



# SHREE RAIPUR CEMENT PLANT

(A UNIT OF SHREE CEMENT LIMITED)

Village : Khaparadih, Tehsil : Simga

Distt. : Baloda Bazar-Bhatapara (C.G.) Pin : 493 332, Ph. : 07727-203101

CIN No. : L26943RJ1979PLC001935

SRCP/ENV/2021-22/22



Date: - 24/05/2021

To,

**Deputy Director General of Forests (C),**

Integrated Regional Office

Aranya Bhawan, North Block, Sector-19,

Naya Raipur, Atal Nagar, Chhattisgarh.

**Sub:- Regarding compliance for the period October-2020 to March-2021 to the conditions of Environment Clearance for Expansion of Integrated Cement Plant (Shree Raipur Cement Plant): 2\*2.6 to 3\*4.5 Million TPA Clinker, 2\*3.0 to 3\*5.5 million TPA Cement, 30 to 100 MW Waste Heat Recovery Power Plant, 25 to 125 MW Captive Power Plant along with Synthetic Gypsum Unit (65 TPH) and DG Sets [2000 KVA (size 1000/500/250/125)] near Village Khaparadih, Tehsil – Simga in District – Baloda Bazar - Bhatapara (Chhattisgarh) by Shree Raipur Cement Plant (A unit of Shree Cement Limited).**

**Ref: - Environment Clearance Letter No. J-11011/235/2008- IA II(I) dated 11<sup>th</sup> September 2019.**

Dear Sir,

Kindly refer to the above subjected matter and referred EC letter. We are submitting herewith the point wise Half Yearly EC compliance status for the period of **October-2020 to March-2021.**

This is for your kind information & submission please.

Thanking you.

Yours faithfully

For Shree Raipur Cement Plant.

(A unit of Shree Cement Ltd.)

R. K. Vijay

Joint VP (Operations)

**Enclosed: Compliance status Report period October-2020 to March-2021.**

Cc to:-

- 1) The In charge (Zonal Office), Central Pollution Control Board (CPCB), 3<sup>rd</sup> floor, Sahkar Bhawan, North T.T. Nagar, Bhopal – 462003 (M.P.)
- 2) The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block, Sector-19 Naya Raipur (C.G.)
- 3) The Regional Officer, Chhattisgarh Environment Conservation Board, Commercial Complex, Chhattisgarh Housing Board Colony, Kabir Nagar, Raipur (C.G.) - 492099

## **Compliance Status of Environment Clearance**

### **Period from October-2020 to March-2021**

<b>Name of Project:</b>	Shree Raipur Cement Plant (A unit of Shree Cement Ltd)
<b>Capacity:</b>	2*2.6 to 3*4.5 Million TPA Clinker, 2*3.0 to 3*5.5 million TPA Cement, 30 to 100 MW Waste Heat Recovery Power Plant, 25 to 125 MW Captive Power Plant along with Synthetic Gypsum Unit (65 TPH) and DG Sets [2000 KVA (size 1000/500/250/125)]
<b>Location:</b>	Village Khapradih, Tehsil-Simga, Distt.- Baloda Bazar - Bhatapara (Chhattisgarh)
<b>EC letter No.</b>	J-11011/235/2008- IA II (I) dated 11 <sup>th</sup> September 2019.

#### **A. Specific Conditions:**

<b>S. No</b>	<b>Conditions</b>	<b>Compliance status</b>
i	The limestone for the project shall be sourced only from (i) Existing Captive Semradih & Bharuwadih Limestone (M.L Area - 531.126 ha) and (ii) Karhi Chandi Limestone Mine (ML area 242.127 ha) which are located adjacent to plant site. In case of any change in source of limestone, the project proponent shall obtain prior permission from MoEF&CC.	Noted.  Prior permission will be taken from MoEF&CC in case of any change in source of limestone.
ii	Project proponent shall conduct health studies in all the villages covered within a radius of 2km radius of the project site for assessment of prevalence of silicosis for once in six months.	We are planning to conduct health studies in all the villages covered within a radius of 2 km of the project site for assessment of prevalence of silicosis by conducting camps. Due to COVID-19 the said health studies could not be carried out.
iii	Railway siding shall be completed in a time frame of five years.	Noted.
iv	CER related activities shall be completed within a time frame of three years.	CER related activities shall be completed within three years' time. CER activities & expenditure report is attached as <b>Annexure-1</b>
v	The project proponent shall reduce the abstraction of ground water by shifting the requirement to surface water and regular report shall be submitted to the Regional Office of the Ministry at the interval of six months.	Surface water harvested at our existing mines pit & Rain Water Harvesting pond inside plant area are being used for industrial & process water requirement, water for domestic use is being extracted from Ground water sources.

		Water consumption report is attached as Annexure-2
<b>B. General Conditions</b>		
<b>I Statutory compliance</b>		
i	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.	We have obtained Consent to Operate vide letter no. 9505/TS/CECB/2021, dated 02/02/2021 & Consent to Establish for expansion vide letter No. 10020/TS/CECB/2020, Dated: 12.02.2020 from Chhattisgarh Environment Conservation Board.
ii	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.	We have obtained ground water NOC from CGWA for withdrawal of 3000 KL/ Day ground water vide Letter No. 21-4(36)/NCCR/CGWA/2008-2079, Dated: - 24.10.2018 valid up to 07.04.2023.
iii	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.	We have obtained authorization under the Hazardous and other Waste Management Rules, 2016 vide Letter No. 11201/HSMD/HO/CECB/2021 dated - 18.03.2021 valid up to 03.02.2024.
<b>II Air quality monitoring and preservation</b>		
i	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (Co-processing Cement); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	We have installed Continuous Emission Monitoring System at all stacks to monitor stack emission as per prescribed standards and the data is being transmitted to both CECB & CPCB servers. Calibration of installed Continuous Emission Monitoring System are also being done on regular basis.  Photographs of the same are attached as <b>Photo No. 1, 2 &amp; 3.</b>
ii	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.	Fugitive emission monitoring is being done in the plant premises on regular basis through labs recognized under Environment (Protection) Act, 1986. Fugitive Emission Monitoring Reports are attached herewith as <b>Annexure-3.</b>

iii	The project proponent shall install system carryout to Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM <sub>10</sub> and PM <sub>2.5</sub> in reference to PM emission, and SO <sub>2</sub> and NO <sub>x</sub> in reference to SO <sub>2</sub> and NO <sub>x</sub> emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.	We have Installed 4 nos. of CAAQMS for the monitoring of the parameters PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> within and outside the plant area.  Photographs of the same are attached as <b>Photo No. 4, 5, 6 &amp; 7.</b>
iv	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	Monthly summary reports attached in Annexures are as follows. 1. Continuous & Manual stack monitoring report <b>Annexure-4.</b> 2. Continuous & Manual Air quality monitoring report- <b>Annexure-5.</b> 3. Fugitive emission monitoring is attached as <b>Annexure-3.</b>
v	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	Unit has installed Appropriate Air Pollution Control (APC) measures at all the dust generating points including fugitive dust from all vulnerable sources to comply with prescribed standards.  List of Air Pollution Control (APC) system is attached as <b>Annexure-6.</b>
vi	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Installed provision for leakage detection and mechanized bag cleaning facility for better maintenance of bags.
vii	Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.	Compliance status of conditions mentioned in CREP is attached herewith as <b>Annexure-7.</b>
viii	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Provided four Numbers of heavy duty sweeping machines for regular sweeping of all plants roads, shop floors on regular basis.  Photograph of sweeping machines are attached as <b>Photo -8 &amp; 9.</b>
ix	Recycle and reuse lime fines, coal fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after agglomeration.	Dust collected from pollution control devices and vacuum cleaning devices is being totally recycled & reused in the process of cement manufacturing.
x	Ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash;	All the Environment protection measures have been taken to reduce impact on surrounding environment. All raw materials are being



		<p>transported in tippers/trucks covered by tarpaulin to prevent spillage and dust generation.</p> <p>Limestone and other material is transported through covered conveyor belts.</p> <p>Fly ash transportation is being done in closed bulkers.</p> <p>Photographs of the same is attached as <b>Photo no. - 10 &amp; 11.</b></p>
xi	Provide wind shelter fence and chemical spraying on the raw material stock piles; and	<p>Covered storage shed have been provided for stockpiles of Limestone, Coal &amp; Gypsum.</p> <p>Photographs of covered stock yard is attached as <b>Photo no. - 12.</b></p>
xii	Provide Low NOx burners as primary measures and SCR /NSCR technologies as secondary measure to control NOx emissions. Have separate truck parking area and monitor vehicular emissions at regular interval.	<p>Installed Low NOx burners as primary measure to control NOx emissions. And provided separate truck parking area with basic amenities and vehicles with PUC are allowed.</p>
xiii	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.	<p>All the Environment protection measures has been taken to reduce impact on surrounding environment. The raw material i.e. limestone is transported to plant with help of covered conveyor belts and end product Cement &amp; Clinker being transported in trucks covered with tarpaulin.</p> <p>Photographs of covered conveyor belt is attached as <b>Photo no. - 13 &amp; 14 .</b></p>
xiv	Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.	<p>Ventilation system has been designed as per ACGIH specifications at all tunnels, motor houses, cement bagging/Packing plants area.</p>

### III. Water quality monitoring and preservation

i	<p>The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement)and subsequent amendment dated 9th May, 2016 (Cement)and 10th May, 2016(in case of Co-processing Cement)as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants)as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according</p>	<p>Not applicable as no effluent is generated from the Cement plant process as the cement manufacturing is based on dry process technology.</p> <p>However, treated waste water from WTP is being reuse in process.</p> <p>Zero effluent discharge is being maintained inside/outside of plant premises.</p>
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	to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	
ii	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Monitoring of ground water quality on regular basis (pre and post monsoon) through labs recognized under EPA, 1986 and NABL accredited lab.  The monitoring report is attached as <b>Annexure-8</b> .
iii	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	No effluent is generated from the Cement plant process as the cement manufacturing is based on dry process technology.  The monitoring report of ground water quality for pre and post monsoon period is attached as <b>Annexure-8</b> .
iv	Adhere to 'Zero Liquid Discharge'.	Cement manufacturing is based on dry process technology.  Zero effluent discharge is being maintained inside/outside of plant premises.
v	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	Installed 2 Nos. of STP with 40 KL capacity each for treatment of Domestic sewage which is generated from offices & canteen and treated wastewater quality is as per prescribed standards.  Photographs of STP is attached as <b>Photo no. 15</b> .  The STP water quality report is attached as <b>Annexure-9</b> .
vi	Garland drains and collection pits shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off.	The raw material stock piles are kept under covered shed. So, no surface runoff is generated from stock pile.

vii	The project proponent shall practice rainwater harvesting to maximum possible extent.	For augmentation of ground water, the project has constructed 2 Nos. of Rain water harvesting ponds. 2 X 1,00,000 KL capacity ponds each in plant area. The photographs of rain water harvesting ponds are attached as <b>Photo no. 16 &amp; 17.</b>
viii	Water meters shall be provided at the inlet to all unit processes in the cement plant.	Installed digital water flow meter at the inlet of all unit processes in the plant.  Photographs of digital flow meters are attached as <b>Photo no. 18 &amp; 19.</b>
ix	The project proponent shall make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.	Not Applicable for Cement plant.

#### IV. Noise monitoring and prevention

i	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Noise Monitoring is being carried out as per the prescribed guidelines on regular basis. .  The noise monitoring report for the period October, 2020 to March, 2021 is attached as <b>Annexure-10.</b>
ii	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Regular monitoring of ambient noise levels is being carried out and the results are well within the norms. Ambient noise monitoring results during the period October, 2020 to March, 2021 is attached as <b>Annexure-10.</b>

#### V. Energy Conservation measures

i	Waste heat recovery system shall be provided for kiln and cooler.	Provided waste heat recovery system of capacity 55 MW for power generation from the waste heat gases of kiln & cooler.		
ii	The project proponent make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.	All efforts are being made to achieve power consumption & thermal energy consumption for cement & clinker production.		
		Year	Power consumption for cement production	Thermal energy consumption for Clinker
		2019-20	62.26	714

		2020-21	61.65	724
iii	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.	Provided solar light system for street lights at our colony area. Further we are planning to layout for the solar plant to be most efficient for solar powered lights for all common areas, street lights, parking around project area.		
iv	Provide the project proponent for LED lights in their offices and residential areas.	Provided LED lighting fixtures in all office areas. Photographs of the same is attached as <b>Photo no. 20.</b>		
v	Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.	Continuous efforts have been made for use of maximum fly ash in making PPC cement as per BIS standards. During the April-2020 to March-2021 total 6,21,285 MT fly ash used for PPC manufacturing in existing cement plant.		
vi	maximize utilization of alternate fuels and Co-processing to achieve best practice norms.	<p>For utilization/co-processing of Hazardous wastes in Cement kiln. We have obtained the authorization for various types of hazardous waste from CECB and Co-processing of hazardous &amp; non-hazardous waste such as ETP sludge, Organic residue, Process residue from pharmaceutical industries including RDF/MSW in cement kiln.</p> <p>Further we will explore the higher calorific wastes material for co-processing as AFR in our cement plant.</p>		

#### VI. Waste management

i	Used refractories shall be recycled as far as possible.	The used refractories are being sold to vendors for recycling.
ii	The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.	The used/spent oil generated are stored in earmarked area with concrete flooring and is only sold to CPCB/ SPCB authorized parties.
iii	Kitchen waste shall be composted or converted to biogas for further use.	Waste generated from kitchen is converted into manure which is used as bio-fertilizer in green belt development.

#### VII. Green Belt

i	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt	Out of Total plant area of 159.256 hectare, Green belt has been developed on 42.1 Hectare (26.4%)
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	shall inter alia cover the entire periphery of the plant	<p>area with 1,02,176 Nos. of saplings along with entire periphery of the plant.</p> <p>Additionally, under Hariyar Chhattisgarh project we have planted 15,000 saplings near school of Bharuwadih, Semradih, Khapradih, Chandi, Karahi &amp; Parkidih villages. Road side plantation of about 10 KM on both side of road from Bharuwadih to Chandi village has been done. And we have also planted 15,050 saplings at Bhatapara. Apart from that 2,000 sapling has been planted near the Logistic building.</p> <p>Local native species viz. Neem, Karanj, Platofarm, Cassia Siamea, Shisham etc. are planted to increase the survival rate.</p>
ii	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programmer for reduction of the same including carbon sequestration including plantation.	<p>During the year 2019-20 3060.27 Ton of CO2 sequestered by the trees plantation.</p> <p>During the year 2019-20 CO2 generation from the existing operation is 34,52,484 Tons and carbon sequestered during the year 2019-20 is 3060.27 Ton.</p>

#### **VIII. Public hearing and Human health issues**

i	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	The emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan is implemented.
ii	The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Being Complied
iii	Provision 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, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Provided temporary housing structures with all necessary infrastructure and facilities such as fuel for cooking, toilets, STP, safe drinking water, medical health care etc. for construction workers.
iv	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Occupational health programs are conducted on regular basis and records being maintained by the Occupation Health Center (OHC).

		<p>During the period of October, 2020 to March, 2021 total 5089 Nos. health checkup conducted.</p> <p>A sample copy of Occupational health surveillance is attached as <b>Annexure-11</b>.</p>
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#### **IX. Corporate Environment Responsibility**

i	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1 <sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.	All commitments made during the public hearing have been incorporated in CSR activities. Details of expenses for CSR activities from April- 2020 to March- 2021 enclosed as <b>Annexure- 12</b> .
ii	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholder's / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	<p>The company has framed Environmental Policy approved by Board of Directors and system of the reporting of any infringements/ non-compliance of EC conditions.</p> <p>The copy of the Environmental Policy is attached as <b>Annexure-13</b>.</p>
iii	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Established a separate Environmental Cell at project and company head quarter level with qualified person under the control of Jt. Vice President (Operation). The detailed organization chart is enclosed as <b>Annexure – 14</b> .
iv	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.	The funds earmarked for Environmental Protection measures are being utilized for the same and Total expenditure incurred during the period April-2020 to March-2021 is attached as <b>Annexure – 15</b> .
v	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Noted

vi	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.	All CREP recommendations have been implemented. Compliance status of CREP conditions is attached as <b>Annexure- 7</b> .
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#### **X. Miscellaneous**

i	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Advertised the environment clearance in two different newspapers with one in vernacular language " <b>Dainik Bhaskar</b> " & " <b>Times of India</b> " dated 14.09.2019 within the stipulated time period. The copy the EC letter has been put on the company website that can be downloaded from by the following link <a href="http://www.shreecement.com">www.shreecement.com</a>  The copy of advertisement is attached as <b>Annexure-16</b> .
ii	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Copy of EC letters have been submitted to the respective Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government date 13.09.2019 for their information.
iii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	The status of compliance of the stipulated environment clearance conditions, including results of monitored data uploaded on the company's website <a href="http://www.shreecement.com">www.shreecement.com</a> i.e. on half yearly basis.
iv	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	The monitoring data of ambient monitoring quality & stack emission is uploaded on our company website <a href="http://www.shreecement.com">www.shreecement.com</a> periodically i.e. on half yearly basis .  Monitoring data of existing cement plant is being displayed at main gate of the company in the public domain.  Photograph of the same is attached as <b>Photo no. 21</b> .
v	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	The Six monthly compliance reports on the status of the compliance of the stipulated environmental conditions is uploaded on the website of the MoEF&CC at Environment Clearance portal.
vi	The project proponent shall submit the environmental statement for each financial year in	The Environment statement for each financial year in FORM-V is submitting regularly to the

	Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Chhattisgarh Environment Conservation Board as prescribed under the Environment (Protection) Rules, 1986, and the copy of the same is also being uploaded in the company's website i.e. <a href="http://www.shreecement.com">www.shreecement.com</a>
vii	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Noted
viii	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Noted
ix	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	All the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing are being complied.
x	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Noted. Prior approval shall be obtained from MoEFCC in case of any expansion or modification in the plant.
xi	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted
xii	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
xiii	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted
xiv	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Noted



xv	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter	Noted
xvi	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted

**For Shree Raipur Cement Plant  
(A unit of Shree Cement Ltd.)**



**R K Vijay  
Joint VP (Operations)  
Enclosed: - As above**

**Annexure-1****Shree Raipur Cement Plant (A unit of Shree Cement Limited)****CER Expenditures FY - 2020-21**

S.No.	AREA OF CER	Expenditure in (Rs.)
<b>HEALTH AND FAMILY WELFARE</b>		
1	Renovation of public health center of village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi. 1. Construction of Male, Female and child ward 15 nos. 2. Construction of Male & Female toilet 20 nos. 3. Water cooler 05 nos. 4. Ambulance – 05 nos.	Construction of Public Toilet at Village- Chandi – <b>2,24,295</b>
2	Health management center with full-fledged medical check-up, doctors and nursing staff, free medicines and 10 beds for male & female ward for primary health treatment and availability of 24x7 ambulance at village Bharuadih.	Administrative expenses of Health Management Centers including medicines, ambulance maintenance and running charges- <b>8,54,080</b>
<b>EDUCATION AND SPORTS PROMOTION</b>		
3	Renovation of Govt. schools of village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi. 1. Construction of rooms: 25 rooms. 2. Construction of Male & Female toilet: 30 nos. 3. Water cooler 05 nos. 4. Computers labs- 05 nos. 5. Furniture's	--
4	English medium school of 12 <sup>th</sup> standards at village Bharuadih.	<b>15,57,00,000</b>
5	Sports complex in village Khaparadih and Bharuadih. 1. Construction of rooms: 2 rooms. 2. Construction of Male & Female toilet: 04 nos. 3. Water cooler 02 nos. 4. Preparation of playground: 02 nos. 5. Sports equipment's - 02 sets	--
<b>COMMUNITY INFRASTRUCTURE DEVELOPMENT PROJECTS</b>		
6	Construction of roads in village: 1. Bharuadih : 02 Kms. 2. Chandi : 03 Kms.	CC Road at Village- Chandi and CC road work at moksh dham at chandi village – <b>3,78,126</b> Construction of CC Road at Village- Bharuadih (Colony)- <b>23,32,266</b> CC Road at Village- Pausari- <b>1,26,052</b> Traffic road barrier – <b>50,479</b>
7	Construction of community center at village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi : 05 Nos.	Construction of community hall at Karhi- <b>3,59,534</b> Construction of Rangmanch at Bharuadih – <b>2,62,951</b>

		Construction of Rangmanch at Chandi – <b>1,85,021</b> Construction of Jai Stambh at Village- Bhruadih – <b>1,46,364</b> Costruction of Comunity hall- Village Bhruadih – <b>2,07,810</b> Construction of Temple at Village- Bharuadih – <b>1,50,847</b> Construction Of Jyoti Kaksh At Pausari – <b>1,39,267</b>
8	Drinking water tank at village Lohari & Paunsari	Drinking water pipeline for Village Sehmradih- <b>4,45,490</b> Extension of drinking water pipeline at Village Bhruadih – <b>22,686</b>
9	Renovation of existing water ponds for rainwater recharge and plantation all around the boundary of pond at village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi.	Pond deepening work at village – Bhruadih – <b>6,854</b>
10	Subsidy on drip irrigation system, seeds and agroforestry in 100 Ha agriculture land in nearby village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi	--
11	Plantation in nearby villages along the roads, Govt. offices, and available free space at village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi @ 5000 per year.	Plantation in nearby villages – <b>1,81,844</b> Grill fixing & plantation work between divider at distt. balodabazar main road- <b>19,88,026</b>
12	Installation of solar street lights at community center, common area, dispensary, bus stand and school at village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi.	--
	<b>Total</b>	<b>16,37,61,992</b>



Construction of CC road at Bharuadih



Construction of Rangmanch at Bharuadih



Construction of Rangmanch at Chandi



Construction of community hall at Bharuadih



Construction of Public toilet at Chandi



Construction of Jai Stambh at Bharuadih



Traffic road barrier



Grill fixing & plantation work at Balodabazar Main road

**Shree Raipur Cement Plant****(A Unit of Shree Cement Limited)****Water Consumption Report for the period  
October-2020 to March-2021**

<b>Month</b>	<b>Process/ Industrial Water</b>	<b>Domestic Water</b>
<b>Oct-20</b>	21707	20991
<b>Nov-20</b>	15274	24220
<b>Dec-20</b>	16499	27137
<b>Jan-21</b>	19302	29935
<b>Feb-21</b>	27085	20723
<b>Mar-21</b>	30654	28835
<b>Total</b>	<b>130521</b>	<b>151841</b>
<b>Approved Quantity</b>		<b>3000 KL/ Day</b>



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Accredited Organisation by National Accreditation Board for Testing and Calibration  
Laboratories (NABL) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CIN : U74999MP2020PTC052747

## TEST REPORT

AMBIENT AIR QUALITY REPORT	
Name & Address of the Customer <b>To,</b> <b>M/s. SHREE RAIPUR CEMENT PLANT</b> <b>(A Unit of Shree Cement Ltd).</b> Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar- Bhatapara, Chhattisgarh-493332.	Test Report No: CES/LAB/20-21/346 Issue Date : 23.03.2021 Client Ref: Nil Date : Nil
Method of test : IS: 5182 Part - 5: 1975	<b>Sampling Details</b>
Test required: As per work order	Sample Monitored : Fugitive Dust monitoring
Sample Collected By:- Gatih Laboratories	Date of Sampling : 17.03.2021 to 18.03.2021
Instrument to be used: Eco Tech FDS	Date of Receipt : 19.03.2021
Atmospheric condition : OK	Period of testing : 19.03.2021 to 23.03.2021
Page : 1 of 2	Duration of sampling : 24 hrs

AMBIENT AIR QUALITY RESULTS					
S. No.	Parameters	Fugitive	Pollutant Concentration		
			L.S Crusher Load Center	Nr. Mines Weight Bridge	Nr. Packing Plant
1	Ambient Temp. (°C)		30	30	30
2	Wind direction		W	W	W
3	Wind speed km/h		11	11	11
4	Relative Humidity %		58	58	58
	<b>Parameters</b>				
1	Suspended Particulate matter (µg/m³).	5000	1863.00	2246.00	2415.00

For CES Analytical and Research Services (I) Pvt. Ltd

#The Results relate only to the sample tested/ sampled

Authorized Signatory



42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.creativeenviroservices.com

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Cert No.: TC-6872

## TEST REPORT

AMBIENT AIR QUALITY REPORT		
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd). Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar- Bhatapara, Chhattisgarh-493332.		Test Report No:-CES/LAB/20-21/300 Issue Date : 23.03.2021 Client Ref: Nil Date : Nil
Method of test : IS: 5182 Part - 5: 1975	Sampling Details	
Test required: As per work order	Sample Monitored	: Fugitive Dust monitoring
Sample Collected By:- Gatih Laboratories	Date of Sampling	: 17.03.2021 to 18.03.2021
Instrument to be used: Eco Tech FDS	Date of Receipt	: 19.03.2021
Atmospheric condition : OK	Period of testing	: 19.03.2021 to 23.03.2021
Page : 2 of 2	Duration of sampling	: 24 hrs

AMBIENT AIR QUALITY RESULTS			
S. No.	Parameters	Fugitive	Pollutant Concentration Nr. Coal Crusher Building
1	Ambient Temp. (°C)		30
2	Wind direction		W
3	Wind speed km/h		11
4	Relative Humidity %		58
	Parameters		
1	Suspended Particulate matter ( $\mu\text{g}/\text{m}^3$ ).	2000	924.00

For CES Analytical and Research Services (I) Pvt. Ltd

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Authorized Signatory



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**Shree Raipur Cement Plant**  
(A Unit of Shree Cement Ltd)

**Online CEMS Stack Emission Monitoring Report (Monthly Average Values)**

Name of Stacks		Cement Mill	Coal Mill Stack-I	Coal Mill Stack-II	Clinker Cooler Stack-I	Clinker Cooler Stack-II	Raw Mill & Kiln Stack-I			Raw Mill & Kiln Stack-II			Captive Power plant Stack			
S. No.	Month						PM	PM	PM	PM	SO2	NOx	PM	SO2	NOx	PM
Norms (mg/Nm3)		30	30	30	30	30	30	100	600	30	100	600	50	600	300	
1	Oct-20	14.32	16.18	15.68	10.71	12.44	8.87	0.22	361.92	11.80	0.08	380.96	33.25	171.68	178.96	
2	Nov-20	12.16	16.06	15.46	10.52	12.96	8.56	0.02	407.18	12.06	0.00	420.19	32.81	159.71	231.86	
3	Dec-20	13.01	11.96	11.27	10.00	12.11	8.62	0.00	407.06	12.88	0.00	452.81	32.75	276.56	82.88	
4	Jan-21	13.62	14.37	13.70	11.11	8.05	9.50	0.07	452.47	12.11	0.00	486.05	30.54	200.15	88.18	
5	Feb-21	14.68	14.40	11.65	11.27	6.61	9.74	0.02	359.70	13.27	0.00	402.02	33.76	184.96	102.56	
6	Mar-21	14.55	14.59	13.19	11.24	7.51	9.65	0.00	407.34	15.35	0.00	370.10	33.77	254.57	72.62	





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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT (For the Month of October- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP/ST7
Address	(A Unit of M/s. Shree Cement Ltd), Village -Khapradh, Dist: Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Raw mill & Kiln Line-1
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	23/10/2020
Date of Analysis	27/10/2020	Date of Sample Received	27/10/2020
Date of Completion	31/10/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Time of Sampling	12:15 PM	Location Co-ordinates	21°36'10" N 82°02'29" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	150
2.	Diameter	Mt.	5.0
3.	Stack Temperature	°C	87
4.	Ambient Temperature	°C	38
5.	Velocity	m/sec.	9.4
6.	Type of fuel used	-	Coal/PC
7.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	550235.71
8.	Moisture	%	4.2
9.	Stack Attached to	-	RABH

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	10.72	11.65	30	IS 11255 (Part 1):1985 RA2014
2.	Sulphur Dioxide (as SO <sub>2</sub> )	mg/Nm <sup>3</sup>	0	0	100	IS 11255 (Part 2):1985 RA2014
3.	Oxides of Nitrogen (as NO <sub>2</sub> )	mg/Nm <sup>3</sup>	353	365	600	IS 11255 (Part 7):2005 RA2017

  
Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
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- Sample will be retained till one month from the date of sampling.



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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT (For the Month of October - 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP/ST5
Address	(A Unit of M/s.Shree Cement Ltd), Village - Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Clinker Cooler Line-I
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	23/10/2020
Date of Analysis	27/10/2020	Date of Sample Received	27/10/2020
Date of Completion	31/10/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Time of Sampling	03:15 PM	Location Co-ordinates	21°36'11" N 82°02'31" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	55
2.	Diameter	Mt.	4.3
3.	Stack Temperature	°C	150
4.	Ambient Temperature	°C	35
5.	Velocity	m/sec.	7.84
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	288865.73
7.	Moisture	%	3.5
8.	Stack Attached to	-	ESP

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	10.84	11.85	30	IS 11255 (Part 1):1985 RA 2014

  
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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT (For the Month of October - 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP /ST6
Address	(A Unit of M/s.Shree Cement Ltd), Village - Khapradih, Dist: Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Coal mill Line-1
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	23/10/2020
Date of Analysis	27/10/2020	Date of Sample Received	27/10/2020
Date of Completion	31/10/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Time of Sampling	11:00 AM	Location Co-ordinates	21°36'05" N 82°02'26" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	68
2.	Diameter	Mt.	1.6
3.	Stack Temperature	°C	74
4.	Ambient Temperature	°C	30
5.	Velocity	m/sec.	7.88
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	48027.56
7.	Moisture	%	4.2
8.	Stack Attached to	-	Bag house

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	19.76	21.22	30	IS 11255 (Part 1):1985 RA 2014



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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT (For the Month of October - 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP/ST2
Address	(A Unit of M/s.Shree Cement Ltd), Village - Khapradih, Dist: Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Cement Mill
		Date of Sampling	23/10/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	27/10/2020
Date of Analysis	27/10/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Date of Completion	31/10/2020	Location Co-ordinates	21°36'11" N 82°02'29" E
Time of Sampling	09:30 AM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	42
2.	Diameter	Mt.	2.8
3.	Stack Temperature	°C	94
4.	Ambient Temperature	°C	28
5.	Velocity	m/sec.	8.02
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	144413.50
7.	Moisture	%	3.3
8.	Stack Attached to	-	Bag House

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	16.55	17.83	30	IS 11255 (Part 1):1985 RA 2014



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Report No: -GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT

(For the Month of October- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP/ST9
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist: Baloda Bazar- Bhatapara, Raipur, Chattisgarh-492001	Location	Raw mill & Kiln Line-2
		Date of Sampling	24.10.2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	27/10/2020
Date of Analysis	27/10/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Date of Completion	31/10/2020	Location Co-ordinates	21°36'07" N 82°02'29" E
Time of Sampling	02:20 PM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	175
2.	Diameter	Mt.	5.6
3.	Stack Temperature	°C	90
4.	Ambient Temperature	°C	39
5.	Velocity	m/sec.	8.9
6.	Type of fuel used	-	Coal/PC
7.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	516587.19
8.	Moisture	%	4.4
9.	Stack Attached to	-	RABH

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	14.76	15.72	30	IS 11255 (Part 1):1985 RA2014
2.	Sulphur Dioxide (as SO <sub>2</sub> )	mg/Nm <sup>3</sup>	0	0	100	IS 11255 (Part 2):1985 RA2014
3.	Oxides of Nitrogen (as NO <sub>2</sub> )	mg/Nm <sup>3</sup>	384.75	420	600	IS 11255 (Part 7):2005 RA2017

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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT

(For the Month of October - 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP/ST8
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh-492001	Location	Clinker Cooler Line-2
		Date of Sampling	24/10/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	27/10/2020
Date of Analysis	27/10/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Date of Completion	31/10/2020	Location Co-ordinates	21°36'06" N 82°02'32" E
Time of Sampling	03:30 PM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	60
2.	Diameter	Mt.	4.3
3.	Stack Temperature	°C	120
4.	Ambient Temperature	°C	32
5.	Velocity	m/sec.	7.58
6.	Volumetric Flow Rate	Nm³/hr.	300649.88
7.	Moisture	%	3.5
8.	Stack Attached to	-	ESP

Sr. No.	Parameters	Unit	Opacity Meter Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm³	11.62	12.43	30	IS 11255 (Part 1):1985 RA2014

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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT

(For the Month of October - 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP/ST1
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Coal Mill Line-2
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	24/10/2020
Date of Analysis	27/10/2020	Date of Sample Received	27/10/2020
Date of Completion	31/10/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-I
Time of Sampling	05:00 PM	Location Co-ordinates	21°36'02" N 82°02'27" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	68
2.	Diameter	Mt.	1.6
3.	Stack Temperature	°C	76
4.	Ambient Temperature	°C	31
5.	Velocity	m/sec.	8.22
6.	Volumetric Flow Rate	Nm3/hr.	49777.31
7.	Moisture	%	3.1
8.	Stack Attached to	-	Bag House

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	19.05	18.32	30	IS 11255 (Part 1):1985 RA 2014



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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT (For the Month of October- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP/ST10
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih,Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh-492001	Location	CPP 25 MW
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	23/10/2020
Date of Analysis	27/10/2020	Date of Sample Received	27/10/2020
Date of Completion	31/10/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Time of Sampling	04:30 PM	Location Co-ordinates	21°36'10" N 82°02'29" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	92.0
2.	Diameter	Mt.	3.67
3.	Stack Temperature	°C	135
4.	Ambient Temperature	°C	35
5.	Velocity	m/sec.	7.35
6.	Type of fuel used	-	Coal
7.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	204470.95
8.	Moisture	%	3.0
9.	Stack Attached to	-	ESP

Sr. No.	Parameters	Unit	Opacity Meter Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	28.76	31.44	50	IS 11255 (Part 1): 1985 RA 2014
2.	Sulphur Dioxide (as SO <sub>2</sub> )	mg/Nm <sup>3</sup>	111.91	120.41	600	IS 11255 (Part 2): 1985 RA 2014
3.	Oxides of Nitrogen (as NO <sub>2</sub> )	mg/Nm <sup>3</sup>	220.57	238.42	300	IS 11255 (Part 7): 2005 RA 2014
4.	Mercury (as Hg)	mg/Nm <sup>3</sup>	-	0.004	0.03	LATS/80/2013-14 CPCB

Authorized Signatory

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*[Signature]*  
GCI/V/20/J4/SSP/ST10





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(No. Q - 1508 / 32 / 2007 - CPW)  
(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ November -00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST1
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Raw mill & Kiln Line-1
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	04/11/2020
Date of Analysis	07/11/2020	Date of Sample Received	07/11/2020
Date of Completion	13/11/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Time of Sampling	11:00 AM	Location Co-ordinates	21°36'10" N 82°02'29" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	150
2.	Diameter	Mt.	5.0
3.	Stack Temperature	°C	86
4.	Ambient Temperature	°C	30
5.	Velocity	m/sec.	7.8
6.	Type of fuel used	-	Coal/PC
7.	Volumetric Flow Rate	Nm³/hr.	457850.38
8.	Moisture	%	4.1
9.	Stack Attached to	-	RABH

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm³	8.34	9.15	30	IS 11255 (Part 1):1985 RA2014
2.	Sulphur Dioxide (as SO₂)	mg/Nm³	0	0	100	IS 11255 (Part 2):1985 RA2014
3.	Oxides of Nitrogen (as NO₂)	mg/Nm³	371.09	390.47	600	IS 11255 (Part 7):2005 RA2017

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Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/ November -00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/KI/SSP/ST5
Address	(A Unit of M/s.Shree Cement Ltd), Village - Khapradih, Dist: Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Clinker Cooler Line-1
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	03/11/2020
Date of Analysis	07/11/2020	Date of Sample Received	07/11/2020
Date of Completion	13/11/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Time of Sampling	04:10 PM	Location Co-ordinates	21°36'11" N 82°02'31" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height		
2.	Diameter	Mt.	55
3.	Stack Temperature	Mt.	4.3
4.	Ambient Temperature	°C	112
5.	Velocity	°C	31
6.	Volumetric Flow Rate	m/sec.	5.9
7.	Moisture	Nm <sup>3</sup> /hr.	238842.50
8.	Stack Attached to	%	3.5
			ESP

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	10.29	11.25	30	IS 11255 (Part 1):1985 RA 2014

*Shital*  
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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST6
Address	(A Unit of M/s.Shree Cement Ltd). Village - Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Coal mill Line-I
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	04/11/2020
Date of Analysis	07/11/2020	Date of Sample Received	07/11/2020
Date of Completion	13/11/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Time of Sampling	11:30 AM	Location Co-ordinates	21°36'05" N 82°02'26" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	68
2.	Diameter	Mt.	1.6
3.	Stack Temperature	°C	60
4.	Ambient Temperature	°C	29
5.	Velocity	m/sec.	6.1
6.	Volumetric Flow Rate	Nm³/hr.	38741.76
7.	Moisture	%	4.1
8.	Stack Attached to		Bag house

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm³	18.79	19.18	30	IS 11255 (Part 1):1985 RA 2014

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Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/ November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST2
Address	(A Unit of M/s.Shree Cement Ltd), Village - Khapradih, Dist: Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Cement Mill
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	03/11/2020
Date of Analysis	07/11/2020	Date of Sample Received	07/11/2020
Date of Completion	13/11/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Time of Sampling	02: 45 PM	Location Co-ordinates	21°36'11" N 82°02'29" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	42
2.	Diameter	Mt.	2.8
3.	Stack Temperature	°C	97
4.	Ambient Temperature	°C	33
5.	Velocity	m/sec.	6.3
6.	Volumetric Flow Rate	Nm³/hr.	112522.22
7.	Moisture	%	3.7
8.	Stack Attached to	-	Bag House

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm³	18.53	19.85	30	IS 11255 (Part 1):1985 RA 2014

  
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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ November -00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP /ST9
Address	(A Unit of M/s.Shree Cement Ltd),	Location	Raw mill &Kiln Line-2
	Village -Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Date of Sampling	04/11/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	07/11/2020
Date of Analysis	07/11/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Date of Completion	13/11/2020	Location Co-ordinates	21°36'07" N 82°02'29" E
Time of Sampling	04:20 PM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	175
2.	Diameter	Mt.	5.6
3.	Stack Temperature	°C	89
4.	Ambient Temperature	°C	30
5.	Velocity	m/sec.	8.6
6.	Type of fuel used		Coal/PC
7.	Volumetric Flow Rate	Nm³/hr.	500563.07
8.	Moisture	%	4.0
9.	Stack Attached to		RABH

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm³	11.38	12.45	30	IS 11255 (Part 1):1985 RA2014
2.	Sulphur Dioxide (as SO₂)	mg/Nm³	0	0	100	IS 11255 (Part 2):1985 RA2014
3.	Oxides of Nitrogen (as NO₂)	mg/Nm³	428.66	465.55	600	IS 11255 (Part 7):2005 RA2017

*Shital*  
Authorized Signatory

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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ November -00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST8
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khopradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh-492001	Location	Clinker Cooler Line-2
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Date of Analysis	07/11/2020	Date of Sample Received	07/11/2020
Date of Completion	13/11/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Time of Sampling	09:45 AM	Location Co-ordinates	21°36'06" N 82°02'32" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	60
2.	Diameter	Mt.	4.3
3.	Stack Temperature	°C	119
4.	Ambient Temperature	°C	28
5.	Velocity	m/sec.	5.8
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	230635.58
7.	Moisture	%	3.2
8.	Stack Attached to	-	ESP

Sr. No.	Parameters	Unit	Opacity Meter Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	14.63	15.89	30	IS 11255 (Part 1):1985 RA2014

*Shilpa*  
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Report No: -GCI/V/LAB/EM-G0121/19-SP/19-20/ November -00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November- 2020)

Client Details		Sample Details	
<b>Name</b>	M/s. SHREE RAIPUR CEMENT PLANT	<b>Sample Code</b>	GCI/V/20/K1/SSP /ST1
<b>Address</b>	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	<b>Location</b>	Coal Mill Line-2
<b>Sampling Done By</b>	GCI REPRESENTATIVE	<b>Date of Sampling</b>	04/11/2020
<b>Date of Analysis</b>	07/11/2020	<b>Date of Sample Received</b>	07/11/2020
<b>Date of Completion</b>	13/11/2020	<b>Sampling Method</b>	Isokinetic Sampling, IS:11255, PART-1
<b>Time of Sampling</b>	03:00 PM	<b>Location Co-ordinates</b>	21°36'02" N 82°02'27" E
		<b>Stack Shape at Top</b>	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	68
2.	Diameter	Mt.	1.6
3.	Stack Temperature	°C	60
4.	Ambient Temperature	°C	29
5.	Velocity	m/sec.	6.1
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	38714.23
7.	Moisture	%	3.4
8.	Stack Attached to	-	Bag House

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	17.47	18.72	30	IS 11255 (Part 1):1985 RA 2014

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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ November -00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST10
Address	{A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh-492001	Location	CPP 25 MW
		Date of Sampling	05/11/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	07/11/2020
Date of Analysis	07/11/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Date of Completion	13/11/2020	Location Co-ordinates	21°36'10" N 82°02'29" E
Time of Sampling	11:30 AM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	92.0
2.	Diameter	Mt.	3.67
3.	Stack Temperature	°C	100
4.	Ambient Temperature	°C	30
5.	Velocity	m/sec.	5.6
6.	Type of fuel used	-	Coal
7.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	170405.51
8.	Moisture	%	2.8
9.	Stack Attached to	-	ESP

Sr. No.	Parameters	Unit	Opacity Meter Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	33.73	36.15	50	IS 11255 (Part 1): 1985 RA 2014
2.	Sulphur Dioxide (as SO <sub>2</sub> )	mg/Nm <sup>3</sup>	168.25	180.56	600	IS 11255 (Part2): 1985 RA 2014
3.	Oxides of Nitrogen (as NO <sub>2</sub> )	mg/Nm <sup>3</sup>	216.40	230.68	300	IS 11255 (Part 7): 2005 RA 2014
4.	Mercury (as Hg)	mg/Nm <sup>3</sup>	-	0.004	0.03	LATS/80/2013-14 CPCB

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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/December -00/0400

Date: 02/01/2021

## ANALYSIS REPORT

(For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST1
Address	(A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist: Baroda Bazar-Bhatapara, Raipur, Chhattisgarh-492001	Location	Raw mill & Kiln Line-1
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	24/12/2020
Date of Analysis	29/12/2020	Date of Sample Received	29/12/2020
Date of Completion	02/01/2021	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Time of Sampling	02:15 PM	Location Co-ordinates	21°36'10" N 82°02'29" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	150
2.	Diameter	Mt.	5.0
3.	Stack Temperature	°C	98
4.	Ambient Temperature	°C	24
5.	Velocity	m/sec.	6.06
6.	Type of fuel used	-	Coal/PC
7.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	344208.93
8.	Moisture	%	4.1
9.	Stack Attached to	-	RABH

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	9.88	10.49	30	IS 11255 (Part 1):1985 RA2014
2.	Sulphur Dioxide (as SO <sub>2</sub> )	mg/Nm <sup>3</sup>	0	0	100	IS 11255 (Part 2):1985 RA2014
3.	Oxides of Nitrogen (as NO <sub>2</sub> )	mg/Nm <sup>3</sup>	382.6	410.15	600	IS 11255 (Part 7):2005 RA2017



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Report No:-GCI/V/LAB/EM-G0121/19-3F/19-20/December -00/0400

Date: 02/01/2021

## ANALYSIS REPORT (For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST5
Address	(A Unit of M/s.Shree Cement Ltd), Village - Khapradih, Disl: Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Clinker Cooler Line-1
		Date of Sampling	24/12/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	29/12/2020
Date of Analysis	29/12/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Date of Completion	02/01/2021	Location Co-ordinates	21°36'11" N 82°02'31" E
Time of Sampling	03:30 PM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	55
2.	Diameter	Mt.	4.3
3.	Stack Temperature	°C	91
4.	Ambient Temperature	°C	22
5.	Velocity	m/sec.	6.04
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	258616.29
7.	Moisture	%	3.2
8.	Stack Attached to	-	ESP

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	10.15	10.58	30	IS 11255 (Part 1):1985 RA 2014



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Report No:-GCI/V/LAB/EM-G0121/19-3P/19-20/December -00/0400

Date: 02/01/2021

## ANALYSIS REPORT

(For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST6
Address	{A Unit of M/s.Shree Cement Ltd}, Village - Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Coal mill Line-I
		Date of Sampling	24/12/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	29/12/2020
Date of Analysis	29/12/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Date of Completion	02/01/2021	Location Co-ordinates	21°36'05" N 82°02'26" E
Time of Sampling	10:15 AM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	68
2.	Diameter	Mt.	1.6
3.	Stack Temperature	°C	65
4.	Ambient Temperature	°C	26
5.	Velocity	m/sec.	6.05
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	37855.80
7.	Molsture	%	4.0
8.	Stack Attached to	-	Bag house

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	17.54	18.43	30	IS 11255 (Part 1):1985 RA 2014



Authorized Signatory

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(No. Q - 1508 / 32 / 2007 - CPW)  
(ISO 9001, 14001 & OHSAS 18001 Certified Organisation)

Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/December -00/0400

Date: 02/01/2021

## ANALYSIS REPORT

(For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST2
Address	(A Unit of M/s.Shree Cement Ltd), Village - Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Cement Mill
		Date of Sampling	24/12/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	29/12/2020
Date of Analysis	29/12/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-I
Date of Completion	02/01/2021	Location Co-ordinates	21°36'11" N 82°02'29" E
Time of Sampling	09:45 AM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	42
2.	Diameter	Mt.	2.8
3.	Stack Temperature	°C	92
4.	Ambient Temperature	°C	27
5.	Velocity	m/sec.	6.31
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	114244.68
7.	Moisture	%	3.5
8.	Stack Attached to	-	Bag House

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	18.27	17.81	30	IS 11255 (Part 1):1985 RA 2014

Authorized Signatory  
19/01/2021

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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/December -00/0400

Date: 02/01/2021

## ANALYSIS REPORT

(For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP /ST9
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh-492001	Location	Raw mill & Kiln Line-2
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	23/12/2020
Date of Analysis	28/12/2020	Date of Sample Received	28/12/2020
Date of Completion	02/01/2021	Sampling Method	Isokinetic Sampling. IS:11255, PART-1,2,3
Time of Sampling	02:30 PM	Location Co-ordinates	21°36'07" N 82°02'29" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	175
2.	Diameter	Mt.	5.6
3.	Stack Temperature	°C	120
4.	Ambient Temperature	°C	28
5.	Velocity	m/sec.	6.42
6.	Type of fuel used	-	Coal/PC
7.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	344193.55
8.	Moisture	%	3.7
9.	Stack Attached to	-	RABH

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	13.23	12.22	30	IS 11255 (Part 1):1985 RA2014
2.	Sulphur Dioxide (as SO <sub>2</sub> )	mg/Nm <sup>3</sup>	0	0	100	IS 11255 (Part 2):1985 RA2014
3.	Oxides of Nitrogen (as NO <sub>2</sub> )	mg/Nm <sup>3</sup>	455.92	470.34	600	IS 11255 (Part 7):2005 RA2017

  
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Report No:-GCI/V/LAB/EM-G0121/19-SF/19-20/December -00/0400

Date: 02/01/2021

## ANALYSIS REPORT

(For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST8
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh-492001	Location	Clinker Cooler Line-2
		Date of Sampling	23/12/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	28/12/2020
Date of Analysis	28/12/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Date of Completion	02/01/2021	Location Co-ordinates	21°36'06" N 82°02'32" E
Time of Sampling	11:15 AM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	60
2.	Diameter	Mt.	4.3
3.	Stack Temperature	°C	63
4.	Ambient Temperature	°C	22
5.	Velocity	m/sec.	5.13
6.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	237992.06
7.	Moisture	%	3.3
8.	Stack Attached to	-	ESP

Sr. No.	Parameters	Unit	Opacity Meter Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	10.34	11.27	30	IS 11255 (Part 1):1985 RA2014



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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/December-00/0400

Date: 02/01/2021

## ANALYSIS REPORT (For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP /STI
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Location	Coal Mill Line-2
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	23/12/2020
Date of Analysis	28/12/2020	Date of Sample Received	28/12/2020
Date of Completion	02/01/2021	Sampling Method	Isokinetic Sampling, IS:11255, PART-1
Time of Sampling	03:45 PM	Location Co-ordinates	21°36'02" N 82°02'27" E
		Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	68
2.	Diameter	Mt.	1.6
3.	Stack Temperature	°C	65
4.	Ambient Temperature	°C	26
5.	Velocity	m/sec.	5.97
6.	Volumetric Flow Rate	Nm3/hr.	37328.68
7.	Moisture	%	3.2
8.	Stack Attached to	-	Bag House

Sr. No.	Parameters	Unit	CEMS Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	17.21	17.06	30	IS 11255 (Part 1):1985 RA 2014



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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/December -00/0400

Date: 02/01/2021

## ANALYSIS REPORT

(For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/ST10
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh-492001	Location	CPP 25 MW
		Date of Sampling	23/12/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	28/12/2020
Date of Analysis	28/12/2020	Sampling Method	Isokinetic Sampling, IS:11255, PART-1,2,3
Date of Completion	02/01/2021	Location Co-ordinates	21°36'10" N 82°02'29" E
Time of Sampling	09:30 AM	Stack Shape at Top	Round

## STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results
1.	Stack Height	Mt.	92.0
2.	Diameter	Mt.	3.67
3.	Stack Temperature	°C	116
4.	Ambient Temperature	°C	27
5.	Velocity	m/sec.	5.39
6.	Type of fuel used	-	Coal
7.	Volumetric Flow Rate	Nm <sup>3</sup> /hr.	157269.17
8.	Moisture	%	3.2
9.	Stack Attached to	-	ESP

Sr. No.	Parameters	Unit	Opacity Meter Reading	Results	Norms	Reference Method
1.	Particulate Matter	mg/Nm <sup>3</sup>	37.16	39.35	50	IS 11255 (Part 1): 1985 RA 2014
2.	Sulphur Dioxide (as SO <sub>2</sub> )	mg/Nm <sup>3</sup>	260.65	285.47	600	IS 11255 (Part2): 1985 RA 2014
3.	Oxides of Nitrogen (as NO <sub>2</sub> )	mg/Nm <sup>3</sup>	143.15	152.56	300	IS 11255 (Part 7): 2005 RA 2014
4.	Mercury (as Hg)	mg/Nm <sup>3</sup>	-	0.005	0.03	LATS/80/2013-14 CPCB



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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chhattisgarh-493332.	Test Report No: CES/Lab/20-21/ / 85 Dispatch No.: 185 Issue Date : 20.01.2021	
Method of test : IS: 11255	Sampling Details	
Time of Sampling : 04:30 PM	Sample Monitored	: Stack
Location of stack : - 21°36'10" N, 82°02'29" E	Date of Receipt	: 15.01.2021
Sample Collected By:- Gath Laboratories	Period of testing	: 15.01.2021 to 20.01.2021
Page no. 1 of 10	Atmospheric condition	: Clear

S. No.	Stack Details	Stack
1	Date of Sample	12.01.2021
2	Source of collection : Stack attached to	RABH
3	Location of Stack	Raw Mill & Kiln Line-1
4	Ambient Temp. (°C)	19
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	80
7	Exit Velocity of the flue gases (m/sec)	5.49
8	Total Heights of stack (m)	150
9	Diameter of stack in (m)	5.00
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	327733.67
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> ) Pollutant Concentration (mg/Nm <sup>3</sup> )
	Particulate matter (PM) - Part-1 - 1985 RA 2014	30 10.45
	Sulphur Di-Oxide (SO <sub>2</sub> ) - Part-2 - 1985 RA 2014	100 0.00
	Oxide of Nitrogen (NO <sub>2</sub> ) - Part-7 - 2005 RA 2017	600 490.16

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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332.	Test Report No: CES/Lab/20-21/85 Dispatch No.: Issue Date : 20.01.2021	
Method of test : IS: 11255	Sampling Details	
Time of Sampling : 11:15 AM	Sample Monitored	: Stack
Location of stack : - 21°36'11" N 82°02'31" E	Date of Receipt	: 15.01.2021
Sample Collected By:- Gatih Laboratories	Period of testing	: 15.01.2021 to 20.01.2021
Page no. 2 of 10	Atmospheric condition	: Clear

S. No.	Stack Details	Stack
1	Date of Sample	14.01.2021
2	Source of collection : Stack attached to	ESP
3	Location of Stack	Clinker Cooler Line-1
4	Ambient Temp. (°C)	25
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	95
7	Exit Velocity of the flue gases (m/sec)	6.30
8	Total Heights of stack (m)	55
9	Diameter of stack in (m)	4.30
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	266816.73
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> ) Pollutant Concentration (mg/Nm <sup>3</sup> )
Particulate matter (PM) -Part -1-1985 RA 2014		30 12.67

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## TEST REPORT

STACK MONITORING SURVEY REPORT	
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332.	Test Report No: <b>CES/Lab/20-21/ 85</b> Dispatch No.: Issue Date : 20.01.2021
Method of test : <b>IS: 11255</b>	Sampling Details
Time of Sampling : <b>02:50 PM</b>	Sample Monitored : <b>Stack</b>
Location of stack : <b>21°36'05" N, 82°02'26" E</b>	Date of Receipt : <b>15.01.2021</b>
Sample Collected By:- <b>Gatih Laboratories</b>	Period of testing : <b>15.01.2021 to 20.01.2021</b>
Page no. 3 of 10	Atmospheric condition : <b>Clear</b>

S. No.	Stack Details	Stack
1	Date of Sample	14.01.2021
2	Source of collection : Stack attached to	Bag house
3	Location of Stack	Coal Mill Line-1
4	Ambient Temp. (°C)	22
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	58
7	Exit Velocity of the flue gases (m/sec)	5.26
8	Total Heights of stack (m)	68
9	Diameter of stack in (m)	1.60
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	33608.68
11	Parameters with Protocol of Method	Pollutant Concentration (mg/Nm <sup>3</sup> )
	Particulate matter (PM) - Part-1-1985 RA 2014	30
		19.02

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42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com. Websearch : www.creativebusinessonline.com



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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.	<b>Test Report No: CES/Lab/20-21/ /8.5</b> Dispatch No.: Issue Date : 20.01.2021	
<b>Method of test : IS: 11255</b>	<b>Sampling Details</b>	
<b>Time of Sampling : 10:00 AM</b>	<b>Sample Monitored</b>	: Stack
<b>Location of stack : - 21°36'11" N, 82°02'29" E</b>	<b>Date of Receipt</b>	: 15.01.2021
<b>Sample Collected By:- Gatih Laboratories</b>	<b>Period of testing</b>	: 15.01.2021 to 20.01.2021
<b>Page no. 4 of 10</b>	<b>Atmospheric condition</b>	: Clear

S. No.	Stack Details	Stack
1	Date of Sample	14.01.2021
2	Source of collection : Stack attached to	Bag house
3	Location of Stack	Cement Mill
4	Ambient Temp. (°C)	27
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	77
7	Exit Velocity of the flue gases (m/sec)	6.37
8	Total Heights of stack (m)	42
9	Diameter of stack in (m)	2.80
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	120273.75
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> ) Pollutant Concentration (mg/Nm <sup>3</sup> )
Particulate matter (PM) -Part -1-1985 RA 2014		30 17.35

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## TEST REPORT

STACK MONITORING SURVEY REPORT			
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradib, Dist.: Baloda Bazar-Bhatapara, Chhattisgarh-493332.		Test Report No: CES/Lab/20-21/ /85 Dispatch No.: Issue Date : 20.01.2021	
Method of test : IS: 11255		Sampling Details	
Time of Sampling : 11:30 AM		Sample Monitored	: Stack
Location of stack : - 21°36'10" N, 82°02'29" E		Date of Receipt	: 15.01.2021
Sample Collected By:- Gatih Laboratories		Period of testing	: 15.01.2021 to 20.01.2021
Page no. 5 of 10		Atmospheric condition	: Clear

S. No.	Stack Details		Stack
1	Date of Sample		14.01.2021
2	Source of collection : Stack attached to		RABH
3	Location of Stack		Raw Mill & Kiln Line-2
4	Ambient Temp. (°C)		18
5	Type of fuel		Coal/PC
6	Flue gas Temp. (°C)		88
7	Exit Velocity of the flue gases (m/sec)		5.74
8	Total Heights of stack (m)		175
9	Diameter of stack in (m)		5.60
10	Flue gas flow rate (Nm <sup>3</sup> /hr)		335015.53
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> )	Pollutant Concentration (mg/Nm <sup>3</sup> )
	Particulate matter (PM) -Part -1-1985 RA 2014	30	12.74
	Sulphur Di-Oxide (SO <sub>2</sub> )- Part-2 - 1985 RA 2014	100	<4.00
	Oxide of Nitrogen (NO <sub>2</sub> ) - Part-7, 2005 RA 2017	600	512.34

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## TEST REPORT

STACK MONITORING SURVEY REPORT	
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> <b>(A Unit of M/s. Shree Cement Ltd),</b> <b>Village -Khapradih, Dist: Baloda Bazar-</b> <b>Bhatapara, Chhattisgarh-493332.</b>	Test Report No: CES/Lab/20-21/ 85 Dispatch No.: Issue Date : 20.01.2021
Method of test : IS: 11255	Sampling Details
Time of Sampling : 03:15 PM	Sample Monitored : Stack
Location of stack : - 21°36'06" N, 82°02'32" E	Date of Receipt : 15.01.2021
Sample Collected By:- Gatih Laboratories	Period of testing : 15.01.2021 to 20.01.2021
Page no. 6 of 10	Atmospheric condition : Clear

S. No.	Stack Details	Stack
1	Date of Sample	14.01.2021
2	Source of collection : Stack attached to	ESP
3	Location of Stack	Clinker Cooler Line-2
4	Ambient Temp. (°C)	29
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	75
7	Exit Velocity of the flue gases (m/sec)	5.79
8	Total Heights of stack (m)	60
9	Diameter of stack in (m)	4.30
10	Flue gas flow rate (Nm³/hr)	259348.48
11	Parameters with Protocol of Method	Limit (mg/Nm³) Pollutant Concentration (mg/Nm³)
	Particulate matter (PM) -Part -1-1985 RA 2014	30 8.49

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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.</b>	<b>Test Report No: CES/Lab/20-21/ / 85'</b> <b>Dispatch No.:</b> <b>Issue Date : 20.01.2021</b>	
<b>Method of test : IS: 11255</b>	<b>Sampling Details</b>	
<b>Time of Sampling : 10:15 AM</b>	<b>Sample Monitored</b>	<b>: Stack</b>
<b>Location of stack : - 21°36'02" N 82°02'27" E</b>	<b>Date of Receipt</b>	<b>: 16.01.2021</b>
<b>Sample Collected By:- Gatih Laboratories</b>	<b>Period of testing</b>	<b>: 16.01.2021 to 21.01.2021</b>
<b>Page no, 7 of 10</b>	<b>Atmospheric condition</b>	<b>: Clear</b>

S. No.	Stack Details		Stack
1	Date of Sample		15.01.2021
2	Source of collection : Stack attached to		Bag house
3	Location of Stack		Coal Mill Line-2
4	Ambient Temp. (°C)		23
5	Type of fuel		Coal/PC
6	Flue gas Temp. (°C)		56
7	Exit Velocity of the flue gases (m/sec)		5.43
8	Total Heights of stack (m)		68
9	Diameter of stack in (m)		1.6
10	Flue gas flow rate (Nm <sup>3</sup> /hr)		34881.00
11	<b>Parameters with Protocol of Method</b>	<b>Limit (mg/Nm<sup>3</sup>)</b>	<b>Pollutant Concentration (mg/Nm<sup>3</sup>)</b>
	Particulate matter (PM) -Part -1-1985 RA 2014	30	16.55

For CES Analytical and Research Services(I) Pvt. Ltd

  
Authorized Signatory

#The Results relate only to the sample tested/ sampled

42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpt@gmail.com, Websearch : www.creativeenviroservices.com



# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CIN : U74999MP2020PTC052747

## TEST REPORT

STACK MONITORING SURVEY REPORT	
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chhattisgarh-493332.	Test Report No: CES/Lab/20-21/185 Dispatch No.: Issue Date : 20.01.2021
Method of test : IS: 11255	Sampling Details
Time of Sampling : 12:30 PM	Sample Monitored : Stack
Location of stack : - 21°36'10" N 82°02'29" E	Date of Receipt : 17.01.2021
Sample Collected By:- Gatih Laboratories	Period of testing : 17.01.2021 to 21.01.2021
Page no. 8 of 10	Atmospheric condition : Clear

S. No.	Stack Details	Stack
1	Date of Sample	16.01.2021
2	Source of collection : Stack attached to	ESP
3	Location of Stack	CPP 25 MW
4	Ambient Temp. (°C)	20
5	Type of fuel	Coal
6	Flue gas Temp. (°C)	139
7	Exit Velocity of the flue gases (m/sec)	5.39
8	Total Heights of stack (m)	92
9	Diameter of stack in (m)	3.67
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	148489.58
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> )
		Pollutant Concentration (mg/Nm <sup>3</sup> )
	Particulate matter (PM) - Part -1-1985 RA 2014	50
	Sulphur Di-Oxide (SO <sub>2</sub> )- Part-2 - 1985 RA 2014	600
	Oxide of Nitrogen (NO <sub>2</sub> ) - Part-7 2005 RA 2017	300
		37.51
		280.36
		85.42

For CES Analytical and Research Services (I) Pvt. Ltd

  
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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradh, Dist: Baloda Bazar-Bhatapara, Chattisgarh-493332.	Test Report No: CES/Lab/20-21/ 186 Dispatch No.: Issue Date : 24.02.2021	
Method of test : IS: 11255	Sampling Details	
Time of Sampling 11:00 AM	Sample Monitored	: Stack
Location of stack : - 21°36'10" N, 82°02'29" E	Date of Receipt	: 22.02.2021
Sample Collected By:- Gatih Laboratories	Period of testing	: 22.02.2021 to 24.02.2021
Page no. 1 of 10	Atmospheric condition	: Clear

S. No.	Stack Details	Stack
1	Date of Sample	19.02.2021
2	Source of collection : Stack attached to	RABH
3	Location of Stack	Raw Mill & Kiln Line-1
4	Ambient Temp. (°C)	27
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	80
7	Exit Velocity of the flue gases (m/sec)	5.67
8	Total Heights of stack (m)	150
9	Diameter of stack In (m)	5.00
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	338479.04
11	Parameters with Protocol of Method	Pollutant Concentration (mg/Nm <sup>3</sup> )
	Limit (mg/Nm <sup>3</sup> )	
Particulate matter (PM) -Part -1-1985 RA 2014	30	12.14
Sulphur Di-Oxide (SO <sub>2</sub> )- Part-2 - 1985 RA 2014	100	<4.00
Oxide of Nitrogen (NO <sub>2</sub> ) - Part-7, 2005 RA 2017	600	415.24

For CES Analytical and Research Services (I) Pvt. Ltd

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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chhattisgarh-493332.		Test Report No: CES/Lab/20-21/ /86 Dispatch No.: Issue Date : 24.02.2021
Method of test : IS: 11255		Sampling Details
Time of Sampling : 03:00 PM	Sample Monitored	: Stack
Location of stack : - 21°36'11" N 82°02'31" E	Date of Receipt	: 20.02.2021
Sample Collected By:- Gatih Laboratories	Period of testing	: 20.02.2021 to 24.02.2021
Page no. 2 of 10	Atmospheric condition	: Clear

S. No.	Stack Details	Stack
1	Date of Sample	18.02.2021
2	Source of collection : Stack attached to	ESP
3	Location of Stack	Clinker Cooler Line-1
4	Ambient Temp. (°C)	30
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	101
7	Exit Velocity of the flue gases (m/sec)	5.82
8	Total Heights of stack (m)	55
9	Diameter of stack in (m)	4.30
10	Flue gas flow rate (Nm³/hr)	242533.49
11	Parameters with Protocol of Method	Limit (mg/Nm³) Pollutant Concentration (mg/Nm³)
Particulate matter (PM) -Part -1-1985 RA 2014		30 10.78

For CES Analytical and Research Services (I) Pvt. Ltd

  
Authorized Signatory

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42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com. Websearch : www.creativeanvices.com



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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332.	<b>Test Report No: CES/Lab/20-21/ 186</b> Dispatch No.: Issue Date : 24.02.2021	
<b>Method of test : IS: 11255</b>	<b>Sampling Details</b>	
Time of Sampling : 09:30 AM	Sample Monitored	: Stack
Location of stack : - 21°36'05" N, 82°02'26" E	Date of Receipt	: 22.02.2021
Sample Collected By:- Gatih Laboratories	Period of testing	: 22.02.2021 to 24.02.2021
Page no. 3 of 10	Atmospheric condition	: Clear

S. No.	Stack Details		Stack
1	Date of Sample		19.02.2021
2	Source of collection : Stack attached to		Bag house
3	Location of Stack		Coal Mill Line-1
4	Ambient Temp. (°C)		25
5	Type of fuel		Coal/PC
6	Flue gas Temp. (°C)		60
7	Exit Velocity of the flue gases (m/sec)		4.87
8	Total Heights of stack (m)		68
9	Diameter of stack in (m)		1.60
10	Flue gas flow rate (Nm <sup>3</sup> /hr)		30929.90
11+	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> )	Pollutant Concentration (mg/Nm <sup>3</sup> )
Particulate matter (PM) -Part -1-1985 RA 2014		30	16.41

For CES Analytical and Research Services (I) Pvt. Ltd

  
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42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bho@gmail.com Web: www.ces-analytical.com



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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village -Khapradib, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.	Test Report No: CES/Lab/20-21/ 186 Dispatch No.: Issue Date : 24.02.2021	
Method of test : IS: 11255	Sampling Details	
Time of Sampling : 09:45 AM	Sample Monitored	: Stack
Location of stack : - 21°36'11" N, 82°02'29" E	Date of Receipt	: 20.02.2021
Sample Collected By:- Gath Laboratories	Period of testing	: 20.02.2021 to 24.02.2021
Page no. 4 of 10	Atmospheric condition	: Clear

S. No.	Stack Details		Stack
1	Date of Sample		18.02.2021
2	Source of collection : Stack attached to		Bag house
3	Location of Stack		Cement Mill
4	Ambient Temp. (°C)		30
5	Type of fuel		Coal/PC
6	Flue gas Temp. (°C)		75
7	Exit Velocity of the flue gases (m/sec)		5.47
8	Total Heights of stack (m)		42
9	Diameter of stack in (m)		2.80
10	Flue gas flow rate (Nm <sup>3</sup> /hr)		103874.17
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> )	Pollutant Concentration (mg/Nm <sup>3</sup> )
Particulate matter (PM) -Part -1-1985 RA 2014		30	19.54

For CES Analytical and Research Services (I) Pvt. Ltd

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42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bol@gmail.com. Websearch : www.cesanalytical.com



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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332.	Test Report No: CES/Lab/20-21/ 186 Dispatch No.: Issue Date : 24.02.2021	
Method of test : IS: 11255	Sampling Details	
Time of Sampling : 02:15 PM	Sample Monitored	: Stack
Location of stack : - 21°36'10" N, 82°02'29" E	Date of Receipt	: 19.02.2021
Sample Collected By:- Gatih Laboratories	Period of testing	: 19.02.2021 to 24.02.2021
Page no. 5 of 10	Atmospheric condition	: Clear

S. No.	Stack Details	Stack
1	Date of Sample	17.02.2021
2	Source of collection : Stack attached to	RABH
3	Location of Stack	Raw Mill & Kiln Line-2
4	Ambient Temp. (°C)	24
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	75
7	Exit Velocity of the flue gases (m/sec)	5.09
8	Total Heights of stack (m)	175
9	Diameter of stack in (m)	5.60
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	308175.98
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> ) Pollutant Concentration (mg/Nm <sup>3</sup> )
	Particulate matter (PM) -Part -1-1985 RA 2014	30 18.32
	Sulphur Di-Oxide (SO <sub>2</sub> ) - Part-2 - 1985 RA 2014	100 <4.00
	Oxide of Nitrogen (NO <sub>2</sub> ) - Part-7, 2005 RA 2017	600 501.29

For CES Analytical and Research Services (I) Pvt. Ltd

Authorized Signatory

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42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bol@gmail.com Websearch : www.cesanalytical.com



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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.		Test Report No: CES/Lab/20-21/ 186 Dispatch No.: Issue Date : 24.02.2021
Method of test : IS: 11255	Sampling Details	
Time of Sampling : 04:30 PM	Sample Monitored	: Stack
Location of stack : - 21°36'06" N, 82°02'32" E	Date of Receipt	: 19.02.2021
Sample Collected By:- Gatih Laboratories	Period of testing	: 19.02.2021 to 24.02.2021
Page no. 6 of 10	Atmospheric condition	: Clear

S. No.	Stack Details		Stack
1	Date of Sample		17.02.2021
2	Source of collection : Stack attached to		ESP
3	Location of Stack		Clinker Cooler Line-2
4	Ambient Temp. (°C)		31
5	Type of fuel		Coal/PC
6	Flue gas Temp. (°C)		85
7	Exit Velocity of the flue gases (m/sec)		6.32
8	Total Heights of stack (m)		60
9	Diameter of stack in (m)		4.30
10	Flue gas flow rate (Nm <sup>3</sup> /hr)		275180.99
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> )	Pollutant Concentration (mg/Nm <sup>3</sup> )
Particulate matter (PM) -Part-1-1985 RA 2014		30	10.15

For CES Analytical and Research Services (I) Pvt. Ltd

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42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.creativeenvironservices.com



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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.		Test Report No: CES/Lab/20-21/ 186 Dispatch No.: Issue Date : 24.02.2021
Method of test : IS: 11255		Sampling Details
Time of Sampling : 11:30 AM	Sample Monitored	: Stack
Location of stack : - 21°36'02" N 82°02'27" E	Date of Receipt	: 20.02.2021
Sample Collected By:- Gatih Laboratories	Period of testing	: 20.02.2021 to 24.02.2021
Page no. 7 of 10	Atmospheric condition	: Clear

S. No.	Stack Details	Stack
1	Date of Sample	18.02.2021
2	Source of collection : Stack attached to	Bag house
3	Location of Stack	Coal Mill Line-2
4	Ambient Temp. (°C)	28
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	60
7	Exit Velocity of the flue gases (m/sec)	4.52
8	Total Heights of stack (m)	68
9	Diameter of stack in (m)	1.6
10	Flue gas flow rate (Nm³/hr)	28686.61
11	Parameters with Protocol of Method	Limit (mg/Nm³) Pollutant Concentration (mg/Nm³)
	Particulate matter (PM) -Part -1-1985 RA 2014	30 18.25

For CES Analytical and Research Services (I) Pvt. Ltd

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42, 48, Doorsanchar Nagar, Near Savoy Complex, E-6 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com. Wehsarch : www.creativelab.bpl.com





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## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradh, Dist.: Baloda Bazar-Bhatapara, Chhattisgarh-493332.		Test Report No: CES/Lab/20-21/ 186 Dispatch No.: Issue Date : 24.02.2021
Method of test : IS: 11255		Sampling Details
Time of Sampling : 12:30 PM	Sample Monitored	: Stack
Location of stack : - 21°36'10" N 82°02'29" E	Date of Receipt	: 22.02.2021
Sample Collected By:- Gatih Laboratories	Period of testing	: 22.02.2021 to 24.02.2021
Page no. 8 of 10	Atmospheric condition	: Clear

S. No.	Stack Details	Stack
1	Date of Sample	19.02.2021
2	Source of collection : Stack attached to	ESP
3	Location of Stack	CPP 25 MW
4	Ambient Temp. (°C)	30
5	Type of fuel	Coal
6	Flue gas Temp. (°C)	136
7	Exit Velocity of the flue gases (m/sec)	5.67
8	Total Heights of stack (m)	92
9	Diameter of stack in (m)	3.67
10	Flue gas flow rate (Nm³/hr)	157349.07
11	Parameters with Protocol of Method	Limit (mg/Nm³) Pollutant Concentration (mg/Nm³)
	Particulate matter (PM) -Part -1-1985 RA 2014	50 40.57
	Sulphur Di-Oxide (SO₂) - Part-2 - 1985 RA 2014	600 350.49
	Oxide of Nitrogen (NO₂) - Part-7, 2005 RA 2017	300 145.63

For CES Analytical and Research Services (I) Pvt. Ltd

Authorized Signatory

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42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com. Websearch : www.creativecreations.com





# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) CIN : U74999MP2020PTC052747



Cert No.: TC-6872

## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chattisgarh-493332.	<b>ULR No.: TC6872215000000036</b> Dispatch No.: <b>266</b> Issue Date : 29.03.2021 Client Ref: Nil Date : Nil	
Method of test : IS: 11255	<b>Sampling Details</b>	
Wind speed & Wind Direction - 10 Km/h & S, RH - 50%	Sample Monitored	: Stack
Sample Collected Gath Laboratories	Date of Sampling	: 20.03.2021
Page no. 1 of 10	Date of Receipt	: 23.03.2021
No. of Sampling Locations - 10	Period of testing	: 23.03.2021 to 29.03.2021
Atmospheric condition: Clear	No. of samples	: 36/1

S. No.	Stack Details	Stack
1	Date of Sample	20.03.2021
2	Source of collection : Stack attached to	RABH
3	Location of Stack	Raw Mill & Kiln Line-1
4	Ambient Temp. (°C)	27
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	80
7	Exit Velocity of the flue gases (m/sec)	5.67
8	Total Heights of stack (m)	150
9	Diameter of stack in (m)	5.00
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	338479.04
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> )
	Particulate matter (PM) - Part-1 - 1985 RA 2014	30
	Sulphur Di-Oxide (SO <sub>2</sub> ) - Part-2 - 1985 RA 2014	100
	Oxide of Nitrogen (NO <sub>2</sub> ) - Part-7 - 2005 RA 2017	600
		Pollutant Concentration (mg/Nm <sup>3</sup> )
		11.40
		<4.00
		510.16

For CES Analytical and Research Services (I) Pvt. Ltd

#The Results relate only to the sample tested/ sampled

Authorized Signatory

NEELAM UPADHYAY  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510, Mobile : 9425009319

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : [www.cesanalytical.com](http://www.cesanalytical.com)



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Cert No.: TC-6872

## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chattisgarh-493332.		<b>ULR No.:</b> TC6872215000000036 <b>Dispatch No.:</b> 266 <b>Issue Date:</b> 29.03.2021 <b>Client Ref:</b> Nil <b>Date:</b> Nil
Method of test : IS: 11255		<b>Sampling Details</b>
Wind speed & Wind Direction - 10 Km/h & S, RH - 50%	Sample Monitored	: Stack
Sample Collected Gatih Laboratories	Date of Sampling	: 20.03.2021
Page no. 2 of 10	Date of Receipt	: 23.03.2021
No. of Sampling Locations -10	Period of testing	: 23.03.2021 to 29.03.2021
Atmospheric condition: Clear	No. of samples	: 36/2

S. No.	Stack Details	Stack
1	Date of Sample	20.03.2021
2	Source of collection : Stack attached to	RABH
3	Location of Stack	Raw Mill & Kiln Line-2
4	Ambient Temp. (°C)	24
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	75
7	Exit Velocity of the flue gases (m/sec)	5.09
8	Total Heights of stack (m)	175
9	Diameter of stack in (m)	5.60
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	308175.98
11	Parameters with Protocol of Method	Pollutant Concentration (mg/Nm <sup>3</sup> )
	Limit (mg/Nm <sup>3</sup> )	
	Particulate matter (PM) - Part -1- 1985 RA 2014	30
	Sulphur Di-Oxide (SO <sub>2</sub> ) - Part-2 - 1985 RA 2014	100
	Oxide of Nitrogen (NO <sub>2</sub> ) - Part-7, 2005 RA 2017	600
		19.34
		<4.00
		508.33

For CES Analytical and Research Services (I) Pvt. Ltd

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Authorized Signatory

NEELAM UPADHYAY  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4298319, Fax : 0755-4243510, Mobile : 9425009319

Note:

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : [www.cesanalytical.com](http://www.cesanalytical.com)



# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) CIN : U74999MP2020PTC052747



Cert No.: TC-6872

## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chattisgarh-493332.	ULR No.: TC6872215000000036 Dispatch No.: 266 Issue Date : 29.03.2021 Client Ref: Nil Date : Nil	
Method of test : IS: 11255	<b>Sampling Details</b>	
Wind speed & Wind Direction - 10 Km/h & S, RH - 50%	Sample Monitored	: Stack
Sample Collected Gath Laboratories	Date of Sampling	: 20.03.2021
Page no. 4 of 10	Date of Receipt	: 23.03.2021
No. of Sampling Locations -10	Period of testing	: 23.03.2021 to 29.03.2021
Atmospheric condition: Clear	No. of samples	: 36/4

S. No.	Stack Details	Stack
1	Date of Sample	20.03.2021
2	Source of collection : Stack attached to	Bag house
3	Location of Stack	Cement Mill
4	Ambient Temp. (°C)	30
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	75
7	Exit Velocity of the flue gases (m/sec)	5.47
8	Total Heights of stack (m)	42
9	Diameter of stack in (m)	2.80
10	Flue gas flow rate (Nm³/hr)	103874.17
11	Parameters with Protocol of Method	Limit (mg/Nm³)
Particulate matter (PM) -Part -1-1985 RA 2014		Pollutant Concentration (mg/Nm³)
		20.33

For CES Analytical and Research Services (I) Pvt. Ltd

#The Results relate only to the sample tested/ sampled

Authorized Signatory

NEELAM UPADHYA /  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510, Mobile : 9425009319

Note:

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.cesanalytical.com



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Cert No.: TC-6872

## TEST REPORT

STACK MONITORING SURVEY REPORT	
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chattisgarh-493332.	ULR No.: TC6872215000000036 Dispatch No.: 266 Issue Date : 29.03.2021 Client Ref: Nil Date : Nil
Method of test : IS: 11255	<b>Sampling Details</b>
Wind speed & Wind Direction - 10 Km/h & S, RH - 50%	Sample Monitored : Stack
Sample Collected Catih Laboratories	Date of Sampling : 20.03.2021
Page no. 5 of 10	Date of Receipt : 23.03.2021
No. of Sampling Locations -10	Period of testing : 23.03.2021 to 29.03.2021
Atmospheric condition: Clear	No. of samples : 36/5

S. No.	Stack Details	Stack
1	Date of Sample	20.03.2021
2	Source of collection : Stack attached to	ESP
3	Location of Stack	Clinker Cooler Line-1
4	Ambient Temp. (°C)	30
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	101
7	Exit Velocity of the flue gases (m/sec)	5.82
8	Total Heights of stack (m)	55
9	Diameter of stack in (m)	4.30
10	Flue gas flow rate (Nm³/hr)	242533.49
11	Parameters with Protocol of Method	Pollutant Concentration (mg/Nm³)
	Particulate matter (PM) -Part -1- 1985 RA 2014	30
		11.75

For CES Analytical and Research Services (I) Pvt. Ltd

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Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) CIN : U74999MP2020PTC052747



Cert No.: TC-6872

## TEST REPORT

STACK MONITORING SURVEY REPORT	
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chattisgarh-493332.</b>	<b>ULR No.: TC6872215000000036</b> Dispatch No.: 266 Issue Date : 29.03.2021 Client Ref: Nil Date : Nil
Method of test : IS: 11255	<b>Sampling Details</b>
Wind speed & Wind Direction - 10 Km/h & S, RH - 50%	Sample Monitored : Stack
Sample Collected Gatih Laboratories	Date of Sampling : 20.03.2021
Page no. 6 of 10	Date of Receipt : 23.03.2021
No. of Sampling Locations - 10	Period of testing : 23.03.2021 to 29.03.2021
Atmospheric condition: Clear	No. of samples : 36/6

S. No.	Stack Details	Stack
1	Date of Sample	20.03.2021
2	Source of collection : Stack attached to	ESP
3	Location of Stack	Clinker Cooler Line-2
4	Ambient Temp. (°C)	31
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	85
7	Exit Velocity of the flue gases (m/sec)	6.32
8	Total Heights of stack (m)	60
9	Diameter of stack in (m)	4.30
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	275180.99
11	Parameters with Protocol of Method	Pollutant Concentration (mg/Nm <sup>3</sup> )
	Limit (mg/Nm <sup>3</sup> )	
	Particulate matter (PM) -Part -1-1985 RA 2014	30
		10.30

For CES Analytical and Research Services (I) Pvt. Ltd

#The Results relate only to the sample tested: sample

Authorized Signatory

NEELAM UPADHYAY  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
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Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.cesanalytical.com

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Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) CIN : U74999MP2020PTC052747



Cert No.: TC-6872

## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chattisgarh-493332.		ULR No.: TC6872215000000036 Dispatch No.: 2, 66 Issue Date : 29.03.2021 Client Ref: Nil Date : Nil
Method of test : IS: 11255		Sampling Details
Wind speed & Wind Direction - 10 Km/h & S, RH - 50%	Sample Monitored	: Stack
Sample Gath Laboratories	Date of Sampling	: 20.03.2021
Page no. 7 of 10	Date of Receipt	: 23.03.2021
No. of Sampling Locations -10	Period of testing	: 23.03.2021 to 29.03.2021
Atmospheric condition: Clear	No. of samples	: 36/7

S. No.	Stack Details	Stack
1	Date of Sample	20.03.2021
2	Source of collection : Stack attached to	Bag house
3	Location of Stack	Coal Mill Line-1
4	Ambient Temp. (°C)	25
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	60
7	Exit Velocity of the flue gases (m/sec)	4.87
8	Total Heights of stack (m)	68
9	Diameter of stack in (m)	1.60
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	30929.90
11	Parameters with Protocol of Method	Pollutant Concentration (mg/Nm <sup>3</sup> )
	Limit (mg/Nm <sup>3</sup> )	
	Particulate matter (PM) -Part -1-1985 RA 2014	30
		17.43

For CES Analytical and Research Services (I) Pvt. Ltd

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Authorized Signatory

NEELAM UPADHYAY  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510, Mobile : 9425009319

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.cesanalytical.com

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Cert No.: TC-6872

## TEST REPORT

STACK MONITORING SURVEY REPORT	
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar-Bhatapara, Chattisgarh-493332.	ULR No.: TC6872215000000036 Dispatch No.: 266 Issue Date: 29.03.2021 Client Ref: Nil Date: Nil
Method of test : IS: 11255	Sampling Details
Wind speed & Wind Direction - 10 Km/h & S, RH - 50%	Sample Monitored : Stack
Sample Collected Gatih Laboratories	Date of Sampling : 20.03.2021
Page no. 8 of 10	Date of Receipt : 23.03.2021
No. of Sampling Locations - 10	Period of testing : 23.03.2021 to 29.03.2021
Atmospheric condition: Clear	No. of samples : 36/8

S. No.	Stack Details	Stack
1	Date of Sample	20.03.2021
2	Source of collection : Stack attached to	Bag house
3	Location of Stack	Coal Mill Line-2
4	Ambient Temp. (°C)	28
5	Type of fuel	Coal/PC
6	Flue gas Temp. (°C)	60
7	Exit Velocity of the flue gases (m/sec)	4.52
8	Total Heights of stack (m)	68
9	Diameter of stack in (m)	1.6
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	28686.61
11	Parameters with Protocol of Method	Pollutant Concentration (mg/Nm <sup>3</sup> )
	Limit (mg/Nm <sup>3</sup> )	
	Particulate matter (PM) -Part -1-1985 RA 2014	30
		17.21

For CES Analytical and Research Services (I) Pvt. Ltd

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Authorized Signatory

NEELAM UPADHYAY  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510, Mobile : 9425009319

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com. Websearch : [www.cesanalytical.com](http://www.cesanalytical.com)

Note:





# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.



Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) CIN : U74999MP2020PTC052747

Cert No.: TC-6872

## TEST REPORT

STACK MONITORING SURVEY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - <b>Khapradli, Dist.: Baloda Bazar-Bhatapara,</b> <b>Chattisgarh-493332.</b>	<b>ULR No.: TC6872215000000036</b> Dispatch No.: <b>266</b> Issue Date : 29.03.2021 Client Ref: Nil Date : Nil	
Method of test : IS: 11255	<b>Sampling Details</b>	
Wind speed & Wind Direction - 10 Km/h & S, RH - 50%	Sample Monitored	: Stack
Sample Collected Gatih Laboratories	Date of Sampling	: 20.03.2021
Page no. 3 of 10	Date of Receipt	: 23.03.2021
No. of Sampling Locations -10	Period of testing	: 23.03.2021 to 29.03.2021
Atmospheric condition: Clear	No. of samples	: 36/3

S. No.	Stack Details	Stack
1	Date of Sample	20.03.2021
2	Source of collection : Stack attached to	ESP
3	Location of Stack	CPP 25 MW
4	Ambient Temp. (°C)	30
5	Type of fuel	Coal
6	Flue gas Temp. (°C)	136
7	Exit Velocity of the flue gases (m/sec)	5.67
8	Total Heights of stack (m)	92
9	Diameter of stack in (m)	3.67
10	Flue gas flow rate (Nm <sup>3</sup> /hr)	157349.07
11	Parameters with Protocol of Method	Limit (mg/Nm <sup>3</sup> ) Pollutant Concentration (mg/Nm <sup>3</sup> )
	Particulate matter (PM) -Part -1-1985 RA 2014	50 41.57
	Sulphur Di-Oxide (SO <sub>2</sub> ) - Part-2 - 1985 RA 2014	600 351.49
	Oxide of Nitrogen (NO <sub>2</sub> ) - Part-7, 2005 RA 2017	300 147.61
	Mercury (as Hg) LATS/80/2013-14-CPCB	0.03 <0.01

For CES Analytical and Research Services (I) Pvt. Ltd

**BHOPAL**  
Authorized Signatory

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**NEELAM UPADHYAY**  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510, Mobile : 9425009319

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com. Websearch : www.creativeenviromservices.com



**Shree Raipur Cement Plant  
(A Unit of Shree Cement ltd)**

**CONTINUOUS AMBIENT AIR QUALITY MONITORING REPORT (MONTHLY AVERAGE)**

Location	Parameters	Norms	Unit	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
AAQMS 1 (Mines boundary towards village Bharuwadih)	PM <sub>10</sub>	100	µg/m <sup>3</sup>	53.38	51.64	59.00	53.39	55.06	48.57
	PM <sub>2.5</sub>	60		29.74	28.81	29.05	29.11	27.06	26.71
	SO <sub>2</sub>	80		12.12	11.93	12.16	12.13	12.12	11.80
	NO <sub>2</sub>	80		11.18	11.02	11.22	11.20	11.19	7.77
AAQMS 2 (Mines boundary towards village Semradih)	PM <sub>10</sub>	100		Not in Operation due to UPS breakdown		37.49	31.05	48.64	57.53
	PM <sub>2.5</sub>	60				16.71	11.95	24.68	28.08
	SO <sub>2</sub>	80				9.74	9.46	11.14	10.44
	NO <sub>2</sub>	80				6.49	6.31	7.43	6.96
AAQMS 3 (Plant Boundary towards South Diction)	PM <sub>10</sub>	100		53.70	51.77	53.60	60.35	49.87	53.66
	PM <sub>2.5</sub>	60		26.34	31.63	31.00	30.79	22.27	27.00
	SO <sub>2</sub>	80		12.79	12.47	12.19	12.31	12.38	13.06
	NO <sub>2</sub>	80		9.59	9.35	9.14	9.23	9.28	13.60
AAQMS 4 (Plant Boundary towards village Khapradih)	PM <sub>10</sub>	100		56.00	53.52	60.95	59.41	51.47	51.58
	PM <sub>2.5</sub>	60		24.91	30.44	30.78	30.75	24.53	24.79
	SO <sub>2</sub>	80		5.06	5.28	5.34	5.71	5.77	6.07
	NO <sub>2</sub>	80		1.62	2.00	7.70	12.26	12.41	12.14



# GREEN CIRCLE, INC.

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(No. Q - 1508 / 32 / 2007 - CPW)  
(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/AA1
Address	Village - Khapradih, Tehsil - Simga, Dist: Batoda Bazar-Bhalapara, Chhattisgarh-493332	Location	Nr. Bharuadih
Sampling Done By	Mr. Ashvin & Dhruv	Quantity	N/A
Analysis Started Date	07/11/2020	Instrument	RDS, FPS, Bladder
Analysis Completion Date	13/11/2020	Sampling duration	24 Hrs.
		Date of Sampling	05/11/2020
		Date of Sample Receiving	13/11/2020
		Sampling Method	IS 5182: Part - 5: 1975

## AMBIENT AIR QUALITY MONITORING RESULTS

Sr. No	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS) amended 2009	Reference Method
1.	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	59.17	100	Gravimetric Method
2.	Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	29.52	60	Gravimetric Method
3.	Sulphur dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	8.26	80	Improved West and Geake
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	10.59	80	Modified Jacob and Hoehheiser
5.	Carbon Monoxide CO	mg/m <sup>3</sup>	0.3	2.0	Non Dispersive infra-red spectroscope
6.	Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	<1.0	100	Chemical Method (By U.V Visible Spectrophotometer)
7.	Lead as Pb	µg/m <sup>3</sup>	<0.05	1.0	By AAS method
8.	Nickel as Ni	ng/m <sup>3</sup>	<1.0	20	By AAS method
9.	Arsenic as As	ng/m <sup>3</sup>	<5.0	6.0	By AAS method
10.	Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	<10	400	Indophenol Blue Method (By U.V Visible Spectrophotometer)
11.	Benzene, C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	<0.5	5.0	Gas Chromatography
12.	Benzo (a) Pyrene	ng/m <sup>3</sup>	<0.05	1.0	Solvent extraction followed by GC

Remark: Results are within limit as per NAAQS Guideline.

  
Authorized Signatory

- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/AA2
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Location	Nr. Semaradih
Sampling Done By	Mr. Ashvin & Dhruv	Quantity	N/A
Analysis Started Date	07/11/2020	Instrument	RDS, FPS, Bladder
Analysis Completion Date	13/11/2020	Sampling duration	24 Hrs.
		Date of Sampling	04/11/2020
		Date of Sample Receiving	13/11/2020
		Sampling Method	IS 5182: Part - 5: 1975

## AMBIENT AIR QUALITY MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS) amended 2009	Reference Method
1.	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	55.8	100	Gravimetric Method
2.	Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	27.6	60	Gravimetric Method
3.	Sulphur dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.8	80	Improved West and Geake
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	12.36	80	Modified Jacob and Hoehhauser
5.	Carbon Monoxide CO	mg/m <sup>3</sup>	0.45	2.0	Non Dispersive infra-red spectroscope
6.	Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	<1.0	100	Chemical Method (By U.V Visible Spectrophotometer)
7.	Lead as Pb	µg/m <sup>3</sup>	<0.05	1.0	By AAS method
8.	Nickel as Ni	ng/m <sup>3</sup>	<1.0	20	By AAS method
9.	Arsenic as As	ng/m <sup>3</sup>	<5.0	6.0	By AAS method
10.	Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	<10	400	Indophenol Blue Method (By U.V Visible Spectrophotometer)
11.	Benzene, C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	<0.5	5.0	Gas Chromatography
12.	Benzo (a) Pyrene	ng/m <sup>3</sup>	<0.05	1.0	Solvent extraction followed by GC

Remark: Results are within limit as per NAAQS Guideline.

*Shital*  
Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
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- Sample will be retained till one month from the date of sampling.



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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November-2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/AA1
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhalapara, Chhattisgarh-493332	Location	Nr. RMS
Sampling Done By	Mr. Ashvin & Dhruv	Quantity	N/A
		Instrument	RDS, FPS, Bladder
		Sampling duration	24 Hrs.
		Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample	07/11/2020
Analysis Completion Date	13/11/2020	Receiving	07/11/2020
		Sampling Method	IS 5182: Part - 5: 1975

## AMBIENT AIR QUALITY MONITORING RESULTS

Sr. No	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS) amended 2009	Reference Method
13.	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	59.4	100	Gravimetric Method
14.	Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	34.7	60	Gravimetric Method
15.	Sulphur dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	11.87	80	Improved West and Geake
16.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	10.15	80	Modified Jacob and Hoehheiser
17.	Carbon Monoxide CO	mg/m <sup>3</sup>	0.55	2.0	Non Dispersive infra-red spectroscopy
18.	Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	<1.0	100	Chemical Method (By U.V Visible Spectrophotometer)
19.	Lead as Pb	µg/m <sup>3</sup>	<0.05	1.0	By AAS method
20.	Nickel as Ni	ng/m <sup>3</sup>	<1.0	20	By AAS method
21.	Arsenic as As	ng/m <sup>3</sup>	<5.0	6.0	By AAS method
22.	Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	<10	400	Indophenol Blue Method (By U.V Visible Spectrophotometer)
23.	Benzene, C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	<0.5	5.0	Gas Chromatography
24.	Benzo (a) Pyrene	ng/m <sup>3</sup>	<0.05	1.0	Solvent extraction followed by GC

Remark: Results are within limit as per NAAQS Guideline.

Authorized Signatory

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# GREEN CIRCLE, INC.

Integrated HSEQR Consulting Engineers, Scientists & Trainers  
(Recognised By Ministry of Environment, Forest and Climate Change, New Delhi Under EPA 1986)  
(No. Q - 1508 / 32 / 2007 - CPW)  
(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November-2020)

Client Details

(For the Month of November-2020)

Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Details	
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Sample Code	GCI/V/20/K1/AA4
		Location	Nr. Khapradih
		Quantity	N/A
Sampling Done By	Mr. Ashvin & Dhruv	Instrument	RDS, FPS, Bladder
		Sampling duration	24 Hrs.
		Date of Sampling	04/11/2020
Analysis Started Date	07/11/2020	Date of Sample	13/11/2020
Analysis Completion Date	13/11/2020	Receiving	
		Sampling Method	IS 5182: Part - 5: 1975

## AMBIENT AIR QUALITY MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS) amended 2009	Reference Method
1.	Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	53.26	100	Gravimetric Method
2.	Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	25.88	60	Gravimetric Method
3.	Sulphur dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	6.04	80	Improved West and Geake
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	7.47	80	Modified Jacob and Hoehheiser
5.	Carbon Monoxide CO	mg/m <sup>3</sup>	0.5	2.0	Non Dispersive infra-red spectroscope
6.	Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	<1.0	100	Chemical Method (By U.V Visible Spectrophotometer)
7.	Lead as Pb	µg/m <sup>3</sup>	<0.05	1.0	By AAS method
8.	Nickel as Ni	ng/m <sup>3</sup>	<1.0	20	By AAS method
9.	Arsenic as As	ng/m <sup>3</sup>	<5.0	6.0	By AAS method
10.	Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	<10	400	Indophenol Blue Method (By U.V Visible Spectrophotometer)
11.	Benzene, C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	<0.5	5.0	Gas Chromatography
12.	Benzo (a) Pyrene	ng/m <sup>3</sup>	<0.05	1.0	Solvent extraction followed by GC

Remark: Results are within limit as per NAAQS Guideline.

Authorized Signatory

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# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CIN : U74999MP2020PTC052747

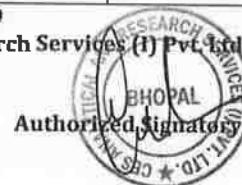
## TEST REPORT

AMBIENT AIR QUALITY REPORT		
Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd). Address:-Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332.	Test Report No.: CES/LAB/20-21/300 Dispatch No.: 300 Issue Date : 23.03.2021 Client Ref: Nil Date : Nil	
Method of test : IS: 5182 Part - 5: 1975	Sampling Details	
Test required: As per work order	Sample Monitored	: Ambient Air Quality
Sample Collected By:- Gatih Laboratories	Date of Sampling	: 16.03.2021 to 17.03.2021
Instrument to be used: Eco Tech FDS	Date of Receipt	: 19.03.2021
Page 1 of 2	Period of testing	: 19.03.2021 to 23.03.2021
No. of Sampling Locations -04	Duration of sampling	: 24 hrs

AMBIENT AIR QUALITY RESULTS				
S. No.	Parameters	NAAQ Standards (Industrial area)	Near Bharuadih	Near Semaradih
1	Wind direction		W	W
2	Wind speed km/h		9	9
3	Relative Humidity %		47	47
4	Ambient Temp. (°C)		31	31
	Parameters		Pollutant Concentration	
1	Particulate matter (size less than 10µm) or PM <sub>10</sub> -Part-23-2006 (µg/m <sup>3</sup> )	100	56.52	69.45
2	Particulate matter (size less than 2.5µm) or PM <sub>2.5</sub> (µg/m <sup>3</sup> )	60	27.76	26.74
3	Sulphur Di-Oxide (SO <sub>2</sub> )- Part-2(µg/m <sup>3</sup> )	80	14.13	12.17
4	Oxide of Nitrogen (NO <sub>2</sub> )- Part-4(µg/m <sup>3</sup> )	80	13.20	8.97
5	Carbon monoxide (CO) (mg/m <sup>3</sup> )	2	<1.00	<1.00
6	Ozone as (O <sub>3</sub> ) (µg/m <sup>3</sup> )	180	<5.00	<5.00
7	Benzene as (C <sub>6</sub> H <sub>6</sub> ) (µg/m <sup>3</sup> )	05	<0.05	<0.05
8	Ammonia as (NH <sub>3</sub> ) (µg/m <sup>3</sup> )	400	<5.00	<5.00
9	Lead as (Pb) (µg/m <sup>3</sup> )	01	<0.05	<0.05
10	Arsenic as (As) (ng/m <sup>3</sup> )	06	<0.05	<0.05
11	Nickel as (Ni) (ng/m <sup>3</sup> )	20	<0.05	<0.05
12	Benzo(a)Pyrene as (BaP) (ng/m <sup>3</sup> )	01	<0.01	<0.01

NAAQ- National Ambient Air Quality Standards CPCB Notification 18<sup>th</sup> Nov. 2009

For CES Analytical and Research Services (I) Pvt. Ltd.



#The Results relate only to the sample tested/ sampled

42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)

Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.creativeenviroservices.com

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Laboratories (NABL) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CIN : U74999MP2020PTC052747

## TEST REPORT

AMBIENT AIR QUALITY REPORT		
Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of Shree Cement Ltd). Address:-Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332.	Test Report No.: CES/LAB/20-21/300 Dispatch No.: 300 Issue Date : 23.03.2021 Client Ref: Nil Date : Nil	
Method of test : IS: 5182 Part - 5: 1975	Sampling Details	
Test required: As per work order	Sample Monitored	: Ambient Air Quality
Sample Collected By:- Gatih Laboratories	Date of Sampling	: 16.03.2021 to 17.03.2021
Instrument to be used: Eco Tech FDS	Date of Receipt	: 19.03.2021
Page 2 of 2	Period of testing	: 19.03.2021 to 23.03.2021
No. of Sampling Locations -04	Duration of sampling	: 24 hrs

AMBIENT AIR QUALITY RESULTS				
S. No.	Parameters	NAAQ Standards (Industrial area)	Near RMS	Near Khapradih
1	Wind direction		W	W
2	Wind speed km/h		9	9
3	Relative Humidity %		47	47
4	Ambient Temp. (°C)		31	31
Parameters		Pollutant Concentration		
1	Particulate matter (size less than 10µm) or PM <sub>10</sub> -Part-23-2006 (µg/m <sup>3</sup> )	100	58.21	69.47
2	Particulate matter (size less than 2.5µm) or PM <sub>2.5</sub> (µg/m <sup>3</sup> )	60	26.39	30.57
3	Sulphur Di-Oxide (SO <sub>2</sub> )- Part-2(µg/m <sup>3</sup> )	80	15.43	8.14
4	Oxide of Nitrogen (NO <sub>2</sub> )- Part-4(µg/m <sup>3</sup> )	80	18.11	14.22
5	Carbon monoxide (CO) (mg/m <sup>3</sup> )	2	1.72	<1.00
6	Ozone as (O <sub>3</sub> ) (µg/m <sup>3</sup> )	180	<5.00	<5.00
7	Benzene as (C <sub>6</sub> H <sub>6</sub> ) (µg/m <sup>3</sup> )	05	<0.05	<0.05
8	Ammonia as (NH <sub>3</sub> ) (µg/m <sup>3</sup> )	400	<5.00	<5.00
9	Lead as (Pb) (µg/m <sup>3</sup> )	01	<0.05	<0.05
10	Arsenic as (As) (ng/m <sup>3</sup> )	06	<0.05	<0.05
11	Nickel as (Ni) (ng/m <sup>3</sup> )	20	<0.05	<0.05
12	Benzo(a)Pyrene as (BaP) (ng/m <sup>3</sup> )	01	<0.01	<0.01

NAAQ- National Ambient Air Quality Standards CPCB Notification 18<sup>th</sup> Nov. 2009

For CES Analytical and Research Services (I) Pvt. Ltd

Authorized Signatory

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**Annexure – 6**

**Shree Raipur Cement Plant**  
**(A Unit of Shree Cement Ltd)**  
**Installed Appropriate Air Pollution Control Devices**

<b>S. No.</b>	<b>Name of Sources</b>	<b>Pollution Control Measures</b>
1.	Coal Unloading	Covered Unloading point
2.	Limestone Unloading	Covered unloading and water spray arrangement at crusher
3.	Material Transfer Points	Cover shed & Dust Collectors
4.	Fly Ash Storage	Silo
5.	Gypsum Storage	Cover shed
6.	Petcoke / Coal Storage	Cover shed
7.	Limestone Storage	Cover shed
8.	Clinker Storage	Silo
9.	Conveyor Belt	Covered
10.	Raw Mill & Kiln-I	RABH
11.	Clinker Cooler-I	ESP
12.	Coal Mill-I	Bag House
13.	Raw Mill & Kiln-II	RABH
14.	Clinker Cooler-II	ESP
15.	Coal Mill-II	Bag House
13.	Cement Mill	Bag House
14.	All Silo	Dust Collector for silo venting



**Annexure-7****Compliance of CREP Recommendations**

<b>SN.</b>	<b>CREP CONDITION</b>	<b>COMPLIANCE</b>
1	Cement plant, which are not complying with notified standards, shall do the following to meet the standards: <ul style="list-style-type: none"><li>• Augmentation of existing Air Pollution Control Devices - by July 2003.</li><li>• Replacement of existing Air Pollution Control Devices - by July 2004.</li></ul>	We are complying with the standards prescribed by MoEF & CC and CECB.
2	Cement plants located in critically polluted or urban areas( including 5 Km distance outside urban boundary) will meet 100 mg/Nm <sup>3</sup> limit of particulate matter by December 2004 and continue working to reduce the emission of particulate matter 50 mg/Nm <sup>3</sup> .	Our plant is not located within critically polluted or urban area. And the emissions from our stacks are well within the statutory norms.
3	The new cement kiln to be accorded NOC/ Environmental Clearance w.e.f 1/4/03 will meet the limit of 50 mg/Nm <sup>3</sup> for particulate matter emission.	Air pollution control equipment are meeting the particulate matter emission level <30mg/Nm <sup>3</sup> .
4	CPCB will evolve load-based standards by December 2003.	Noted.
5	CPCB and NCBM will evolve SO <sub>2</sub> and NO <sub>x</sub> emission standards by June -2004.	Standards notified by MoEF & CC.
6	The cement industries will control fugitive emission from all raw material and product storage and transfer points by December 2003. However, the National Task Force will decide the feasibility for the control of fugitive emission from limestone and coal storage areas. The NTF shall submit its recommendations within months.	Unit has installed Appropriate Air Pollution Control (APC) measures at all the dust generating points including fugitive dust from all vulnerable sources to comply with prescribed standards.  The raw material i.e. limestone is transported to plant with help of covered conveyor belts and end product Cement & Clinker being transported in trucks covered with tarpaulin.  Covered storages/silos have been provided for clinker, Fly ash, Gypsum and cement storage.  Circular stock piles have been provided for covered storage coal & pet coke.
7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum cock as fuel in Cement Kiln by July 2003.	Noted.

8	After performance evaluation of various types of continuous monitoring equipment and feedback from the industries and equipment manufacturers, NTF will decide feasible unit operation/section for installation of continuous monitoring equipment. The industry will install the continuous monitoring system (CMS) BY December 2003.	Continuous emission monitoring system have been installed at all major stacks.
9	Tripping in Kiln ESP to be minimized by July 2003 as per the recommendation on NTF.	Bag house have been provided in Kiln stack, hence there is no possibility of tripping in case of bag house.
10	Industries will submit the target date to enhance the utilization of waste material by April 2003.	We are co-processing hazardous waste material generated from other industries in our cement kilns. And fly ash generated from our captive power plant is completely utilized in cement manufacturing process within our own cement plant.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	For utilization/co-processing of Hazardous wastes in Cement kiln. We have obtained the authorization for various types of hazardous waste from CECB and Co-processing of hazardous & non-hazardous waste such as ETP sludge, Organic residue, Process residue from pharmaceutical industries including RDF/MSW in cement kiln.
12	Cement industries will carry out feasible study and submit target dates to CPCB co-generation of power by July-2003.	Provided waste heat recovery system of capacity 55 MW for power generation from the waste heat gases of kiln & cooler.



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Report No: GCI/V/LAB/EM-G012/19-SP/19-20/November-00/0342  
ISO 9001:2001, ISO 14001:2004, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/C3/SSP/ DW1
Address	(A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist: Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Batch/Location	Bore well Water Near CCR Building (B1)
Sampling Done By	GCI Representative	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.2	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	150	600	APHA 2340 C
7	Iron as Fe	mg/L	0.06	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	90	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.1	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F- - D
11	Total Dissolved Solids	mg/L	500	2000	APHA 2540 C
12	Calcium	mg/L	98	200	APHA 3500 -Ca- B
13	Magnesium	mg/L	50	100	APHA 3500 -Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	90	600	APHA 2320
16	Ammonia Total	mg/L	0.15	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	5.1	45	APHA4500 NO3- - B

ND: Note Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

*Shital*  
Authorized Signatory

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Report No.: GCI/V/LAB/EM-G012/19-SP/19-20/November-00/0342  
ISO 9001:2001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/C3/SSP /DWI
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih,Dist:Baloda Bazar-Bhatapara, Raipur, Chattisgarh-492001	Batch/Location	Bore well Water Near CCR Building (B1)
Sampling Done By	GCI Representative	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	0.05	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500-As
23	Cadmium	mg/L	<0.001	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.01	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.02	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO <sub>2</sub> - D
32	Sulphates	mg/L	11.8	400	APHA 4500 SO <sub>4</sub> - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S <sub>2</sub>
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - G

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

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Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342  
(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/B4/DW2
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Bore well Water Near GPP Office
Sampling Done By	GCI Representative	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	8.2	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	165	600	APHA 2340 C
7	Iron as Fe	mg/L	0.03	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	102	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F - D
11	Total Dissolved Solids	mg/L	510	2000	APHA 2540 C
12	Calcium	mg/L	89	200	APHA 3500 - Ca - B
13	Magnesium	mg/L	45	100	APHA 3500 - Mg - B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	115	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	5.5	45	APHA4500 NO3- - B

ND: Note Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

  
Authorized Signatory

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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/B4/DW2
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar- Bhatapara, Chhattisgarh- 493332	Batch/Location	Bore well Water Near GPP, Office
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500 - As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO2 - D
32	Sulphates	mg/L	1.9	400	APHA 4500 SO4 - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S2
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

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(No. Q - 1508 / 32 / 2007 - CPW)  
(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/B4/DW2
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Bore well Near Main gate
Sampling Done By	GCI Representative	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	8.1	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	170	600	APHA 2340 C
7	Iron as Fe	mg/L	0.03	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	120	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F - D
11	Total Dissolved Solids	mg/L	430	2000	APHA 2540 C
12	Calcium	mg/L	95	200	APHA 3500 - Ca- B
13	Magnesium	mg/L	60	100	APHA 3500 - Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	90	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	4.0	45	APHA 4500 NO3- - B

ND: Not Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

  
Authorized Signatory

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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/B4/DW2
Address	Village - Khapradih, Tehsil - Singa, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Bore well Near Main gate
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500-As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO2 - D
32	Sulphates	mg/L	1.9	400	APHA 4500 SO4 - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S2
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Unit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

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Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW3
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Nr. Mines Pit Water
		Date of Sampling	05/11/2020
Sampling Done By	GCI Representative	Date of Sample Received	07/11/2020
Analysis Started Date	07/11/2020	Sampling Method	APHA 1060
Analysis Completion Date	13/11/2020		

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.2	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	152	600	APHA 2340 C
7	Iron as Fe	mg/L	0.15	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	28.7	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F- - D
11	Total Dissolved Solids	mg/L	325	2000	APHA 2540 C
12	Calcium	mg/L	28.9	200	APHA 3500 - Ca- B
13	Magnesium	mg/L	6.0	100	APHA 3500 - Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	102	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH <sub>3</sub>
17	Nitrates	mg/L	1.2	45	APHA 4500 NO <sub>3</sub> - - B

ND: Note Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

  
Authorized Signatory

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Report No:- GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW3
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Nr. Mines Pit Water
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500 - As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO <sub>2</sub> - D
32	Sulphates	mg/L	2.2	400	APHA 4500 SO <sub>4</sub> - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S <sub>2</sub>
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

  
Authorized Signatory

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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No: -GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW1
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Bore well Water Near GDCL Labour Hutment (B14)
Sampling Done By	GCI Representative	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.2	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	112	600	APHA 2340 C
7	Iron as Fe	mg/L	ND	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	92	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F- - D
11	Total Dissolved Solids	mg/L	226	2000	APHA 2540 C
12	Calcium	mg/L	32.0	200	APHA 3500 - Ca- B
13	Magnesium	mg/L	11.7	100	APHA 3500 - Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	104	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	1.1	45	APHA 4500 NO3- - B

ND: Note Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

*Shital*  
Authorized Signatory

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- Reports cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



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(No. Q - 1508 / 32 / 2007 - CPW)

Report No: GCI/V/LAB/EM-0012/19-3F/19-20/November-00/0342  
(NABL / ISO / IEC 17025 Certified Organisation)

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW1
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Bore well Water Near GDCI Labour Hument (B14)
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500-As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickel	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO <sub>2</sub> - D
32	Sulphates	mg/L	2.1	400	APHA 4500 SO <sub>4</sub> - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S <sub>2</sub>
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

*Shital*  
Authorized Signatory

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Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW2
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Mine Crusher Line
		Date of Sampling	05/11/2020
Sampling Done By	GCI Representative	Date of Sample Received	07/11/2020
Analysis Started Date	07/11/2020		
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.4	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	158	600	APHA 2340 C
7	Iron as Fe	mg/L	0.11	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	22.9	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F- - D
11	Total Dissolved Solids	mg/L	212	2000	APHA 2540 C
12	Calcium	mg/L	22.3	200	APHA 3500 -Ca- B
13	Magnesium	mg/L	13.6	100	APHA 3500 -Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	112	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	1.0	45	APHA4500 NO3- - B

ND: Note Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.



Authorized Signatory

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Report No: GCI/V/LAB/EM-G0121/19-3P/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW2
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Mine Crusher Line
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500-As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO2 - D
32	Sulphates	mg/L	2.4	400	APHA 4500 SO4 - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S2
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

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Report No.: -GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW4
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Near Gram panchayat Bharuadih Village
		Date of Sampling	05/11/2020
Sampling Done By	GCI Representative	Date of Sample Received	07/11/2020
Analysis Started Date	07/11/2020	Sampling Method	APHA 1060
Analysis Completion Date	13/11/2020		

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.24	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	122	600	APHA 2340 C
7	Iron as Fe	mg/L	0.02	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	95.3	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F- - D
11	Total Dissolved Solids	mg/L	502	2000	APHA 2540 C
12	Calcium	mg/L	84.2	200	APHA 3500 -Ca- B
13	Magnesium	mg/L	48.6	100	APHA 3500 -Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	98.6	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	4.1	45	APHA4500 NO3- - B

ND: Note Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

  
Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
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- Sample will be retained till one month from the date of sampling.





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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW4
Address	Village - Khapradih, Tehsil - Simga, Dist: Batoda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Near Gram panchayat Bharuadih Village
		Date of Sampling	05/11/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	07/11/2020
Analysis Started Date	07/11/2020	Sampling Method	APHA 1060
Analysis Completion Date	13/11/2020		

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500-As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO <sub>2</sub> - D
32	Sulphates	mg/L	2.7	400	APHA 4500 SO <sub>4</sub> - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S <sub>2</sub>
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.



Authorized Signatory

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- Sample will be retained till one month from the date of sampling.



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Report No: GCI/V/LAB/EM-G0121/19-3P/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW5
Address	Village -Khapradih, Tehsil - Simda, Dist: Baloda Bazar-Bhatopara, Chhattisgarh- 493332	Batch/Location	Near Gram panchayat Khapradih Village
		Date of Sampling	05/11/2020
Sampling Done By	GCI Representative	Date of Sample Received	07/11/2020
Analysis Started Date	07/11/2020	Sampling Method	APHA 1060
Analysis Completion Date	13/11/2020		

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.4	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	186	600	APHA 2340 C
7	Iron as Fe	mg/L	ND	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	122	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F - D
11	Total Dissolved Solids	mg/L	358	2000	APHA 2540 C
12	Calcium	mg/L	38.5	200	APHA 3500 -Ca- B
13	Magnesium	mg/L	10.2	100	APHA 3500 -Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	124	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	3.2	45	APHA4500 NO3- - B

ND: Not Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.



Authorized Signatory

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Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW5
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Near Gram panchayat Khapradih Village
		Date of Sampling	05/11/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	07/11/2020
Analysis Started Date	07/11/2020	Sampling Method	APHA 1060
Analysis Completion Date	13/11/2020		

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500 - As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO <sub>2</sub> - D
32	Sulphates	mg/L	2.1	400	APHA 4500 SO <sub>4</sub> - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S <sub>2</sub>
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

ND, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Results cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



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Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW6
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Near Gram panchayat Champa Village
Sampling Done By		Date of Sampling	05/11/2020
Analysis Started Date		Date of Sample Received	07/11/2020
Analysis Completion Date		Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.12	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	152	600	APHA 2340 C
7	Iron as Fe	mg/L	0.03	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	102	1000	APHA 4500 - Cl-
9	Total Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F - D
11	Total Dissolved Solids	mg/L	452	2000	APHA 2540 C
12	Calcium	mg/L	102.3	200	APHA 3500 - Ca- B
13	Magnesium	mg/L	40.1	100	APHA 3500 - Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Lead	mg/L	138	600	APHA 2320
16	Nitrate Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrite	mg/L	3.1	45	APHA4500 NO3- - B

ND = Not Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

- \* This report is subject to the condition in which the sample is received at our Laboratory.
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- \* This report will be retained till one month from the date of sampling.



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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW6
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapora, Chhattisgarh-493332	Batch/Location	Near Gram panchayat Champa Village
		Date of Sampling	05/11/2020
Sampling Done By	GCI REPRESENTATIVE	Date of Sample Received	07/11/2020
Analysis Started Date	07/11/2020	Sampling Method	APHA 1060
Analysis Completion Date	13/11/2020		

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500 - As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO <sub>2</sub> - D
32	Sulphates	mg/L	2.5	400	APHA 4500 SO <sub>4</sub> - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S <sub>2</sub>
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Unit, ND: Not detected

Above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW7
Address	Village -Khapradh, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Near Gram panchayat Sarseni Village
Sampling Done By	GCI Representative	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.2	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	164	600	APHA 2340 C
7	Iron as Fe	mg/L	0.14	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	20.4	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F - D
11	Total Dissolved Solids	mg/L	408	2000	APHA 2540 C
12	Calcium	mg/L	38	200	APHA 3500 -Ca- B
13	Magnesium	mg/L	12.4	100	APHA 3500 -Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	160	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	3.54	45	APHA 4500 NO3- - B

ND: Not Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.





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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW7
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Near Gram panchayat Sarseni Village
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500-As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO <sub>2</sub> - D
32	Sulphates	mg/L	3.1	400	APHA 4500 SO <sub>4</sub> - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S <sub>2</sub>
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Results cannot be used as evidence anywhere including judicial purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.





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Report No.: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342  
(ISO 9001:2015, ISO 14001:2015, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW8
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/location	Near Gram panchayat Semaradih Village
Sampling Done By	GCI Representative	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.52	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	164	600	APHA 2340 C
7	Iron as Fe	mg/L	0.12	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	202	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F - D
11	Total Dissolved Solids	mg/L	512	2000	APHA 2540 C
12	Calcium	mg/L	101	200	APHA 3500 - Ca - B
13	Magnesium	mg/L	54.2	100	APHA 3500 - Mg - B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	158	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH <sub>3</sub>
17	Nitrates	mg/L	5.1	45	APHA 4500 NO <sub>3</sub> - B

ND: Note Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

  
Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports cannot be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.



# GREEN CIRCLE, INC.

Integrated HSEQR Consulting Engineers, Scientists & Trainers  
(Recognised By Ministry of Environment, Forest and Climate Change, New Delhi Under EPA 1986)  
(No. Q - 1508 / 32 / 2007 - CPW)

Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342  
(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW8
Address	Village - Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Near Gram panchayat Semaradih Village
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500 - As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO <sub>2</sub> - D
32	Sulphates	mg/L	2.4	400	APHA 4500 SO <sub>4</sub> - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S <sub>2</sub>
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

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(No. Q - 1508 / 32 / 2007 - CPW)

Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/November.00/0342  
(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW9
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh- 493332	Batch/Location	Near Gram panchayat Chandi Village
Sampling Done By	GCI Representative	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
1	Color	Hazen	<5	15	APHA 2120
2	Odour	-	Agreeable	Agreeable	APHA 2150
3	Turbidity	NTU	<1	5	APHA 2130
4	Taste	-	Agreeable	Agreeable	APHA 2160
5	pH	-	7.2	6.5-8.5	APHA 4500
6	Total Hardness as CaCO <sub>3</sub>	mg/L	174	600	APHA 2340 C
7	Iron as Fe	mg/L	0.12	0.3	APHA 3111 - B
8	Chloride as Cl	mg/L	19.9	1000	APHA 4500 - Cl-
9	Residual Chlorine	mg/L	<0.5	1	APHA 4500 - Cl
10	Fluoride as F	mg/L	<0.5	1.5	APHA 4500 - F - D
11	Total Dissolved Solids	mg/L	451	2000	APHA 2540 C
12	Calcium	mg/L	26.3	200	APHA 3500 - Ca- B
13	Magnesium	mg/L	15.2	100	APHA 3500 - Mg- B
14	Copper	mg/L	<0.2	1.5	APHA 3111 - B
15	Alkalinity	mg/L	20A1	600	APHA 2320
16	Ammonia Total	mg/L	ND	0.5	APHA 4500 - NH3
17	Nitrates	mg/L	2.5	45	APHA4500 NO3- - B

ND: Not Detected

Remarks: All above parameters are within limit as per IS 10500:2012 drinking water Specification.

  
Authorized Signatory

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(No. Q - 1508 / 32 / 2007 - CPW)

Report No. GCI/V/LAB/EM-G0121/19-SP/19-20/November-00/0342  
(ISO 9001:2001, ISO 14001:2004, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Date: 13/11/2020

## ANALYSIS REPORT

(For the Month of November-2020)

Client details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT (A Unit of Shree Cement Ltd)	Sample Code	GCI/V/20/K1/GW9
Address	Village -Khapradih, Tehsil - Simga, Dist: Baloda Bazar-Bhatapara, Chhattisgarh-493332	Batch/Location	Near Gram panchayat Chandi Village
Sampling Done By	GCI REPRESENTATIVE	Date of Sampling	05/11/2020
Analysis Started Date	07/11/2020	Date of Sample Received	07/11/2020
Analysis Completion Date	13/11/2020	Sampling Method	APHA 1060

## GROUND WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Permissible Limits as per IS 10500:2012 for Drinking Water	Reference Method
18	Mercury	mg/L	ND	0.001	APHA 3112 - B
19	Total Chromium	mg/L	ND	2	APHA 3500 - B
20	Barium	mg/L	ND	0.7	APHA 3500 - Ba
21	Zinc	mg/L	<0.1	15	APHA 3111 - B
22	Arsenic	mg/L	ND	0.05	APHA 3500-As
23	Cadmium	mg/L	<0.002	0.003	APHA 3111 - B
24	Aluminum	mg/L	<0.1	0.2	APHA 3500 - Al - B
25	Selenium	mg/L	ND	0.01	APHA 3500 - Sn
26	Silver	mg/L	ND	0.1	APHA 3500 - Ag
27	Lead	mg/L	ND	0.01	APHA 3111 - B
28	Nickle	mg/L	ND	0.02	APHA 3111 - B
29	Boron	mg/L	<0.1	1.0	APHA 3500 - B
30	Manganese	mg/L	<0.01	0.3	APHA 3111 - B
31	Chloramines	mg/L	ND	4	APHA 4500- ClO2 - D
32	Sulphates	mg/L	2.1	400	APHA 4500 SO4 - E
33	Sulphide	mg/L	ND	0.05	APHA 4500 S2
34	Molybdenum	mg/L	ND	0.07	APHA 3500- Mo
35	Phenolic Compound	mg/L	<0.001	0.002	APHA 5530
36	E-Coli	MPN/100 ml	ND	Absent	APHA 9221 F
37	Mineral Oil	mg/L	ND	0.5	APHA 5520
38	Anionic Detergent as MBAS	mg/L	<0.1	1.0	APHA 5540 - C

Limit, ND: Not detected

All above parameters are within limit as per IS 10500:2012 drinking water Specification.

Authorized Signatory

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**GREEN CIRCLE, INC.**

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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No: GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

**ANALYSIS REPORT**  
(For the Month of October- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/SSP/WW1
Address	{A Unit of M/s. Shree Cement Ltd}, Village -Khapradih, Dist: Baloda Bazar- Bhatapara, Raipur, Chattisgarh- 492001	Location	STP-1 OUTLET (Nr. Packing Area)
		Quantity	1000 ml
		Date of Sampling	24/10/2020
Sampling Done By	GCI Representative	Date of Sample Received	27/10/2020
Analysis Starts on	27/10/2020	Sampling Method	APHA 1060
Analysis Completion On	31/10/2020		

**WASTE WATER ANALYSIS RESULTS**

Sr. No.	Parameters	Unit	Results	Prescribed Limits	Reference Method
1.	pH	--	8.25	6.5 - 9.0	APHA 4500 H+
2.	Total Suspended Solids (TSS)	mg/L	47	100	APHA 2540 D
3.	Biochemical Oxygen Demand (BOD)	mg/L	17	30	APHA 5210
4.	Chemical Oxygen Demand (COD)	mg/L	115	250	APHA 5220
5.	Oil & Grease	mg/L	0.45	10	APHA 5220



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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ October -00/0341

Date: 31/10/2020

## ANALYSIS REPORT (For the Month of October- 2020)

(For the Month of October- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/J4/WW2
Address	{A Unit of M/s.Shree Cement Ltd}, Village -Khapradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh- 492001	Location	STP-2 OUTLET (Nr. CCR Building)
		Quantity	1000 ml
		Date of Sampling	24/10/2020
Sampling Done By		GCI Representative	Date of Sample Received
Analysis Starts on		27/10/2020	
Analysis Completion On		31/10/2020	
Sampling Method			APHA 1060

## WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Prescribed Limits	Reference Method
1.	pH	--	8.18	6.5 - 9.0	APHA 4500 H <sup>+</sup>
2.	Total Suspended Solids (TSS)	mg/L	42	100	APHA 2540 D
3.	Biochemical Oxygen Demand (BOD)	mg/L	19	30	APHA 5210
4.	Chemical Oxygen Demand (COD)	mg/L	112	250	APHA 5220
5.	Oil & Grease	mg/L	0.35	10	APHA 5220

  
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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/ November -00/0342


Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/SSP/WW1
Address	(A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist: Baloda Bazar- Bhatapara, Raipur, Chattisgarh- 492001	Location	STP-1 OUTLET (Nr. Packing Area)
		Quantity	1000 ml
		Date of Sampling	05/11/2020
Sampling Done By	GCI Representative	Date of Sample Received	07/11/2020
Analysis Starts on	07/11/2020	Sampling Method	APHA 1060
Analysis Completion On	13/11/2020		

## WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Prescribed Limits	Reference Method
1.	pH	--	8.2	6.5 - 9.0	APHA 4500 H <sup>+</sup>
2.	Total Suspended Solids (TSS)	mg/L	38	100	APHA 2540 D
3.	Biochemical Oxygen Demand (BOD)	mg/L	24	30	APHA 5210
4.	Chemical Oxygen Demand (COD)	mg/L	114	250	APHA 5220
5.	Oil & Grease	mg/L	0.3	10	APHA 5220

  
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(ISO 9001, 14001, OHSAS 18001 & NABL / ISO / IEC 17025 Certified Organisation)

Report No: -GCI/V/LAB/EM-G0121/19-SP/19-20/November -00/0342


Date: 13/11/2020

## ANALYSIS REPORT (For the Month of November- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/K1/WW2
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh- 492001	Location	STP-2 OUTLET (Nr. CCR Building)
		Quantity	1000 ml
		Date of Sampling	05/11/2020
Sampling Done By	GCI Representative	Date of Sample Received	07/11/2020
Analysis Starts on	07/11/2020	Sampling Method	APHA 1060
Analysis Completion On	13/11/2020		

## WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Prescribed Limits	Reference Method
1.	pH	--	7.47	6.5 - 9.0	APHA 4500 H <sup>+</sup>
2.	Total Suspended Solids (TSS)	mg/L	20	100	APHA 2540 D
3.	Biochemical Oxygen Demand (BOD)	mg/L	22	30	APHA 5210
4.	Chemical Oxygen Demand (COD)	mg/L	102	250	APHA 5220
5.	Oil & Grease	mg/L	0.5	10	APHA 5220

  
Authorized Signatory

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(No. Q - 1508 / 32 / 2007 - CPW)  
(ISO 9001, 14001 & OHSAS 18001 Certified Organisation)

Report No:- GCI/V/LAB/EM-G0121/19-SP/19-20/December -00/0400

Date: 02/01/2021

## ANALYSIS REPORT (For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/L4/SSP/WW1
		Location	STP-1 OUTLET (Nr. Packing Area)
Address	{A Unit of M/s. Shree Cement Ltd), Village –Khapradih, Dist: Baloda Bazar- Bhatapara. Raipur, Chattisgarh- 492001	Quantity	1000 ml
		Date of Sampling	24/12/2020
Sampling Done By		GCI Representative	Date of Sample Received
Analysis Starts on		28/12/2020	
Analysis Completion On		02/01/2021	Sampling Method
			APHA 1060

## WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Prescribed Limits	Reference Method
1.	pH	---	8.1	6.5 - 9.0	APHA 4500 H <sup>+</sup>
2.	Total Suspended Solids (TSS)	mg/L	40	100	APHA 2540 D
3.	Biochemical Oxygen Demand (BOD)	mg/L	23	30	APHA 5210
4.	Chemical Oxygen Demand (COD)	mg/L	120	250	APHA 5220
5.	Oil & Grease	mg/L	0.4	10	APHA 5220

  
Authorized Signatory

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(No. Q - 1508 / 32 / 2007 - CPW)  
(ISO 9001, 14001 & OHSAS 18001 Certified Organisation)

Report No:-GCI/V/LAB/EM-G0121/19-SP/19-20/December-00/0400

Date: 02/01/2021

## **ANALYSIS REPORT** (For the Month of December- 2020)

Client Details		Sample Details	
Name	M/s. SHREE RAIPUR CEMENT PLANT	Sample Code	GCI/V/20/L4/WW2
		Location	STP-2 OUTLET (Nr. CCR Building)
Address	(A Unit of M/s.Shree Cement Ltd), Village -Khapradih, Dist:Baloda Bazar- Bhatapara, Raipur, Chattisgarh- 492001	Quantity	1000 ml
		Date of Sampling	24/12/2020
Sampling Done By	GCI Representative	Date of Sample Received	28/12/2020
Analysis Starts on	28/12/2020	Sampling Method	APHA 1060
Analysis Completion On	02/01/2021		

## **WASTE WATER ANALYSIS RESULTS**

Sr. No.	Parameters	Unit	Results	Prescribed Limits	Reference Method
1.	pH	--	7.97	6.5 - 9.0	APHA 4500 H+
2.	Total Suspended Solids (TSS)	mg/L	30	100	APHA 2540 D
3.	Biochemical Oxygen Demand (BOD)	mg/L	20	30	APHA 5210
4.	Chemical Oxygen Demand (COD)	mg/L	130	250	APHA 5220
5.	Oil & Grease	mg/L	0.4	10	APHA 5220

  
Authorized Signatory

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# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CIN : U74999MP2020PTC052747

## TEST REPORT

Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.	<b>Test Report No: CES/Lab/20-21/185</b> Dispatch No.: 185 Issue Date : 20.01.2021	
Qty : 1 No. x 1 liter	Date of Collection	: 13.01.2021
Method of test : APHA 23 <sup>rd</sup> edition	Date of Receipt	: 16.01.2021
Packing :- Plastic bottle	Period of testing	: 16.01.2021 to 20.01.2021
Sample Condition at receipt: Ok	Method of sampling	: APHA 1060
Sample Discipline: Chemical Testing Sub Group: Waste Water	Sample tested as received	: OK
Sample collected by: Gatih Laboratories	Page no.	: 1 of 3

Sr. No	Test Parameters	Unit	Method No.	Prescribed Limits	(Result) STP-1 Outlet (Nr. Packing Area)
1	pH	-	4500 H+B	6.5 - 9.0	8.20
2	Total Suspended Solid	mg/lit	2540 D	100	40.00
3	COD	mg/lit	5220 B	250	114.00
4	BOD (3 day 27 degree)	mg/lit	5210	30	22.00
5	Oil & Grease	mg/lit	5520 B	10	3.00
6	Fecal coliform (FC)	MPN/100 ml	9221F	<1000	<100.00

For CES Analytical and Research Services (I) Pvt. Ltd

Authorized Signatory

#The Results relate only to the sample tested/Sampled

42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)

Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.creativeenviromentalservices.com



# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CIN : U74999MP2020PTC052747

## TEST REPORT

Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village -Khapradib, Dist: Baloda Bazar- Bhatapara, Raipur, Chattisgarh-493332.	Test Report No: <b>CES/Lab/20-21/185</b> Dispatch No.: <b>185</b> Issue Date : 20.01.2021 Client Ref: Nil Date: Nil
Qty : 1 No. x 1 liter	Date of Collection : 13.01.2021
Method of test : APHA 23 <sup>rd</sup> edition	Date of Receipt : 16.01.2021
Packing :- Plastic bottle	Period of testing : 16.01.2021 to 20.01.2021
Sample Condition at receipt: <b>Ok</b>	Method of sampling : APHA 1060
Sample Discipline: Chemical Testing	Sample tested as received : OK
Sub Group: Waste Water	Page no. : 2 of 3
Sample collected by: Gath Consultancy	

Sr. No	Test Parameters	Unit	Method No.	Prescribed Limits	(Result) STP-2 Outlet (Nr. CCR Building)
1	pH	-	4500 H+B	6.5 - 9.0	7.90
2	Total Suspended Solid	mg/lit	2540 D	100	33.00
3	COD	mg/lit	5220 B	250	108.00
4	BOD (3 day 27degree)	mg/lit	5210	30	18.00
5	Oil & Grease	mg/lit	5520 B	10	0.40
6	Fecal coliform (FC)	MPN/100 ml	9221F	<1000	<100

For CES Analytical and Research Services (I) Pvt. Ltd

  
J. HOPAL  
Authorised Signatory

#The Results relate only to the sample tested/Sampled

42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Note:

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.cesanalytical.com



# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration  
Laboratories (NABL) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CIN : U74999MP2020PTC052747

## TEST REPORT

Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village -Khapradih, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.	Test Report No: CES/Lab/20-21/ / 86 Dispatch No.: Issue Date : 27.02.2021	
Qty : 1 No. x 1 liter	Date of Collection	: 19.02.2021
Method of test : APHA 23 <sup>rd</sup> edition	Date of Receipt	: 22.02.2021
Packing :- Plastic bottle	Period of testing	: 22.02.2021 to 27.02.2021
Sample Condition at receipt: Ok	Method of sampling	: APHA 1060
Sample Discipline: Chemical Testing Sub Group: Waste Water	Sample tested as received	: OK
Sample collected by: Gati Laboratories	Page no.	: 1 of 3

Sr. No	Test Parameters	Unit	Method No.	Prescribed Limits	(Result) STP-1 Outlet (Nr. Packing Area)
1	pH	-	4500 H+B	6.5 - 9.0	8.00
2	Total Suspended Solid	mg/lit	2540 D	100	38.00
3	COD	mg/lit	5220 B	250	110.00
4	BOD (3 day 27degree)	mg/lit	5210	30	20.00
5	Oil & Grease	mg/lit	5520 B	10	2.00
6	Fecal coliform (FC)	MPN/100 ml	9221F	<1000	<100.00

For CES Analytical and Research Services (I) Pvt. Ltd

Authorized Signatory

#The Results relate only to the sample tested/Sampled



# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, CIN : U74999MP2020PTC052747

## TEST REPORT

Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village -Khapradth, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.	Test Report No: CES/Lab/20-21/ /86 Dispatch No.: Issue Date : 27.02.2021
Qty : 1 No. x 1 liter	Date of Collection : 19.02.2021
Method of test : APHA 23 <sup>rd</sup> edition	Date of Receipt : 22.02.2021
Packing :- Plastic bottle	Period of testing : 22.02.2021 to 27.02.2021
Sample Condition at receipt: Ok	Method of sampling : APHA 1060
Sample Discipline: Chemical Testing Sub Group: Waste Water	Sample tested as received : OK
Sample collected by: Gath Laboratories	Page no. : 2 of 3

Sr. No	Test Parameters	Unit	Method No.	Prescribed Limits	(Result) STP-2 Outlet (Nr. CCR Building)
1	pH	-	4500 H+B	6.5 - 9.0	7.80
2	Total Suspended Solid	mg/lit	2540 D	100	32.00
3	COD	mg/lit	5220 B	250	101.00
4	BOD (3 day 27degree)	mg/lit	5210	30	18.00
5	Oil & Grease	mg/lit	5520 B	10	3.00
6	Fecal coliform (FC)	MPN/100 ml	9221F	<1000	<100

For CES Analytical and Research Services (I) Pvt. Ltd

Authorized Signatory

#The Results relate only to the sample tested/Sampled

42, 48, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510

Email: cesanalytical@gmail.com, creativelab.bol@gmail.com. Websearch : www.creativelab.bol.com





# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) CIN : U74999MP2020PTC052747



Cert No.: TC-6872

## TEST REPORT

Name & Address of the Customer To, M/s. SHREE RAIPUR CEMENT PLANT (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.	ULR No: TC6872210000000125 Dispatch No: 266 Issue Date : 29.03.2021 Client Ref: Nil Date : Nil
Qty : 1 No. x 1 liter	Date of Collection : 20.03.2021
Method of test : APHA 23 <sup>rd</sup> edition	Date of Receipt : 23.03.2021
Packing :- Plastic bottle	Period of testing : 23.03.2021 to 29.03.2021
Sample Condition at receipt: Ok	Method of sampling : IS:3025
Sample Discipline: Chemical Testing Sub Group: Waste Water	Sample tested as received : OK
Sample collected by: Gath Laboratories	Page no. : 2 of 2
No. of Sample - 02	Serial No. Of Sample : 125/2

Sr. No	Test Parameters	Unit	Method No.	Prescribed Limits	(Result) STP-2 Outlet (Nr. CCR Building)
1	pH	-	4500 H+B	6.5 - 9.0	7.77
2	Total Suspended Solid	mg/lit	2540 D	100	8.00
3	COD	mg/lit	5220 B	250	20.00
4	BOD (3 day 27degree)	mg/lit	5210	30	2.00
5	Oil & Grease	mg/lit	5520 B	10	<2.00

For CES Analytical and Research Services (I) Pvt. Ltd

#The Results relate only to the sample tested/Sampled

Authorized Signatory

NEELAM UPADHYAY  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510, Mobile : 9425009319

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Websearch : www.creativeandresearchservices.com

Note:



# CES ANALYTICAL AND RESEARCH SERVICES (I) PVT. LTD.

Accredited Organisation by National Accreditation Board for Testing and Calibration Laboratories (NABL) CIN : U74999MP2020PTC052747



Cert No.: TC-087

## TEST REPORT

Name & Address of the Customer To, <b>M/s. SHREE RAIPUR CEMENT PLANT</b> (A Unit of M/s. Shree Cement Ltd), Village - Khapradih, Dist.: Baloda Bazar- Bhatapara, Chhattisgarh-493332.		<b>ULR No: TC6872210000000125</b> Dispatch No: 266 Issue Date : 29.03.2021 Client Ref: Nil Date : Nil	
Qty : 1 No. x 1 liter	<b>Date of Collection</b>	: 20.03.2021	
Method of test : APHA 23rd edition	<b>Date of Receipt</b>	: 23.03.2021	
Packing :- Plastic bottle	<b>Period of testing</b>	: 23.03.2021 to 29.03.2021	
<b>Sample Condition at receipt: Ok</b>	<b>Method of sampling</b>	: IS:3025	
<b>Sample Discipline: Chemical Testing</b> <b>Sub Group: Waste Water</b>	<b>Sample tested as received</b>	: OK	
Sample collected by: Gatih Laboratories	<b>Page no.</b>	: 1 of 2	
<b>No. of Sample - 02</b>	<b>Serial No. Of Sample</b>	125/1	

Sr. No	Test Parameters	Unit	Method No.	Prescribed Limits	(Result) STP-1 Outlet (Nr. Packing Area)
1	pH	-	4500 H+B	6.5 - 9.0	7.05
2	Total Suspended Solid	mg/lit	2540 D	100	18.00
3	COD	mg/lit	5220 B	250	100.00
4	BOD (3 day 27degree)	mg/lit	5210	30	11.00
5	Oil & Grease	mg/lit	5520 B	10	<2.00

For CES Analytical and Research Services (I) Pvt. Ltd

\*The Results relate only to the sample tested/Sampled

Authorized Signatory

NEELAM UPADHYAY  
TECHNICAL MANAGER

42, Doorsanchar Nagar, Near Savoy Complex, E-8 Extension, Gulmohar, Bhopal-462 039 (M.P.)  
Telephone : 0755-4299319, Fax : 0755-4243510, Mobile : 9425009319

Email: cesanalytical@gmail.com, creativelab.bpl@gmail.com, Web: www.ces-analytical.com

## Shree Raipur Cement Plant

(A Unit of Shree Cement Ltd)

## Ambient Noise monitoring report

Prescribed Limit - Day Time - 75 dB(A), Night Time - 70 dB(A)

S.No.	Location → Month ↓	AAQMS-1(Near Bharuadih) (SE)		AAQMS-2 (Near Semaradih) (NE)		AAQMS-3 ( Near RMS) ( SE)		AAQMS-4 (Near Kharpradih) (SW)	
		Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
1	Oct-20	57	43	58	44	56	41	59	40
2	Nov-20	59	44	57	42	61	44	58	42
3	Dec-20	63	46	60	40	59	42	61	45
4	Jan-21	61	45	53	37	60	46	57	43
5	Feb-21	59	40	55	40	57	43	63	40
6	Mar-21	57	42	60	41	62	48	63	47

DOCTOR / AUDIOLOGIST

# AUDIOGRAM

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

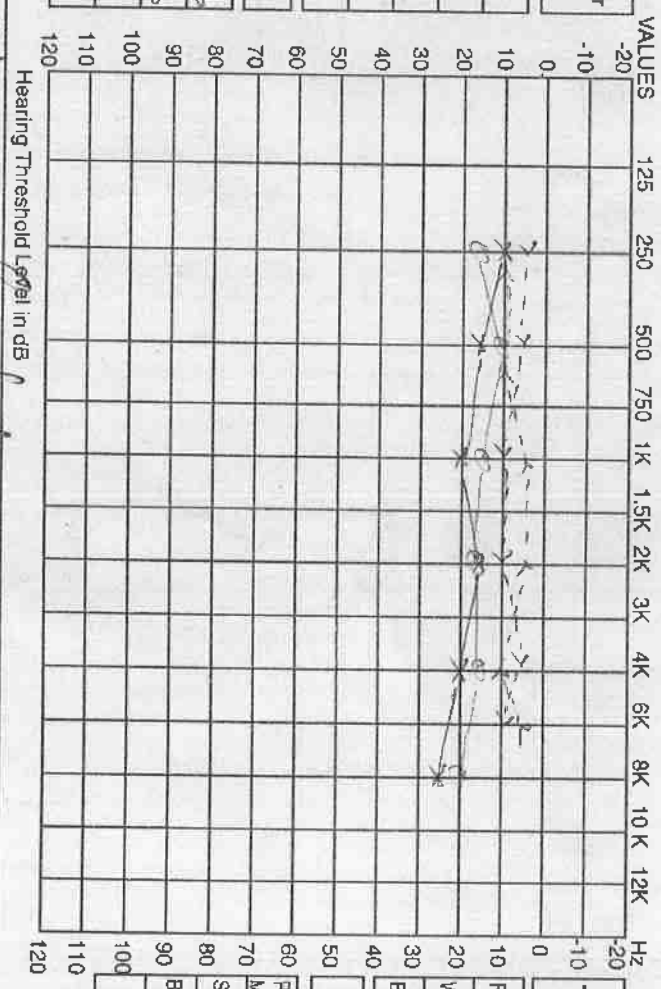
PATIENT NAME: Akshay Verma

ADDRESS: \_\_\_\_\_ SEX: M AGE: 21 Yrs. DATE: 24/11/2020



TEST	Right Ear (Red)	Left Ear (Blue)
AIR	O-O	X-X
AIR OPP EAR MASKED	D-D	<input type="checkbox"/> - <input type="checkbox"/>
NO RESPONSE	Q	X
BONE	<	>
BONE OPP EAR MASKED	[	]

HEARING EVALUATION	
AVE P.T.	85 133dB
STR	25 16.6/18
PB% CORRECT	
MCL	NO



Remarks: 85 Normal Hearing Sensitivity

FACTORY  
MEDICAL OFFICER

TEST	Right Ear	Left Ear
RINNER		
WEBER		
BING		

SPECIAL LIST	
RECRUITMENT	
SISI	
BING	

## SHREE RAIPUR CEMENT PLANT

(A UNIT OF SHREE CEMENT LTD)

KHAPRA DIH DIST BALODABAZAR –BHATAPARA (C.G. )

Date :- 26.11.2020

Emp. / CLC Code :- .....

PATIENT NAME :- ..... MR. AKHIL LODHA

AGE/SEX :- ..... 31 YRS /MALE

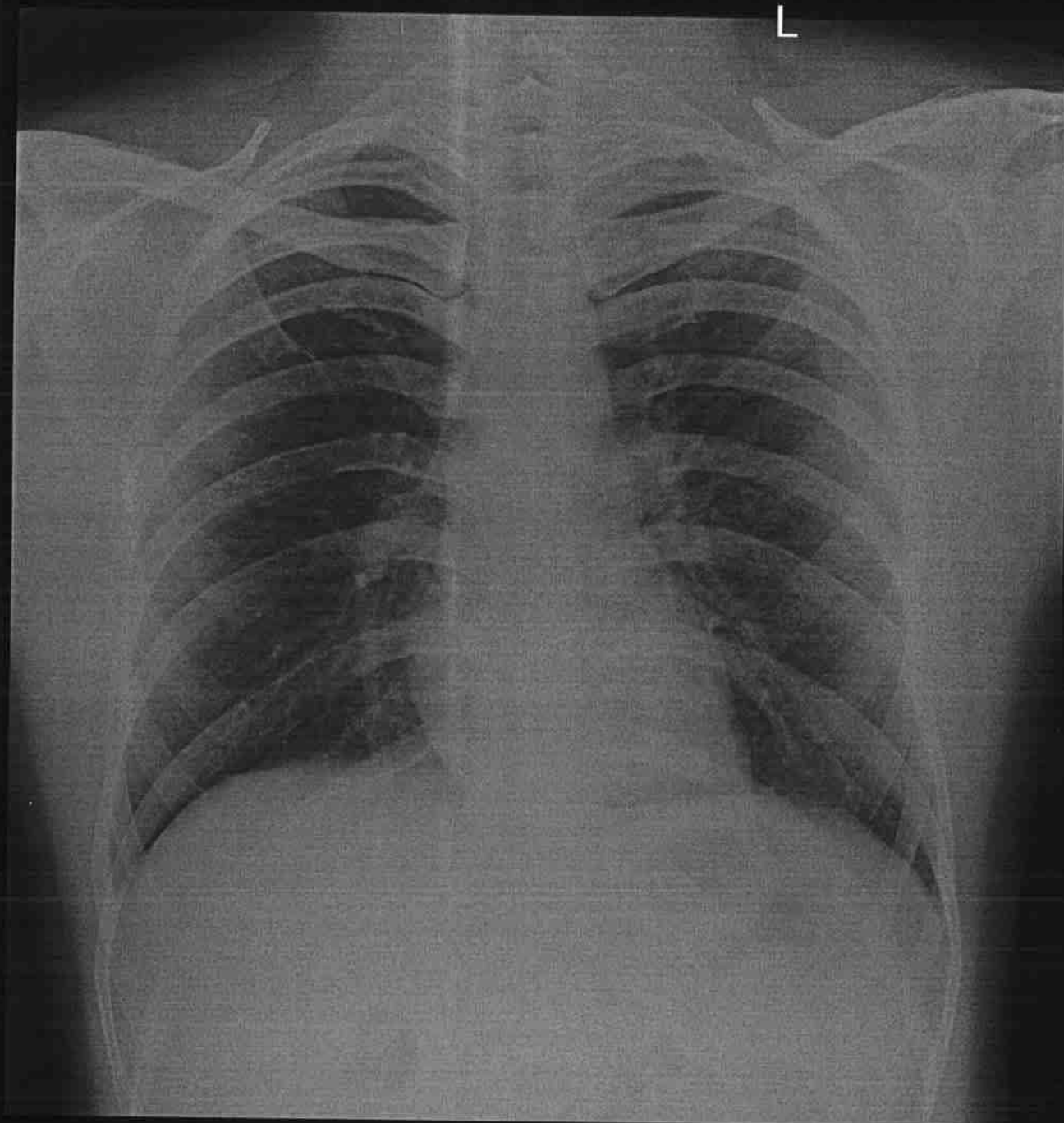
### **X-RAY CHEST PA VIEW**

- Both the lung fields are clear
- Trachea central in position
- Both costo-phrenic angles are clear
- The cardiac shadow is within normal limits
- The bony thorax is normal

OPINION:- NORMAL STUDY

Signature: Santosh  
Kumar

Digitally signed by  
Santosh Kumar  
Date: 2021.05.04  
15:17:18 +05'30'



AKHIL LODHA (Taxation) 31Y 26.11.2020 CHEST PA 26-Nov-20 09:21 AM  
SHREE RAIPUR CEMENT PLANT

# SHREE RAIPUR CEMENT PLANT 12 LEAD ECG REPORT

Akhil Lodha (14214)

Male

31 Years

ID: TAX1 D26-11-2020

Department: TAXATION (E) DEPARTMENT

Ward No.:

HR : 76 bpm  
P : 102 ms  
PR : 151 ms  
QRS : 78 ms  
QT/QTc : 354/400 ms  
P/QRS/T : 64/72/41 deg.  
RV5/SV1 : 0.919/0.385 mV

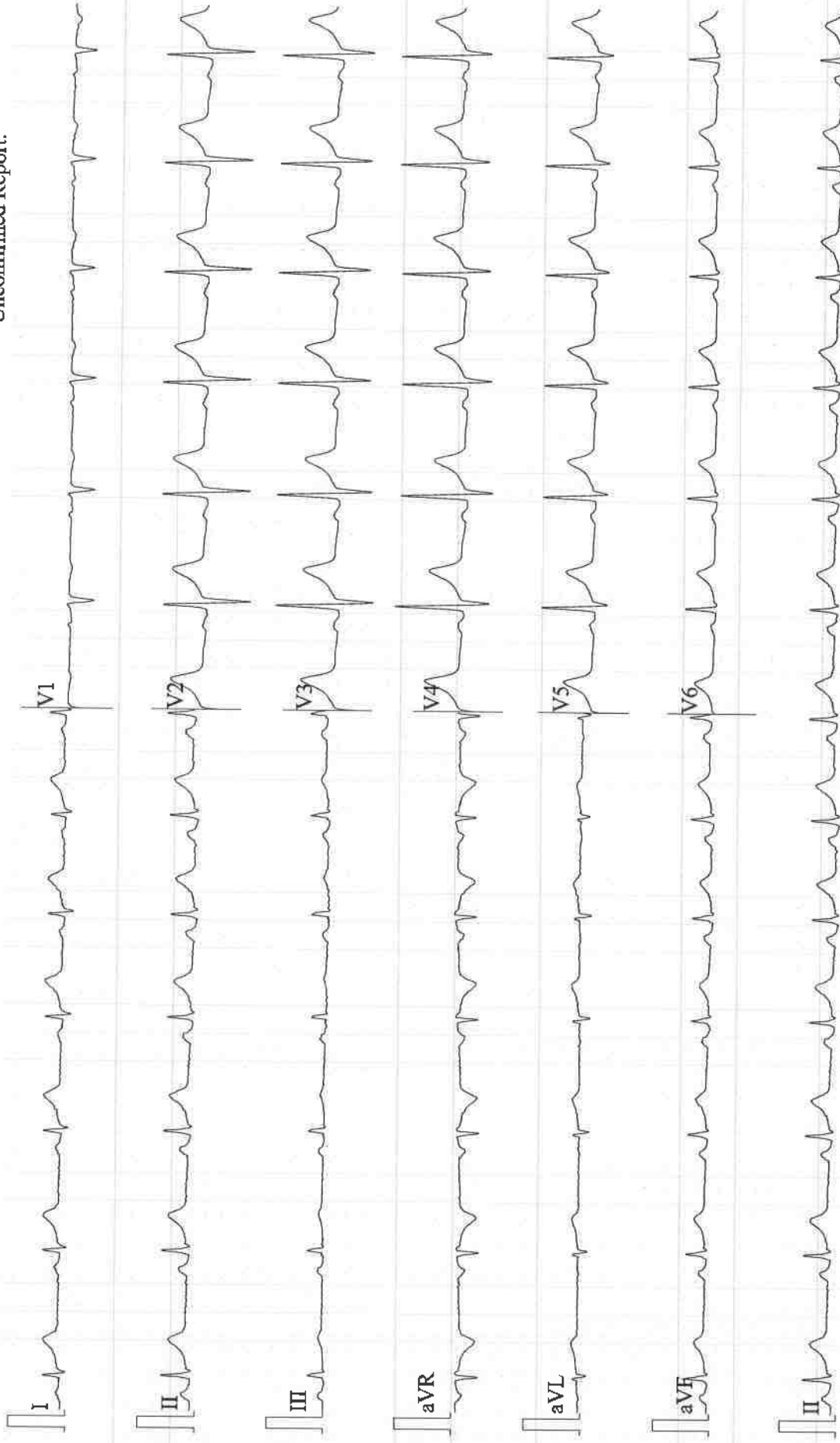
## Diagnosis Information:

800: Sinus Rhythm  
131: Low Voltage (Limb Leads)

**Santosh  
Kumar**

Digitally signed by  
Santosh Kumar  
Date: 2021.02.23  
12:58:03 +05'30'

Unconfirmed Report.



25mm/s 10mm/mV

0.05-35Hz AC50



Shree Raipur Cement Plant  
(A unit of Shree Cement Limited), Khapradih, Distt- Balodabazar  
CSR Work Done (April 2020 to March 2021)

S No	Particulars of CSR activity undertaken	Expenditure (in Rupees)
A	Eradicating hunger, poverty and malnutrition, promoting preventive health care and sanitation and making available safe drinking water & Expenses held for Covid-19 relief	1,03,57,582
B	Promoting education, including special education and employment enhancing vocation skills specially among children, women, elderly and the differently abled and livelihood enhancement projects (inc. consumer education and awareness)	2,24,308
C	Promoting gender equality, empowering women, setting up homes and hostels for women and orphans; setting up old age homes, day care centers and such other facilities for senior citizens and measures for reducing inequalities faced by socially and economically backward groups	6,44,049
D	Ensuing environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agroforestry, conservation of natural resources and maintaining quality of soil, air and water	5,18,794
E	Protection of national heritage, art and culture including restoration of buildings and sites of historical importance and works of art; setting up public libraries; promotion and development of traditional arts and handicrafts;	5,27,400
F	Training to promote rural sports, nationally recognized sports, Paralympic sports and Olympic sports	16,59,440
G	Rural development projects	66,00,005
H	Overheads related to CSR activities (maximum upto 5% of total CSR expenses)	25,46,300
	<b>TOTAL EXPENDITURE</b>	<b>2,30,77,878</b>

**SHREE CEMENT LIMITED**

BANGUR NAGAR, BEAWAR, RAJASTHAN

**ENVIRONMENT POLICY**

- To ensure Clean, Green and Healthy Environment through:
- ✓ Efficient use of natural resources, energy, plant & equipment.
  - ✓ Reduction in emissions, noise, waste and greenhouse gases.
  - ✓ Promotion to reuse and recycling wastes.
  - ✓ Continual improvement in environment management with proper systems to prevent, mitigate and control environmental impacts due to operations across the value chain and in local community.
  - ✓ Building awareness amongst all stakeholders including employees, customers, vendors etc. on environmental issues.
  - ✓ Compliance of relevant environmental legislations by implementing the Environmental Management System
  - ✓ Reporting of non-compliances (in any) of the conditions of environment clearance / consent / NOC/ authorization and permission etc relevant to the environmental conditions as and when occurs to the Whole Time Director by the respective Unit Head and Functional Head ( Environment) so as to fulfil the deviation from the compliances within the prescribed time line.

Signature   
(P.N.Chhangani)  
**Whole Time Director**

Date: 29<sup>th</sup> August, 2019

## **ENVIRONMENT MANAGEMENT SYSTEM**

### **1. LEGAL & OTHER REQUIREMENTS**

- a. We have established and maintained a procedure to identify, access and update legal and other requirements to which we subscribe, that are applicable to the environmental aspects / impacts and Occupational Health and Safety Hazards (OHS) / Risks of our products, activities and services respectively. The list of legal and other requirements applicable to our operations are maintained separately and are communicated to our stakeholders. Main legal requirements are as follows:

- ✓ Environmental acts & rules
- ✓ Mines acts & rules
- ✓ Factory acts & rules
- ✓ Boiler acts & rules

### **2. OPERATIONAL CONTROL PROCEDURES**

- a. We have identified our operations and activities that are associated with Environmental aspects and OHS risks in line with our Environmental Policy. We plan these activities, including maintenance in order to ensure they are carried out under specified conditions by:

- ✓ Establishing and maintaining SOPs to check out the deviations from EMS.
- ✓ These procedures define the criteria to ensure that activities are performed under specified conditions, complying to legal and other requirements also:
  - Communication of SOPs related to significant environmental aspects / OH&S risk of operations, goods, equipment and services purchased and/or used, to our stakeholders.
  - To reduce Environment Impact / OH&S Hazard with the application of SOPs considering their adaptation to the human capabilities by proper designing of work place, process and to take precaution while installation of machinery.
  - To review Control Measures and SOPs on regular intervals, effectiveness and to bring in changes that are identified & necessary to implement.

Signature   
(P.N.Chhangani)  
Whole Time Director

Date: 29<sup>th</sup> August, 2019


**b. Relevant Operation Control Measures**

- ✓ **Limestone mines operation-** Water sprinkling on the haulage road and at unloading point (crusher), raw material transportation by covered belt and emission control system at transfer points.
- ✓ **Clinkerization- Covered storage** of raw materials, petcoke, coal and clinker in silos, use of high efficient pollution control measures such as ESP, Bag house, bag filters at all transfer points, covered conveyors and De-NOx system etc.
- ✓ **Cement Grinding & Packing-** Bag Filters at all transfer points, storage of fly ash in silo and pneumatic Fly ash handling, automatic bag filling machines, use of tarpaulin to each truck and wagon and vacuum sweeping.
- ✓ **Storage in yard-** Covering by tarpaulin.
- ✓ **Utility operation-** Management of waste/used oil, oily wastes and industrial waste water management by 100% recycling in process to maintain ZLD and treatment of sewage water in STP to use for plantation.
- ✓ **General-** Dust control by good housekeeping & maintenance, use of dust extraction and recycling systems to remove dust from work areas, contractor activities and task observations.
- ✓ Use of proper personal protective equipment (PPE).

**3. ROLES & RESPONSIBILITIES**

We have established, implemented and maintained EMS to meet its requirements at all of our locations within the organizational boundaries. Roles and responsibilities of various personnel, who manage, perform and verify the activities and their impacts on environment and/or OH&S have been defined by the top management.

- a. Whole Time Director (WTD)** - He will review and ensure the implementation of EMS related activities as per the schedules & SOPs. He will communicate to the Board of Directors during quarterly General Meeting on all issues related to EMS and status of compliance and non-compliance (in any) of the conditions of environment clearance, consent, authorization, NOC of ground water withdrawal and surface water permission and new legislative requirements.

Signature   
(P.N. Chhangani)  
**Whole Time Director**

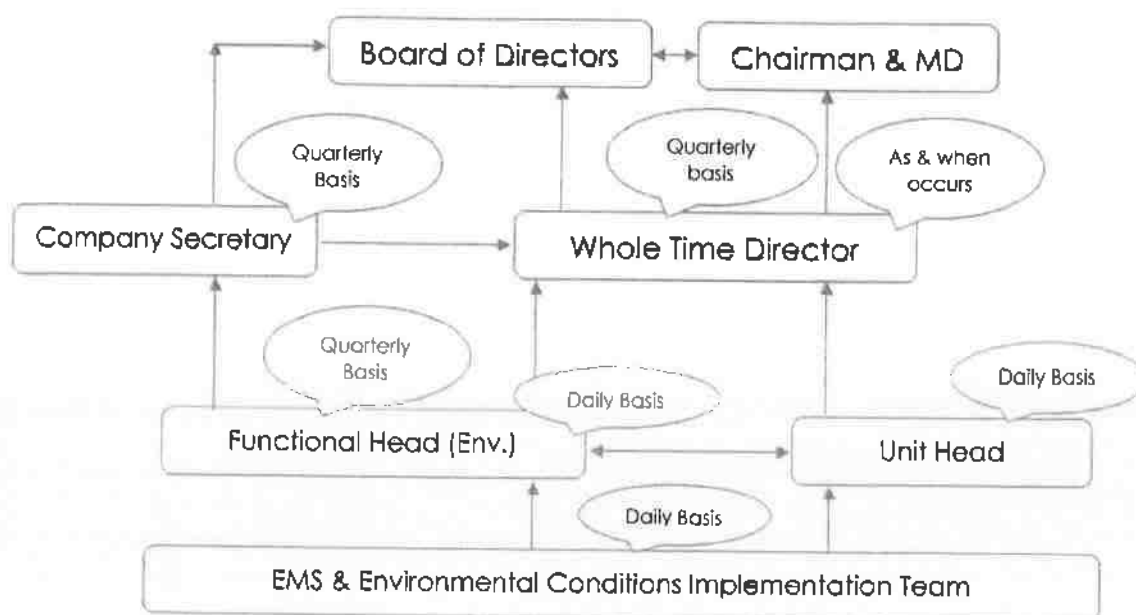
Date: 29<sup>th</sup> August, 2019

- b. **Unit Heads-** They will ensure the implementation of EMS and conditions of environment clearance, consents, authorization, NOC of ground water withdrawal and surface water permission and new legislative requirements within schedule time. They will report the progress of EMS and non-compliance (if any) of the conditions of environment clearance / consent / NOC/ authorization and permission etc to the WTD and Functional Head (Environment) as and when occurs and ensure to fulfill the deviation from conditions in time bound manner.
- c. **Functional Head (Environment)-** He will ensure all the compliances as per environment legislation including conditions of environment clearance, consent, authorization, NOC of ground water withdrawal and surface water permission and new legislative requirements on daily basis.
- He'll discuss with respective unit head and submit the report to the WTD about the new legislative requirements and non-compliances (if any) of the conditions of environment clearance / consent / NOC/ authorization and permission etc as and when occurs and ensure implementation within the prescribed time line.
- d. **EMS / Environmental Conditions Implementation Team-** It'll be comprising of multi-disciplinary professionals from all departments (civil, electrical, mechanical, Instrument, horticulture and environment) who'll prepare the action plan for implementation of conditions of environment clearance, consent, authorization, NOC of ground water withdrawal and surface water permission and new legislative requirements under the overall control and super vision of unit head.

Signature   
(P.N.Chhangani)  
Whole Time Director

Date: 29<sup>th</sup> August, 2019

## ORGANIZATIONAL STRUCTURE



## 4. COMMUNICATION

### a. Communication with Board of Directors

WTD is responsible to communicate the issues related to EMS, new legislative requirements and non-compliances (if any) of the conditions of environment clearance / consent / NOC/ authorization and permission etc to the Chairman and MD of the company as and when occurs and quarterly to the Board of Directors.

### b. Internal Communication

It is ensured by the Chairman and MD of the company that appropriate internal communication are established and maintained within the organization. Communication is done through phone call, e-mail, sms, whatsapp, & in written etc.

Signature   
**(P.N.Chhangani)**  
**Whole Time Director**

Date: 29<sup>th</sup> August, 2019

**c. Participation and consultation**

- ✓ Unit head ensures consultation with the employees and workers, over changes in work place such as introduction of new & modified equipment, materials etc.
- ✓ All employees and workers are to be involved and represented in development, implementation and review of EMS policy, its objectives and decisions on implementation of SOPs to manage & control environmental aspects and OH&S risks as per the mode and nature of activity and incident / accident investigations.
- ✓ Contractors shall be consulted wherever the changes affect their OH&S.

**d. External Communication**

Functional Head (Environment) / Unit Head is responsible for receiving, documentation and respond to the communications from external parties such as MOEF&CC, SPCB, CPCB, CGWA etc to attend their concerns / suggestions and dealing with public authorities for emergency preparedness and other relevant environmental issues.

**e. List of Company Management Team**

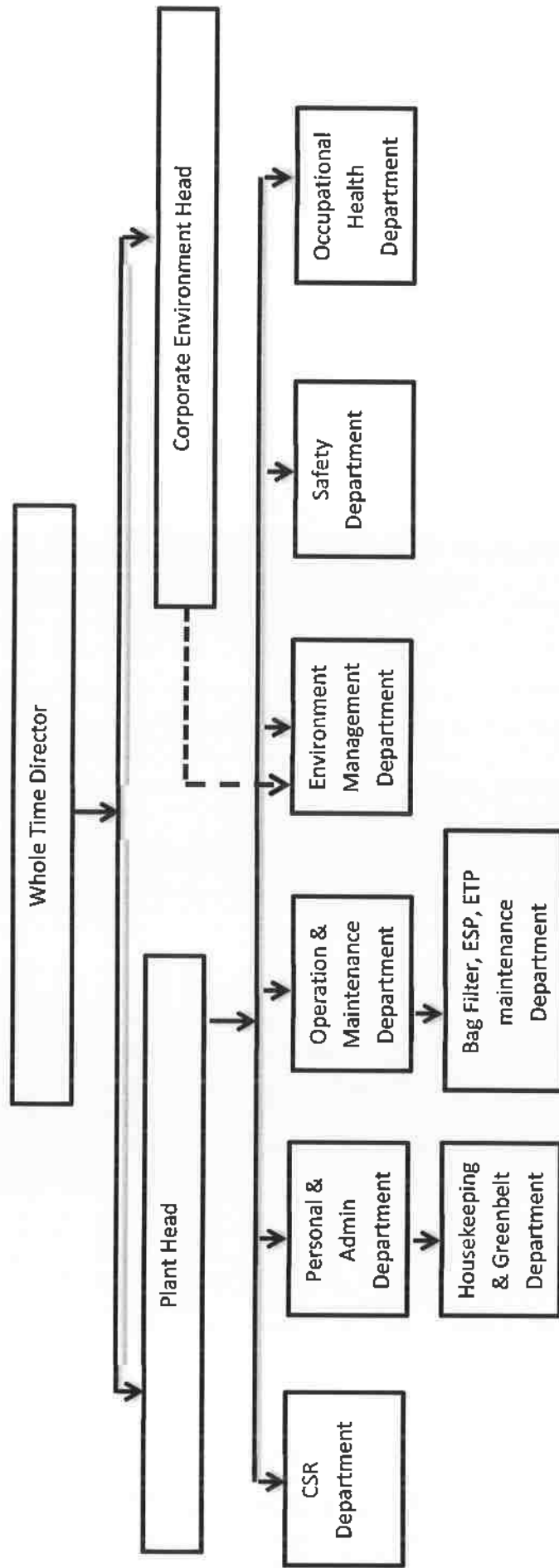
1. Chairman: Sh. B. G. Bangur  
Address: TOWER-1-FLAT-3402-E&W SUB METER  
BURJ DUBAI DEVELOPMENT, P O BOX: 184278 DUBAI 184278  
E-Mail: GhoshP@shreecement.com  
Contact No. 033- 22309601 – 605
2. Management Director: Sh. H. M. Bangur  
Address: 34, NEW E-Mail: GhoshP@shreecement.com  
Contact No. 033- 22309601 – 605  
ROAD, ALIPORE KOLKATA 700027
3. Whole Time Director: Sh. P. N. Chhangani  
Address: Shree Cements Ltd, Bangur Nagar,  
Beawar – 305901, District - Ajmer, Rajasthan  
Contact No. Phone: (91)1462-228101-064.
4. Functional Head (Environment)  
Dr. Anil Kumar Trivedi  
[trivedianilkumar@shreecement.com](mailto:trivedianilkumar@shreecement.com)  
Contact No. 9116667498, (91)1462-228101-064.

Signature

**(P. N. Chhangani)****Whole Time Director**Date: 29<sup>th</sup> August, 2019



Structure of Environment Management Cell



<b>Environment Expenditure (April-2020 to March-2021)</b>	
<b>Description</b>	<b>Amount (in Rs)</b>
Sewage treatment plant	590978
Water treatment plant	2881691
Technical Consultancy charges for Env. Monitoring	2856631
Env. Monitoring (Ambient, Stack emission, Ground Water & STP water etc.)	302932
Plantation (Cement plant & Mines area)	3383308
Plantation through CSR	518794
House keeping & Vacuum Sweeping m/c	37083399
<b>Total</b>	<b>47617734</b>

## मैसर्स श्री रायपुर सीमेंट प्लांट

(इकाई श्री सीमेंट लिमिटेड)

गांव- खपराडीह, तहसील- सिमगा,  
जिला-बलीदाबाजार-भाटापारा (छत्तीसगढ़)

### सार्वजनिक सूचना

सर्व साधारण को सूचित किया जाता है कि मैसर्स श्री रायपुर सीमेंट प्लांट (इकाई श्री सीमेंट लिमिटेड) के इन्टीग्रेटेड सीमेंट प्लांट का विस्तार, क्षमता 2 x 26 लाख टन प्रतिवर्ष से 3 x 45 लाख टन प्रतिवर्ष किलकर, 2 x 30 लाख टन प्रतिवर्ष से 3 x 55 लाख टन प्रतिवर्ष सीमेंट, कैस्टिब पावर प्लांट 25 मेगावाट से 125 मेगावाट, वेस्ट हीट रिकवरी पावर प्लांट 30 मेगावाट से 100 मेगावाट, सिंथेटिक जिप्सम 85 टन प्रतिघंटा तथा डीजी सेट 2000 क्वीए, जो कि गांव- खपराडीह, तहसील- सिमगा, जिला-बलीदाबाजार-भाटापारा (छत्तीसगढ़) में स्थापित किये जा रहे हैं, को भारत सरकार के पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा पर्यावरणीय स्वीकृति पत्र क्रमांक F. No. J-11011/235/2008-IA-II (I) दिनांक 11 सितंबर 2019 के द्वारा दी गई है।

पर्यावरण स्वीकृति पत्र की प्रतिलिपि छत्तीसगढ़ पर्यावरण संरक्षण मण्डल, रायपुर में उपलब्ध है तथा पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार की वेबसाइट "[www.moef.nic.in](http://www.moef.nic.in)" एवं श्री सीमेंट लिमिटेड की वेबसाइट "[www.shreecement.in](http://www.shreecement.in)" पर भी उपलब्ध है।

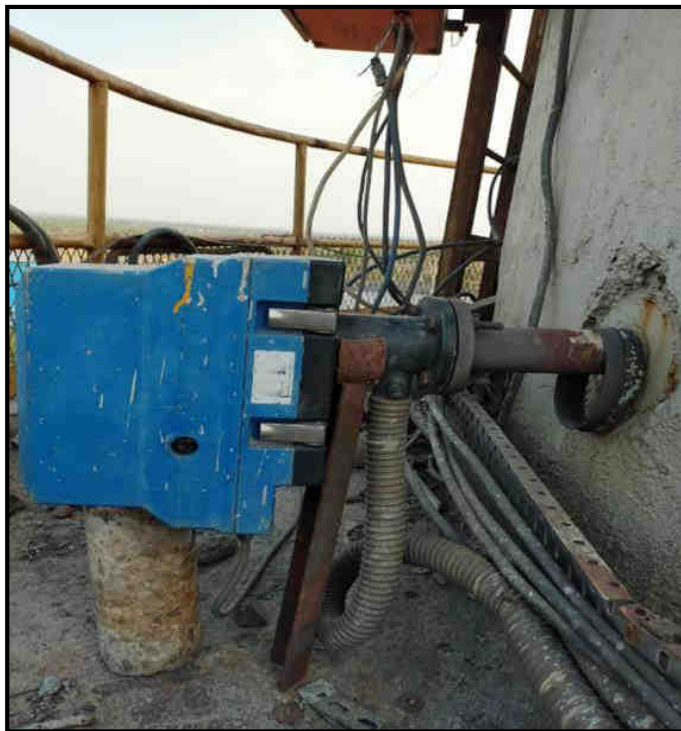
Dainik Bhaskar-14/09/19  
Raipur



**Photo no. 1 - Showing CEMS installed at Raw Mill Kiln Stack Unit-1**



**Photo no. 2 - Showing CEMS installed at Raw Mill Kiln Stack Unit-2**



**Photo no. 3 - Showing CEMS installed at Captive Power Plant**



**Photo no. 4 - Showing CAAQMS- 1**



**Photo no. 5 – Showing CAAQMS- 2**

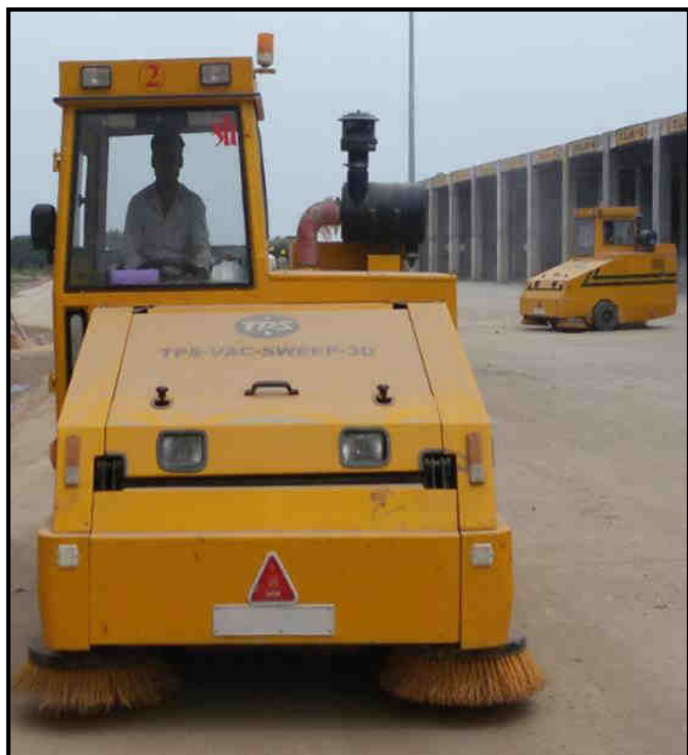




**Photo no. 6 – Showing CAAQMS- 3**



**Photo no. 7 – Showing CAAQMS- 4**



**Photo no. 8 – Showing Sweeping Machine**



**Photo no. 9 – Showing Sweeping Machine**



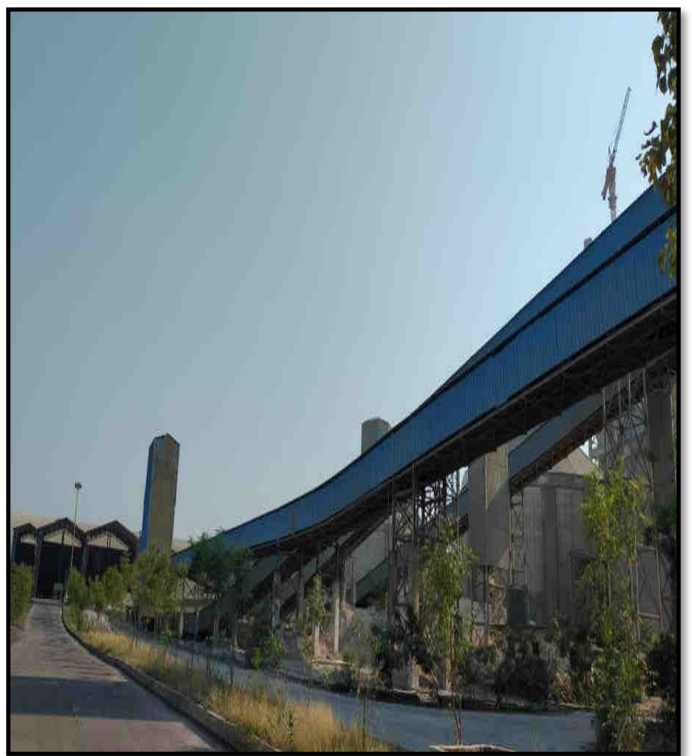
**Photo no. 10 – Transportation through bulkers**



**Photo no. 11. – Tarpaulin covered trucks**



**Photo no. 12 – Covered Shed for stock yard**



**Photo no. 13 – Covered conveyer belt**





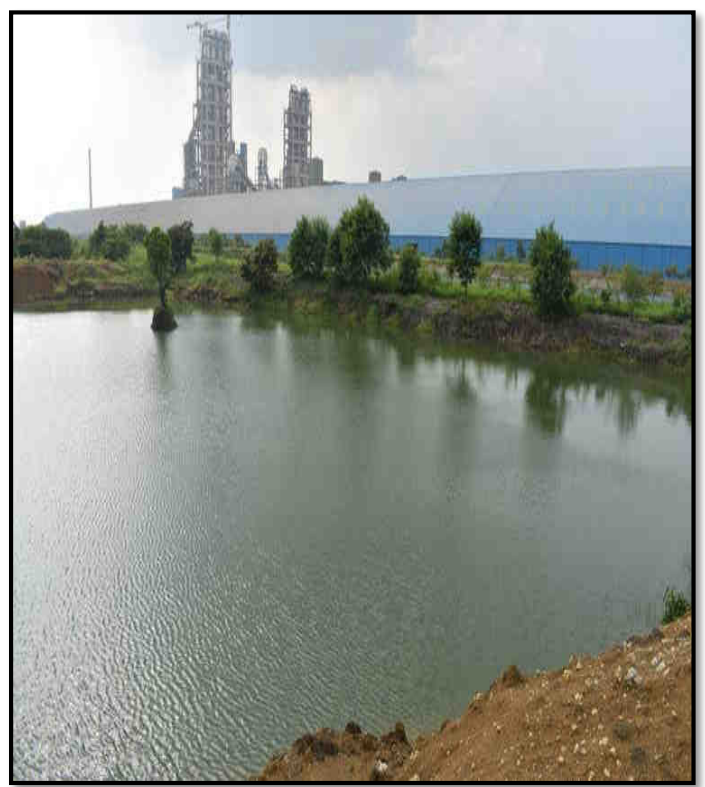
**Photo no. 14 – Trucks covered with tarpaulin**



**Photo no. 15 – Photo showing STP**



**Photo no. 16 – Rain water harvesting pond-1**



**Photo no. 17 – Rain water harvesting pond-2**





Photo no. 18 – Showing digital flow meter



Photo no. 19 – Showing digital flow meter



Photo no.20 Showing LED lighting fixtures office areas

SHREE RAIPUR CEMENT PLANT (A UNIT OF SHREE CEMENT LTD)				
VILL KINARADI, TEH- SIMGA, DISTT- DALGAJABAZAR - BHATAPARA, CHHATTISGARH- 493332				
DISPLAY OF INFORMATION RELATED TO AIR, WATER AND HAZARDOUS WASTE GENERATION				
NAME OF THE INDUSTRY/FACILITY WITH CONTACT DETAILS: SHREE RAIPUR CEMENT PLANT (A UNIT OF SHREE CEMENT LTD)				
CONTACT - SH. R. K. VIJAY (J.T.M.P - OPERATIONS)				
DATE OF UPDATE OF DISPLAY :				
DETAILS OF UPDATE CONSENT TO OPERATIONS AUTHORIZATION WITH VALIDITY :				
DETAILS OF OPERATIONAL STATUS : OPERATIONAL				
PRODUCTION DETAILS : CLINKER- 5.2 MTPA, CEMENT- 3.0 MPA, CPP- 2.5 MW, LINE STONE- 8.6 MTPA				
PRODUCTS MANUFACTURED (INCLUDING RECYCLING/ UTILIZATION)	DETAILS OF HAZARDOUS CHEMICALS USED WITH QUANTITY AND PURPOSE	TYPE OF AIR GENERATED WITH CATEGORY AS PER HOWN WHTS, 2016	QUANTITY OF HW GENERATED STORED AND DISPOSED	MODE OF TREATMENT AND DISPOSAL/ PROCESSING CO-PROCESSING/RECYCLING UTILIZING/INSECT/INCINERATION ETC.
CLINKER	INTERMEDIATE ASIDE (IF ANY)	USED/ SPENT OIL	AUTHORIZED QTY	CO- PROCESSING
CEMENT	SULPHURIC ACID/ OIL/ SODIUM	CAT. - S-1	(KAL/ YEAR	RECYCLING/UTILIZING/ REUSE
CPP	HYDROGEN SULFIDE USED IN		QTY. STORED	
WHTS	PLANT APPROVED SOLUTION		QTY. DEPOSED	
LINE STONE MINES	WELLS IN DOLER LPA (TMS.)			
AIR EMISSIONS:				
SOURCE OF AIR POLLUTION (EX. BOILER/ DG SETS/ FURNACE WITH CAPACITY IN TON/HR TYPE OF FUEL ETC.)	AIR POLLUTION CONTROL DEVICES (APCD) DEVICES WITH STACK HEIGHT)	PARAMETERS MONITORED	WHT AIR POLLUTION (PM CO, SO <sub>2</sub> NO <sub>x</sub> ETC.)	
		MONITORED DATA	LIMITS/STANDARD PRESCRIBED BY SPCL/ CPCB	MONITORING RESULT (MG/L/ NM3)
RAW MILL & KILN STACK UNIT-1	BAG HOUSE/STACK HT. 68M	PM 50% NO <sub>x</sub>	32/100,000	
CLINKER COOLER STACK UNIT-1	ESP/STACK HT. 55M	PM	30	
CEMENT MILL	BAG HOUSE/STACK HT. 42M	PM	30	
RAW MILL COILER STACK UNIT-1	BAG HOUSE/STACK HT. 175M	PM 50% NO <sub>x</sub>	30/100,000	
CEMENT COOLER STACK UNIT-1	BAG HOUSE/STACK HT. 62M	PM	30	
CLINKER COOLER STACK UNIT-2	ESP (STACK HT. 60 m.)	PM	30	
CLINKER COOLER ESP STACK	ESP (STACK HT. 92 m.)	PM 50% NO <sub>x</sub>	50,000,000	
WHTS CONNECTIVITY DETAILS (DATE OF INSTALLATION AND OPERATIONAL STATUS: 15.08.2015 & CONNECTED)				
EFFLUENT DISCHARGE:				
SOURCE OF EFFLUENT (SEWAGE WITH QUANTITY EXCESS WASTE WATER CONCENTRATED EFFLUENT ETC.)	TREATMENT METHOD (WHT WITH CAPACITY OR ANY OTHER METHOD)	INDEX OF DISPOSAL OF TREATMENT EFFLUENT (CONCENTRATION/INDEX)	EFFLUENT DISCHARGE MONITORING (PM CO, SO <sub>2</sub> TSS ETC.)	
		WHT	RESULT (MG/L)	
1. DOMESTIC WASTE WATER	SEWAGE TREATMENT PLANT CAPACITY 21000 GPD (10000 GPD)	PM	PM-55-20	STR-1
		CO <sub>2</sub>	CO <sub>2</sub> -250	STR-2
		TSS	TSS-100	
		WHT	WHT	
WHTS CONNECTIVITY DETAILS (DATE OF INSTALLATION AND OPERATIONAL STATUS): NA				

Photo no. 21 – Showing display board