.12.2019
Customer Name : VEDANTA LIMITED, LANJIGARH
Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA 766027.
Date of receipt : 25-Mar-2021 **Test Commenced On** : 25-Mar-2021 **Test Completion On** : 05-Apr-2021
Sample Description : SURFACE WATER

Sample Condition : SEALED
Sample Identification * : SURFACE WATER **Sampling Date** : 24-Mar-2021
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : TURI NALA NEAR RAGHUNATHPUR,
Sample Collected By : By KLPL **DATE-24.03.2021**
Ref. To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100mL	5000	130	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	10	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	0.85	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	190	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.28	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	140	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	30.4	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	1.94	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	4.9	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	1.7	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	84	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	12.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	0.6	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2005

3827 | 82481BA3

KLPL-3446134PVT





KALYANI LABORATORIES PVT. LTD.

27/44, PATIAL, BIL DINESWAR-751001, ODISHA

Kalyani Laboratories

Test Report No : 3827 | 82481BA3KLPL/3/21/WATER/04452



Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6410
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0009	CL 5.0 of IS 3025(Part 45):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.43	--
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.85	APHA 23rd Edition (4500-H+8), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27) :1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	--	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1986 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analyse By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd.

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

70/944, PAHAL, BHUBANESWAR-751001, ODISHA

TEST REPORT



NABL ULR NO : TC704321000007076P

Test Report No : 3828 | 82491BA4KLPL/3/21/WATER/04453

Issue Date: 06-Apr-2021

Amendment No : -

Amendment Date : -

Reference : ORDER NO-6600013488 DI-16.12.2019

Customer Name : VEDANTA LIMITED, LANJIGARH

Address : PO.- LANJIGARH, DIST.- KALAHANDI, ODISHA-766027.

Date of receipt : 25-Mar-2021 Test Commenced On : 25-Mar-2021

Test Completion On: 05-Apr-2021

Sample Description : SURFACE WATER

Sample Condition : SEALED

Sample Identification * : SURFACE WATER

Sampling Date : 24-Mar-2021

Batch No, Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : POND NEAR HAREKRUSHNAPUR, DATE-24.03.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure:

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100ml	5000	80	IS: 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Sulphate as SO ₄	mg/l, Max	400	22	APHA 23rd Edition (4500-SO ₄ -E), 2017
ii Nitrate as NO ₃	mg/l, Max	50	2.2	APHA 23rd Edition (4500-NO ₃ -E), 2017
iii Electrical Conductivity	µs/cm	-	243	APHA 23rd Edition (2510 B) 2017
iv Fluoride as F	mg/l, Max	1.5	0.22	APHA 23rd Edition (4500-F -D, -C), 2017
v Total Dissolved Solid	mg/l, Max	1500	168	APHA 23rd Edition (2540 C), 2017
vi Calcium as Ca	mg/l, Max	-	40	APHA 23rd Edition (3500-Ca-B), 2017
vii Magnesium as Mg	mg/l, Max	-	2.92	APHA 23rd Edition (3500-Mg-B), 2017
viii Boron as B	mg/l, Max	-	<0.1	APHA 23rd Edition (4500B-B), 2017
ix Dissolved Oxygen	mg/l, Max	4.0	4.3	APHA 23rd Edition (4500-O-C), 2017
x Biochemical Oxygen Demand (For 3 days 27deg C)	mg/l, Max	--	2.2	APHA 23rd Edition 2012 (5210 B), 2017
xi Total Hardness as CaCO ₃	mg/l, Max	--	112	APHA 23rd Edition (2340 C), 2017
xii Chloride (as Cl)	mg/l, Max	600	12.8	IS 3025 (Part 32):1988, RA 2009
xiii Copper (as Cu)	mg/l, Max	1.5	<0.01	IS 3025 (Part 42):1992 RA 2009
xiv Iron (as Fe)	mg/l, Max	50	1.2	APHA-23rd Edition (3500-Fe-B, 3111 B) 2017
xv Manganese (as Mn)	mg/l, Max	--	<0.1	IS 3025 (Part 59):2006 RA 2012
xvi Selenium (as Se)	mg/l, Max	0.01	<0.01	IS 3025 (Part 56):2003 RA 2009
xvii Zinc (as Zn)	mg/l, Max	15	<0.01	IS 3025 (Part 49):1994 RA 2009
xviii Free Ammonia (as NH ₃)	mg/l, Max	---	<0.01	APHA-23rd Edition (4500-NH ₃ -B) 2017
xix Oil & Grease	mg/l, Max	--	<0.025	APHA-23rd Edition (5520 B) 2017
xx Total Chromium	mg/l, Max	0.05	<0.01	IS 3025 (Part 52):2003 RA 2009
xxi Anionic Surface Active Agents (as MBAS)	mg/l	--	<0.1	Annex K of IS 13428:2009

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Test Report No : 3828 | 82491BA4KLPL/3/21/WATER/04453



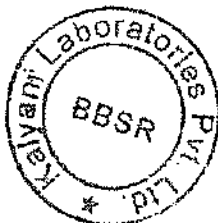
Parameters	Unit	Requirement	Result	Test Method
xxii Polynuclear Aromatic Hydrocarbon	mg/l, Max	--	<0.0001	APHA 6440
xxiii Silver (as Ag)	mg/l	--	<0.01	Annex J of IS 13428:2005
xxiv Phenols	mg/l	0.005	<0.001	IS 3025 (Part 43):1992 RA 2009
xxv PERCENT SODIUM (%)	%	--	0.0014	CL 5.0 of IS 3025(Part 43):1993
xxvi SODIUM ABSORPTION RATIO	--	--	0.57	--
xxvii barium	mg/l	--	<0.2	Annex F of IS 13428:2005
xxviii TOTAL PESTISIDE	µg/l	--	<0.0001	USEPA
PHYSICAL PARAMETER				
i Color	--	300	<1.0	APHA 23rd Edition (2120 B), 2017
ii pH Value	--	6.5-8.5	7.7	APHA 23rd Edition (4500-H+-B), 2017
iii Odour	--	Unobjectionable	AGREEABLE	APHA 23rd Edition (2120 B), 2017
iv Taste	--	Agreeable	AREEABLE	IS 3025 (Part 8): 1984, RA 2006
RADIOACTIVITY SUBSTANCES				
i Gross Alpha-activity	µC/mL	0.001	BDL	IS 14194 (PART-2):2013
ii Gross Beta-activity	µC/mL	0.01	BDL	IS 14194 (PART-1):2013
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.01	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2003
iii Lead (as Pb)	mg/l, Max	0.1	<0.01	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.001	IS 3025 (Part 48):1994 RA 2009
v Nickel (as Ni)	mg/l, Max	---	<0.01	IS 3025 (Part 54):2003 RA 2009
vi Arsenic (as As)	mg/l, Max	0.05	<0.01	IS 3025 (Part 37):1988 RA 2009

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D Anilaka
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Manuel
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd

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