

Ref: CPP/ENV/UML/EC/MOEF/22-23/10

Dated: 30.05.2022

To

DDG,IFS,

Ministry of Environment, Forest and Climate Change, Integrated Regional Office,

2nd Floor, Headquarter- Jharkhand State Housing Board,

Harmu Chowk, Ranchi, Jharkhand – 834002, Ranchi

Email: [ro.ranchi-mef@gov.in](mailto:ro.ranchi-mef@gov.in)

Kind Attn: Dr. T.H.Mahato

**Subject: Submission of half yearly Compliance report of Conditions stipulated in EC granted to our 2X10 MW CPP at USHA MARTIN LIMITED, Tatisilwai, Ranchi for the period Oct'21 to March'22**

Ref.: EC letter no: J-13012/122/2008-1A.II (T) dated 07-04-2011

Dear Sir,

We are herewith submitting the half yearly Compliance report of Conditions stipulated in EC granted to our 2X10 MW Captive Power Plant, M/s USHA MARTIN LIMITED, Tatisilwai, Ranchi for the period Oct'21 to March'22 for your kind perusal and reference.

Thanking you and best regards,

Yours faithfully,

For Usha Martin Ltd., Ranchi



Authorized Signatory


CPP (2 X 10MW)

USHAMARTIN LTD.

TATISIL WAI, RANCHI

JHARKHAND. PIN-835103

**Encl: Six monthly compliance Report**

 <b>usha martin</b>	<b>Captive Power Plant</b> 2X10 MW CPP, Tatisilwai Ranchi	<b>Environmental Clearance</b> MOEF Letter No.: J-13012/122/2008-IA,II(T) dated 07-04-2011 Compliance status as on : 31. 03. 2022 Period : <b>Oct '21 to March '22</b>
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Environmental Clearance Compliance Report (Period: Oct'21 to March '22)

**Sub: Six monthly EC compliance report pertaining to 2X10MW Coal based Captive Thermal Power Plant at village Tatisilwai in Ranchi Dist., in Jharkhand**

With reference to the subject mentioned, please find the compliance status of conditions stipulated in EC granted to our 2X10MW CPP vide letter no.- J-13012/122/2008-IA,II(T) dated 07-04-2011 and EC amendment Letter no.- J-13012/122/2008-IA,II(T) dated 09.10.2019 & 13.05.2020

**SPECIFIC CONDITIONS**

A.	Specific Conditions:	Status
(i)	Road transportation of coal shall be permitted for a limited period of 36 months only. The project proponent shall shift to railway transportation thereafter. The project proponent shall be vicariously responsible for liabilities incurred for road transportation such as accidental damages to public, coal fines emission from transporting trucks etc. The project proponent shall immediately start its action plan for rail transportation with consultation with the Railways and shall submit half yearly action taken report to the Ministry on the matter.	<ul style="list-style-type: none"> <li>• The MoEF&amp;CC has issued EC amendment vide letter dated 13.05.2020 &amp; 09.10.2019 and accords Permission to transport coal by road-copy attached as annex-1</li> <li>• We are pursuing with Railway regarding the progress of the rake unloading facility at Tatisilwai Station. Letter is attached as annex 1a</li> <li>• As per Ministry's OM dated 27/29-10-2020 &amp; 11-11-2020, we are transporting the coal by road under intimation to the Ministry.</li> <li>• We have executed FSA with CCL under NRS linkage for supply coal to CPP -Details are attached as Annex 1b</li> </ul>



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Environment Dept. 2X10 MW CPP, Ranchi



**Captive Power Plant**  
**2X10 MW CPP, Tatisilwai**  
**Ranchi**

**Environmental Clearance**  
 MOEF Letter No.: J-13012/122/2008-IA.II(T) dated 07-04-2011  
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<p>(ii) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm<sup>3</sup>. Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.</p>	<ul style="list-style-type: none"> <li>• Complied.</li> <li>• High Efficiency Electrostatic Precipitators (ESPs) has been installed</li> <li>• Provided Bag filters and static water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable areas.</li> </ul>
<p>(iii) Sulfur and ash contents in the coal to be used in the project shall not exceed 0.5 % and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made of MoEF for suitable amendments to environmental clearance condition wherever necessary.</p>	<ul style="list-style-type: none"> <li>• An Amendment to use 41.7% ash has been issued vide letter No-J-13012/122/2008-IA.II(T) on Dated 09.10.2019</li> <li>• Complied.</li> <li>• Coal analysis report is attached for ref. Annex-2</li> </ul>
<p>(iv) Stack of 70 m height shall be installed and provided with continuous online monitoring equipments for Sox, Nox and PM2.5 and PM10. Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also monitored on periodic basis.</p>	<ul style="list-style-type: none"> <li>• Complied</li> <li>• Online monitoring equipment's has been installed &amp; connected to JSPCB/CPCB server. Completion certificate attached as Annex-3 &amp; 4</li> <li>• Exit velocity of flue gas is maintained. Mercury emission from stack has been checked on periodic basis. Current report is attached. (Annex-2A)</li> </ul>
<p>(v) Existing de-generated water bodies (if any) in the study area shall be regenerated at the project proponent's expenses in consultation with the state Govt.</p>	<ul style="list-style-type: none"> <li>• There are no de-generated water bodies in the study area of CPP.</li> </ul>

*Signature*

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(vi)	Water requirement for running the plant shall be met from harvested rainwater and no ground water shall be extracted for the purpose.	<ul style="list-style-type: none"><li>Water requirement for the project is met from the existing water commitment of WWR.</li><li>Rain water harvesting system has been established.</li><li>No ground water is extracted.</li></ul>
(vii)	Hydro-geological status (quality and quantity) of ground water shall be reviewed annually from an Institute/ organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case and deterioration is observed specific mitigation measures shall be undertaken and reports/ date of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	<ul style="list-style-type: none"><li>Complied.</li></ul>
(viii)	Source of water for meeting the requirement during lean season shall be specified and submitted to the Regional Office of the Ministry within three months.	<ul style="list-style-type: none"><li>Source of water for the project is River Subarnarekha.</li><li>We have already installed Rainwater harvesting system, so that the requirement of water can be met from Rainwater to a large extent in lean season.</li></ul>
(ix)	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.	<ul style="list-style-type: none"><li>Complied.</li></ul>
(x)	COC of 5.0 (as may be applicable) shall be adopted.	<ul style="list-style-type: none"><li>Complied.</li></ul>
(xi)	A well designed rain water harvesting shall be put in place before commissioning of the plant. Central groundwater Authority/Board shall be consulted for finalization of appropriate rainwater harvesting technology/design within a period of three months from the date of this clearance and details shall be furnished.	<ul style="list-style-type: none"><li>Complied</li><li>Approval by Ground water division, Jharkhand &amp; completion certificates are attached as Annex-5 &amp; 6</li></ul>

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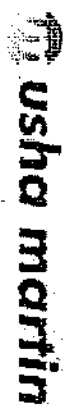
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(xii)	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed. A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.		<ul style="list-style-type: none"> <li>• ETP &amp; STP of latest technology have been installed &amp; treated effluent is being re-used.</li> <li>• All the function of ETP and STP are in closed loop, as such there will be no chance of getting mixed with storm water.</li> <li>• Maintaining ZERO discharge from CPP</li> <li>• Complied.</li> </ul>
(xiii)	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.		<ul style="list-style-type: none"> <li>• We have achieved Fly Ash utilization rate of 99.5% at CPP in last Financial Year 2021-22.</li> <li>• The Ash utilization report for last FY21-22 is attached for your ref. as <u>Annex-7</u></li> </ul>
(xiv)	Utilization of 100% Fly Ash generated shall be made from 4th year of operation. Status of Implementation shall be reported to the Regional Office of the Ministry from time to time.		
(xv)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. <u>Mercury and other heavy metals (As, Hg, Cr, Pb etc.)</u> will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed of in low lying area.		<ul style="list-style-type: none"> <li>• Complied.</li> <li>• No ash is disposed in low lying area.</li> <li>• Construction details is attached as Annex-7A</li> </ul>
(xvi)	Ash pond (if any) shall be lined with HDP/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.		

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(xvii)	Green Belt consisting of 3 tiers of plantations of native species around plant and covering 33% of area shall be raised. Tree density shall not less than 2500 per ha with survival rate not less than 80%.	<ul style="list-style-type: none"><li>• Complied.</li><li>• Phase wise plantation is in process.</li><li>• Garden view is attached as Annex 8</li></ul>
(xviii)	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing fluoride free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	<ul style="list-style-type: none"><li>• Our CSR arm Usha Martin Foundation is engaged in its unwavering commitment to social responsibility. For over three decades, the company has invested ample man-hours and capital on community development projects for integrated prosperity in rural Jharkhand, through CSR arm. This NGO undertakes various development initiatives, following a model of Total Village Management (TVM). Focusing on key areas like Watershed development, agricultural productivity, better health practices, education, empowering women and encouraging micro enterprise.</li><li>• Complied.</li></ul>
(xix)	An amount of Rs. 0.50 Crores shall be earmarked as one time capital cost for CSR programmed. Subsequently a recurring expenditure of Rs. 0.10 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with road map for implementation.	

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(xx)	<p>While identifying CSR activities it shall be ensured that need based assessment for the nearby villages within study area shall be conducted to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people shall be undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. Vocational training programme for possible self-employment and jobs shall be imparted to identified villagers free of cost.</p>
(xxi)	<p>It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time.</p>

GENERAL CONDITIONS		Status	
B. General Conditions:		Status	
(i)	<p>Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.</p>		<ul style="list-style-type: none"> <li>• Complied</li> </ul>
(ii)	<p>Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management</p>		<ul style="list-style-type: none"> <li>• NO liquid fuel used in boiler during this period.</li> </ul>

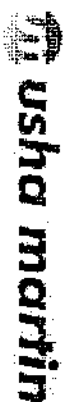
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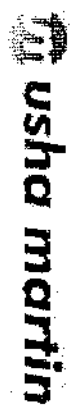
	Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	
(iii)	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	<ul style="list-style-type: none"><li>• Complied.</li></ul>
(iv)	Monitoring surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	<ul style="list-style-type: none"><li>• Complied.</li><li>• Samples checked on regular basis. Report attached as <u>Annex-2</u></li></ul>
(v)	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	<ul style="list-style-type: none"><li>• Complied.</li></ul>
(vi)	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/ less noisy areas.	<ul style="list-style-type: none"><li>• Complied.</li><li>• Noise report is attached via Annex-2</li><li>• Audiometric test has been carried out for all CPP employees periodically</li></ul>
(vii)	Regular monitoring of ambient air ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>2.5</sub> & PM <sub>10</sub> and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring	<ul style="list-style-type: none"><li>• Being Complied.</li><li>• Monitored regularly by in-house NABL Accredited Environmental laboratory.</li></ul>

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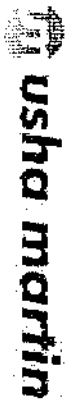
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	stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	<ul style="list-style-type: none"><li>• Accreditation certificate is attached as Annex-11</li></ul>
(viii)	Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	<ul style="list-style-type: none"><li>• Complied.</li></ul>
(ix)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forest at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	<ul style="list-style-type: none"><li>• Complied.</li></ul>
(x)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, urban local Body and the Local NGO, if any from whom suggestions / representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	<ul style="list-style-type: none"><li>• Complied.</li><li>• Copy of Clearance letter sent is attached for ref. Annex 12</li></ul>
(xi)	An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization.	<ul style="list-style-type: none"><li>• Complied</li></ul>

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		MOEF Letter No.: J-13012/122/2008-IA.II(T) dated 07-04-2011 Compliance status as on : 31. 03. 2022 <b>Period : Oct '21 to March '22</b>

(xii)	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM2.5 & PM10), SO2, NOX (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	<ul style="list-style-type: none"> <li>• Complied.</li> <li>• Link: <a href="http://www.ushamartin.com/about-us/">http://www.ushamartin.com/about-us/</a></li> <li>• Picture of Display board is attached as <u>Annex-13</u></li> <li>• All prescribed parameters are included in display board.</li> </ul>
(xiii)	The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry be e-mail.	<ul style="list-style-type: none"> <li>• Complied.</li> <li>• Form-V is uploaded in website.</li> <li>• Link: <a href="http://www.ushamartin.com/about-us/">http://www.ushamartin.com/about-us/</a></li> </ul>
(xiv)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.	<ul style="list-style-type: none"> <li>• Complied.</li> </ul>

*Shikha*

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(xv)	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will upload the compliance status in their website and update the same from time to time at least six monthly basis. Criteria pollutants levels including Nox (from stack & ambient air) shall be displayed at the main gate of the power plant.	<ul style="list-style-type: none"><li>Complied.</li><li>Criteria pollutants levels including NOX (from stack &amp; ambient air) are displayed at the main gate of the power plant.</li></ul>
(xvi)	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	<ul style="list-style-type: none"><li>Separate fund is already allocated.</li></ul>
(xvii)	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	<ul style="list-style-type: none"><li>complied</li><li>Documents regarding financial closure for this project is attached as Annex-14</li></ul>
(xviii)	Full cooperation shall be extended to the Scientists/ Officers from the Ministry/ Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.	<ul style="list-style-type: none"><li>Agreed,</li><li>Noted for compliance</li></ul>

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5	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.	<ul style="list-style-type: none"> <li>Noted for compliance</li> </ul>
6	The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.	<ul style="list-style-type: none"> <li>Plant is operational within 5 years of grant of EC.</li> </ul>
7	Concealing factual data or submission of false/ fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	<ul style="list-style-type: none"> <li>Agreed,</li> <li>Noted for compliance</li> </ul>
8	In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	<ul style="list-style-type: none"> <li>Noted for compliance</li> </ul>
9	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	<ul style="list-style-type: none"> <li>Noted for compliance</li> </ul>

  
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Others conditions: (As Per EC amendment letter vide letter No-J-13012/122/2008-IA.II(T) on Dated 09.10.2019 )

		Status
	The following additional conditions are stipulated for compliance.	
1.	The status of the complaint No. C-2472/19 filed before the Chief Judicial Magistrate, Ranchi by the Jharkhand State Pollution Control Board for transporting coal by road without Ministry's permission is to be furnished along with Six Monthly Compliance Report.	Court case is pending for hearing
ii.	The status of complaint No. C-2472/19 filed before the Chief Judicial Magistrate, Ranchi by the Jharkhand State Pollution Control Board u/s 19 of Environment (Protection) Act, 1986 for transporting coal by road without Ministry's permission shall be submitted along with Six Monthly Compliance Report. Copies of the orders passed by the Chief Judicial Magistrate shall also be submitted.	Court case is pending for hearing
iii.	Coal shall be procured through e-auction only and not from open market.	Complied. We are procuring coal according to OM dated 11/11/2020. Executed FSA with CCL under NRS linkage for supply coal to CPP. Compliance Status of Office Memorandum on dated 11 <sup>th</sup> Nov'20 against File No: J-13012/8/2009-IA.II (T), is attached as Annex 15
iv.	The transportation by road shall be through mechanically covered trucks to the extent feasible, else through trucks firmly covered by tarpaulin sheet.	<ul style="list-style-type: none"> <li>• Complied</li> </ul>
v.	Possibility of upgrading road shoulders into pakka road in consultation with the State Govt. be explored be explored.	<ul style="list-style-type: none"> <li>• Noted</li> </ul>
vi.	Periodic maintenance of the road shall be done by the project proponent at its own cost and shall also facilitate the traffic control on the road in consultation with the State Govt.	<ul style="list-style-type: none"> <li>• Noted</li> </ul>

*Singh* (2 X 1GMV)

USHAMARTIN LTD.

TATISIL WAI, RANCHI

Environment Dept. 2X10 MW CPP, Ranchi



Captive Power Plant  
2X10 MW CPP, Tatisilwai  
Ranchi

Environmental Clearance

MOEF Letter No.: J-13012/122/2008-IA.II(T) dated 07-04-2011

Compliance status as on : 31. 03. 2022

Period : Oct '21 to March '22

vii.	Avenue plantation shall be carried out in consultation with Social Forestry Department and NHAI or PWD along the routes proposed for transportation. The progress report such a number of sampling planted, length of road covered, survival rate, expenditure on maintenance (tree guard, watering and manure supply) shall be submitted along with six monthly compliance report.	<ul style="list-style-type: none"><li>• Noted</li></ul>
viii.	The PP shall advertise in the local leading newspapers and place on the website, the temporary permission accorded by the Ministry as a part of public information.	<ul style="list-style-type: none"><li>• Complied</li><li>• Published on dated 09.11.2019</li></ul>
ix.	The SO <sub>2</sub> and NO <sub>x</sub> emissions from the flue gas shall be restricted to below 500 mg/Nm <sup>3</sup> and 600 Mg/Nm <sup>3</sup> , respectively.	<ul style="list-style-type: none"><li>• Being followed</li><li>• Report attached</li></ul>
23	All other conditions mentioned in the EC vide dated 07.04.2011 shall remain the same.	<ul style="list-style-type: none"><li>• Noted</li></ul>

CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISIL WAI, RANCHI  
JHARKHAND. PIN-835102



**J-13012/122/2008-IA.II (T)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**

Indira Paryavaran Bhawan, Jor Bagh Road  
Aliganj, New Delhi-110003

Dated: 13.05.2020

To

**M/s Usha Martin Ltd.**  
2A, Shakespeare Sarani,  
Kolkata- 700 071.

Tel. No. 033-22823985/39800300; Fax: 033-22829029/39800400.

**Sub: Coal Based Captive Thermal Power Plant of 2x10 MW at Village Tatisilwai, District Ranchi in Jharkhand by M/s. Usha Martin Ltd. – reg. amendment of EC regarding permission to transport coal by road.**

Sir,

The undersigned is directed to refer your online application No. **IA/JH/THE/138854/2020** dated 27.01.2020 for seeking permission to transport coal by road for the above mentioned project.

2. It has been noted that Environmental Clearance (EC) for the above project was accorded vide letter dated 07.04.2011. Subsequently, the Ministry vide letter dated 9.10.2019 granted:-

- a) ex-post facto permission for sourcing of coal through e-auction and transportation by road for a period of three years i.e. till 31.03.2018;
- b) permission to transport coal by road for further period of three years, i.e. till 31.03.2021; from
  - i. Sikini mines- 124.4 km
  - ii. Magadh Mines- 145.5 km
  - iii. Amrapali mines- 141.9 km, and
- c) amendments regarding sourcing coal through e-auction, land requirement to 22.437 acres instead of 12.278 acres and ash content to 41.7% instead of 34%.

3. It has been noted that the 2x10 MW Captive Power Plant was established to ensure the uninterrupted power supply to Steel Wire and Wire rope plant to prevent breakage of wire to ensure internationally acceptable wire ropes particularly for use in critical safety applications. The wire rope plant is providing employment to 4400 workmen.

4. It was informed that the Hon'ble Supreme Court vide its judgment dated 25.8.2014 and 24.9.2014 cancelled allocation of Lohari Coal Block which was to cater coal requirement to the captive power plant. The plant started its operations with commissioning of 1<sup>st</sup> Unit on 31.3.2012 and 2<sup>nd</sup> Unit on 31.12.2012. At present, the company has been sourcing coal through e-auction from nearby mines of Central Coalfields Ltd. But during recent times e-auction is very much irregular which resulted in coal shortage as well as high production costs. It was informed that the company was forced to stop its production of one unit for 82 days in the the year 2019.

5. It has been informed that the auctioned quantity has reduced by 47% and 59% in FY 19 and FY20 (till Dec 2019) respectively as compared to quantity offered during FY18 which reduced the chances of winning the required quantity of coal for the Power Plant.

6. The Coal requirement for the power plant is 0.183 MTPA. The coal quantity of 500 tonnes per day involving to & fro movement of 40 tippers per day with capacity 25 tonnes. It has been now proposed to procure coal by road from a) West Bokaro Ghato Mines & Jamadoba Mines of Tata Steel, and b) Heavy Engineering Corporation Ltd., Ranchi through Bilateral agreement/Window Sale. The Traffic Impact Assessment Report has been submitted for the proposed routes of coal transportation. The details of these routes are as below:

Routes	Length, km	Length of Stretch (in km) w.r.t. Type				Type of road
		Single Lane (<5.5 m)	Intermediate (≥ 5.5 m)	Two Lane (≥ 7 m)	Multi-lane (≥ 10 m)	
Route-1: HEC Plant to CPP.	64.77	0.90	2.80	2.02	59.05	Black top: 64.57 & Concrete: 0.2 km
Route-2: West Bokaro OC coal mine of Tata Steel to CPP.	66.76	0.90	0.00	0.30	65.56	Black Top: 66.76 km

7. The traffic sufficiency assessment has been estimated. The percentage utilisation of road after taking into consideration of existing traffic and incremental is in the range of 32-116%. Where existing traffic is exceeding the design service volume of the road, it has been proposed to restrict the movement of trucks to the time period between 9 pm to 8 am only, when the traffic is lean.

8. The baseline air quality has been collected at various locations along the route. Incremental concentrations have been predicted and the cumulative concentrations including baseline data are within the ambient air quality standards.

9. It has been informed that all other environmental and safety measures will be implemented such as dust control measures at unloading point, covering trucks with tarpaulin cover, maintenance of vehicles and following Central Motor Vehicles Act and Rules for maintaining road safety.

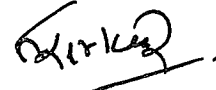
10. The matter was placed before the Re-constituted Expert Appraisal Committee (Thermal Power) in its meetings held on 21.2.2020. In acceptance of the

recommendations of the EAC in its meeting held on 21.2.2020 and in view of the information/documents/clarifications furnished by you, with respect to the above mentioned power project, **the Ministry hereby accords permission to transport coal by road through additional routes from West Bokaro Ghato Mines & Jamadoba Mines of Tata Steel Ltd. and Heavy Heavy Engineering Corporation Ltd., Ranchi for a period two years** subject to following additional conditions:

- i. The coal shall be transported through Route-1: HECL, Ranchi during lean traffic period (9 pm to till 8 am).
  - ii. Water sprinkling is to be carried out at the road stretch near Tatisilwai village to control secondary dust.
11. All other conditions mentioned in the EC vide dated 07.04.2011 and amendment letter dated 9.10.2019 shall remain the same, as applicable.

This issues with the approval of the Competent Authority.

Yours faithfully,



(Dr. S. Kerketta)  
Director, IA.I

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (ECZ), Bungalow No. A-2, Shyamali Colony, Ranchi- 834002.
5. The Secretary (Environment), Forests and Environment Department Government of Jharkhand.
6. The Chairman, Jharkhand State Pollution Control Board, TA Building, HEC Complex, P.O. Dhurwa, Distt. Ranchi.
7. The District Collector, Ranchi District, Govt. of Jharkhand.
8. Guard file/Monitoring file.
9. Website of MoEF&CC.



Director, IA.I



J-13012/122/2008-IA.II (T)  
Government of India  
Ministry of Environment, Forest and Climate Change

Indira Paryavaran Bhawan, Jor Bagh Road  
Aliganj, New Delhi-110003

Dated: 09.10.2019

To

**M/s Usha Martin Ltd.**  
2A, Shakespeare Sarani,  
Kolkata- 700 071.

Tel. No. 033-22823985/39800300; Fax: 033-22829029/39800400.

**Sub: Coal Based Captive Thermal Power Plant of 2x10 MW at Village Tatisilwai, District Ranchi in Jharkhand by M/s. Usha Martin Ltd. - reg. amendment of EC regarding permission to transport coal by road, sourcing of coal, land requirement and ash content in coal.**

Sir,

This has reference to your online application No. **IA/JH/THE/10337/2011** dated 25.02.2015 and 16.1.2015 and the documents submitted vide your letters dated 26.4.2018 and 11.6.2019 on the above subject. It is noted that Environmental Clearance (EC) for the above project was accorded vide letter dated 07.04.2011. As per the said EC, the coal shall be obtained from captive Lohari coal block in Jharkhand and road transportation of coal was permitted for a limited period of three years only. Vide your application dated 25.2.2015, it has been requested for sourcing of coal through e-auction and extension of permission for temporary road transportation of coal for three years Further, you have also requested for corrections in the EC as per EIA/EMP report regarding land requirement and ash content in coal.

2. The specific condition 4A(i) of the EC dated 7.4.2011 stipulates as follows:

*Road transportation of coal shall be permitted for a limited period of 36 months only. The project proponent shall shift to railway transportation thereafter. The project proponent shall be vicariously responsible for liabilities incurred for road transportation such as accidental damages to public, coal fines emission from transporting trucks etc. The project proponent shall immediately start its action plan for rail transportation with consultation with the Railways and shall submit half yearly action taken report to the Ministry on the matter."*

3. It has been informed that Unit-1 (1x10 MW) and Unit-2 (1x10 MW) have been commissioned in March, 2012 and December, 2012 respectively. The coal requirement for the project is 1.25 Lakh Tonnes per annum (500 Tons/day involving 20 trucks with 25 ton capacity). Nearest railway stations are Tatisilwai (1 km) and Hatia (15 km). The Hatia station has only outward transport facility and Tatisilwai has no siding for coal loading and unloading.

4. It has been informed that the Lohari coal block, Jharkhand which was allocated for this captive power plant has been de-allocated by the Supreme Court. The coal is currently procured through e-auction carried by M/s Central Coalfields Ltd. or M/s Jharkhand State Mineral Development Corporation since the commissioning of the power plant.

5. The coal has been transported by the road since commissioning of the power plant. The distance of road transportation is in the range of 83-100 km depending upon coal mine.

6. It has been informed that the quantity of coal transported by road since its commissioning is as follows:

Sr.No	Year	Quantity (MT)
1	FY13	63,782
2	FY14	67,480
3	FY15	1,12,995
4	FY16	1,14,883
5	FY17	1,17,258
6	FY18	1,25,134
Total		6,01,532

7. It has been informed that the Hatia Railway station is at 15 km and there is no infrastructure to deal with inward coal rakes. Further, Hatia railway station is situated in populated area and road transportation from Hatia to Tatisilwai will be through Ranchi city during limited hours. The Tatisilwai Railway station is at 01 km from the power plant and the required infrastructure to deal with inward coal is not available.

8. The additional information sought by the Ministry has not been submitted. Accordingly, the proposal dated 25.2.2015 has been delisted from the pendency of the Ministry. As the coal transportation has been taken place by road without Ministry's approval after 31.3.2015, the Ministry directed Jharkhand State Pollution Control Board to take a credible action u/s 19 of E(P) Act, 1986. Subsequently, Jharkhand State Pollution Control Board vide letter dated 7.6.2019 informed that a complaint vide No.2472/10 has been filed in the Court of Chief Judicial Magistrate for transporting coal by road without formal approval from the Ministry.

9. It has been noted that the proposal for further extension of permission for road transportation till the railway infrastructure is established, has been submitted in the Ministry.

10. It has been informed that the requirement of coal for the present power plant (2x10 MW) is in the range of 1.25 Lakh Tonnes per annum. It is not feasible to establish a railway siding within the plant area as it requires additional land acquisition. The area of captive power plant is 22.437 acres out of which main plant occupies 12.278 acres and rest of the area is occupied by the utilities such as coal yard, rain water harvesting system, plantation, ash dyke, weigh bridge and reservoir, etc. Further, there is no private land available adjacent to the plant area.

11. It has been informed that the Lohari coal block (near Daitonganj, Jharkhand) which was linked to the plant for coal supply has been de-allocated by the Supreme Court. Hence, there is no definite source available now and company is procuring coal through e-auction from M/s Central Coalfields Ltd. (M/s CCL) and M/s Jharkhand State Mineral Development Corporation. Further, all coal mines of M/s CCL are in the vicinity as well as within the 200 km from the plant. The e-auction coal is supplied only by road mode based on low priority given for Captive Power Plant as non-core consumer.

12. It has been informed that the peak coal requirement is 500 TPD at 100% Plant Load Factor (PLF). M/s CCL has issued a circular and informed that the

lifting of coal from its mines shall be through Road mode only to non-core consumers. The Circular of M/s CCL dated 9.9.2014 states that the allotment of coal from October, 2014 onwards will be made by rail mode only nearby consumers of Captive Power Plant/sponge iron.

13. It has been noted that M/s Mecon Ltd., Ranchi has carried out feasibility study for laying railway siding and line from the nearest take off point and submitted the report on 13.5.2019. The report has mentioned that coal unloading facilities at plant to accommodate full rake, the area of 870 m length x 25 m width (21,750 m<sup>2</sup>/ 2.175 Ha) is required. Whereas, the plant area of 22.437 acres measures 345 m (West- East) x 325 m (South-North) and hence construction of private siding is not possible. It has concluded that the plant cannot accommodate full or half rake unloading railway yard as well as 8 wagons unloading yard on present land profile of the plant. Further, there is no vacant private land available for siding beyond railway boundary. The coal rake from Tori/Barkakana end on existing up line cannot enter in to the plant which is located on down side.

14. It has been informed that the quantity of coal required is only 4 rakes per month (500 Tons/day). Considering the low quantities, establishing private railway siding is not economically viable and the asset may end up in the category of Non Performing Assets (NPA) and will also make the Wire Rope plant unviable.

15. The three routes proposed for road transportation are viz. Route-1: Sikni mines-124.4, Route-2: Magadh Mine- 145.5 km and Route-3: Amrapali Mine-141.9 km.

Route No.	From	Length of the route (km)	Remarks
Route-1	Sikni Mines to Plant	124.4 km	NH-5: 83 km NH-75: 46 km 6-lane Ring road: 23.5 km
Route-2	Magadh Mine to Plant	145.5 km (Route-1: 124.4 km+ 21.1 km)	Additional 21 km is NH-99
Route-3	Amrapali mine to Plant	141.9 km	NH-33: 84 km SH-7: 47 km

16. The maximum part of the route considered is a highway passing through rural areas. These highways are NH-75, NH-99, NH-33 and SH-7, which are considered as an all-purpose road, with no control of access and with heterogeneous mix of fast and slow-moving vehicles. Width of the roads in the proposed route is provided as below:

Route	Length	Lane				Type of road
		Single Lane (<5.5 m)	Intermediate Lane (5.5-7 m)	Two Lane (7-10 m)	Multi lane (≥10 m)	
Route-1	124.4 km	0.9 km	4.2 km	33.4 km	85.9 km	Black Top: 63% Concrete: 37%
Route-2	145.5 km	2.9 km	4.2 km	53.2 km	86.2 km	Black Top: 68%

						Concrete: 32%
Route-3	141.9 km	0.9 km	Nil	46.6 km	94.4 km	Black Top: 100%

17. The daily coal requirement is 500 MT/day which involve 25 trucks (50 to and fro) with the capacity of 20 Tons. The percentage utilisation of the roads including the project traffic is in the range of 48.5-96.8%. Thus the roads at all points have sufficient capacity to accommodate present and proposed traffic for next three years.

18. All the three routes considered for the study are capable to support existing as well as projected traffic loads at LoS C in rural as well as urban areas. Only at one census point, Tati village, movement is and shall be restricted to night hours only. The projected traffic volume after five year plus, with its natural growth, shall be vary between 14.3% to 165.3% of DSV on roads passing through Urban areas.

19. The maximum ground level concentrations due to proposed traffic have been computed by using a dispersion modelling software and the details are as below:

Parameter	Highest AAQ baseline ( $\mu\text{g}/\text{m}^3$ )	Incremental Values ( $\mu\text{g}/\text{m}^3$ )	Resultant concentrations ( $\mu\text{g}/\text{m}^3$ )	National Standard ( $\mu\text{g}/\text{m}^3$ )
PM <sub>10</sub>	82.2	4.41	86.61	100
PM <sub>2.5</sub>	47.8	1.07	48.87	60
SO <sub>2</sub>	13	0.27	13.27	80
NO <sub>2</sub>	22.2	1.92	24.12	80

20. It has been informed that the vehicles will be covered with tarpaulin sheet, have PUC and have spill-proof transportation. Vehicles having fitness certificate shall be allowed to ply.

22. It has been noted that a Committee involving MoC, MoP, M/s CIL Ltd., Railway Board and other major stakeholders, has been constituted to review the status of rail connectivity infrastructure at the plant site & pit head/coal mines area and need for extension of road transportation for various power projects and coal mines.

21. The matter was placed before the Re-constituted Expert Appraisal Committee (Thermal Power) in its meetings held during 19<sup>th</sup>-20<sup>th</sup> May, 2015, 27.03.2019 and 26.6.2019. In acceptance of the recommendations of the EAC in its meeting held on 26.6.2019 and in view of the information/documents/clarifications furnished by you, with respect to the above mentioned power project, **the Ministry hereby accords the following:**

- a) **Ex-post facto permission for sourcing of coal through e-auction and transportation by road for a period of three years i.e. till 31.03.2018;**
- b) **Permission to transport coal by road for further period of three years, i.e. till 31.03.2021; A final decision to allow road permanently will be taken after the recommendations of the Committee constituted for formulating the policy on coal transportation.**
- c) **Amendments regarding sourcing coal through e-auction, land requirement of the project shall be 22.437 acres instead of 12.278 acres and restriction of ash content in coal shall be 41.7% instead of**

**34% are allowed.**

21. The following additional conditions are stipulated for compliance.
- i. The status of the complaint No.C-2472/19 filed before the Chief Judicial Magistrate, Ranchi by the Jharkhand State Pollution Control Board for transporting coal by road without Ministry's permission is to be furnished along with Six Monthly Compliance Report.
  - ii. The status of complaint No.C-2472/19 filed before the Chief Judicial Magistrate, Ranchi by the Jharkhand State Pollution Control Board u/s 19 of Environment (Protection) Act, 1986 for transporting coal by road without Ministry's permission shall be submitted along with Six Monthly Compliance Report. Copies of the orders passed by the Chief Judicial Magistrate shall also be submitted.
  - iii. Coal shall be procured through e-auction only and not from open market.
  - iv. The transportation by road shall be through mechanically covered trucks to the extent feasible, else through trucks firmly covered by tarpaulin sheet.
  - v. Possibility of upgrading road shoulders into pakka road in consultation with the State Govt. be explored.
  - vi. Periodic maintenance of the road shall be done by the project proponent at its own cost and shall also facilitate the traffic control on the road in consultation with the State Govt.
  - vii. Avenue plantation shall be carried out in consultation with Social Forestry Department and NHAI or PWD along the routes proposed for transportation. The progress report such as number of saplings planted, length of road covered, survival rate, expenditure on maintenance (tree guard, watering and manure supply) shall be submitted along with six monthly compliance report.
  - viii. The PP shall advertise in the local leading newspapers and place on the website, the temporary permission accorded by the Ministry as a part of public information.
  - ix. The SO<sub>2</sub> and NO<sub>x</sub> emissions from the flue gas shall be restricted to below 600 mg/Nm<sup>3</sup> and 600 mg/Nm<sup>3</sup>, respectively.
22. All other conditions mentioned in the EC vide dated 07.04.2011 shall remain the same.

This issues with the approval of the Competent Authority.

Yours faithfully,



(Dr. S. Kerketta)  
Director, IA.I

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.

4. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (ECZ), Bungalow No. A-2, Shyamali Colony, Ranchi- 834002.
5. The Secretary (Environment), "Forests and Environment Department Government of Jharkhand.
6. The Chairman, Jharkhand State Pollution Control Board, TA Building, HEC Complex, P.O. Dhurwa, Distt. Ranchi.
7. The District Collector, Ranchi District, Govt. of Jharkhand.
8. Guard file/Monitoring file.
9. Website of MoEF&CC.

Director, IA.I

Mr. Tannoy Sinha  
C.P.P.



J-13012/122/2008-IA.II (T)  
Government of India  
Ministry of Environment, Forest and Climate Change

. Indira Paryavaran Bhawan, Jor Bagh Road  
Aliganj, New Delhi-110003

Dated: 10.10.2019

Office Order

**Sub: Coal Based Captive Thermal Power Plant of 2x10 MW at Village Tatisilwai, District Ranchi in Jharkhand by M/s. Usha Martin Ltd. - reg. Directions under Section 5 of Environment (Protection) Act, 1986.**

The Environmental Clearance (EC) for the above mentioned project was accorded vide Ministry's letter dated 07.04.2011. As per the said EC, the coal shall be obtained from captive Lohari coal block in Jharkhand and road transportation of coal was permitted for a limited period of three years only.

2. The specific condition 4A(i) of the EC dated 7.4.2011 stipulates as follows:

*Road transportation of coal shall be permitted for a limited period of 36 months only. The project proponent shall shift to railway transportation thereafter. The project proponent shall be vicariously responsible for liabilities incurred for road transportation such as accidental damages to public, coal fines emission from transporting trucks etc. The project proponent shall immediately start its action plan for rail transportation with consultation with the Railways and shall submit half yearly action taken report to the Ministry on the matter."*

3. The Unit-1 (1x10 MW) and Unit-2 (1x10 MW) have been commissioned in March, 2012 and December, 2012 respectively. The coal requirement for the project is 1.25 Lakh Tonnes per annum (500 Tons/day involving 20 trucks with 25 ton capacity). Nearest railway stations are Tatisilwai (1 km) and Hatia (15 km). The Hatia station has only outward transport facility and Tatisilwai has no siding for coal loading and unloading.

4. It has been informed that the Lohari coal block, Jharkhand which was allocated for this captive power plant has been de-allocated by the Supreme Court. The coal is currently procured through e-auction carried by M/s Central Coalfields Ltd. or M/s Jharkhand State Mineral Development Corporation since the commissioning of the power plant.

5. The coal has been transported by the road since commissioning of the power plant. The distance of road transportation is in the range of 83-100 km depending upon coal mine.

6. It has been informed that the quantity of coal transported by road since its commissioning is as follows:

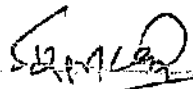
Sr.No	Year	Quantity (MT)
1	FY13	63,782
2	FY14	67,480
3	FY15	1,12,995
4	FY16	1,14,883
5	FY17	1,17,258
6	FY18	1,25,134
Total		6,01,532

7. The proposal for extension of permission for road transportation has been recommended by the EAC (Thermal Power) in its meeting held during 19<sup>th</sup> -20<sup>th</sup> May, 2015. However, the approval for transportation of coal by road could not be accorded as certain requisite information was pending from the Project Proponent. The Jharkhand State Pollution Control Board has filed a complaint vide No.C-2472/19 before the Chief Judicial Magistrate, Ranchi by for transporting coal by road without Ministry's permission.

8. Further, the Ministry vide letter dated 09.10.2019 granted ex-post facto permission for sourcing of coal through e-auction and transportation by road for a period of three years i.e. till 31.03.2018; permission to transport coal by road for further period of three years, i.e. till 31.03.2021; and amendments regarding sourcing coal through e-auction, land requirement of 22.437 acres instead of 12.278 acres and restriction of ash content in coal shall be 41.7% instead of 34%, etc.

9. In view of the above, the **Jharkhand State Pollution Control Board is hereby directed to carry out the environmental damage assessment for transporting coal by road from March, 2015 till March, 2018 by the M/s Usha Martin Ltd. without Ministry's approval and furnish a copy of its report to the Chief Judicial Magistrate, Ranchi for further action duly endorsing a copy to this Ministry.**

This issues with the approval of the Competent Authority.

  
(Dr. S. Kerketta)  
Director, IA.I

**The Chairman**  
**Jharkhand State Pollution Control Board**  
TA Building, HEC Complex,  
P.O. Dhurwa, Distt. Ranchi-834004.

*Copy to:*

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (ECZ), Bungalow No. A-2, Shyamali Colony, Ranchi- 834002.
5. The Secretary (Environment), Forests and Environment Department Government of Jharkhand.
6. The District Collector, Ranchi District, Govt. of Jharkhand.
7. M/s Usha Martin Ltd., 2A, Shakespeare Sarani, Kolkata- 700 071.
8. Guard file/Monitoring file.
9. Website of MoEF&CC.

  
Director, IA.I



**J-13012/122/2008-IA.II (T)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**

Indira Paryavaran Bhawan, Jor Bagh Road  
Aliganj, New Delhi-110003

Dated: 13.05.2020

To

**M/s Usha Martin Ltd.**  
2A, Shakespeare Sarani,  
Kolkata- 700 071.

Tel. No. 033-22823985/39800300; Fax: 033-22829029/39800400.

**Sub: Coal Based Captive Thermal Power Plant of 2x10 MW at Village Tatisilwai, District Ranchi in Jharkhand by M/s. Usha Martin Ltd. – reg. amendment of EC regarding permission to transport coal by road.**

Sir,

The undersigned is directed to refer your online application No. **IA/JH/THE/138854/2020** dated 27.01.2020 for seeking permission to transport coal by road for the above mentioned project.

2. It has been noted that Environmental Clearance (EC) for the above project was accorded vide letter dated 07.04.2011. Subsequently, the Ministry vide letter dated 9.10.2019 granted:-

- a) ex-post facto permission for sourcing of coal through e-auction and transportation by road for a period of three years i.e. till 31.03.2018;
- b) permission to transport coal by road for further period of three years, i.e. till 31.03.2021; from
  - i. Sikini mines- 124.4 km
  - ii. Magadh Mines- 145.5 km
  - iii. Amrapali mines- 141.9 km, and
- c) amendments regarding sourcing coal through e-auction, land requirement to 22.437 acres instead of 12.278 acres and ash content to 41.7% instead of 34%.

3. It has been noted that the 2x10 MW Captive Power Plant was established to ensure the uninterrupted power supply to Steel Wire and Wire rope plant to prevent breakage of wire to ensure internationally acceptable wire ropes particularly for use in critical safety applications. The wire rope plant is providing employment to 4400 workmen.

4. It was informed that the Hon'ble Supreme Court vide its judgment dated 25.8.2014 and 24.9.2014 cancelled allocation of Lohari Coal Block which was to cater coal requirement to the captive power plant. The plant started its operations with commissioning of 1<sup>st</sup> Unit on 31.3.2012 and 2<sup>nd</sup> Unit on 31.12.2012. At present, the company has been sourcing coal through e-auction from nearby mines of Central Coalfields Ltd. But during recent times e-auction is very much irregular which resulted in coal shortage as well as high production costs. It was informed that the company was forced to stop its production of one unit for 82 days in the the year 2019.

5. It has been informed that the auctioned quantity has reduced by 47% and 59% in FY 19 and FY20 (till Dec 2019) respectively as compared to quantity offered during FY18 which reduced the chances of winning the required quantity of coal for the Power Plant.

6. The Coal requirement for the power plant is 0.183 MTPA. The coal quantity of 500 tonnes per day involving to & fro movement of 40 tippers per day with capacity 25 tonnes. It has been now proposed to procure coal by road from a) West Bokaro Ghato Mines & Jamadoba Mines of Tata Steel, and b) Heavy Engineering Corporation Ltd., Ranchi through Bilateral agreement/Window Sale. The Traffic Impact Assessment Report has been submitted for the proposed routes of coal transportation. The details of these routes are as below:

Routes	Length, km	Length of Stretch (in km) w.r.t. Type				Type of road
		Single Lane (<5.5 m)	Intermediate (≥ 5.5 m)	Two Lane (≥ 7 m)	Multi-lane (≥ 10 m)	
Route-1: HEC Plant to CPP.	64.77	0.90	2.80	2.02	59.05	Black top: 64.57 & Concrete: 0.2 km
Route-2: West Bokaro OC coal mine of Tata Steel to CPP.	66.76	0.90	0.00	0.30	65.56	Black Top: 66.76 km

7. The traffic sufficiency assessment has been estimated. The percentage utilisation of road after taking into consideration of existing traffic and incremental is in the range of 32-116%. Where existing traffic is exceeding the design service volume of the road, it has been proposed to restrict the movement of trucks to the time period between 9 pm to 8 am only, when the traffic is lean.

8. The baseline air quality has been collected at various locations along the route. Incremental concentrations have been predicted and the cumulative concentrations including baseline data are within the ambient air quality standards.

9. It has been informed that all other environmental and safety measures will be implemented such as dust control measures at unloading point, covering trucks with tarpaulin cover, maintenance of vehicles and following Central Motor Vehicles Act and Rules for maintaining road safety.

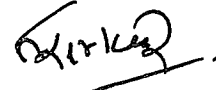
10. The matter was placed before the Re-constituted Expert Appraisal Committee (Thermal Power) in its meetings held on 21.2.2020. In acceptance of the

recommendations of the EAC in its meeting held on 21.2.2020 and in view of the information/documents/clarifications furnished by you, with respect to the above mentioned power project, **the Ministry hereby accords permission to transport coal by road through additional routes from West Bokaro Ghato Mines & Jamadoba Mines of Tata Steel Ltd. and Heavy Heavy Engineering Corporation Ltd., Ranchi for a period two years** subject to following additional conditions:

- i. The coal shall be transported through Route-1: HECL, Ranchi during lean traffic period (9 pm to till 8 am).
  - ii. Water sprinkling is to be carried out at the road stretch near Tatisilwai village to control secondary dust.
11. All other conditions mentioned in the EC vide dated 07.04.2011 and amendment letter dated 9.10.2019 shall remain the same, as applicable.

This issues with the approval of the Competent Authority.

Yours faithfully,



(Dr. S. Kerketta)  
Director, IA.I

*Copy to:*

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (ECZ), Bungalow No. A-2, Shyamali Colony, Ranchi- 834002.
5. The Secretary (Environment), Forests and Environment Department Government of Jharkhand.
6. The Chairman, Jharkhand State Pollution Control Board, TA Building, HEC Complex, P.O. Dhurwa, Distt. Ranchi.
7. The District Collector, Ranchi District, Govt. of Jharkhand.
8. Guard file/Monitoring file.
9. Website of MoEF&CC.



Director, IA.I

Ref.: UML/ CPP/Coal Rail/22/01

Date: 10-01-2022

To,  
Sr. Divisional Operations Manager,  
South Eastern Railway, D R M Office,  
Hatia, Ranchi - 834012

Sub: Transportation of Coal by Rail at Tatisilwai Railway Station

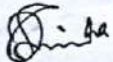
Dear Sir,

With reference to earlier communications, we would like to request your good self to kindly intimate us for any progress on building of infrastructure for said coal unloading facility at Tatisilwai Station through Rakes.

Looking forward to receiving your feedback at the earliest.

Thanking you,

Yours' faithfully,



For Usha Martin Limited, Ranchi  
(Authorized Signatory)

TANMOY SINHA  
HOD (CPP)  
USHAMARTIN, LTD.  
RANCHI, PIN-835103



Certified as an approved  
Manufacturer by  
Lloyd's Register



Certified as an approved  
Manufacturer by  
DNV GL AS



TYPE APPROVAL PROGRAM  
Certified as an approved  
Manufacturer by  
American Bureau of Shipping



Certified by BVC for the  
QMS to ISO 9001



Certified by BVC for the  
EMS to ISO 14001



सेंट्रल कोलफील्ड्स लिमिटेड

(भारत सरकार का एक उपक्रम)

विक्रय एवं विपणन विभाग

दरभंगा हाउस, रांची 834 029

CENTRAL COALFIELDS LIMITED

(Govt. of India Undertaking)

Sales & Marketing Department

DARBHANGA HOUSE, RANCHI

टेलीफ़ैक्स/Telefax- 0651-2360369 वेबसाइट/Website- www.ccl.gov.in

**By Regd. Post and e-mail**

**LOI**

Ref No. CCL/HQ/C-4/FSA/CP (T-V)/2021-22/ 2618

Dated: 15.12.2021

76

To,  
Sri Chandan Jha,  
M/s Usha Martin Limited,  
Purulia Road Tatisilwai Ranchi Pin 835103, RANCHI, 835103, Jharkhand,  
e-mail: chandan\_jha@ushamartin.co.in

**Subject: Declaration of Successful Bidder pursuant to CPP sub-sector Auction Process.**

Dear Sir/ Madam,

Pursuant to the Scheme Document dated October'21 ("**Scheme Document**"), I am directed to declare **M/s Usha Martin Limited** as the Successful Bidder for award of the quantity of coal specified in **Schedule 1**. This declaration is in pursuance of the provisions contained in the Scheme Document and the fulfilment of Conditions to Auction and the Bid submitted by the Bidder for the Specified End Use Plant: **Usha Martin Limited (20 MW)**.

Details of the Specified End Use Plant, allocated quantity of coal, the Winning Premium and other details are set out in **Schedule 1**.

Pursuant to Clause 7 and Clause 3.5.4 of the Scheme Document, the Successful Bidder is required to submit the Performance Security within the timelines stipulated in Clause 3.5.4 and also provide the documents specified in Annexure IX to the *relevant Subsidiary* within **75 days** of issuance of this letter of intent.

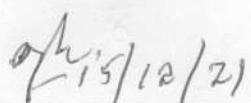
The Successful Bidder shall be required to depute an Authorised Signatory to execute the Fuel Supply Agreement (the "**Agreement**") on its behalf. The Authorised Signatory deputed by the Successful Bidder should be present at the aforementioned time and place along with: (a) original documents confirming identity of such person along with a self-attested photocopy of the same; (b) true copy of power of attorney in favour of the Authorised Signatory to execute the Agreement including the extract of the charter documents or documents such as a board or shareholders resolution authorizing the execution of such power of attorney and/or the Agreement.

The Subsidiary may, at any time prior to execution of the Agreement, determine whether the documents, information and/ or payments in relation to the Conditions to Auction have been submitted or received from the Bidder in accordance with the requirements of this Scheme Document. The Subsidiary reserves the right to cancel this LOI, disqualify the Bidder and forfeit

the Process Fee and the Bid Security if it is of the opinion that the requirements of the Scheme Document and the LOI in this regard have not been duly satisfied.

The Authorised Signatory should also procure 2 (two) sets of non-judicial stamp papers of **Rs. 100** each for execution of the Agreement and submit the same at the time of execution of the Agreement.

This letter of intent is only indicative of the quantity allocated to you and any entitlement to such quantities of coal are subject to execution of the Agreement in accordance with the provisions of the Scheme Document and satisfaction of the conditions prescribed in the Agreement.

  
\_\_\_\_\_  
General Manager, (M&S)  
CCL, Ranchi

Acknowledged and Accepted by:

\_\_\_\_\_  
(Signatory)

*Note: In the event that this letter of intent is not signed and the contents hereof are not acknowledged and accepted by the Successful Bidder within 75 days hereof, the Successful Bidder shall no longer be entitled to receive the Allocated Quantity and we shall have the right to forfeit the Bid Security.*

#### **Schedule 1: Details of Specified End Use Plant and Allocated Quantity**

**Name of Successful Bidder: M/s USHA MARTIN LIMITED**

**Details of Specified End Use Plant**

Name of Specified End Use Plant	Address	Capacity
USHA MARTIN LIMITED	Purulia Road Tatisilwai Ranchi Pin 835103, RANCHI, 835103, Jharkhand	20 MW

**Allocated Quantity under the CPP subsector auction under Tranche V and other details pertaining thereto**

S. No.	Subsidiary Name	Primary Source	Secondary Source(s)	Mode of Despatch	Allocated quantity* (Tonnes)	Winning Premium
1	CCL	Gidi C OCP	NA	ROAD	30000	0 (0.00% of Notified Price)

\*Allocated Quantity shall be distributed across each year in accordance with clause 3.5.2(k)



सेंट्रल कोलफील्ड्स लिमिटेड

(भारत सरकार का एक उपक्रम)

विक्रय एवं विपणन विभाग

दरभंगा हाउस, रांची 834 029

CENTRAL COALFIELDS LIMITED

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Sales & Marketing Department

DARBHANGA HOUSE, RANCHI

टेलीफोन/Telefax- 0651-2360369 वेबसाइट/Website- www.ccl.gov.in

**By Regd. Post and e-mail**

**LOI**

Ref No. CCL/HQ/C-4/FSA/ CPP (T-V)/2021-22/ 2619

Dated: 15.12.2021

16

To,  
Sri Chandan Jha,  
M/s Usha Martin Limited,  
Purulia Road Tatisilwai Ranchi Pin 835103, RANCHI, 835103, Jharkhand,  
e-mail: chandan\_jha@ushamartin.co.in

**Subject: Declaration of Successful Bidder pursuant to CPP sub-sector Auction Process.**

Dear Sir/ Madam,

Pursuant to the Scheme Document dated October'21 ("**Scheme Document**"), I am directed to declare **M/s Usha Martin Limited** as the Successful Bidder for award of the quantity of coal specified in **Schedule 1**. This declaration is in pursuance of the provisions contained in the Scheme Document and the fulfilment of Conditions to Auction and the Bid submitted by the Bidder for the Specified End Use Plant: **Usha Martin Limited (20 MW)**.

Details of the Specified End Use Plant, allocated quantity of coal, the Winning Premium and other details are set out in **Schedule 1**.

Pursuant to Clause 7 and Clause 3.5.4 of the Scheme Document, the Successful Bidder is required to submit the Performance Security within the timelines stipulated in Clause 3.5.4 and also provide the documents specified in Annexure IX to the *relevant Subsidiary* within **75 days** of issuance of this letter of intent.

The Successful Bidder shall be required to depute an Authorised Signatory to execute the Fuel Supply Agreement (the "**Agreement**") on its behalf. The Authorised Signatory deputed by the Successful Bidder should be present at the aforementioned time and place along with: (a) original documents confirming identity of such person along with a self-attested photocopy of the same; (b) true copy of power of attorney in favour of the Authorised Signatory to execute the Agreement including the extract of the charter documents or documents such as a board or shareholders resolution authorizing the execution of such power of attorney and/or the Agreement.

The Subsidiary may, at any time prior to execution of the Agreement, determine whether the documents, information and/ or payments in relation to the Conditions to Auction have been submitted or received from the Bidder in accordance with the requirements of this Scheme Document. The Subsidiary reserves the right to cancel this LOI, disqualify the Bidder and forfeit

the Process Fee and the Bid Security if it is of the opinion that the requirements of the Scheme Document and the LOI in this regard have not been duly satisfied.

The Authorised Signatory should also procure 2 (two) sets of non-judicial stamp papers of **Rs. 100** each for execution of the Agreement and submit the same at the time of execution of the Agreement.

This letter of intent is only indicative of the quantity allocated to you and any entitlement to such quantities of coal are subject to execution of the Agreement in accordance with the provisions of the Scheme Document and satisfaction of the conditions prescribed in the Agreement.

*07/15/12/21*  
\_\_\_\_\_  
General Manager, (M&S)  
CCL, Ranchi

Acknowledged and Accepted by:

\_\_\_\_\_  
(Signatory)

*Note: In the event that this letter of intent is not signed and the contents hereof are not acknowledged and accepted by the Successful Bidder within 75 days hereof, the Successful Bidder shall no longer be entitled to receive the Allocated Quantity and we shall have the right to forfeit the Bid Security.*

#### Schedule 1: Details of Specified End Use Plant and Allocated Quantity

**Name of Successful Bidder: M/s USHA MARTIN LIMITED**

**Details of Specified End Use Plant**

Name of Specified End Use Plant	Address	Capacity
USHA MARTIN LIMITED	Purulia Road Tatisilwai Ranchi Pin 835103, RANCHI, 835103, Jharkhand	20 MW

**Allocated Quantity under the CPP subsector auction under Tranche V and other details pertaining thereto**

S. No.	Subsidiary Name	Primary Source	Secondary Source(s)	Mode of Despatch	Allocated quantity* (Tonnes)	Winning Premium
1	CCL	Amrapali OCP	Magadh OCP	ROAD	66000	0 (0.00% of Notified Price)

\*Allocated Quantity shall be distributed across each year in accordance with clause 3.5.2(k)

ENVIRONMENTAL LABORATORY, 2X10 MW CPP, TATISILWAI, RANCHI (JHARKHAND) – 835103

E-Mail: [tanmay\\_roy@ushamartin.co.in](mailto:tanmay_roy@ushamartin.co.in), [wtprnc@ushamartin.co.in](mailto:wtprnc@ushamartin.co.in)

OFFICE NO: 06517180 683, 06517180 689 Fax: 06517180 409/410

## TEST REPORT ETP WATER

### Sample Details

### Client Details

Date & Time of Sampling : 05.08.2021 & 10:00AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : AUG/ CPP/ EW/11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 05.08.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 05.08.21-10.08.21
Testing Condition : 25.5°C , 60 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000897F	Date of Report : 30.08.2021

### REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		5.50 – 9.00	7.05	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr		894.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Total Suspended solids	Mg/ltr	100.00	26.50	APHA 22 <sup>nd</sup> Edition-2540 D
4	Dissolved oxygen	Mg/ltr		4.90	IS:3025, (part-38) 2014
5	Oil & Grease	Mg/ltr	10.00	6.40	IS:3025, (part-39) 2014

**\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.**

### Declaration:-

1. Results reported are valid at the time of testing and under the stated testing condition.
2. Result in the report refers to only the sample submitted by the client.
3. This report shall will be reproduced expect in full and without the written permission of environmental laboratory, CPP, UML, Ranchi.

TESTED BY  
(Manish Kumar)CHECKED BY  
(Tanmay Roy)AUTHORISED BY  
(Tanmoy Sinha)

ENVIRONMENTAL LABORATORY, 2X10 MW CPP, TATISILWAI, RANCHI (JHARKHAND) – 835103

E-Mail: [tanmay\\_roy@ushamartin.co.in](mailto:tanmay_roy@ushamartin.co.in), [cpp\\_wtprnc@ushamartin.co.in](mailto:cpp_wtprnc@ushamartin.co.in)

OFFICE NO: 06517180 683, 06517180 689 Fax: 06517180 409/410

**TEST REPORT**  
**ETP WATER****Sample Details****Client Details**

Date & Time of Sampling : 05.08.2021 & 10:00AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : AUG/ CPP/ EW/11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 05.08.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 05.08.21-10.08.21
Testing Condition : 25.5°C, 60 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC54042100000897F	Date of Report : 30.08.2021

**TEST REPORT**

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Lead	Mg/ltr	0.10	<0.10
2	Zinc	Mg/ltr	5.00	0.36
3	Phosphate	Mg/ltr	5.00	0.48
4	Chloride	Mg/ltr	-	142.00
5	BOD, 3 days at 27 °C	Mg/ltr	30.00	3.00
6	COD	Mg/ltr	250.00	30.00
7	Iron	Mg/ltr	3.00	0.15
8	Manganese	Mg/ltr	2.00	0.26

\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.

**Declaration:-**

1. Results reported are valid at the time of testing and under the stated testing condition.
2. Result in the report refers to only the sample submitted by the client.
3. This report shall will be reproduced expect in full and without the written permission of environmental laboratory, CPP, UML, Ranchi.

TESTED BY  
(Manish Kumar)CHECKED BY  
(Tanmay Roy)AUTHORISED BY  
(Tanmoy Sinha)CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISILWAI, RANCHI  
JHARKHAND. PIN-835103

## TEST REPORT GROUND WATER

### Sample Details

### Client Details

Date & Time of Sampling : 08.11.2021 & 11:45AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : NOV/ CPP/GW/10	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP GROUND WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.11.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 08.11.21-15.11.21
Testing Condition : 24.1°C , 63 %RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC54042100000993F	Date of Report : 30.11.2021

### REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		6.50 to 8.50	6.86	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr	500.00	300.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Turbidity	NTU	1.00	349.00	APHA 22 <sup>nd</sup> Edition-2130 B
4	Alkalinity	Mg/ltr	200.00	96.00	IS:3025, (part-23) 2014
5	Acidity	Mg/ltr		20.00	IS:3025, (part-22) 2014
6	Total hardness (as CaCO <sub>3</sub> )	Mg/ltr	300.00	70.00	IS:3025, (part-21) 2014
7	Calcium (as CaCO <sub>3</sub> )	Mg/ltr	75.00	60.00	IS:3025, (part-40) 2014
8	Magnesium (as CaCO <sub>3</sub> )	Mg/ltr	30.00	10.00	APHA 22 <sup>nd</sup> Edition -3500mg B
9	Chloride	Mg/ltr	250.00	72.98	IS:3025, (part-32) 2014
10	Sulphate	Mg/ltr	200.00	6.11	APHA 22 <sup>nd</sup> Edition-4500 So <sub>4</sub> 2
11	Residual free chlorine	Mg/ltr	0.20	<0.10	IS:3025, (part-26) 2014
12	Iron	Mg/ltr	0.30	0.44	IS:3025, (part-53) 2014
13	Nitrate	Mg/ltr	45.00	7.23	IS:3025, (part-39) 2014
14	Nitrite	Mg/ltr		0.12	APHA 22 <sup>nd</sup> Edition-4500No <sub>2</sub> B
15	Silica	Mg/ltr		8.72	IS:3025, (part-35) 2014
16	Temperature	°C		23.0	IS:3025, (part-9) 2006

**\*\* IS: 10500(2012): Drinking Water Specification**

#### Declaration:-

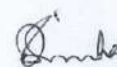
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2. Result in the report refers to only the sample submitted by the client.
3. This report will be reproduced exact in full and without the written permission of environmental laboratory, CPP, UML, Ranchi.



TESTED BY  
(Manish Kumar)



CHECKED BY  
(Tanmay Roy)



AUTHORISED BY  
(Tanmoy Sinha)

## TEST REPORT GROUND WATER

### Sample Details

### Client Details

Date & Time of Sampling : 08.11.2021 & 11:45AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : NOV/ CPP/GW/10	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP GROUND WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.11.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 08.11.21-15.11.21
Testing Condition : 24.1°C , 63 %RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000993F	Date of Report : 30.11.2021

### TEST REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Colour	Hazen	5.00	<5.00
2	Odour		AGREEABLE	AGREEABLE
3	Taste		AGREEABLE	AGREEABLE
4	Fluoride	Mg/ltr	1.00	0.036
5	Manganese	Mg/ltr	0.10	0.021
6	Mercury	Mg/ltr	0.001	<0.0005
7	Lead	Mg/ltr	0.01	<0.005
8	Zinc	Mg/ltr	5.00	0.16

**\*\* IS: 10500(2012): Drinking Water Specification**

#### **Declaration:-**

1. Results reported are valid at the time of testing and under the stated testing condition.
2. Result in the report refers to only the sample submitted by the client.
3. This report will be reproduced expect in full and without the written permission of environmental laboratory, CPP, UML, Ranchi.



TESTED BY  
(Manish Kumar)



CHECKED BY  
(Tanmay Roy)



AUTHORISED BY  
(Tanmoy Sinha)

CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISIL WAI, RANCHI  
JHARKHAND. PIN-835103

## TEST REPORT DRINKING WATER

### Sample Details

### Client Details

Date & Time of Sampling : 08.11.2021 & 11:45AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : NOV/ CPP/DW/09	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP DRINKING WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.11.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 08.11.21-15.11.21
Testing Condition : 24.1°C , 63 %RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC54042100000992F	Date of Report : 30.11.2021

### REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		6.50 to 8.50	7.22	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr	500.00	60.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Turbidity	NTU	1.00	< 0.10	APHA 22 <sup>nd</sup> Edition-2130 B
4	Alkalinity	Mg/ltr	200.00	26.00	IS:3025, (part-23) 2014
5	Acidity	Mg/ltr		8.00	IS:3025, (part-22) 2014
6	Total hardness (as CaCO <sub>3</sub> )	Mg/ltr	300.00	16.00	IS:3025, (part-21) 2014
7	Calcium (as CaCO <sub>3</sub> )	Mg/ltr	75.00	10.00	IS:3025, (part-40) 2014
8	Magnesium (as CaCO <sub>3</sub> )	Mg/ltr	30.00	6.00	APHA 22 <sup>nd</sup> Edition -3500mg B
9	Chloride	Mg/ltr	250.00	16.99	IS:3025, (part-32) 2014
10	Sulphate	Mg/ltr	200.00	4.81	APHA 22 <sup>nd</sup> Edition-4500 So <sub>4</sub> 2
11	Residual free chlorine	Mg/ltr	0.20	<0.10	IS:3025, (part-26) 2014
12	Iron	Mg/ltr	0.30	0.17	IS:3025, (part-53) 2014
13	Nitrate	Mg/ltr	45.00	1.43	IS:3025, (part-39) 2014
14	Nitrite	Mg/ltr		0.13	APHA 22 <sup>nd</sup> Edition-4500No <sub>2</sub> B
15	Silica	Mg/ltr		1.42	IS:3025, (part-35) 2014
16	Temperature	°C		23.0	IS:3025, (part-9) 2006

**\*\* IS: 10500(2012): Drinking Water Specification**

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TESTED BY  
(Manish Kumar)

CHECKED BY  
(Tanmay Roy)

AUTHORISED BY  
(Tanmoy Sinha)

## TEST REPORT DRINKING WATER

### Sample Details

### Client Details

Date & Time of Sampling : 08.11.2021 & 11:45AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : NOV/ CPP/DW/09	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP DRINKING WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.11.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 08.11.21-15.11.21
Testing Condition : 24.1°C , 63 %RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000992F	Date of Report : 30.11.2021

### TEST REPORT


Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Colour	Hazen	5.00	<5.00
2	Odour		AGREEABLE	AGREEABLE
3	Taste		AGREEABLE	AGREEABLE
4	Fluoride	Mg/ltr	1.00	0.010
5	Manganese	Mg/ltr	0.10	0.011
6	Mercury	Mg/ltr	0.001	<0.0005
7	Lead	Mg/ltr	0.01	<0.005
8	Zinc	Mg/ltr	5.00	<0.400


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TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)

CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISIL WAI, RANCHI  
JHARKHAND. PIN-835103

**TEST REPORT**  
**GROUND WATER**

**Sample Details**
**Client Details**


<b>Date &amp; Time of Sampling</b> : 11.09.2021 & 2:00PM	<b>Client Name</b> : Usha Martin Limited(CPP Div)
<b>Sample ID</b> : SEP/ CPP/GW/10	<b>Client Address</b> : Tatisilwai, Ranchi
<b>Type of Sample</b> : CPP GROUND WATER	<b>Client Code</b> : UML/ CPP/03
<b>Duration of Sampling</b> : 1 hrs	<b>State</b> : Jharkhand
<b>Sample Drawn by</b> : Mr Suraj Kumar	<b>Date of Receipt of Sample</b> : 11.09.2021
<b>Sample Plan Reference</b> : UML/DOC/110	<b>Date of testing</b> : 11.09.21-16.09.21
<b>Testing Condition</b> : 25.2°C, 62 %RH	<b>Test Performed</b> : At Permanent Lab
<b>UNIQUE LAB REPORT NO</b> : TC54042100000961F	<b>Date of Report</b> : 30.09.2021

**REPORT**

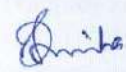
Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		6.50 to 8.50	7.16	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr	500.00	180.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Turbidity	NTU	1.00	44.40	APHA 22 <sup>nd</sup> Edition-2130 B
4	Alkalinity	Mg/ltr	200.00	76.00	IS:3025, (part-23) 2014
5	Acidity	Mg/ltr		6.00	IS:3025, (part-22) 2014
6	Total hardness (as CaCO <sub>3</sub> )	Mg/ltr	300.00	84.00	IS:3025, (part-21) 2014
7	Calcium (as CaCO <sub>3</sub> )	Mg/ltr	75.00	62.00	IS:3025, (part-40) 2014
8	Magnesium (as CaCO <sub>3</sub> )	Mg/ltr	30.00	22.00	APHA 22 <sup>nd</sup> Edition -3500mg B
9	Chloride	Mg/ltr	250.00	60.98	IS:3025, (part-32) 2014
10	Sulphate	Mg/ltr	200.00	8.43	APHA 22 <sup>nd</sup> Edition-4500 So, 2
11	Residual free chlorine	Mg/ltr	0.20	<0.10	IS:3025, (part-26) 2014
12	Iron	Mg/ltr	0.30	0.20	IS:3025, (part-53) 2014
13	Nitrate	Mg/ltr	45.00	4.47	IS:3025, (part-39) 2014
14	Nitrite	Mg/ltr		<0.05	APHA 22 <sup>nd</sup> Edition-4500No <sub>2</sub> B
15	Silica	Mg/ltr		11.23	IS:3025, (part-35) 2014
16	Temperature	°C		24.0	IS:3025, (part-9) 2006

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TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)

## TEST REPORT GROUND WATER

### Sample Details

### Client Details

Date & Time of Sampling : 11.09.2021 & 2:00PM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : SEP/ CPP/GW/10	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP GROUND WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 11.09.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 11.09.21-16.09.21
Testing Condition : 25.2°C , 62 %RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC54042100000961F	Date of Report : 30.09.2021


### TEST REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Colour	Hazen	5.00	<5.00
2	Odour		AGREEABLE	AGREEABLE
3	Taste		AGREEABLE	AGREEABLE
4	Fluoride	Mg/ltr	1.00	0.042
5	Manganese	Mg/ltr	0.10	0.010
6	Mercury	Mg/ltr	0.001	<0.0005
7	Lead	Mg/ltr	0.01	<0.005
8	Zinc	Mg/ltr	5.00	0.11

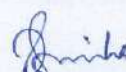
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TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)

CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISIL WAI, RANCHI  
JHARKHAND, PIN-835103

## TEST REPORT NOISE MONITORING

### Sample Details

### Client Details

Date of Sampling	: 17.12.2021 – 22.12.2021	Client Name	: Usha Martin limited (CPP)
Sample ID	: DEC/CPP/NOS/04	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Noise	Client Code	: UML/CPP/04
Duration of Sampling	: 24hrs (Per Location)	State	: Jharkhand
Sample Drawn by	: Mr. Suraj Kumar	Test Performed	: At Permanent Lab
Sample Plan Reference	: UML/DOC/110	Date of Report	: 24.12.2021
UNIQUE LAB REPORT NO	: TC540421000001018F	Sample Description	: Measurement of Noise at UML CPP Area

## TEST REPORT OF NOISE LEVEL

Monitoring Date	17.12.2021 – 22.12.2021					
Station Location	Noise Results in dB (A) Day			Noise Results in dB (A) Night		
	AVG	MIN	MAX.	AVG.	MIN.	MAX.
CPP MAIN GATE	64.5	58.5	72.0	64.4	52.9	77.2
CPP WTP AREA	67.1	55.1	78.8	69.0	59.4	77.6
CPP BOILER AREA	80.0	75.0	90.0	80.2	72.4	87.2
CPP ADM BUILDING	67.3	60.1	75.8	67.5	60.4	71.1
CPP COAL YARD AREA	62.8	55.0	71.1	61.0	52.7	70.6

### Ambient Air Quality Norms in Respect of Noise

AREA	CATEGORY AREA	NOISE LEVEL in dB(A)	
		DAY TIME	NIGHT TIME
A	INDUSTRIAL AREA	75	70
B	COMMERCIAL AREA	65	55
C	RESIDENTIAL AREA	55	45
D	SILENCE ZONE	50	40

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*Manish*  
TESTED BY  
(Manish Kumar)

*Tanmay*  
CHECKED BY  
(Tanmay Roy)

*Tanmoy*  
AUTHORISED BY  
(Tanmoy Sinha)

CPP (2 X 10MW)  
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OFFICE NO: 06513051 683, 06513051 689 Fax: 06513051 409/410

**TEST REPORT OF COAL****Sample Details****Client Details**



Date & Time of Sampling : 11.09.2021 & 10:30AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : CPP/SEP/01	Client Address : Tatisilwai, Ranchi
Type of Sample : COAL	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Subhas Chatterjee	Date of Receipt of Sample : 11.09.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 11.09.2021
Testing Condition : 25.2°C , 62%RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000963F	Date of Report : 30.09.2021

**COAL TEST REPORT**

Sl.no.	Analysis	unit	Results	Test method
1	MOISTURE (IN SAMPLE COAL)	%	<b>2.84</b>	IS : 1350 (part-1) 1984 RA 2013
2	ASH	%	<b>39.19</b>	IS : 1350 (part-1) 1984 RA 2013
3	VM	%	<b>23.71</b>	IS : 1350 (part-1) 1984 RA 2013
4	GCV	Kcal/kg	<b>4298.00</b>	IS : 1350 (part-2) 1970 RA 2015

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(Manish Kumar)  
CHECKED BY  
(Tanmay Roy)  
AUTHORISED BY  
(Tanmoy Sinha)

ENVIRONMENTAL LABORATORY, 2X10 MW CPP, TATISILWAI, RANCHI (JHARKHAND) – 835103

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## TEST REPORT OF COAL

### Sample Details

### Client Details

Date & Time of Sampling : 18.09.2021 & 10:00M	Client Name : Usha Martin Limited(CPP Div)
Sample ID : CPP/SEP/02	Client Address : Tatisilwai, Ranchi
Type of Sample : COAL	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Subhas Chatterjee	Date of Receipt of Sample : 18.09.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 18.09.2021
Testing Condition : 25.2°C , 60 %RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000964F	Date of Report : 30.09.2021

## COAL TEST REPORT

Sl.no.	Analysis	unit	Results	Test method
1	MOISTURE (IN SAMPLE COAL)	%	1.25	IS : 1350 (part-1) 1984 RA 2013
2	ASH	%	42.60	IS : 1350 (part-1) 1984 RA 2013
3	VM	%	25.90	IS : 1350 (part-1) 1984 RA 2013
4	GCV	Kcal/kg	3915.00	IS : 1350 (part-2) 1970 RA 2015

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TESTED BY  
(Manish Kumar)CHECKED BY  
(Tanmay Roy)AUTHORISED BY  
(Tanmoy Sinha)

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## TEST REPORT OF COAL

### Sample Details

### Client Details


Date & Time of Sampling : 23.09.2021 & 1:40PM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : CPP/SEP/03	Client Address : Tatisilwai, Ranchi
Type of Sample : COAL	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Subhas Chatterjee	Date of Receipt of Sample : 23.09.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 23.09.2021
Testing Condition : 25.2°C , 60 %RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000965F	Date of Report : 30.09.2021


### COAL TEST REPORT

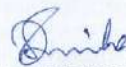
Sl.no.	Analysis	unit	Result	Test method
1	MOISTURE (IN SAMPLE COAL)	%	2.12	IS : 1350 (part-1) 1984 RA 2013
2	ASH	%	43.27	IS : 1350 (part-1) 1984 RA 2013
3	VM	%	23.36	IS : 1350 (part-1) 1984 RA 2013
4	GCV	Kcal/kg	3854.00	IS : 1350 (part-2) 1970 RA 2015

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TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)

## TEST REPORT DRINKING WATER

### Sample Details

### Client Details

Date & Time of Sampling : 11.09.2021 & 2:00pm	Client Name : Usha Martin Limited(CPP Div)
Sample ID : SEP/CPP/DW/09	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP DRINKING WATER	Client Code : UML/CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 11.09.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 11.09.21-16.09.21
Testing Condition : 25.2°C , 62 %RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000960F	Date of Report : 30.09.2021


### REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		6.50 to 8.50	6.98	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr	500.00	112.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Turbidity	NTU	1.00	< 0.10	APHA 22 <sup>nd</sup> Edition-2130 B
4	Alkalinity	Mg/ltr	200.00	10.00	IS:3025, (part-23) 2014
5	Acidity	Mg/ltr		8.00	IS:3025, (part-22) 2014
6	Total hardness (as CaCO <sub>3</sub> )	Mg/ltr	300.00	12.00	IS:3025, (part-21) 2014
7	Calcium (as CaCO <sub>3</sub> )	Mg/ltr	75.00	8.00	IS:3025, (part-40) 2014
8	Magnesium (as CaCO <sub>3</sub> )	Mg/ltr	30.00	4.00	APHA 22 <sup>nd</sup> Edition -3500mg B
9	Chloride	Mg/ltr	250.00	9.00	IS:3025, (part-32) 2014
10	Sulphate	Mg/ltr	200.00	4.46	APHA 22 <sup>nd</sup> Edition-4500 So <sub>4</sub> 2
11	Residual free chlorine	Mg/ltr	0.20	<0.10	IS:3025, (part-26) 2014
12	Iron	Mg/ltr	0.30	0.13	IS:3025, (part-53) 2014
13	Nitrate	Mg/ltr	45.00	1.40	IS:3025, (part-39) 2014
14	Nitrite	Mg/ltr		<0.05	APHA 22 <sup>nd</sup> Edition-4500No <sub>2</sub> B
15	Silica	Mg/ltr		1.20	IS:3025, (part-35) 2014
16	Temperature	°C		25.0	IS:3025, (part-9) 2006

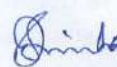
\*\* IS: 10500(2012): Drinking Water Specification

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TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)

## TEST REPORT DRINKING WATER

### Sample Details

### Client Details

Date & Time of Sampling : 11.09.2021 & 2:00pm	Client Name : Usha Martin Limited(CPP Div)
Sample ID : SEP/ CPP/DW/09	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP DRINKING WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 11.09.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 11.09.21-16.09.21
Testing Condition : 25.2°C , 62 %RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC54042100000960F	Date of Report : 30.09.2021


### TEST REPORT


Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Colour	Hazen	5.00	<5.00
2	Odour		AGREEABLE	AGREEABLE
3	Taste		AGREEABLE	AGREEABLE
4	Fluoride	Mg/ltr	1.00	0.036
5	Manganese	Mg/ltr	0.10	0.010
6	Mercury	Mg/ltr	0.001	<0.0005
7	Lead	Mg/ltr	0.01	<0.005
8	Zinc	Mg/ltr	5.00	<0.400


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TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
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(Tanmoy Sinha)

CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISIL WAI, RANCHI  
JHARKHAND. PIN-835103

## TEST REPORT ETP WATER

### Sample Details

### Client Details

Date & Time of Sampling : 11.09.2021 & 2:00M	Client Name : Usha Martin Limited(CPP Div)
Sample ID : SEP/ CPP/ EW/11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 11.09.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 11.09.21-16.09.21
Testing Condition : 25.2°C, 62 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000962F	Date of Report : 30.09.2021

### REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		5.50 – 9.00	7.14	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr		660.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Total Suspended solids	Mg/ltr	100.00	36.40	APHA 22 <sup>nd</sup> Edition-2540 D
4	Dissolved oxygen	Mg/ltr		4.30	IS:3025, (part-38) 2014
5	Oil & Grease	Mg/ltr	10.00	5.20	IS:3025, (part-39) 2014

**\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.**

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TESTED BY  
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CHECKED BY  
(Tanmay Roy)



AUTHORISED BY  
(Tanmoy Sinha)

## TEST REPORT ETP WATER

### Sample Details

### Client Details

Date & Time of Sampling : 11.09.2021 & 2:00M	Client Name : Usha Martin Limited(CPP Div)
Sample ID : SEP/CPP/EW/11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 11.09.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 11.09.21-16.09.21
Testing Condition : 25.2°C , 62 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000962F	Date of Report : 30.09.2021


### TEST REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Lead	Mg/ltr	0.10	<0.10
2	Zinc	Mg/ltr	5.00	0.25
3	Phosphate	Mg/ltr	5.00	0.40
4	Chloride	Mg/ltr	-	118.00
5	BOD, 3 days at 27 °C	Mg/ltr	30.00	2.80
6	COD	Mg/ltr	250.00	30.00
7	Iron	Mg/ltr	3.00	0.10
8	Manganese	Mg/ltr	2.00	0.31


**\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.**

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TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)

CPP (2 X 10MW)  
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TATISIL WAI, RANCHI  
JHARKHAND. PIN-835103

## TEST REPORT ETP WATER

### Sample Details

### Client Details

Date & Time of Sampling : 08.11.2021 & 11:45AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : NOV/CPP/EW/11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.11.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 08.11.21-15.11.21
Testing Condition : 24.1°C , 63 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000994F	Date of Report : 30.11.2021

### REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		5.50 – 9.00	7.42	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr		938.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Total Suspended solids	Mg/ltr	100.00	21.60	APHA 22 <sup>nd</sup> Edition-2540 D
4	Dissolved oxygen	Mg/ltr		5.60	IS:3025, (part-38) 2014
5	Oil & Grease	Mg/ltr	10.00	8.00	IS:3025, (part-39) 2014


**\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.**

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CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)

## TEST REPORT ETP WATER

### Sample Details

### Client Details

Date & Time of Sampling : 08.11.2021 & 11:45AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : NOV/ CPP/ EW/11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.11.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 08.11.21-15.11.21
Testing Condition : 24.1°C, 63 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000994F	Date of Report : 30.11.2021

### TEST REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Lead	Mg/ltr	0.10	<0.10
2	Zinc	Mg/ltr	5.00	0.25
3	Phosphate	Mg/ltr	5.00	0.21
4	Chloride	Mg/ltr	-	128.00
5	BOD, 3 days at 27 °C	Mg/ltr	30.00	3.3
6	COD	Mg/ltr	250.00	40.00
7	Iron	Mg/ltr	3.00	0.19
8	Manganese	Mg/ltr	2.00	0.20

**\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.**

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## TEST REPORT OF COAL

### Sample Details

### Client Details


Date & Time of Sampling : 09.08.2021 & 08:15AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : CPP/AUG/01	Client Address : Tatisilwai, Ranchi
Type of Sample : COAL	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Subhas Chatterjee	Date of Receipt of Sample : 09.08.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 09.08.2021
Testing Condition : 25.2°C , 59%RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC54042100000907F	Date of Report : 30.08.2021


### COAL TEST REPORT


Sl.no.	Analysis	unit	Results	Test method
1	MOISTURE (IN SAMPLE COAL)	%	2.78	IS : 1350 (part-1) 1984 RA 2013
2	ASH	%	37.40	IS : 1350 (part-1) 1984 RA 2013
3	VM	%	26.61	IS : 1350 (part-1) 1984 RA 2013
4	GCV	Kcal/kg	4070.00	IS : 1350 (part-2) 1970 RA 2015

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## TEST REPORT OF COAL

### Sample Details

### Client Details


Date & Time of Sampling : 16.08.2021 & 10:30M	Client Name : Usha Martin Limited(CPP Div)
Sample ID : CPP/AUG/02	Client Address : Tatisilwai, Ranchi
Type of Sample : COAL	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Subhas Chatterjee	Date of Receipt of Sample : 16.08.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 16.08.2021
Testing Condition : 25.2°C, 60 %RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000908F	Date of Report : 30.08.2021


## COAL TEST REPORT


Sl.no.	Analysis	unit	Results	Test method
1	MOISTURE (IN SAMPLE COAL)	%	<b>2.58</b>	IS : 1350 (part-1) 1984 RA 2013
2	ASH	%	<b>36.41</b>	IS : 1350 (part-1) 1984 RA 2013
3	VM	%	<b>27.64</b>	IS : 1350 (part-1) 1984 RA 2013
4	GCV	Kcal/kg	<b>4132.00</b>	IS : 1350 (part-2) 1970 RA 2015

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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling	: 26.06.2021 & 11:40AM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/JUN/MG/37	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 27.06.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 29.06.2021
Testing Condition	: 24.6°C , 60%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000000871F	Date of Report	: 30.06.2021

### REPORT

Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	MAIN GATE	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	48.75	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	73.35	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	32.67	IS:5182 (PT – 6) : 2006


\* Norms: National Ambient Air Quality Standards as per CPCB vide notification dated 18<sup>th</sup> November, 2009 for industrial, Residential, Rural and other area are followed:

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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling	: 24.06.2021 & 10:30AM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/JUN/MTG/35	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 25.06.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 29.06.2021
Testing Condition	: 24.6°C, 60%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000000869F	Date of Report	: 30.06.2021

### REPORT

Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	MATERIAL GATE	Particulate Matter PM2.5	$\mu\text{g}/\text{M}^3$	$\leq 60.00$	45.88	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	$\mu\text{g}/\text{M}^3$	$\leq 100.00$	66.62	IS:5182 (PT - 23) : 2006
3		Sulphur Dioxide	$\mu\text{g}/\text{M}^3$	$\leq 80.00$	12.88	IS:5182 (PT - 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	$\mu\text{g}/\text{M}^3$	$\leq 80.00$	25.28	IS:5182 (PT - 6) : 2006

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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling	: 25.06.2021 & 11:20AM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/JUN/SLF/36	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 26.06.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 29.06.2021
Testing Condition	: 24.6°C, 60%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000000870F	Date of Report	: 30.06.2021

### REPORT

Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	SLF AREA	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	38.30	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	56.20	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	19.47	IS:5182 (PT – 6) : 2006


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## TEST REPORT AMBIENT AIR MONITORING

**Sample Details****Client Details**

Date & Time of Sampling	: 27.06.2021 & 1:40PM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/JUN/WTP/38	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/ CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 28.06.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 29.06.2021
Testing Condition	: 24.6°C, 60%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000000872F	Date of Report	: 30.06.2021

**REPORT**

Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	WTP AREA	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	51.44	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	67.04	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	10.62	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	26.87	IS:5182 (PT – 6) : 2006

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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling	: 29.11.2021 & 2:30PM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/DEC/MG/12	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 30.11.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 01.12.2021
Testing Condition	: 24.0°C, 63%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000001013F	Date of Report	: 31.12.2021

### REPORT

Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	MAIN GATE	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	49.32	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	76.73	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	30.70	IS:5182 (PT – 6) : 2006

\* Norms: National Ambient Air Quality Standards as per CPCB vide notification dated 18<sup>th</sup> November, 2009 for industrial, Residential, Rural and other area are followed:

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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling	: 27.11.2021 & 3:40PM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/DEC/MTG/10	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/ CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 28.11.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 01.12.2021
Testing Condition	: 24.0°C, 63%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000001011F	Date of Report	: 31.12.2021


### REPORT


Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	MATERIAL GATE	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	47.33	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	71.21	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	27.98	IS:5182 (PT – 6) : 2006

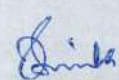
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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling	: 28.11.2021 & 2:30PM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/DEC/SLF/11	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/ CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 29.11.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 01.12.2021
Testing Condition	: 24.0°C, 62%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000001012F	Date of Report	: 31.12.2021


### REPORT


Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	SLF AREA	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	37.87	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	50.60	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	28.85	IS:5182 (PT – 6) : 2006

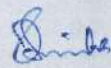
\* Norms: National Ambient Air Quality Standards as per CPCB vide notification dated 18<sup>th</sup> November, 2009 for industrial, Residential, Rural and other area are followed:

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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling : 30.11.2021 & 2:00PM	Client Name : Usha Martin Limited (CPP Div)
Sample ID : CPP/ENV/DEC/WTP/13	Client Address : Tatisilwai, Ranchi
Type of Sample : Ambient Air	Client Code : UML/CPP/03
Duration of Sampling : 24 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 01.12.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 01.12.2021
Testing Condition : 24.0°C , 63%RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000001014F	Date of Report : 31.12.2021


### REPORT


Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	WTP AREA	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	43.55	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	58.22	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	19.29	IS:5182 (PT – 6) : 2006


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**TEST REPORT**  
**AMBIENT AIR MONITORING****Sample Details****Client Details**

Date & Time of Sampling	: 15.09.2021 & 1:10PM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/SEP/WTP/37	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 16.09.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 16.09.2021
Testing Condition	: 25.0°C , 60%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000000951F	Date of Report	: 30.09.2021

**REPORT**

Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	WTP AREA	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	35.04	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	48.09	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	22.39	IS:5182 (PT – 6) : 2006

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**TEST REPORT**  
**AMBIENT AIR MONITORING**

**Sample Details****Client Details**

Date & Time of Sampling	: 13.09.2021 & 2:00PM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/SEP/SLF/35	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/ CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 14.09.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 16.09.2021
Testing Condition	: 25.0°C , 60%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC54042100000949F	Date of Report	: 30.09.2021

**REPORT**

Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	SLF AREA	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	36.94	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	49.69	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	19.94	IS:5182 (PT – 6) : 2006


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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling	: 14.09.2021 & 1:10PM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/SEP/MG/36	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 15.09.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 16.09.2021
Testing Condition	: 25.0°C , 60%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000000950F	Date of Report	: 30.09.2021


### REPORT


Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	MAIN GATE	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	45.42	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	60.88	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	23.40	IS:5182 (PT – 6) : 2006


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## TEST REPORT AMBIENT AIR MONITORING

### Sample Details

### Client Details

Date & Time of Sampling	: 12.09.2021 & 1:30PM	Client Name	: Usha Martin Limited (CPP Div)
Sample ID	: CPP/ENV/SEP/MTG/34	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Ambient Air	Client Code	: UML/CPP/03
Duration of Sampling	: 24 hrs	State	: Jharkhand
Sample Drawn by	: Mr Suraj Kumar	Date of Receipt of Sample	: 13.09.2021
Sample Plan Reference	: UML/DOC/110	Date of testing	: 16.09.2021
Testing Condition	: 25.0°C, 60%RS	Test Performed	: At Permanent Lab
UNIQUE LAB REPORT NO	: TC540421000000948F	Date of Report	: 30.09.2021

### REPORT

Sl.No.	Sample Location	Parameter	Unit	Desirable limit *	Results	Test Method
1	MATERIAL GATE	Particulate Matter PM2.5	µg/M <sup>3</sup>	≤60.00	48.17	SOP/UML/WT/02 Based on CPCB guideline Vol-I : 2012
2		Respirable Particulate Matter PM10	µg/M <sup>3</sup>	≤100.00	69.83	IS:5182 (PT – 23) : 2006
3		Sulphur Dioxide	µg/M <sup>3</sup>	≤80.00	<10.00	IS:5182 (PT – 2) : 1999 Reaffirmed 2001
4		Nitrogen Dioxide	µg/M <sup>3</sup>	≤80.00	21.24	IS:5182 (PT – 6) : 2006

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**TEST REPORT**  
**NOISE MONITORING**

**Sample Details**
**Client Details**

Date of Sampling	: 20.09.2021 to 25.09.2021	Client Name	: Usha Martin limited (CPP)
Sample ID	: SEP/CPP/NOS/04	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Noise	Client Code	:UML/CPP/03
Duration of Sampling	: 24hrs (Per Location)	State	: Jharkhand
Sample Drawn by	: Mr. Suraj Kumar	Test Performed	: At Permanent Lab
Sample Plan Reference	: UML/DOC/110	Date of Report	: 25.09.2021
UNIQUE LAB REPORT NO	: TC540421000000969F	Sample Description	: Measurement of Noise at UML CPP Area

**TEST REPORT OF NOISE LEVEL**

Monitoring Date	20.09.2021 to 25.09.2021						
	Station Location	Noise Results in dB (A) Day			Noise Results in dB (A) Night		
		AVG	MIN	MAX.	AVG.	MIN.	MAX.
	CPP MAIN GATE	65.8	60.2	76.2	65.7	55.6	74.3
	CPP WTP AREA	67.1	58.8	74.6	67.1	57.5	73.2
	CPP BOILER AREA, MACHINE AREA	81.5	76.2	87.9	83.0	74.2	90.5
	CPP ADM BUILDING	67.5	62.2	73.4	67.1	62.8	71.5
	CPP COAL YARD AREA	61.4	56.2	67.2	59.9	54.5	63.7

**Ambient Air Quality Norms in Respect of Noise**


AREA	CATEGORY AREA	NOISE LEVEL in dB(A)	
		DAY TIME	NIGHT TIME
A	INDUSTRIAL AREA	75	70
B	COMMERCIAL AREA	65	55
C	RESIDENTIAL AREA	55	45
D	SILENCE ZONE	50	40

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## TEST REPORT NOISE MONITORING

### Sample Details

### Client Details

Date of Sampling	: 24.06.2021 – 29.06.2021	Client Name	: Usha Martin limited (CPP)
Sample ID	: JUN/CPP/NOS/04	Client Address	: Tatisilwai, Ranchi
Type of Sample	: Noise	Client Code	: UML/CPP/03
Duration of Sampling	: 24hrs (Per Location)	State	: Jharkhand
Sample Drawn by	: Mr. Suraj Kumar	Test Performed	: At Permanent Lab
Sample Plan Reference	: UML/DOC/110	Date of Report	: 30.06.2021
UNIQUE LAB REPORT NO	: TC540421000000854F	Sample Description	: Measurement of Noise at UML CPP Area

### TEST REPORT OF NOISE LEVEL

Monitoring Date	24.06.2021 – 29.06.2021						
	Station Location	Noise Results in dB (A) Day			Noise Results in dB (A) Night		
		AVG	MIN	MAX.	AVG.	MIN.	MAX.
	CPP MAIN GATE	59.6	49.3	68.7	62.9	54.2	72.2
	CPP WTP AREA	63.8	57.8	72.2	61.6	51.1	70.1
	CPP BOILER AREA, Machine Area	79.2	73.6	86.7	81.2	75.1	88.4
	CPP ADM BUILDING	65.2	58.6	72.2	64.4	58.3	68.7
	CPP COAL YARD AREA	58.2	52.6	66.0	57.8	50.4	63.8

### Ambient Air Quality Norms in Respect of Noise


AREA	CATEGORY AREA	NOISE LEVEL in dB(A)	
		DAY TIME	NIGHT TIME
A	INDUSTRIAL AREA	75	70
B	COMMERCIAL AREA	65	55
C	RESIDENTIAL AREA	55	45
D	SILENCE ZONE	50	40

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**TEST REPORT**  
**STACK MONITORING****Sample Details****Client Details**

Date & Time of Sampling : 24.08.2021 & 12:30PM	Client Name : Usha Martin Limited (CPP Div)
Sample ID : CPP/ENV/AUG/STACK/01	Client Address : Tatisilwai, Ranchi
Type of Sample : STACK	Client Code : UML/CPP/03
Duration of Sampling : 3.5 hrs	State : Jharkhand
Sample Drawn by : Mr. Suraj Kumar	Date of Receipt of Sample : 24.08.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 24.08.21-25.08.21
Testing Condition : 24.2°C , 59%RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000914F	Date of Report : 30.08.2021



**TEST REPORT**

Sl. No.	Description	Unit	Desirable limit	Results	Test Method
1	Location			CHIMNEY	
2	Area of Stack	(M <sup>2</sup> )		1.485	
3	Temperature of flue gas	(°C)		112.0	
4	Average Velocity	(m/s)		23.56	
6	Particulate matter	(mg/Nm <sup>3</sup> )	50.00	42.51	IS 11255, (part-1) 1985 reaffirmed 2003
7	Sulphur Dioxide	(mg/Nm <sup>3</sup> )	350.00	236.42	IS 11255, (part-2) 1985 reaffirmed 2003
8	Nitrogen Oxides	(mg/Nm <sup>3</sup> )	350.00	189.52	IS 11255, (part-7) 2005

**Note - General Emission standards as per Gazette of India, published by ministry of Environment & forests, 19<sup>th</sup> May , 1993 are for PM- 150 mg/Nm<sup>3</sup>.**

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## TEST REPORT STACK MONITORING

### Sample Details

### Client Details

Date & Time of Sampling : 11.12.2021 & 11:15AM	Client Name : Usha Martin Limited (CPP Div)
Sample ID : CPP/ENV/DEC/STACK/35	Client Address : Tatisilwai, Ranchi
Type of Sample : STACK	Client Code : UML/ CPP/03
Duration of Sampling : 3.5 hrs	State : Jharkhand
Sample Drawn by : Mr. Suraj Kumar	Date of Receipt of Sample : 11.12.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 11.12.21-12.12.21
Testing Condition : 23.8°C, 61%RS	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000001040F	Date of Report : 31.12.2021


### TEST REPORT

Sl. No.	Description	Unit	Desirable limit	Results	Test Method
1	Location			CHIMNEY	
2	Area of Stack	(M <sup>2</sup> )		1.485	
3	Temperature of flue gas	(°C)		111.0	
4	Average Velocity	(m/s)		23.70	
6	Particulate matter	(mg/Nm <sup>3</sup> )	50.00	40.19	IS 11255, (part-1) 1985 reaffirmed 2003
7	Sulphur Dioxide	(mg/Nm <sup>3</sup> )	350.00	212.19	IS 11255, (part-2) 1985 reaffirmed 2003
8	Nitrogen Oxides	(mg/Nm <sup>3</sup> )	350.00	172.44	IS 11255, (part-7) 2005

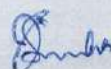
Note: - General Emission standards as per Gazette of India, published by ministry of Environment & forests, 19<sup>th</sup> May, 1993 are for PM- 150 mg/Nm<sup>3</sup>.

Declaration:-

1. Results reported are valid at the time of testing and under the stated testing condition.
2. Result in the report refers to only the sample submitted by the client.
3. This report shall will be reproduced expect in full and without the written permission of environmental laboratory, CPP, UML, Ranchi

  
TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)  
CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISIL WAI, RANCHI  
JHARKHAND. PIN-835103

## TEST REPORT

### ETP WATER

#### Sample Details

#### Client Details

Date & Time of Sampling : 08.12.2021 & 11:30AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : DEC/ CPP/ EW/ 11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/ CPP/ 03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.12.2021
Sample Plan Reference : UML/ DOC/ 110	Date of testing : 08.12.21-15.12.21
Testing Condition : 23.9°C , 64 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000001051F	Date of Report : 31.12.2021


## REPORT


Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		5.50 – 9.00	7.30	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr		624.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Total Suspended solids	Mg/ltr	100.00	9.00	APHA 22 <sup>nd</sup> Edition-2540 D
4	Dissolved oxygen	Mg/ltr		5.20	IS:3025, (part-38) 2014
5	Oil & Grease	Mg/ltr	10.00	4.80	IS:3025, (part-39) 2014

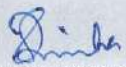
\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.

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3. This report will be reproduced expect in full and without the written permission of environmental laboratory, CPP, UML, Ranchi.

  
TESTED BY  
(Manish Kumar)

  
CHECKED BY  
(Tanmay Roy)

  
AUTHORISED BY  
(Tanmoy Sinha)

## TEST REPORT

### ETP WATER

#### Sample Details

#### Client Details

Date & Time of Sampling : 08.12.2021 & 11:30AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : DEC/ CPP/ EW/ 11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/ CPP/ 03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.12.2021
Sample Plan Reference : UML/ DOC/ 110	Date of testing : 08.12.21-15.12.21
Testing Condition : 23.9°C , 64 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000001051F	Date of Report : 31.12.2021

## TEST REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Lead	Mg/ltr	0.10	<0.10
2	Zinc	Mg/ltr	5.00	0.82
3	Phosphate	Mg/ltr	5.00	0.68
4	Chloride	Mg/ltr	-	255.00
5	BOD, 3 days at 27 °C	Mg/ltr	30.00	2.90
6	COD	Mg/ltr	250.00	42.00
7	Iron	Mg/ltr	3.00	0.44
8	Manganese	Mg/ltr	2.00	0.62

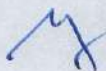
\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.

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TESTED BY  
(Manish Kumar)



CHECKED BY  
(Tanmay Roy)



AUTHORISED BY  
(Tanmoy Sinha)

CPP (2 X 10 MW)  
USHA MARTIN LTD.  
TATISILWAI, RANCHI  
JHARKHAND, PIN-835103

ENVIRONMENTAL LABORATORY, 2X10 MW CPP, TATISILWAI, RANCHI (JHARKHAND) – 835103

E-Mail: [tanmay\\_roy@ushamartin.co.in](mailto:tanmay_roy@ushamartin.co.in), [cpp\\_wtprnc@ushamartin.co.in](mailto:cpp_wtprnc@ushamartin.co.in)

OFFICE NO: 06517180 683, 06517180 689 Fax: 06517180 409/410

## TEST REPORT

### ETP WATER

#### Sample Details

#### Client Details

Date & Time of Sampling : 08.07.2021 & 10:30AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : JUL/ CPP/ EW/11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/ CPP/ 03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.07.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 08.07.21-10.07.21
Testing Condition : 25.1°C, 61 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC540421000000883F	Date of Report : 30.07.2021

#### REPORT

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results	Test Method
1	pH		5.50 – 9.00	7.43	APHA 22 <sup>nd</sup> Edition-4500 H <sup>+</sup>
2	Total Dissolved Solids	Mg/ltr		838.00	APHA 22 <sup>nd</sup> Edition-2540 C
3	Total Suspended solids	Mg/ltr	100.00	18.50	APHA 22 <sup>nd</sup> Edition-2540 D
4	Dissolved oxygen	Mg/ltr		6.10	IS:3025, (part-38) 2014
5	Oil & Grease	Mg/ltr	10.00	9.60	IS:3025, (part-39) 2014

**\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.**

#### Declaration:-

1. Results reported are valid at the time of testing and under the stated testing condition.
2. Result in the report refers to only the sample submitted by the client.
3. This report shall will be reproduced expect in full and without the written permission of environmental laboratory, CPP, UML, Ranchi.

TESTED BY  
(Manish Kumar)CHECKED BY  
(Tanmay Roy)AUTHORISED BY  
(Tanmoy Sinha)

ENVIRONMENTAL LABORATORY, 2X10 MW CPP, TATISILWAI, RANCHI (JHARKHAND) – 835103

E-Mail: [tanmay\\_roy@ushamartin.co.in](mailto:tanmay_roy@ushamartin.co.in), [cpp\\_wtprnc@ushamartin.co.in](mailto:cpp_wtprnc@ushamartin.co.in)

OFFICE NO: 06517180 683, 06517180 689 Fax: 06517180 409/410

**TEST REPORT**  
**ETP WATER****Sample Details****Client Details**

Date & Time of Sampling : 08.07.2021 & 10:30AM	Client Name : Usha Martin Limited(CPP Div)
Sample ID : JUL/ CPP/ EW/11	Client Address : Tatisilwai, Ranchi
Type of Sample : CPP TREATED ETP WATER	Client Code : UML/ CPP/03
Duration of Sampling : 1 hrs	State : Jharkhand
Sample Drawn by : Mr Suraj Kumar	Date of Receipt of Sample : 08.07.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 08.07.21-10.07.21
Testing Condition : 25.1°C, 61 % RH	Test Performed : At Permanent Lab
UNIQUE LAB REPORT NO : TC54042100000883F	Date of Report : 30.07.2021

**TEST REPORT**

Sl.No.	Characteristics	Unit	Requirement (Desirable limit)	Results
1	Lead	Mg/ltr	0.10	<0.10
2	Zinc	Mg/ltr	5.00	0.42
3	Phosphate	Mg/ltr	5.00	0.90
4	Chloride	Mg/ltr	-	182.00
5	BOD, 3 days at 27 °C	Mg/ltr	30.00	3.20
6	COD	Mg/ltr	250.00	36.00
7	Iron	Mg/ltr	3.00	0.11
8	Manganese	Mg/ltr	2.00	0.15

\*\* General standards for discharge of environmental pollutants vide Ministry of Env. And Forests notification dated 19<sup>th</sup> May, 1993 and amendment dated 31<sup>st</sup> December, 1993.

**Declaration:-**

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2. Result in the report refers to only the sample submitted by the client.
3. This report shall will be reproduced expect in full and without the written permission of environmental laboratory, CPP, UML, Ranchi.

TESTED BY  
(Manish Kumar)CHECKED BY  
(Tanmay Roy)AUTHORISED BY  
(Tanmoy Sinha)CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISILWAI, RANCHI  
JHARKHAND, PIN 835103

ENVIRONMENTAL LABORATORY, 2X10 MW CPP, TATISILWAI, RANCHI (JHARKHAND) – 835103

E-Mail: [tanmay\\_roy@ushamartin.co.in](mailto:tanmay_roy@ushamartin.co.in), [cpp\\_wtprnc@ushamartin.co.in](mailto:cpp_wtprnc@ushamartin.co.in)

OFFICE NO: 06513051 683, 06513051 689 Fax: 06513051 409/410

**TEST REPORT****MERCURY EMISSION RESULTS IN CAPTIVE POWER PLANT(CPP)****Sample Details****Client Details**

Date & Time of Sampling : 12.02.2021	Client Name : Usha Martin Limited (CPP Div)
Sample ID : CPP/ENV/FEB/STACK/Hg	Client Address : Tatisilwai, Ranchi
Type of Sample : STACK (MERCURY)	Client Code : UML/CPP/03
Duration of Sampling : 2 hrs	State : Jharkhand
Sample Drawn by : Mr. Suraj Kumar	Date of Receipt of Sample : 12.02.2021
Sample Plan Reference : UML/DOC/110	Date of testing : 12.02.2021
Testing Condition : 25.2°C , 56%RH	Test Performed : At Permanent Lab
	Date of Report : 20.02.2021

**TEST REPORT**

Sl. No.	Location	Parameter	Results Micro gm/Nm <sup>3</sup>	Remarks
1	ESP Outlet	Mercury	**BDL	

\*\*BDL denotes Below Detection Level for Hg < 0.03 Micro gm/Nm<sup>3</sup>TESTED BY  
(Manish Kumar)CHECKED BY  
(Tanmay Roy)AUTHORISED BY  
(Tanmoy Sinha)CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISIL WAI, RANCHI  
JHARKHAND. PIN-835103



Yokogawa India Limited  
MERLIN INFINITE  
Office No. 710, 7th Floor, Plot No. 51,  
Block - DN, Salt Lake City, Sector - V,  
Kolkata - 700 091  
Tel : 91-33-30546000

YOKOGAWA

Ref: YIL/CSD/VAS/KOL/P/14313  
05/05/2015

To

USHA MARTIN INDUSTRIES LIMITED  
TATISILWAI, RANCHI-835103  
Jharkhand

Kind attn.: Mr. Arindam dasgupta

Dear Sir,

**Subject: - Submission of detailed document of Usha Martin Industries Limited, Ranchi, Jharkhand for Yokogawa India Limited's Online Emission monitoring to JSCB and CPCB server**

We would like to inform you that with reference to your order no: PP/30066/14-15 dated 26/02/15 we have successfully commissioned at Usha Martin Industries Limited for Online Emission data Monitoring data Transmission to JSPCB on 28/03/15. All the Online emission data are updating in server satisfactorily without interruption. Yokogawa Server continuously monitoring all the data in Server if any discrepancy found then same will be rectified at the earliest.

Please find enclosed here with the detailed documents for your information and future record. So request you to kindly acknowledge the same.

We would like to thank you for your kind cooperation extended to us.

Thanking you

Truly yours For Yokogawa India Limited

Sukanta Das

Customer Service Division

Mob: 9748754923

Email: Sukanta.das@in.yokogawa.com



## MINUTES OF MEETING

**vigilantplant**

CUSTOMER	USHA MARTIN LTD.
MEETING LOCATION	CPP, JATISILWAI, RANCHI, JHARKHAND
DATE	March 26, 2015
PURPOSE OF THE MEETING	Addition of new tags for remote transmission & monitoring on CPCB site
W.O.	

CUSTOMER		PARTICIPANTS		YOKOGAWA	
Mr. M.S. Mandal				Mr. Dhirender Dagar	
Mr. V. Kumar				(Yokogawa India Ltd)	
				MOB. -9996952300	

SLNO	DESCRIPTION	ACTION BY	REMARKS																		
1	M/s YIL Engineer visited the site on 26-03-15 to add and configure new tags for remote transmission & monitoring on CPCB site.	M/S YIL																			
2	The following new tags are added through Gate OPC and the same tags are added at CPCB site. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th>TAG</th> <th>RANGE</th> <th>UNIT</th> </tr> </thead> <tbody> <tr> <td>1 ETP PH</td> <td>0-14</td> <td>pH</td> </tr> <tr> <td>2 ETP TEMP</td> <td>0-150</td> <td>degC</td> </tr> <tr> <td>3 ETP STSS</td> <td>0-1000</td> <td>mg/ltr</td> </tr> <tr> <td>4 BIT1312</td> <td>0-300</td> <td>degC</td> </tr> <tr> <td>5 B2T1312</td> <td>0-300</td> <td>degC</td> </tr> </tbody> </table>	TAG	RANGE	UNIT	1 ETP PH	0-14	pH	2 ETP TEMP	0-150	degC	3 ETP STSS	0-1000	mg/ltr	4 BIT1312	0-300	degC	5 B2T1312	0-300	degC	M/S YIL	
TAG	RANGE	UNIT																			
1 ETP PH	0-14	pH																			
2 ETP TEMP	0-150	degC																			
3 ETP STSS	0-1000	mg/ltr																			
4 BIT1312	0-300	degC																			
5 B2T1312	0-300	degC																			
3	The newly added tags showing proper value after configuration and under observation. Usha Martin will update if any further modification required for tags configured.	M/S YIL																			
4	YIL request to Usha Martin to provide detail for Limit value as per norms set up by State pollution control so that we can display same at our site.	M/S YIL																			
5	M/s YIL Engineer is leaving site on 26/03/2015 after completing above activities.	M/S YIL																			

M/S YIL (M.S. Mandal)
Dhiresnder

CUSTOMER
YOKOGAWA



S. Mandal



**Yokogawa India Limited**

Regd. Office :  
Plot No. 96,  
Electronics City, Hosur Road  
Bangalore - 560 100. India  
Tel : 0091-80-41586000  
Fax : 0091-80-28521445

**YOKOGAWA**

To,

Date:24/12/2013

Usha Martin Ltd.  
(Wire Ropes and Specialty products division)  
Works: Tatisilwal, Ranchi 835103  
Jharkhand,India.

Sub: Completion certificate for Online connectivity of CEMS data to JSPCB

Ref: PO.No. 201552 and RP/30059/13-14 dated 4/9/2013

To whomsoever it concerns

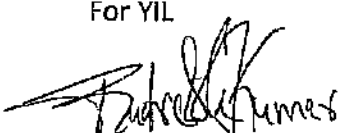
With reference to the above mentioned purchase order, we would like to inform that M/s Yokogawa India Ltd. has successfully completed supply ,supervision, erection and commissioning of emission data connectivity to JSPCB for their verification and evaluation. Pls refer to the Minutes Of Meeting signed accordingly by M/s UML.

The performance is found to be satisfactory.

With this M/s Yokogawa has successfully completed and handed over the job in accordance with the Usha Martin ltd's requirement on 13-12-2013

Thanking you,

For YIL

  
Mr.B.Rudresh Kumar  
Assistant Manager



**Office of the Director, Ground Water Directorate, Jharkhand, Ranchi.**

"Abhyantran Bhawan", Kutchery Chowk, Ranchi-834001, Phone-91-2217141/Fax-91-2214830

**E Mail-gwi.rwh@gmail.com**

Letter No. **G.W.D. 380** / Ranchi. dated.. **25.11.2011** /

From,

S.L.S. JAGESHWAR,  
Director,  
Ground Water Directorate, Jharkhand.  
Water Resources Department,  
Govt. of Jharkhand.

To,

Sri N.K. Patodia  
Assistant Vice-President  
Usha Martin Limited  
Wire Ropes & Specialty Products Division  
Tatisilvai-835103  
Ranchi, Jharkhand.

**Sub:- Approval of "Rain Water Harvesting" Plan submitted by you for your Captive Power Plant.**

**Ref:-** Your letter no.UML/ CPP/EMS/GWD/RWH/11/04 dated 25.10.2011.

Sir,

Kindly refer to your Design & Plan of "Rain Water Harvesting" for Ground Water Recharging prepared by KRG Rain Water Foundation, Chennai along with associated Hydrological, Hydro- meteorological and Geophysical data of the area, submitted to this office vide your letter no-UML / CPP / EMS / GWD / RWH/11/04 dated 25.10.2011.

Your Rain Water Harvesting for Ground Water Recharging Plan envisages to recharge **77963M<sup>3</sup>** of run-off-rainwater every year, resulting in Groundwater Recharge of the order of **66269M<sup>3</sup>** annually. The recharge structures incorporated in the plan consists of **One Storage Cum Percolation Pond (SCP)** of dimensionon (Top dia-40060M and bottom dia 31.40M) and a depth of 4.60M. 4 nos. of **Recharge shafts** are also proposed in the bed of the SCP. Additionally, one no. of **Dug cum bore-well** and one no. **Recharge well with one no. Recharge shaft** is also provided for in the plan. One number of **contour bund** has also been proposed.

Demand of water in the plant, as stated in the said plan is 624M<sup>3</sup> per day ie. 227760M<sup>3</sup> per annum, which is being lifted from Subarnarakha River. In accordance with prevailing rules of Water Resources Department, Govt. of Jharkhand, more than 2% of above quantity (227760M<sup>3</sup>) must be recharged. 66,269M<sup>3</sup> of rainfall runoff is proposed to be recharged per year, as per the plan submitted, after the construction of recharge structures against the mandatory requirement of 4600M<sup>3</sup>.

For further recharge, it is suggested to provide depth of recharge shafts of various recharge structures uniformly as 80M instead of 70M, 50M and 30M as proposed in the submitted Rain Water Harvesting Plan.

The plan submitted by you for "Rain Water Harvesting" is approved subject to the following conditions: -

1. Your entire "Rain Water Harvesting" Project for Ground Water Recharging must be completed within 60 days of the approval of the plan.
2. Prior to Construction of proposed check-dam over nalla, necessary consent of the concerned authority must be obtained.
3. The Proposed Rain Water Harvesting Recharge Pits (Linear Artificial Recharge Structure) must be constructed as per standard design of filter materials and boring in the pits, annexed with this letter.
4. The Ground Water Level in at least 3-4 dug wells in and around your plant, must be monitored in the first week of every month and the data be necessarily made available to this office.
5. The quality of Ground Water in and around the plant area must be monitored periodically (every 6 months) and the data be necessarily made available to this office and to Jharkhand State Pollution Control Board, Dhurwa, Ranchi.
6. The Recharge Pits (LARS) to be constructed by you must be maintained properly, for all times to come. The top-coarse sand-layer in the pit, must be changed every alternate year, before the onset of monsoon.
7. The Completion Report of the entire project within the stipulated period (60 days), must be communicated to this office as well as to Jharkhand State Pollution Control Board, immediately after completion of the project.
8. **"This Plant has elaborate Rain Water Harvesting Facility"**, must also be displayed prominently at the entrance and other places of your plant, in order to sensitize more people about Rain Water Harvesting.

**Enclosures:** -(1) Technically Approved Rain Water Harvesting Plan.  
(2) Standard Plan and Design of Recharge Pits.

*D. Banerjee*  
24.11.11  
D. Banerjee  
(Deputy Director)  
Ground Water Directorate, Ranchi.

Yours sincerely,  
*[Signature]*  
24/11/2011  
Director,  
Ground Water Directorate,  
Jharkhand, Ranchi.

# **usha martin**

**Usha Martin Limited**  
(Wire Ropes & Speciality Products Division)

Works : Tatisilwai - 835 103, Ranchi, Jharkhand,  
Ph.: (00 91 651) 226 52 41/3051400/430, Fax : (00 91 651) 3051409/410

Ref : UML/EMS/GWD/RWH/12/02  
Date : 15/10/2012

To

The Director,  
Ground Water Directorate, Jharkhand,  
Water Resources Department,  
"Abhyantran Bhawan", Kutchery Chowk,  
Ranchi - 834 001

Kind Attn. of : Mr. SLS Jageslwar

Sub : To submit Completion Report on Rain Water Harvesting Plan

Ref: i) Our Letter Ref. No. UML/ CPP/EMS/GWD/RWH/12/01 dtd. 03.05.2012 and  
ii) Your Letter Ref. No. GWD - 197/ Ranchi dtd. 21.04.2012

Dear Sir,

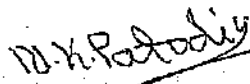
Further to our above letter (ref. No. UML/ CPP/EMS/GWD/RWH/12/01 dtd. 03/05/2012), we would like to place following facts before your good self for kind information :

We are pleased to inform you that the entire construction activities of Rain Water Harvesting Plan had already been completed by M/s. KRG Rainwater Foundation, Chennai. In this connection, M/s. KRG Rainwater Foundation, Chennai has also issued a "Completion Certificate" as well as a "Completion Report". We are hereby enclosing two sets of the above Certificate and Report for your kind perusal please. We are very confident that the installation of Rainwater Harvesting Systems will augment the recharge of Ground Water and also improve the quality of Ground Water of not only the entire factory premises but also the surrounding communities to a considerable extent. In this connection, we would like to mention that the Land of CPP is low level land and as such we have developed the RWH System in this area. The system is working perfectly.

Being submitted for favour of information and in compliance of above referred letter.

Thanking you,

Yours' faithfully,  
for **USHA MARTIN LIMITED,**  
(Wire Ropes & Speciality Products Division)

  
(NK Patodia)

Asst. Vice President

Encl : As stated above

  
Certified as an approved  
Manufacturer by  
Lloyd's Register of Shipping



Certified as an approved  
Manufacturer by  
Det Norske Veritas



Certified by the  
American Petroleum Institute  
License number IA - 0017



TYPE APPROVAL PROGRAM  
Certified as an approved  
Manufacturer by  
American Bureau of Shipping



Usha Martin Ltd.  
2\*10MW CPP,Ranchi

**FLY ASH GENERATION & UTILISATION REPORT (PERIOD: APRIL-2021 TO MARCH-2022)**

SOLID WASTE/FLY ASH GENERATION & UTILIZATION 2021-22						
MONTH	QTY ASH GENERATED (MT)	QTY UTILIZED (MT)			UTILIZATION IN % *	Balance fly ash in Dyke
		UTILIZED IN FLY ASH BRICK PLANT	3RD PARTY UTILIZATION	TOTAL (MT)		
APRIL' 21	5589.74	0	5493.72	5493.72	98.3	168.91
MAY '21	6256.35	0	4635.94	4635.94	74.1	1789.32
JUN' 21	6550.22	0	2870.52	2870.52	43.8	5469.02
JUL' 21	5706.24	0	2696.39	2696.39	47.3	8478.87
AUG' 21	3335.43	0	3060.35	3060.35	91.8	8753.95
SEPT' 21	3959.12	0	3909.97	3909.97	98.8	8803.1
OCT' 21	4499.96	0	4481.93	4481.93	99.6	8821.13
NOV' 21	5317.09	0	4821.44	4821.44	90.7	9316.78
DEC' 21	5446.09	0	4462.19	4462.19	81.9	10300.68
JAN' 22	5552.87	0	7916.18	7916.18	142.6	7937.37
FEB' 22	6651	0	12512.86	12512.86	188.1	2075.51
MAR' 22	5260.76	0	6971.33	6971.33	132.5	364.94
<b>TOTAL</b>	<b>64124.9</b>		<b>63832.8</b>	<b>63832.8</b>	<b>99.5</b>	<b>364.9</b>

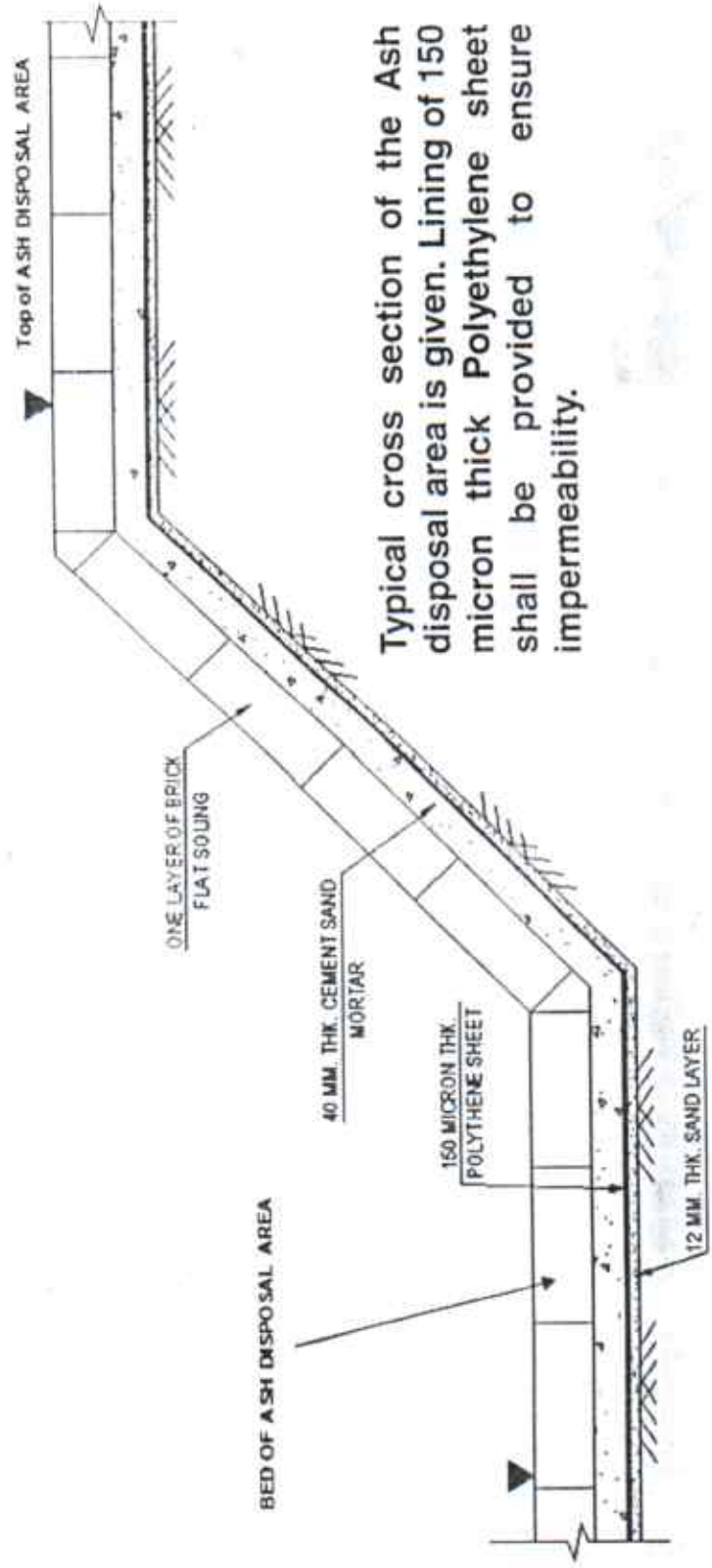
- **Total Ash Generation: 64124.9 MT**
- **Total Ash utilization: 63832.8 MT**
- **% of Utilization: 99.5 %**
- **Balance Qty in Ash Dyke: 364.9 MT**

## TOR POINT 22 :

Details regarding ash pond impermeability including soil analysis report and whether it would be lined, if so details of the lining etc.

### Compliance:

#### TYPICAL PART CROSS SECTION OF THE ASH DISPOSAL AREA SHOWING LINING DETAIL TO PREVENT LEACHING



Typical cross section of the Ash disposal area is given. Lining of 150 micron thick Polyethylene sheet shall be provided to ensure impermeability.





### Overview

The project area of Usha Martin Ltd.-CSR, Ranchi is operational in 15 Villages in and around the Captive Power Plant and covering three Blocks of Ranchi District Namely Namkum, Angara and Kanke. Usha Martin Ltd. Company's CSR (Corporate Social Responsibility) is based on Integrated and Sustainable Development (ISD), which are multi-pronged activities interlinked with the values of ownership, transparency and improvement at every level. ISD's 09 pillars together hold up the idea of achieving integrated, equitable and sustainable development through public-private-peoples' partnerships or P4. The focus areas (Thematic intervention) represent fields of work that are both separate & interlinked, converging into an integrated workable model.

### Natural Resource Management:

Natural resources comprise of land, water, biodiversity and genetic resources, biomass resources, forests, livestock, fisheries, wild flora and fauna. Natural Resources Management (NRM) refers to the sustainable utilization of major natural resources, such as land, water, air, minerals, forests, fisheries, and wild flora and fauna. Together, these resources provide the ecosystem services that underpin human life.



Most people have become aware that using composts is an effective way to increase healthy plant production, help save money, reduce the use of chemical fertilizers, and conserve natural resources. Compost provides a stable organic matter that improves the physical, chemical, and biological properties of soils, thereby enhancing soil quality and crop production. When correctly applied, compost has the following beneficial effects on soil properties, thus creating suitable conditions for root development and consequently promoting higher yield and higher quality of crops.

NADEP has helped to reduce cash expenses on chemical fertilizer, improved soil fertility, increased crop yield. The use of compost reduced the need for mineral fertilizer thus reducing production costs and outside dependence.

Sustainable Livelihood have been initiated through drip irrigation, hybrid seed, Jal minar and the various activities in natural resource management which have created new jobs for the community members. As it has led to organic crop production.

- As an ongoing activity we are also repairing the existing Hand Pumps in the 15 villages and creating water user groups. For this we have trained twenty persons (**20**) from the village itself, as a result generating employment for them also. These mechanics have been provided certificates from Govt. agency.
- **Usha Martin Foundation repaired Seventeen (17) hand pump** for better access to **safe** drinking water.
- **We have Linked Household cum farmers with multi cropping scheme** and supported farmers through awareness, techniques and close monitoring of the whole process.



- Motivation to the beneficiaries and coordination with govt. officials has augmented the number of crops insurance in the villages.
- Training conducted to aware for soil test.**

- Irrigation has been a serious problem for farmers and due to this reason; they were reluctant to do cultivation in summer season. Thus, Usha Martin has initiated the construction of 59 new Low lands well in the periphery of factory, which we aim to cover additional 120 Acres of land for Rabi / Paddy crop cultivation.
- Two (02) Jal miner have been constructed in the Ulatu and haratu villages for more than 95 households.

- Crop Insurance is required for rainy day thus, we encouraged farmers for crop insurance to have compensation if any adversity happen to crop.
- Usha martin Foundation distributed
  - Vegetable seeds to 453 farmers,
  - Pulses to 415 farmers/ Maize seeds to 100 farmers
  - Oil seeds distributed among 66 farmers
  - SRI plantation promotion to 33 farmers

### **Health and Nutrition:**

The strategy adopted for improving health status of the community focuses on access to health, strengthening village health and supportive supervision. Access to healthcare services is critical to good health, and our focus was to reach more and more people through our health activities. Through more than 47 medical Camp, we reach almost two thousand (2050) community members. Special Covid care unit has been installed in shalini Hospital to care the remote villagers. Extensive check-up of Covid and immunization have been focus of CSR initiative.

- We initiated special drive for Corona Test with the support of Namkom Block and during these Test Camp. We distributed bleaching powder among 140 households of all the 15 villages. We have distributed Masks, gave sanitizers and disseminated the messages of Social Distance among the villagers through door to door campaign and small groups meeting.
- During this period we have done **medical camps for distributing medicine/ dissemination of Covid-19** along with



General Health camp as well as Homeopathy treatment for the villagers. Such camp were held in Tati East, Haratu, Silwai, Chatra, Mahilong Baram, Angara] Hahey and others villages. When required for further treatment, patients were sent to Shalini Hospital for better treatment and counseling without any cost.

- **Eighteen (07 Nos.) Adolescent girl's group** meeting has been conducted in 16 villages and make them aware about personal hygiene, communicable diseases, Anemia etc. **Hemoglobin Test of** adolescent girls has been done in villages to check the level and to make them aware about the curative measures.
- **Home Visit (56 Nos.)** has regularly being done for awareness about Anti Natal Checkup, Post Natal Checkup, Immunization etc. with the ladies who were present in Health due list of Sahiya. And we have supported 54 immunization program through logistic as well as technically.



- We have not **organized school health session (03 Nos) in government schools due to Corona**. The children are made aware about personal hygiene, hand washing techniques, prevention from different diseases etc.
- We have conducted many sanitation awareness sessions in villages to make people aware about the ill effects of open defecation and also tried bring them out of old habits and also tried to develop self-respect.
- **Total Eight (08)** village Health committee meeting were attended and given suggested.

### Educational Activities:

Education is the most powerful tool for the development of human being. No society can gain momentum without education. This is the reason why Usha Martin Limited CSR has given utmost priority to education of children in the project area. Covid-19 has adversely affected the activities of Gurukul School which is especially run for the underprivileged and marginalized community members.



However, Under CSR, we renovates and beautifies the two middle school, on in middle school of Masu and other is in Ulatu village.

Covid-19 has affected the ongoing educational activities during this six months period. However we have doing CSR initiative through one Gurukul School, which is situated at nearby factory. We take care of poor children and those who are unable to give fee.



### **Skill and livelihood Enchantment:**

Capacity building is considered to be important as it involves a set of actions that an organization takes to improve its ability to perform successfully in its chosen area. A mixed strategic approach has been pursued which can broadly be categorized into institutional and programmatic aspects. Under



the institutional aspect the strategy has been to strengthen the Gram Sabha and SSS groups that form the backbone for providing support to implement and monitor activities on the ground. As for the programmatic aspect the strategy has been to improve integrated farming, improved agricultural practices, up scaling horticulture and promoting livelihood particularly mushroom cultivation.

The trainings on mushroom cultivation have led to the production of mushroom at the household levels. Income from the sale of mushroom has helped to supplement the farm income and also to meet various exigencies. Fishery development training has brought new perspective in community engaged in livelihood promotion. Under its CSR initiatives the company has initiated the SRI (Systematic Rice Intensification) method of cultivation among the farmers community. Now the target is to encourage them to adopt second Crop, and exploring various off-farm income avenues like mushroom, duckery, Backyard poultry, piggery, and fishery.

The implementation of livelihood generation opportunities be it Kitchen Garden/SRI/Mushroom cultivation have directly led to an increase in income for each of the households with the amounts ranging from Fifteen thousand to Twenty Thousand for the marginal farming household and at least Ten to Twelve thousand for the small farming household.



Financial investments made by Usha Martin Limited have directly and indirectly yielded social returns in the following manner:

- Improved natural resource management i.e., ecologically balanced use of land and water for agriculture.
- Adoption of organic farming which not only conserves and restores the soil but also leads to production of healthy agricultural produce and provides to nutritional requirements.

### Mushroom cultivation/Fishery and Kitchen Garden



**Mushroom cultivation-** Mushroom cultivation has become a very lucrative pursuit in recent years. The project team understanding its remunerative potential provided training and introduced its cultivation among a hundred and twenty community members. It takes about three months to harvest about a kg of mushrooms, which we sold at Rs 300. It is round-the-year production.

**Fishery-**Aquaculture has the potential to generate income and create jobs, especially to the local youth. Being small and less risky, small-scale aquaculture can be adopted easily by resource-poor farmers. Usha Martin Limited decided to promote pisciculture, as a sustainable livelihood. The project team encouraged the farmers to enhance the pond carrying capacity, involve farm family, improve resource utilization, and integrate different components in the fish Farming and optimally utilize farm areas and farm wastes to enhance the farm income for the family livelihood and better sustainability.

- In the villages **One thirty five (135) Gram Shabha were attended and given proper suggestion for effective meeting and thereafter activities. Farmers were made aware about the organic way of farming.** We have made farmers aware about NADEP compost, Compost Pit, Low Cost Vermi Compost, Fish Tonic, PANCHGAVYA, Inter Cropping, Mix Cropping, Relay Cropping etc.
- **Village level meetings of VHC, VEC, and SHG** were regularly organized in **15 villages. Regular Quality circle meeting** are being held in all villages on problems like Water Logging, Alcoholism, Sanitation, Unsafe drinking water, Income generation alternatives, Illiteracy, Open defecation etc. The QCs are also been audited by Experts of Usha Martin Ltd. **However, these activities were carried out as per guideline of Covid-19.**



- We have also participated in SHG meeting and briefed about our TVM model and also livelihood enhancement program like mushroom cultivation, poultry, piggery, fishery, duckery etc. Before implementation of our activities we discuss in SHG meeting to do need analysis and also to check acceptance level of our activities which are going to implement. We also discuss about the govt. schemes running currently and also about the new schemes which govt. launches for their betterment.



**Some Govt. Scheme, which linked/Coordinated with CSR Villagers/ Communities**

- Health Card ----- 05 No/ Families
- Ujjawal Gas -----05 Families
- Old Age Pension -----02 Families
- Widow Pension -----04 Families
- Handicapped Pension's pension----- 01 Nos.
- Red Ration Card-----14 Households
- Exposure Visit of Farmers ----- 04 Nos.
- Pond Construction ----- --05 Families
- Well Construction-----04 Nos.

**Photo Gallery:**

**Figure- 1: Medical Camp during Covid- 19 to support the villagers, at Mahilong**



**Figure- 2: ICU bed donated to Shalini Hospital**



**Figure- 3: Fish Jeera were given to villagers**

Figure- 4: village meeting and inauguration of Jal minar



Figure- 4: Fish Jeer Distribution to farmers



Figure 05 : Training on livelihood and agriculture



Figure-1: Paper Clipping ( Dainik Hindustan)



Figure-2: Paper Clipping ( Dainik Hindustan)



Figure-3: Paper Clipping ( Prabhat Khabar)



Figure-4: Paper Clipping ( Prabhat Khabar)

# आत्मनिर्भर महिलाओं से बनेगा स्वावलंबी गांव

- महिलाओं को टेलरिंग एंड फैशन डिजाइनिंग करायेगा उषा मार्टिन
- मिनी टूल रूम के सौजन्य से मासु और सिलवई गांव में प्रशिक्षण शुरू

लाइफ रिपोर्टर @ रांची

महिलाओं के आत्मनिर्भर बनने से परिवार की आय बढ़ती है और खुशहाली आती है. इसके साथ ही गांव भी स्वावलंबी बनता है. स्वावलंबी गांव के लिए हुनर का ज्ञान और उसका विकास जरूरी है. इसके लिए गांव के युवावर्ग को प्रशिक्षण के विभिन्न विकल्पों को अपनाने की जरूरत है. उक्त बातें उषा मार्टिन के एचआर हेड एनएन झा ने कही. वह मंगलवार को मिनी टूल रूम में



आयोजित कार्यक्रम को संबोधित कर रहे थे.

उषा मार्टिन फाउंडेशन और मिनी टूल रूम के सौजन्य से मासु और सिलवई गांव की महिलाओं को टेलरिंग और फैशन डिजाइनिंग का प्रशिक्षण शुरू किया गया है. पहले चरण में 15 महिलाओं को प्रशिक्षण दिया जा रहा है. तीन माह तक चलने वाले इस कोर्स में प्रयोगिक एवं सैद्धांतिक

ज्ञान प्रदान किया जायेगा. टूल रूम के प्राचार्य एमके गुप्ता ने कहा कि उषा मार्टिन के सौजन्य से ऐसे प्रशिक्षण के कार्यक्रम से गांवों के युवाओं को आगे आने का अवसर मिलेगा. इस कोर्स को करने के बाद न केवल महिलाएं हुनरमंद बनेंगी, बल्कि आय संवर्द्धन कर आत्मनिर्भर भी बनेंगी. कोर्स के दौरान महिलाओं को झारखंड के विभिन्न संस्थानों के साथ जुड़ने

के अवसर को भी तलाशा जायेगा, ताकि स्वरोजगार के साथ नियोजन का विकल्प प्राप्त हो सके. उषा मार्टिन फाउंडेशन के सचिव डॉ मयंक मुरारी ने कहा कि गांव के समग्र विकास के लिए किसानों, विद्यार्थी और महिलाओं को केंद्र में रखकर ग्रामीण विकास की गतिविधियां चलायी जा रही है. गांव में पानी, स्कूल के आधारभूत संरचना के विकास और प्रशिक्षण के माध्यम से क्षमता निर्माण के उपाय किये जा रहे हैं. कोर्स को-ऑर्डिनेटर राहुल उरांव ने भी विचार व्यक्त किये. इस अवसर पर मंच संचालन मंगल टोपों एवं धन्यवाद ज्ञापन आशुतोष मिश्रा ने किया. इस अवसर पर देवाशीष घोष, मोनीत बृंतकुमार, रोशन लिंडा आदि उपस्थित थे.



Figure-5: Paper Clipping ( The Pioneer)

Figure-6: Paper Clipping ( The Pioneer)

## Usha Martin rennovates middle School

Director of Usha Martin D Bhowmik has said that the vil-lages are a hope for the future' India. There is a ray of de-velopment in the eye of youth. However, we have to nurture that talent for human resources. Bhowmik inau-gurated the renovated building of Masu middle School in Angra village today. The building was built by Usha Martin. He said that the company has been continuously doing the work of rural development. Many programs have been operational in the village especially for capacity building and livelihood through income generation. NN Jha, HR Head of the company said that true bharat lies in the vil-lage, therefore we should focus on village development. Dr. Mayank Murari, principal Anju purti and others were present during the programme.

### INBRIEF

Usha Martin gives ICU to shalini Hospital



Usha Martin's company secretary Sampa Roy Ghosh has said that good hospitals are required to address the demand of rural communities. She inaugurated the ICU unit, which was donated by Usha Martin foundation to Shalini Hospital for enhancement of infrastruc-ture. She said that the foundation is doing good work for rural development. Foundation Secretary Dr Mayank Murari informed about the ongoing activities. Dr Mridula Kachchap and Rana Vikash were present during the function

Figure-7: Paper Clipping ( Dainik Jagran)

# नेत्र जांच पखवारे में 120 लोगों की जांच की गई

संस्, अनगड़ा : शालिनी अस्पताल अनगड़ा में केजीवीके, उषा मार्टिन फाउंडेशन एवं साइटसेवर्स के सौजन्य से नेत्र जांच पखवारा का उद्घाटन अनगड़ा के पंचायत प्रतिनिधि एवं उषा मार्टिन फाउंडेशन के हेड डा. मयंक मुरारी द्वारा किया गया। अनगड़ा में लगे कैम्प में करीब 120 मरीजों को नेत्र जांच की गई। वहीं, 30 मरीजों को मोतियाबिंद के आपरेशन के लिए चिह्नित किया गया है।

इसका आपरेशन 24 और 26 नवंबर को किया जाएगा। इसके लिए सभी को बुलाया गया है। कैम्प को सफल बनाने में अस्पताल के



अनगड़ा में नेत्र जांच करते चिकित्सक। शिशिर भगत, नेत्र विशेषज्ञ रवींद्र नाथ पांडेय, अजीत कुमार महतो, वाल्मिकी प्रसाद, अमित लोहरा, पूजा कुमारी एवं संपूर्णानंद महतो का योगदान रहा।

Figure-8: Paper Clipping ( Prabhat Khabar)

लाइफ सैंड रांची 26.09.2021 11 प्रभात खबर

## खेती-किसानी को रोजगार से जोड़कर ही विकास संभव है : स्वामी ईश्वरानंद

■ उषा मार्टिन और रामकृष्ण मिशन की आजीविका पर कार्यदशाला



गांव में किसान मिरफ आजीविका के लिए खेती करे, तो उससे प्रथम विकास में कोई सुधार नहीं होगा। खेती-किसानी को आजीविका के साथ रोजगार से जोड़ना होगा तब तक गांव के स्तर पर लोगों में आत्मनिर्भरता हो वे बने रामकृष्ण मिशन के प्रथम ईश्वरानंदजी ने कहा। वह गतिवार को उषा मार्टिन फाउंडेशन और रामकृष्ण मिशन के संयुक्त तत्वावधान में ग्रामीण युवाओं के क्षमता निर्माण और आजीविका संवर्द्धन विषय पर मासू गांव में आयोजित कार्यशाला में बोल रहे थे। सिलवडी गांव के बाद मासू में यह कार्यशाला हुई। इसमें चयनित और इच्छुक बेरोजगारों को रामकृष्ण मिशन के माध्यम से विभिन्न ट्रेडों में प्रशिक्षण कराया जायेगा।

स्वामी ईश्वरानंद ने कहा कि गांव स्तर पर खेती-किसानी को लक्ष्यकारी बनाना है तो मासू में कार्य करना होगा। इसमें आत्म उत्साह को कान्तर से जोड़ना अत्यावश्यक होगा और खेती से मुनाफा होगा। खेती को मुनाफा से जोड़ने के लिए नवी तकनीक, नयी संघ के साथ नवीन प्रक्रिया को अपनाने की जरूरत है। अब

अगर बकरी पालन करना है, तो पचास-छह नरियें बालिक 40-45 बकरों का पालन करें तबकि प्रत्येक मासू गांव-अठ हज्जत को अग्रदानी हो। उनमें जोना में चल रहे बालों के संदर्भ में ग्रामीणों को समझाया कि सूकर, बकरी, मुर्गी और गाद पालन के साथ टैकलरप को भी अपनाया जाए।

फाउंडेशन के सचिव डॉ मयंक मुरारी ने कहा कि युवाओं को घर से बाहर आना होगा। अपनी खेच के साथ वह अगे बढ़ते हैं, तो फाउंडेशन उनको हर कदम पर सहाय्य करेगा। कृषि विभाग सचिव कुमार ने कहा कि गांवों में अनेक उद्योग चलें और गाँव समग्र तम वैज्ञानिक तरीके से कार्य करें। इसका पंचवत्न को मुखिया शिला देखें ने कहा कि उषा मार्टिन ने गांव में लक्ष्यकार सहाय्य प्रित रहा है। अन्य युवाओं को अगे अग्रर उसका लक्ष्य लेना होगा। देवराज पालन ने भी कार्यक्रम को प्रशंसा की। कार्यक्रम में प्रमुखता मरतो, मेनीत कुतुम्बर, लालदेव महतो और रोशन लिख ने सहाय्य किया। उषा मार्टिन फाउंडेशन की ओर से उलतू गांव के पंच बेरोजगार युवाओं को इतिवर्द्धन की ट्रेनिंग दी जायेगी। रामकृष्ण मिशन के माध्यम से वह ट्रेनिंग से बनेगी। ट्रेनिंग कनिष्ठने पांच युवा रोशन लोहरा, अमज लोहरा, सुदीप लोहरा, संदेश राम और संपद मूला ने आन मिशन में ट्रेनिंग से सम्बंधित जानकारी प्राप्त की। यह ट्रेनिंग एक अनुभव से होगी।

Figure-9: Paper Clipping ( Prabhat Khabar)

# उषा मार्टिन फाउंडेशन ने बांटी खेलकूद सामग्री



**रांची.** उषा मार्टिन फाउंडेशन ने शुरुवार को अनगड़ा के मासू स्कूल में खेलकूद सामग्री का वितरण किया। साथ ही मासू व उलातू गांव के किसानों के बीच नकदी फसल बीज वितरित किये, वितरण कार्य फाउंडेशन के चीफ फाउंडांस ऑफिसर अनिर्वान सान्याल व सचिव डॉ मयंक मुरारी ने किया, श्री सान्याल ने कहा कि गाँवों के विकास पर देश का विकास निर्भर है. गाँव का विकास युवाओं के क्षमता विकास पर निर्भर है. फाउंडेशन आसपास के गाँवों में कौशल विकास के माध्यम से रोजगार सृजन का अवसर पैदा करा रहा है. डॉ मयंक मुरारी ने कहा कि समेकित खेती कर किसान अपनी

आय बढ़ा सकते हैं. किसान जैविक खेती, नकदी फसल, बागवानी के साथ-साथ बकरी, मुर्गी और सूकर पालन कर आय में वृद्धि कर सकते हैं. मासू गाँव में फाउंडेशन द्वारा मशरूम उत्पादन, नकदी फसल से आय वृद्धि, टेलरिंग और फैशन डिजाइनिंग, ड्रिप इरिगेशन, कुआँ निर्माण के साथ स्वस्थ गाँव को लेकर कार्यक्रम चलाये जा रहे हैं. मौके पर मुखिया शीला देवी, डॉ राजेश कुमार, रमेश कुमार, प्रगतिशील किसान धनराज महतो, प्रमनाथ महतो, मुलू महतो, सचींद्र कुमार, राणा विकास, शिशिर कुमार भगत, मोनित भूटकुमार, रोशन लिंडा आदि उपस्थित थे.

## उषा मार्टिन में सुरक्षा दिवस मना



**रांची.** उषा मार्टिन में 51वां राष्ट्रीय सुरक्षा दिवस मनाया गया . सुरक्षा दिवस पर औद्योगिक सुरक्षा के प्रति जागरूकता और प्रतिबद्धता की शपथ दिलायी गयी . कारखाना के विभिन्न विभागों में कई कार्यक्रम आयोजित किये गये और सुरक्षित कार्य संस्कृति पर जोर दिया गया . प्लांट प्रमुख एसबीएन शर्मा ने बेहतर कार्य संस्कृति के निर्माण में सुरक्षा को अहम माना है . इसके लिए सभी कर्मचारियों को स्थापित मानदंडों और नियमों के पालन पर जोर देना होगा . इस अवसर पर सुरक्षा नारा, कर्तव्य प्रतियोगिता के साथ सुरक्षा अंज फहराया गया . कारखाने के अंदर अहम जगहों पर बैनर लगाये गये . सभी कर्मचारियों को कार्यस्थल पर सुरक्षा शपथ दिलायी गयी . नारा और कर्तव्य प्रतियोगिता के सभी प्रतिभागियों को पुरस्कार और प्रमाण पत्र दिया गया . कारखाना के वरीय अधिकारियों ने सुरक्षित कार्यसंस्कृति को अपनाने और सुरक्षा उपकरणों की उपयोगिता बतायी . इस अवसर पर प्रत्येक कर्मचारियों को सैफटी बेच, सैफटी हैंडआउट और सैफटी पॉइंट जयरी दी गयी .



**REPORT ON SOCIAL AUDIT FOR THE PERIOD OF  
2020-21**

**OF**

**USHA MARTIN LTD CSR INITIATIVES**

**Report Submitted to**



**Report Prepared by**



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## Chapter 1: Introduction

When Usha Martin Ltd hereinafter referred as “Usha Martin” commenced business in 1962, the Founder’s vision was to be a global company and a world leader in manufacturing wire ropes. Amongst many challenges that lay in the pathway of achieving that vision, was awareness that it would not succeed as a global company and world leader by just being an island of prosperity in a sea of poverty and discontent outside its factory gates in Jharkhand. For several years the Founders of Usha Martin searched for answers to achieve inclusive growth that eliminates discontent in a manner that could be sustained over generations and scalable across a wide population that our capabilities would allow. It is a long-standing observation that India is essentially two countries – one fuelling the drive for urbanization in India’s burgeoning cities and another striving for development in the vast rural landscape of Bharat.

It is indeed a great divide, one that has seemed to widen over the past four decades. Pursuing inclusive growth to bridge this gap was one of the reasons why the Founders of Usha Martin set up Usha Martin Foundation as a registered society under the Societies Registration Act, 1860 in Jharkhand. The Founders vision was that it would deliver the social development and economic growth commitment of Usha Martin to rural Jharkhand. To do so, it was envisaged that Usha Martin performs its activities and to start with, in near and adjacent areas of Usha Martin’s plants and operations. However, to make a real and sustainable difference to rural Jharkhand, Usha Martin would perform activities across as many geographical areas as its resources and capabilities would allow. Accordingly, mobilizing the community and its available resources, we sought to find a way to ensure sustainable development in the region. In the intervening years, we have achieved some of the goals we had set for ourselves. And a lot remains to be done.

In the beginning Usha Martin’s corporate social responsibilities (“CSR”) had attributes of pure philanthropy, and contributed to other non-government organizations (“NGOs”) to implement various CSR projects. The results were a satisfactory until the early 1990s when Usha Martin became more project-oriented engaging with various institutions to understand the needs of rural communities that would make a real measurable difference in their lives.

Usha Martin philosophy is market-based bottom-up approach of integrated interventions that are multi-disciplinary and integrated to effectively deliver and impact poverty reduction strategies. Usha Martin model is conscious about abdication of personal financial gain and tends to support social entrepreneurship among the communities by advocating effective use of resources and available capital which is in contrast with the

conventional charity approach. Decades of government-led and entitlement-based approach to charity towards the local communities of Jharkhand yielded poor results. Human Development Index (HDI), per capita income, per capita consumption and other socio-economic indicators for the local community was abysmally low. Secondary data from different official reports and websites provided enough material to preliminarily analyse the broader trends of socio-economic Conditions of local communities.

The needs were many and basic in nature. While others take these for granted but the reality is that we cannot deliver on rural development unless we develop water infrastructure for drinking and agriculture; provide access to energy; stabilize the domestic environment by tending to the health needs of the mother and child and deliver education; empower women towards an earnings-based vocation; build capacity through training and create market linkages to enable an opportunity to increase income.

## **CSR MISSION AND STRATEGY**

To achieve inclusive growth in our areas of operations and neighbouring communities through integrated community and rural development that is sustainable, scalable and adaptable by transforming beneficiaries to become producers, entrepreneurs and customers.

### **Objectives of Social Audit**

1. Social Audit (SA) enables organizations to explore and generate their own values. SA provides a coherent and clear image of UML and helps this organization to plan and execute their CSR initiatives in a transparent and fair way.
2. It helps the organization to understand how each of the stakeholders of these projects have met the assigned responsibilities.
3. SA helps UML to assess the capabilities of the implementing agencies and accordingly, the organization can identify and plan its future CSR projects.
4. SA creates a new level of participative democracy focused on values and long-term visions and in the process makes UML transparent to stakeholders and supporters.

### **Scope of Social Audit**

This assessment follows the stakeholder approach to determining social performance, wherein all the actions of the company towards the community stakeholder groups are within the ambit of social audit. Host communities are the villages which are in the immediate neighborhood of UML plant sites and are directly impacted by the plant operations either environmentally, economically or socially.

The social audit is a transparent process and documentation conducted to measure and manages the social objectives of the company. It is geared to provide better governance systems for any organization. The social audit is expected to deliver mechanisms by which UML can identify inconsistencies between its aims and the final implementation. Using the audit report, UML can develop high levels of detailing in what they wish to measure and verify and which will be appropriate to the needs of the organization as well as other stakeholders. The audit will also aid UML to understand the current impact and limitations to impact. In addition, it will provide UML a multi-stakeholder perception of its programme and help in formulation of future CSR policies.

### **Methodology**

Participative methods have been employed to engage stakeholders. The nature of the data is qualitative and quantitative. As it is a multi-stakeholder study, multiple research tools have been adopted. For the data collection multistage sampling technique has been adopted. In the first stage, data has been collected from UML through interview and focus group discussion. In the second stage stratified sampling technique has been adopted for data collection regarding implementation of activities. In the last stage, individual beneficiaries have been identified for interview and focus group discussion. For interviews, semi-structured questionnaire has been designed. The questions are based on the background, development, current conditions, and overall implementation of the project. Even the environmental interactions of one or more individuals, groups, communities involved in the projects have been studied.

## Chapter 2: Project Area Description

The project area of UML-CSR, Ranchi is operational in 29 villages in and around the Captive Power Plant and rope making plant, covering three Blocks of Ranchi District Namely Namkum, Angara and Kanke. Although there are 29 operational villages but these activities are only carried out in **18** villages of 3 blocks. The details are underneath:

Sr. No	Block Name	Village Number	Village Name
1	Namkum	09	LalKhatanga, Bargaon
			Silwai, Khijri
			Mahilong, Ulatu
			Arra, Baram, Kewali
2	Angara	17	Angara, Baheya, Berwari, Chatra,
			Masu, NaraynSoso, Tati E, Tati W,
			Chaldag, Hehey, Haratu, Hesal,
			Jamuari, Janum, Lupung,
			Salhan, Turup,
3	Kanke	02	Lalganj, Pertol,



## Chapter 3: Thematic Intervention

### A. Natural Resource Management

**Introduction**-Natural resources comprise of land, water, biodiversity and genetic resources, biomass resources, forests, livestock, fisheries, wild flora and fauna. Natural Resources Management (NRM) refers to the sustainable utilization of major natural resources, such as land, water, air, minerals, forests, fisheries, and wild flora and fauna. Together, these resources provide the ecosystem services that underpin human life.

**Problems**-Soil and water quality problems caused by unsustainable agricultural production practices are not only leading to low productivity and quality of agricultural produce but also to environmental problems such as air quality and the release of toxic pollutants. In fact, unsustainable use and uninformed land use changes are depleting the quantity and deteriorating the quality of groundwater and associated ecosystems, upon which livelihoods is dependent. Severe soil degradation from erosion, compaction, or salinization can destroy the productive capacity of the soil and exacerbate water pollution from sediment and agricultural chemicals.

#### Objectives

- To ensure availability of safe drinking water
- To promote sustainable agricultural practices
- To ensure food security of the village communities

#### Strategy for improving Natural Resource Management

Towards fulfilment of the desired objectives a multi-pronged strategy was adopted. It involved the following aspects:



- i. **Soil quality management**-Managing soil for today and tomorrow. As soil quality is linked to sustainability a key strategy adopted was to focus on improving soil quality by assessing and managing soil so that it functions optimally now and is not degraded for future use
- ii. **Enhance organic matter**- regular additions of organic matter improve soil structure, enhance water and nutrient holding capacity, protect soil from erosion and compaction, and support a healthy community of soil organisms. Practices that increase organic matter include: leaving crop residues in the field, choosing crop rotations that include high residue plants, using optimal nutrient and water management practices to grow healthy plants with large amounts of roots and residue, growing cover crops, applying manure or compost.
- iii. **Tillage management**: Reducing tillage minimizes the loss of organic matter and protects the soil surface with plant residue. Tillage is used to loosen surface soil, prepare the seedbed, and control weeds and pests. But tillage can also break up soil structure, speed the decomposition and loss of organic matter, increase the threat of erosion, destroy the habitat of helpful organisms, and cause compaction. New equipment allows crop production with minimal disturbance of the soil. (Link to cultivation practices).
- iv. **Pest management**-Pesticides and chemical fertilizers have valuable benefits, but they also can harm non-target organisms and pollute water and air if they are mismanaged. Nutrients from organic sources also can pollute when misapplied or over-applied. Efficient pest and nutrient management means testing and monitoring soil and pests; applying only the necessary chemicals, at the right time and place to get the job done; and taking advantage of non-chemical approaches to pest and nutrient management such as crop rotations, cover crops, and manure management. (Link to fertility management and pest management practices.)
- v. **Residue management**: Bare soil is susceptible to wind and water erosion, and to drying and crusting. Ground cover protects soil, provides habitats for larger soil organisms, such as insects and earthworms, and can improve water availability. Ground can be covered by leaving crop residue on the surface or by planting cover crops. In addition to ground cover, living cover crops provide additional organic matter, and continuous cover and food for soil organisms. Ground cover must be managed to prevent problems with delayed soil warming in spring, diseases, and excessive build-up of phosphorus at the surface. (Link to residue and cover crop practices.)
- vi. **Diversify cropping systems**: Diversity is beneficial for several reasons. Each plant contributes a unique root structure and type of residue to the soil. A diversity of soil organisms can help control pest populations, and a diversity of cultural practices can reduce weed and disease pressures. Diversity across the landscape can be increased by using buffer strips, small fields, or contour strip cropping. Diversity over time can be increased by using

long crop rotations. Changing vegetation across the landscape or over time not only increases plant diversity, but also the types of insects, microorganisms, and wildlife that live on your farm. (Link to cropping systems and integrated pest management practices.)

### Activities Undertaken

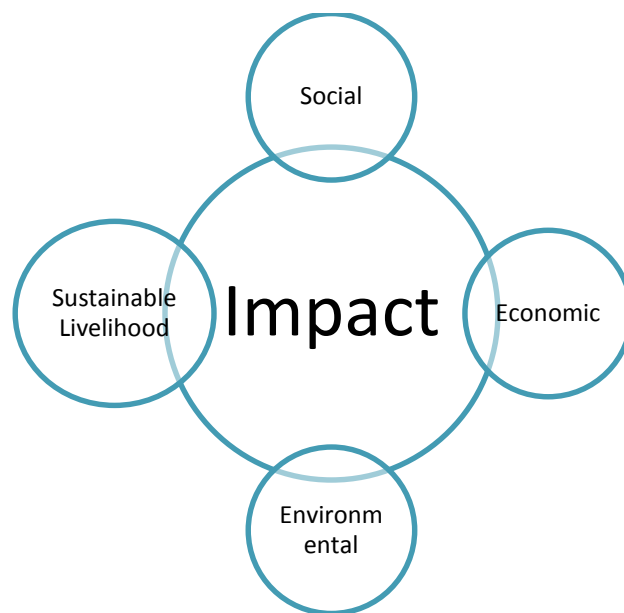
S. No	Key Activities	Number
1.	Hand pump New Installation/ Repair	105
2.	Vermi composting	10
3.	Compost pit	205
4.	NADEP composting	36
5.	Wheat Distribution	21

Hand pumps New Installation and repair of a hundred and five units was undertaken during the year as access and availability of safe drinking water and water for domestic use is a major problem that the communities are facing. Vermi composting of ten units was introduced in the reference villages. The concerned families were trained about the materials required and method for its preparation. Compost pit- Altogether 205 compost pit were dug and filled with plant and other organic residue

NADEP composting was adopted by 36 families. The NadeP method of making compost is unique not because it is successful in making good compost, which other methods can also lay claim to; its real secret lies in the large quantities of compost the process can deliver with a minimum of human effort within a specific period of time. The process basically involves placing select layers of different types of compostable materials in a simple, mud-sealed structure designed with brick and mud water. Wheat distribution among 21 farmers was done to promote crop diversification and improve nutritional status of the families.

### Impact

Activities have been undertaken keeping in view the set objectives for bringing about an effective and sustainable application of natural resource management in the reference village. These activities have been instrumental in bringing about short term and long-term impacts in the following areas:



### **Social**

Most people have become aware that using composts is an effective way to increase healthy plant production, help save money, reduce the use of chemical fertilizers, and conserve natural resources. Compost provides a stable organic matter that improves the physical, chemical, and biological properties of soils, thereby enhancing soil quality and crop production. When correctly applied, compost has the following beneficial effects on soil properties, thus creating suitable conditions for root development and consequently promoting higher yield and higher quality of crops.

### **Economic**

The farmers are able to fetch higher prices for their organically grown crops. It has resulted in significant cost savings by reducing the need for water, pesticides, fungicides, herbicides, and nematodes. NADEP has helped to reduce cash expenses on chemical fertilizer, improved soil fertility, increased crop yield. The use of compost reduced the need for mineral fertilizer thus reducing production costs and outside dependence

### **Environmental**

- Use of compost has provided a rich source of plant nutrients and improved soil fertility. It has made the environment healthy.
- It has increased fertility of land at low cost.
- Further it has enhanced physical, chemical, and biological properties of soil.
- Plant protection medicines are reduced due to its use. Cost of production has also got reduced.
- There is increase in the catchment power of the soil.

## **Sustainable Livelihood**

The various activities in natural resource management have created new jobs for the community members. As it has led to organic crop production, there is reduced dependence on outside inputs.

## **Health Activities**

### **Problems**

Although improving maternal and child health care continues to adversely affect the community. Child malnutrition is a major area of concern as the progress is extremely slow. Poor child nutritional status is further confirmed by high levels of anaemia among children as well as women of reproductive age. Approximately half the children (aged 6–35 months) and one-third of women (aged 15–49 years) suffer from moderate to severe Anaemia. The people often suffer from the burden of communicable diseases like TB, malaria and other vector-borne diseases. Adolescent girls face multiple challenges. In addition to anaemia and lack of adequate nutrition they have to deal with the social challenges of early marriage and social taboos.

### **Causes**

The issue of availability, accessibility, acceptability, affordability and quality with regard to health care remains a serious concern. It is common to find that although there are health centres and dispensaries but very few doctors or trained professional are available to attend to the patients. Lack of behaviour change communication and demand side barriers also lead to poor response from the community.

### **Objectives**

- To improve the overall general health of the community members
- To ensure access to maternal and child health care
- To improve the health status of adolescent girls.

### **Strategy**

The strategy adopted for improving health status of the community focuses on access to health, strengthening village health and supportive supervision.



## 1. Improve access to public health

Access to healthcare services is critical to good health, yet community members face a variety of access barriers. Ideally, residents should be able to conveniently and confidently access services such as primary care, dental care, behavioural health, emergency care, and public health services. Access to healthcare is important for:

- Overall physical, social, and mental health status
- Disease prevention
- Detection, diagnosis, and treatment of illness
- Quality of life
- Preventable death
- Life expectancy

Even when an adequate supply of healthcare services exists in the community, there are other factors to consider in terms of healthcare access. For instance, to have good healthcare access, a rural resident must also have:

- Financial means to pay for services, such as health insurance that is accepted by the provider

- Means to reach and use services, such as transportation to services that may be located at a distance.
- Confidence in their ability to communicate with healthcare providers has poor health literacy
- Belief that they will receive quality care

## **2. Strengthen maternal and child health**

Pregnant women are particularly disadvantaged when it comes to their socio-cultural status, political participation and opportunities for personal development. Improved quality of obstetric services is essential for convincing the women to give birth in health facilities, where they will benefit from emergency care in the event of complications. Pregnant women are given counselling on Ante natal, delivery and post natal care services .Similarly initiatives are taken to ensure that children get fully immunised and provided balanced nutrition

## **3. Improve health of adolescent girls**

Promoting healthy behaviours during adolescence, and taking steps to better protect young people from health risks are critical for the prevention of health problems in adulthood, and for countries' future health and ability to develop and thrive.

## **4. Activate Village Health Institutions-VHCs**

Village Health Committees are the first step towards community orientation of health care services and for making health as a people's movement. Village Health Committee will facilitate in addressing the health needs of the entire village with the help of health providers and health institutions. VHCs will play an important role in planning and monitoring of the health care services through community monitoring mechanism. For strengthening of VHSCs provision of untied fund has been made under NRHM. Each VHSC will receive a grant of 10000 as an untied fund which will be used for the community actions for improvement of health status of the community including demand generation for health care services, sanitation drives, emergency health care needs, rewards for exceptional work in health sector etc.

## 5. Supportive Supervision

Ongoing support is needed for health workers in the frontline of service delivery to perform to their full potential and deliver quality patient care. The aim of supportive supervision is to increase the capacity and confidence of the individual to take on the specific tasks addressed via focused observation, mentorship, and feedback. Supportive supervision helps to assure that critical investments in training and technical assistance are realized.

## 6. General awareness on health

Health check-ups and dos and don'ts in matters of healthcare are an important component of improving people's awareness on health.

### Activities Undertaken

S. No	Key Activities	Number
1.	General Health Camps	29
2.	Adolescent Girls group Meet	82
3.	Supportive Supervision	162
4.	Village Health Committee Meeting	79

1. A total of 29 General Health Camps were organised. Many people face poor health conditions due to affordability issues or lack of awareness towards health and that causes them chronic diseases. In the health camps expert medical professionals perform thorough medical diagnosis, help people prevent underlying diseases and provide suitable prescription and medical treatment. The health examinations like blood pressure, blood sugar, joints and bones strength, and nutrition and vitamins level are conducted in the health camp and free medicines are also distributed to the beneficiaries as part of the social welfare initiative. In addition, health awareness sessions are conducted by the doctors, emphasize the importance of proper sanitation & hygiene, awareness of timely diagnosis and preventive measures to lead a healthy life.

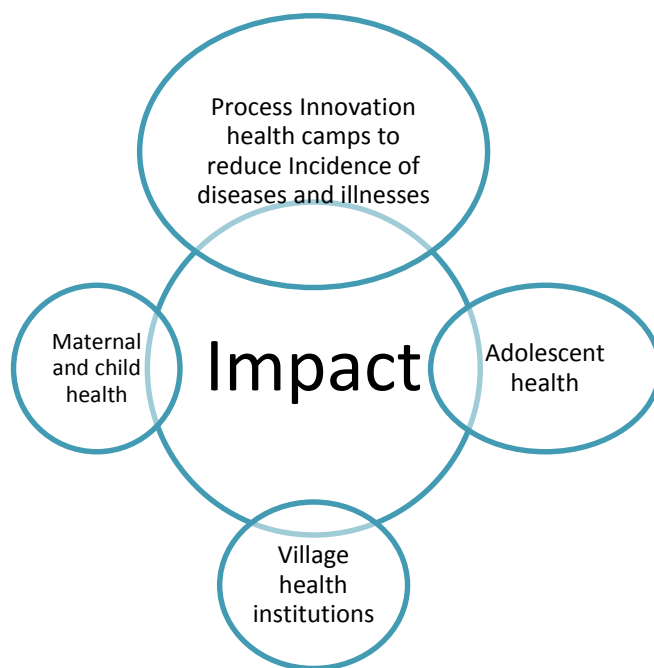
2. Adolescent Girls group Meet are a platform to discuss and share about the issues particularly health issues of adolescent girls. Eighty –two Adolescent Girls group Meet were organised and was widely participated.

3. Supportive Supervisions conducted were 162 in number.

4. Village Health Committee meetings were conducted regularly. Seventy-nine meetings were held to enable community participation in health interventions.

## Impact

Interventions and activities undertaken in the area of health have been effective in impacting people's health. These are evident in the aspect of maternal and child health, adolescent health, Village health institutions and incidence of diseases and illnesses.



- a. Process Innovation through the regular conduct of health camps has been successful in identifying diseases and illnesses that the community members succumb to and coordinate measures for their treatment. Timely identification has thus enabled to save several lives.
- b. Adolescent girls became aware about menstrual health and hygiene, importance of balanced diet and intake of nutrients in their foods.
- c. Village health committee meetings facilitated bottom-up community engagement in the planning and implementation of healthcare services. The VHCs promoted community-based health interventions which in turn proved to be effective towards promoting acceptability and utilization of health services incidence of diseases and illnesses has declined as people are now adopting preventive measures, adhering to hygienic practices, accessing the health services and undergoing regular health check-ups.
- d. Access to Maternal and child health services improved. Health check-ups of pregnant women helped to identify their health needs and also to monitor the ANC, delivery and PNC services are availed by them. Coverage of immunisation of children also improved.

## **Capacity Building Programme**

Capacity building is considered to be important as it involves a set of actions that an organization takes to improve its ability to perform successfully in its chosen area. Despite the many initiatives taken under CSR community members continue to face significant capacity challenges undermining their ability to effectively or fully carry out the actions they are intended to pursue. These challenges include:

- A lack of knowhow on integrated farming, livelihood generation, functioning and role of local governance institutions.
- Fragmentation of information, and lack of training in farming approaches
- A lack of skills and organizational or institutional capacity
- A lack of established systems, and processes new or existing bodies or entities would use to efficiently and effectively plan, manage and coordinate

The management team well recognises that improving capacity building on the ground through enhanced trainings and skill building with sustained resource provisions is critical to success of the development interventions.

## **Problems**

Lack of capacity is manifested in the functioning of the institutions, ability to execute activities and also in the implementation of activities particularly when new initiatives are to be started.

## **Causes**

Lack of skill and knowledge about modern methods and techniques of agricultural practices, initiation of new livelihood opportunities, poor capacity of the village institutions is among the key causes for low capacity.

## **Objectives**

- To enable successful implementation of agricultural and livelihood opportunities.
- To strengthen village institutions
- To inculcate capacities for providing safe drinking water

## **Strategy**

A mixed strategic approach has been pursued which can broadly be categorised into institutional and programmatic aspects. Under the institutional aspect the strategy has been to strengthen the gram Sabha and SSS groups that form the backbone for providing support to implement and monitor activities on the ground. As for the programmatic aspect the strategy

has been to improve integrated farming, improved agricultural practices, up scaling horticulture and promoting livelihood particularly mushroom cultivation.

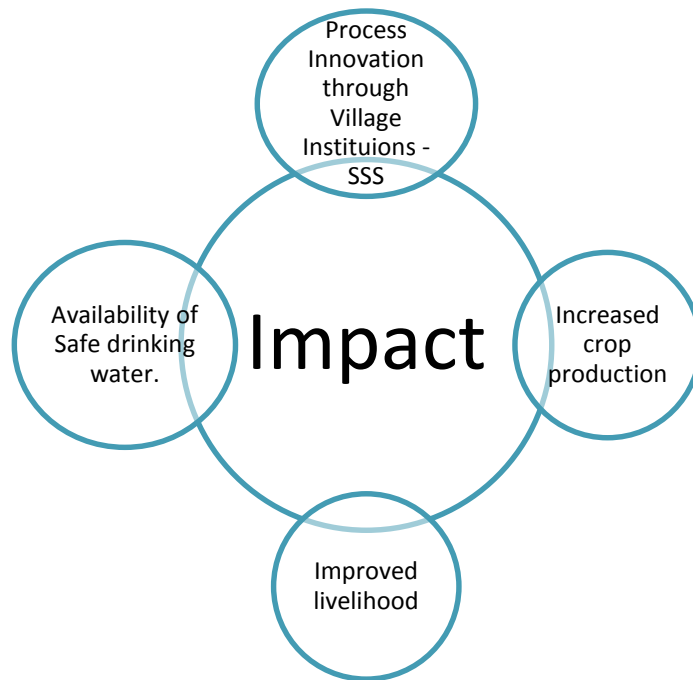


## Activities

S. No	Key Activities	Number
1.	SS S Meeting	15
2.	Gram Sabah Meeting	137
3.	Agriculture and Horticulture	32
4.	Mushroom Cultivation Training	42
5.	Safe Drinking water	31
6.	Integrated Training in Ram Krishna Mission	34

Altogether 137 Gram Sabha meetings and 15 (Samasya Samadhan Samooh (SSS) meetings were held to make them aware about their roles and responsibilities in supporting the smooth implementation of the various agricultural and livelihood opportunities. Similarly, 32 capacity building initiatives on agriculture and horticulture and 42 trainings on Mushroom Cultivation and 34 trainings on Integrated farming through the Ram Krishna Mission organisation were conducted. Thirty-four trainings related to safe drinking water were held.

## Impact



Impact of the capacity building initiatives has been observed in the following areas:

1. Process Innovation through effective functioning of the village institutions namely Gram Sabha and SSS groups. Gram Sabhas are the backbone of all village level institutions. They have a key role in the governance of the village affairs. A conducive and peaceful environment for undertaking development measures in the villages is necessary. Gram Sabhas have been effective in fulfilling these needs. The SSS groups are a sub group functioning under the guidance of the GS. They are active in problem identification and its solution.
2. The trainings on agricultural and horticultural practices have contributed to the adoption of improved farming practices and techniques which in turn have resulted in the increased production of crops and horticultural produce.
3. Income from the farm produce is insufficient to meet all the financial requirements of the households. The trainings on mushroom cultivation have led to the production of mushroom at the household levels. Income from the sale of mushroom has helped to supplement the farm income and also to meet various exigencies.
4. Access and availability of safe drinking water has been ensured due to the trainings provided on safe drinking water.

## **Livelihood Activities**

### **Introduction**

More than seventy percent of the households in the project villages derive their livelihoods from small scale agriculture and allied activities. Sub optimal performance in agriculture has been resulting in lower incomes for the families. Improved productivity of agriculture and allied activities has a direct effect on the income and quality of life of the families. Therefore any measure to improve the prosperity and human development of the families in the project area must focus on improving their livelihoods.

### **Problems**

The families engaged in small scale agriculture and allied activities lack information, resources and low-cost techniques leading to low production and income. Other factors like damage to crops from diseases, erratic weather, grazing by cattle add to their burden. Thus the various types of losses make the returns on their livelihood inadequate to break out of the poverty trap.

### **Causes**

Low productivity in agriculture and horticulture is due to poor access to irrigation, soil nutrient (carbon, nitrogen, zinc, phosphorus) depletion, delays in planting and availability of quality seeds. The marked decrease in soil nutrients has noticeably affected crop yield per hectare. Imbalanced fertilizer use is the root cause of poor crop yields and poor soil fertility status. Micronutrient deficiencies in soils are also emerging as yield limiting factors.

### **Objectives**

- To enhance income of households through productive agriculture and horticulture
- To enable assured income from animal husbandry
- To improve household income through fishery
- To promote community involvement in social forestry
- To strengthen women's organisation through self-help groups

### **Strategy**

The strategic approach for developing livelihood of the communities in the project area comprises of farm and allied activities. The thrust is appropriate as communities have traditionally engaged in agriculture and possess land. The diagram below depicts the strategy adopted.



### Activities

The activities undertaken for promotion of livelihoods were aligned to the objectives and strategy adopted.

S. No	Key Activities	Number
1.	S H G Meeting	147
2.	Artificial Insemination	81
3.	Animal health Camps	1
4.	Kitchen Garden	485
5.	Mushroom Cultivation	120
6.	Social Forestry	227
8.	Cow / Goat Bens	2
9.	Fish Jera to Fisherman	40
10.	SRI Transplantation	60

Empowerment of women and strengthening their livelihoods was given priority. One hundred and forty-seven meetings of the self-help groups were held.

2. Animal Husbandry which yields higher returns on income was also focussed upon. Activities like Artificial Insemination of 81 cattle, one animal health camp and two Cow / Goat Bens were done.

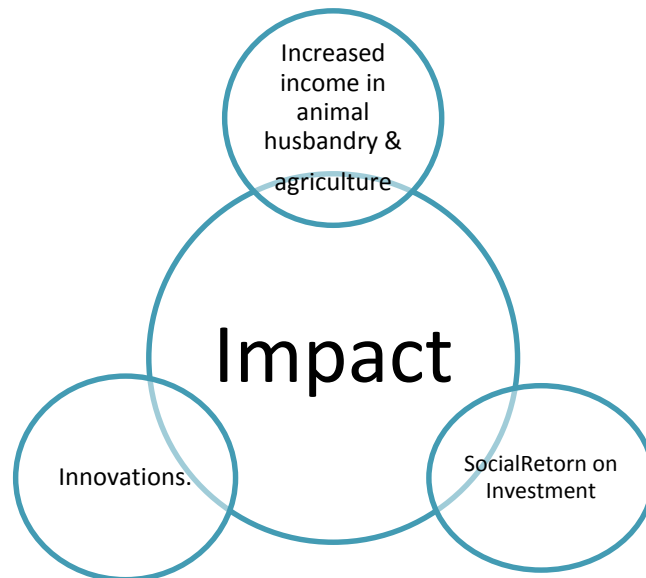
3. Horticulture through 485 Kitchen Gardens was widely taken up. Vegetables, herbs and fruits were grown in these gardens.

4. Social Forestry was taken up with 227 plantations being done by the community

5. Fishery was promoted by the distribution of fish seeds to 40 persons in the project area

### Impact

The coherent and coordinated approach to livelihood generation has yielded positive results. Households have been able to improve production in all the livelihoods taken up by them. The increased production has yielded enhanced incomes for the households.



- **Income Level enhancement (village wise)**-The implementation of livelihood generation opportunities be it animal husbandry/SRI/Mushroom cultivation have directly led to an increase in income for each of the households with the amounts ranging from twenty-five thousand to fifty thousand for the marginal farming household and at least fifty to seventy-five thousand for the small farming household.
- **Social Return on Investment** –Financial investments made by Usha Martin Limited have directly and indirectly yielded social returns in the following manner:
  - improved natural resource management i.e., ecologically balanced use of land and water for agriculture
  - adoption of organic farming which not only conserves and restores the soil but also leads to production of healthy agricultural produce and provides to nutritional requirements
  - Women, farmers and youth have been organised not only for improving livelihoods but also deal with local issues like children’s education, protection and conservation of forest, protection of women and girls from violence, mentoring youth on scientific agricultural and horticultural practices

- Observing the benefits that have accrued to the community members it can be stated that the Social return on Investment has been at least three times more than the financial investment made by the company
- **Innovations in Livelihood generation**
  - System of Rice Intensification (SRI). The project team identified sixty small and marginal farmers who practice traditional agriculture and spread nine villages. The aim of the intervention was to improve the standard of living of the farmers through sustainable agriculture technology and women empowerment. Meetings of SHGs and farmers were held which was followed by training and certification on SRI. Seedlings were planted with a spacing of 10 x 10 inch on the main field to promote the production of more tillers. As a result, each plant produced around 40-55 tillers. Organic manure was used to increase fertility of the land. Due to the adoption of SRI method paddy yield not only doubled but the quality of seed also improved significantly.
  - **Mushroom cultivation/Fishery and Kitchen Garden**
  - Mushroom cultivation- Mushroom cultivation has become a very lucrative pursuit in recent years. The project team understanding its remunerative potential provided training and introduced its cultivation among a hundred and twenty community members. It takes about three months to harvest about a kg of mushrooms, which we sold at Rs 300. It is round-the-year production.
  - Fishery-Aquaculture has the potential to generate income and create jobs, especially to the local youth. Being small and less risky, small-scale aquaculture can be adopted easily by resource-poor farmers. Usha Martin Limited decided to promote pisciculture, as a sustainable livelihood. The project team encouraged the fish farmers to enhance the pond carrying capacity, involve farm family, improve resource utilization, integrate different components in the fish farming and optimally utilize farm areas and farm wastes (Cow manure, vermi composting) to enhance the farm income for the family livelihood and better sustainability. Fish seedlings were distributed among forty fish farmers.
  - **Kitchen Garden:** Observing the availability of vacant space in the back yard of most households, and poor nutrition among women and children the project team of Usha Martin Limited oriented the women and asked them about their

interest on the concept of building a vegetable garden in their house hold. The SHG women showed interest in the concept and thereafter the process was initiated. Training was given as to how the beds should be maintained and a seasonal calendar was provided to identify the time of each vegetable which could be grown. The bed size was modified based on the amount of land which the beneficiary has in the backyard. As a result of this innovation Women are growing vegetables in all seasons and these are now being consumed by the family members and also sold in the market

## **Education Activities**

### **Introduction**

Education is the most powerful tool for the development of human being. No society can gain momentum without education. This is the reason why Usha Martin Limited CSR has given utmost priority to education of children in the project area. In order to strengthen the implementation of Sarva Shiksha Abhiyan (SSA) the project has focused on making Village Education Committees functional and effective. The Government scheme (SSA) has developed a hierarchical system for school education in our country. There are different governmental bodies at different levels, like National Council of Education Research and Training (NCERT) at national level, State Council of Education Research and Training (SCERTs) at state level, District Institute of Educational Training (DIETs) at district level, Block Resource Centre (BRCs) at block level and Cluster Resource Centre (CRCs) at cluster level to improve the quality, functioning and to make decentralized system in school education. Such a decentralized system of school education is functional and has no major problem at any stage. As we all know that school is a miniature society because learners of the school come from the adjoined society. Local issues, local problems and local management can be handled easily and effectively by local people. Since, parents/ guardians of the students are also local people, they will help the school seriously in all issues and problems if they are involved in the policies and decisions of school activities. Keeping in mind such benefits of community participation for improving the quality, functioning and to make primary education more decentralized, VEC has been constituted in each village and SMC has been constituted each government primary/ upper primary/ aided school in India.

The geographical condition of the project area is quite diverse. In such scenario, this is very difficult for any official to reach each and every school regularly. But only due to these reasons, schools cannot be left at their own fate. Keeping in mind such unfavourable conditions, some provisions have been made by the government to run schools properly with the help of community participation. The provision of village education committee (VEC) in each village was made to achieve the objectives of universal elementary education. VEC has been given some powers as well as some responsibilities for the development of school. RTE Act, 2009 makes provisions for the formation of SMC in each government primary/ upper primary/ aided school which receives grants from government. SMC has been given powers as well as responsibilities in RTE Act, 2009 to help the schools and to handle local problems and issues related to the schools. Since, VECs and SMCs are village level bodies comprising of community members therefore, people have so many expectations from these two bodies regarding the development of schools.

While it is important to make regulatory bodies functional multiple interventions are required to ensure that children stay in school and learn basic skills .One such key intervention is the School Sanitation and Hygiene Education which is recognised as a medium to promote children’s right to health and clean environment and to influence a generational change in health promotion behaviour and attitudes. It is now known that not only the quality of teaching but also the environment, especially the availability of safe drinking water and sanitation together with good hygiene practices, influence learning

### **Problems**

Schools in the project villages face quite a number of problems that hinder the optimal learning of children. Problems of school infrastructure, teacher availability, teaching learning material involve higher financial resources and are mostly dealt by the government. However, issues like functioning of VECs, School sanitation and hygiene and computer education remain largely unaddressed.

### **Causes**

- Lack of adequate teachers hampers the execution of School sanitation and hygiene programme and also the provision of computer education.
- VECs become redundant due to lack of proper guidance, training and mentoring

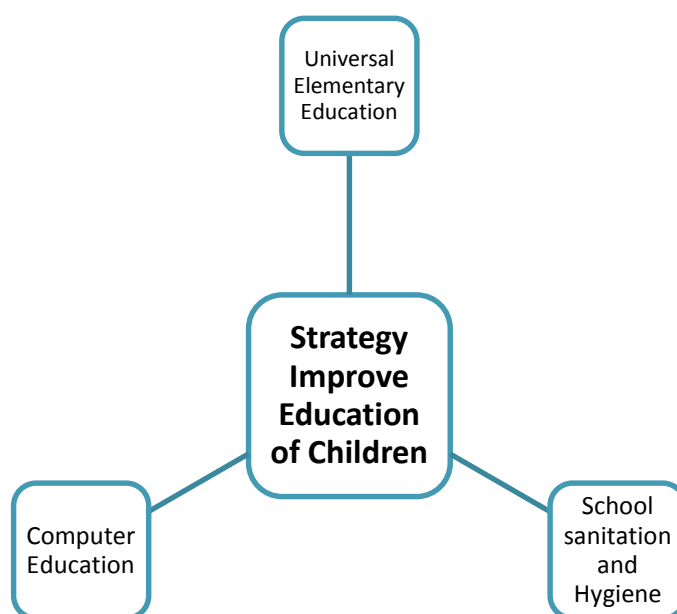
## Objectives

The key objectives of the initiatives on education are

- Promotion of school sanitation and hygiene
- Enable children to be proficient in use of computers
- Achieve universal elementary education

## Strategy

As per the stated objectives the strategy designed to achieve it comprised of three components namely 1. Universal Elementary Education, 2.School Sanitation and Hygiene and 3.Computer education



## Activities

S. No	Key Activities	Number
1.	Village Education Committee	41
2.	Sanitation Program	7
3.	Computer Education	16

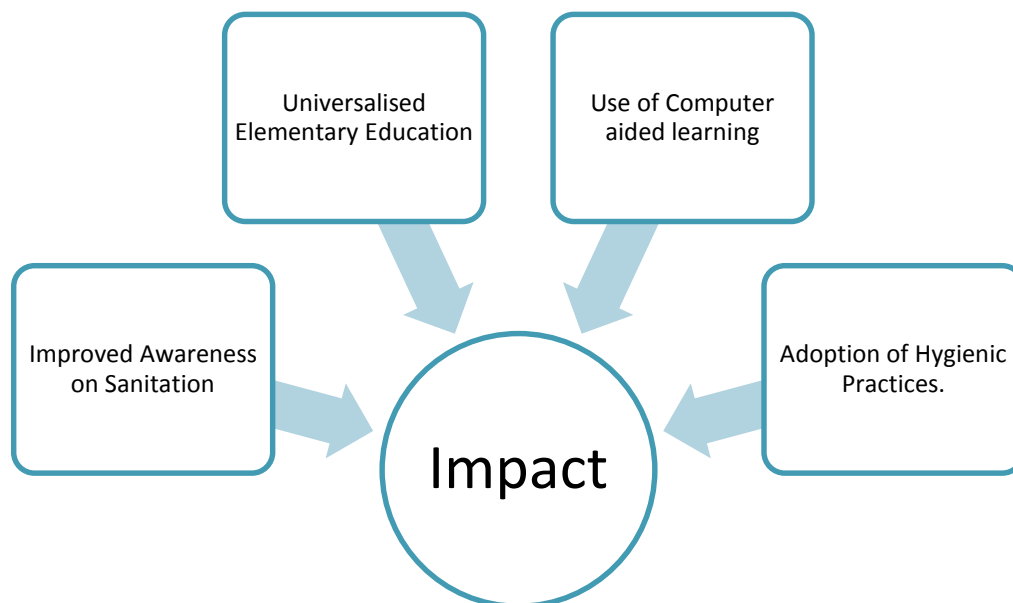
1. Village Education Committees were activated by conducting 41 meetings. Regular participation of its members and discussions on achieving universal elementary education of all children in the project area were held.

2. Under the School sanitation and hygiene programme seven events were organised in collaboration with the schools .Students were made aware about the importance of hygiene, hand washing and safe drinking water

### 3. Computer education -16 9Whether schools, trainings, students?

#### Impact

The initiatives under education have brought about four visible changes in the education of children. The impacts are:



- a. Universalised Elementary Education. The role of Village Education Committees has been predominantly in areas related to accessibility and participation of children, particularly girls. Enrolment in the first three classes have increased considerably. Enrolment of girls has been perceptibly high. There is a visible change in the attitudes towards girls' education since last few years.

- b. Use of Computer aided learning. Students were made aware of the use of computers and their confidence and self-esteem were boosted by gaining adequate knowledge of computers. The training has empowered the students with computer skills that would help them in their academic endeavours.
- c. Adoption of Hygienic Practices. Students have greater awareness about the need for adopting hygienic practices in their day to day lives.
- d. Improved Awareness on Sanitation. Children have developed understanding on importance of using toilets, and hand washing

### **Government Convergence**

The basic objective of convergence of different CSR initiatives with Government schemes is to establish synergy among different programmes so that benefits to the community can be optimised. Secondly, appropriate convergence strategies will bring enhanced social and economic opportunities for the target mass in the project locations which will strengthen the welfare and livelihood of the people. It is expected that through convergence, there would be additional resource support to project from different other schematic provisions of Government which will contribute to realise the project outputs.

### **Problems**

Although numerous activities are undertaken unless all the components for a particular I initiative is completed the desired outcomes cannot take place. For example, in agriculture unless all its components from seeds, soil, irrigation, fertiliser, labour etc. are provided the desired yield will not take place.

### **Causes**

Activities are conducted in silos and there is lack of knowledge and information of activities which can help in complimenting a particular activity.

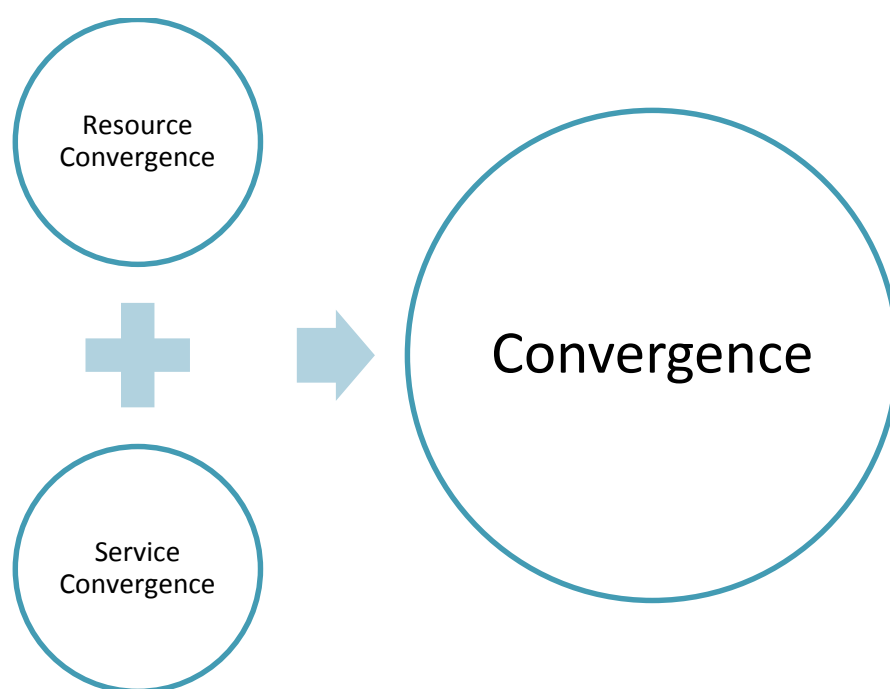
### **Objectives**

- To transform activities and outputs into outcomes
- To ensure sustainability of the various initiatives
- To complement government resources

### **Strategy**

The approach to convergence has been conceived at two different levels, irrespective of schemes / programmes / departments i.e. convergence at resource level and convergence at service delivery level. Both types of convergence would be beneficial depending upon the factors like nature of the programme/schemes, departmental

priorities etc. In some cases, specific to the nature of the scheme/programme, convergence could be of both the types while in some other cases, it would be either resource based or service-based convergence.



The perspective on convergence adopted by the project team was guided by the activities undertaken in the sector of NRM, Health, and Capacity Building and Livelihood generation.

Resource based convergence could be made possible only after planning of resources covering required resource base, availability of resources from own sources, identification of resource gap and finalising the additional resource requirements.

Service based Convergence. This type of convergence will not necessarily look at resource contribution from other schemes / programmes; rather it would look at different services offered by different departments, either under different programmes / schemes or under its core functions. For example, agricultural extension services offered by agriculture department, health care services offered by ICDS and NRHM, social security services offered by Rural Development Department etc. Convergence at the service delivery level not necessarily demands resource dovetailing. Rather, it is basically guided by the emerging needs of the people/SHG in a given project location where other departments / programmes / schemes will make available their services. The required services from different departments / programmes / schemes would be need based and people would be utilising those services, as per their need, for attending a better quality of life.

## Activities

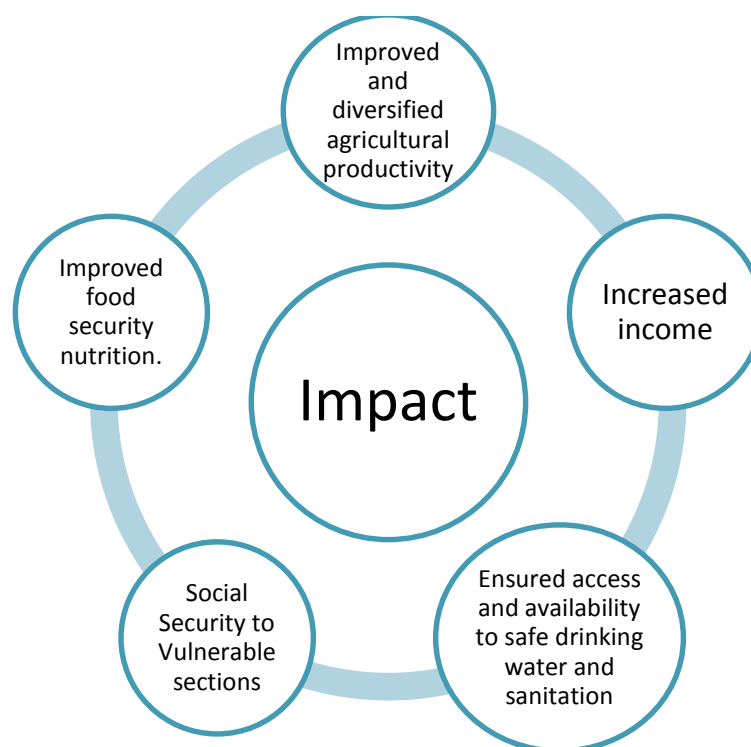
S. No	Key Activities	Number
1.	Health Card	20
2.	Old Age Pension	45
3.	Widow Pension	18
4.	Handicapped Aid	3
5.	Agriculture Mechanism	7
6.	Toilet Construction	23
8.	Lal Cards	16
9.	P M Ashirwad Yajna	519
10.	Jal Minar Installation	20
11.	C M Jan Dhan Yojna	15
12.	HIV AIDS Awareness	3
13.	Multi cropping	337
14.	Ujjawalla Gas	52
15.	Certificate to SRI	8
16.	Crops Insurance	215
17.	Soil Testing Training	4
18.	Fishery Training	7
19.	Chan Mung Distribution	57
20.	SRI Training	37
21.	SRI Transplantation	60
22.	Pea and Dhan Distribution	66

The activities undertaken by the project team has led to convergence in the following sectors

1. Agriculture. As observed earlier maximum thrust has been given on sustainable NRM, agriculture and agriculture-based livelihoods. Reaching benefit to 519 persons under the P M Aashirwad Yojana, Multi cropping of 337 and crop insurance of 215 community members are significant in number. Emphasis has been made to converge with schemes for the cultivation of cereals and pulses. Boosting production of rice through SRI method also remained a priority.
2. Convergence in health was achieved through the health card and awareness on HIV /AIDs
3. Social Security benefits were provided to the aged and widowed (45 and 18 respectively)

4. Food security for the vulnerable families was enabled through convergence with the Antyoday Ann Yojana
5. Piped drinking water and sanitation facilities was provided through construction of toilets and installation of water tanks called Jal Minar
6. Clean fuel to women under the Ujjawala scheme of the central government has been beneficial in reducing the household drudgery of women
7. Final inclusion of families through the PM Jan Dhan Yojana facilitated the opening of bank accounts and receipt of cash transfers.

### **Impact- Convergence of training and scheme and its impact analysis**



The interventions focussed on converging with the government schemes and training have brought about perceptible changes thereby impacting people’s lives and conditions in the following manner:

1. Improved and diversified agricultural productivity-The interventions under CSR and convergence with government schemes have led to crop diversification like cultivation of cereals like wheat and pulses. There is enhanced production of rice and other crops. Fruits and vegetables are also being grown.
2. Increased income –The diversified and increased crop production has resulted in surplus crop yield which were sold in the market.

3. Ensured access and availability to safe drinking water and sanitation-Construction of individual toilets and installation of Jal Minar have ensured the people sanitation and safe drinking water.
4. Social Security to Vulnerable sections-The various livelihood generation opportunities is being taken up by youth, women and farmers. However, the aged persons are incapable of engaging in these physically demanding activities. Hence care has been taken to ensure that they do not get deprived of their basic needs. Accordingly, forty-five older persons have been enrolled for receiving old age pension. Similarly widowed women are also extremely vulnerable and the burden of the family is on their shoulders. Eighteen widows have been linked with the pension scheme.
5. Improved food security nutrition-Sixteen households who were suffering from extreme deprivation lacking two square meals a day have been linked with the Antyodaya Ann Yojana wherein they are provided food grains at a highly subsidized rate of Rs.2/- per kg. for wheat and Rs.3/- per kg for rice.

## Quality Check Matrix

On the basis of the above observation, it is required to check the quality of the programme whether each stage of proposed operation was properly followed or not. To do this, we have prepared the quality check matrix to know about the inconsistency existed between the stated governance statement and actual plan of action. It will also help us to locate the source of instability in the process of implementation. It will also help to understand about the lacuna in the process of overall supervision and would help them to revise their future plan of action.

Quality Criteria	Scoring Category				
	Fully	Partly	Fairly	Hardly	Not at all
Is there a relevant governance statement that describes the CSR programme of UML?	Yes				
Did stakeholders participate in creating the governance statement?	Yes				
Are the values of the programme clearly stated?	Yes				
Are the programme rules clearly listed?	Yes				
Are the programme rules covering every aspect of the planning?			Yes		
Are the programme rules following strictly by each of the stake holders?			Yes		
Is there any lack of co-ordinations found among different stakeholders in the phases of Operation?			Yes		
Whether proper timeline/ calendar was followed at the outset of the financial year/ phase of Operation?			Yes		
Is UML consistently providing fund?	Yes				
Do the stakeholders know about the organization?	Yes				
Is there effective dialogue among stakeholders?		Yes			
Are stakeholders satisfied with the programme?		Yes			
Are stakeholders appropriately involved in the Execution of the programme?	Yes				

The Quality matrix check clearly highlights some critical issues. A governance statement can emerge out of the same. A well-developed plan is extremely essential to ensure systematic implementation of the programme across the villages. For any development programme, it is pertinent that the stakeholders are continually engaged and involved in the planning process. There is fair amount of stakeholder involve in the planning. It has to be excellent category for the execution of successful programmes.

## **Recommendations**

### **Strong record keeping**

Regular, accessible information is the bedrock of a social audit. Steps must be taken by UML to computerize record management at every level of the implementation chain so that information requests for social audits can be easily responded to.

### **Effective follow-up and grievance redressal**

UML is implementing diverse and numerous activities. In the course of undertaking the activities grievances are bound to take place. It is suggested that UML should build a grievance redressal system that is empowered to take quick action for such a system to work steps must be taken to bring all relevant departments involved in CSR on board with the social audit process.

### **Community and institutional structures**

More organised and detailed information on the size and structure of community and institutional structures, their local and regional linkages, commercial diversity, leadership capability and characteristics would go a long way in enabling UML to inculcate the components of sustainability in their initiatives.

### **Community resources**

The strategies and focussed approach to NRM and Livelihood generation has brought about change in the social, environmental and health status of the community. However, in order to measure the quantifiable results UML should document the change in community infrastructure, land use pattern and effects on cultural resources.

### **Linkage of core values with social, environmental and health indicators**

All activities of UML are driven by some core values which it seeks to promulgate through its interventions on the ground. Therefore, it would be useful for UML to develop clarity by establishing linkages between its core values and social, environmental and health indicators. This process can be initiated by looking at the active participation of the Institutions in creating formal, informal and societal structures for managing resources networks and forums which in turn can be gauged through indicators on Number of formal, informal and social institutions created or strengthened, networks and forums for maximising social benefits and concerns, community contributions (both financial and non-financial)

## Success Story

### Mango and Litchi Plantation: Horticulture transformation in Angara

#### FACTSHEET

PLACE OF IMPLEMENTATION	Village – Angara, BajnathTola
IMPLEMENTING AGENCY	Usha Martin Limited
SECTOR(S)	Horticulture and Agriculture
YEAR OF LAUNCH	2016

#### Background

Kapil Mahto is like any other youth with aspirations for making a successful career and earning a decent income. However, being the son of a poor farmer carving out his dream life appeared to be a mammoth task. Besides his studies he used to help his father in the field. But no matter how hard he worked his family would struggle making ends meet. When thinking of cultivating new crops he would give up the idea as his family didn't have the capital for investing. Still come what may, Kapil never gave up on his dream.

#### Intervention

The project team of Usha Martin Limited visited village Angara, Bajnath Tola in pursuit of their goal to improve the natural resource management and securing livelihood opportunities for the families in the project area. During one such visit Kapil interacted with them and was motivated to take a new road to success. After attending several meetings and learning about the potential of mango and litchi plantation by using the unutilised barren land Kapil made up his mind to chart a new pathway as a progressive farmer.



Observing his keen interest, the project team of Usha Martin Limited got him registered for attending the training conducted by the Agriculture Department in Palandu. After completing the training Kapil returned to his village and identified the land wherein, he would begin plantation of mango and litchi. In the beginning, he had to improve the quality of soil as the land was barren and consisted of rock and hard soil. Here again he got the technical support from the project team of Usha Martin Limited. Once the land was prepared saplings were provided to him. He used the available water resource for drip irrigation system to irrigate mango and litchi trees.

#### Impact

The barren land used for plantation of mango and litchi has become lush green with healthy growth of the fruit trees. Since the past four years the plants have been growing steadily under the watchful care of Kapil. In another year or so the plants will start bearing fruits and fetch Kapil a good income

.Thus with the development intervention of Usha Martin Limited ,Kapil has begun his journey to fulfil his aspirations

### Key Learning

The Usha Martin Limited project experiment has demonstrated a successful model for demystifying the potential of converting barren land into a lucrative livelihood opportunity specially for households who possess unproductive land but do not undertake its cultivation

### Banana Plantation with Optimum Irrigation

#### FACTSHEET

PLACE OF IMPLEMENTATION	Village – Chatra
IMPLEMENTING AGENCY	Usha Martin Limited
SECTOR(S)	Horticulture
YEAR OF LAUNCH	2016

### Background

Asha Devi as the first name connotes ‘hope’ is a strong willed and determined lady who wants to provide the best resources for her family. Asha is a multi-tasker managing her domestic chores and also working in the field .Asha wondered how she would make her life fruitful. The land which her family possessed produced food grains for less than a year. She had a deep interest in farming and yearned to explore her limited knowledge to expand the agricultural activities and earn a higher income

### Intervention

The project team of Usha Martin Limited visited village Chatra and held meetings with the Self-



Help Groups of women. Asha Devi was an active member of a self-help group formed and nurtured by the project team of Usha Martin Limited. The SHGs were grappling with the challenge of taking up new livelihood opportunities. Based on their vision and approach for promoting agriculture-based livelihoods the project team enlightened the group members about the possible avenues for new livelihoods. Asha Devi’s desires resonated closely with the project team interventions. Together they planned to undertake banana

plantation on a large scale.

The plan was realised and Asha Devi started Banana plantation in 1.67 acres of land. Her land was barren. Armed with the technical knowhow from Usha Martin Limited she left no stone unturned to make the lands fertile. She used drip irrigation system to irrigate the

## Impact

The hard labour of Asha Devi coupled with the support and inputs Usha Martin Limited bore fruit. The banana plantation thrived and flourished. Now she is getting very good yield from her Banana plantation and is satisfied that she has succeeded in carving a fulfilling life for herself and her family.

## Key Learnings

The horticulture sector in the project area has emerged as economically rewarding and the most viable option in the diversification of agriculture in today's time. In fact horticulture is heading for a drastic transformation as most of the horticultural crops have advantage over the traditional crops in generating rural employment, enhancing rural income and have high potential to tap larger markets.

## SRI-Innovative Farming Method

### FACTSHEET

PLACE OF IMPLEMENTATION	<b>Village – Janum</b>
IMPLEMENTING AGENCY	<b>Usha Martin Limited</b>
SECTOR(S)	<b>Agriculture</b>
YEAR OF LAUNCH	<b>2018</b>

## Background

Gobardhan Munda was just an unknown young tribal farmer who toiled in his fields from dawn to dusk. For him agriculture was just a traditional occupation in which his family had been engaged for a long time. The produce from the farm mostly comprised of staple crops and a few quantity of vegetables for household consumption. Deficiencies in soil nutrient and pest control were treated with chemical fertilisers and the old method of transplanting was followed.

## Intervention



The turning point came when the project team of Usha Martin Limited visited village Janum and came into contact with Gobardhan Munda. During his farming operations Gobardhan Munda used to have several concerns about the adverse impact of the heavy use of chemical fertilisers and pesticides on the land and produce. Through his interactions with the project team of Usha Martin Limited he realised that his concerns were not without fault. He was exposed to an alternative and eco-friendly method of

farming when he received a training on appropriate agricultural practices. He learnt the System of Rice Intensification popularly called (SRI), which is a farming methodology aimed at increasing the yield of rice produced in farming. It is a low water, labour-intensive, method that uses younger seedlings singly spaced and typically hand weeded with special tools. Gobardhan Munda took to this method and initially started farming in one acre of land. Observing the manifold increase in

production he used the method in three acres of land. He switched to using organic pesticides called “Jivamrit Pesticides” to prevent damage to crops from different types of pests.

### Impact

The adoption of SRI technique had a positive impact on rice yield and income and this indicates that the rice yield and household income was relatively higher for Gobardhan Munda than for those farmers who were practising the traditional method. He also profited with seeds which helped him save money and would like to continue with SRI next year. Gobardhan Munda also stated that health risks by use of chemical pesticides are reduced with SRI



### Key Learnings

SRI holds the potential to provide a solution to the issue of low productivity of rice. Farmers can improve their yields significantly with SRI compared to their traditional grown rice fields.

### JalMinar

#### FACTSHEET

PLACE OF IMPLEMENTATION	<b>Village – Tati</b>
IMPLEMENTING AGENCY	<b>Usha Martin Limited</b>
SECTOR(S)	<b>Water and Sanitation</b>
YEAR OF LAUNCH	<b>2019-20</b>

### Background

Water and sanitation complement each other and is essential for a healthy life.. However, the households in village Tati were facing multiple hurdles due to lack of both. Women bore the maximum brunt as they had to struggle not only to fetch water for domestic and drinking purposes from afar but were also vulnerable to external harm while going for open defecation.

### Intervention

Identifying the impediments that were limiting the access of water and sanitation for the households and women, children and aged in particular the project team of Usha Martin introduced a community led integrated approach to water and sanitation to address both the issues. They intervened through the project of Jal Minar wherein an overhead water tank run on solar energy was constructed. This enabled the surrounding households to get access to piped water supply. Individual household toilets were constructed to ensure sanitation facilities. While rainwater is collected for bathing and sanitation piped water is used for drinking

### Impact

The construction of Jal Minar and toilets have ensured access to water and sanitation to households in village Tati. Women have been relieved of the burden of fetching water and also feel protected from harm as they no longer have to go out at odd hours for defecating. Through the collection of rain water households have improved sanitation and hygienic practices. The incidence of illnesses too has got reduced through the use of safe drinking water.

### Key Learnings

The community driven integrated approach to the construction, use and maintenance of Jal Minar and promotion of sanitation is a model for sustainable interventions in villages lacking the basic facilities of water and sanitation.

### Innovation in livelihood generation-Mushroom Cultivation

#### FACTSHEET

PLACE OF IMPLEMENTATION	Village – Mahilong
IMPLEMENTING AGENCY	Usha Martin Limited
SECTOR(S)	Livelihood Generation/Innovation
YEAR OF LAUNCH	2020

### Background

Promotion and development of agro-based enterprises in the rural sector can play an important role in diversification of economic activities and generation of employment opportunities for the farmers. Recognising the potential Mushroom cultivation as an emerging livelihood opportunity which uses agriculture residue as raw material to yield protein the project team of Usha Martin Limited decided to introduce it in the project villages. The success story of Poonam Pushpa Toppo who confidently took up mushroom cultivation is a testimony of its potential as lucrative livelihood opportunities for several more women in the surrounding villages.

Poonam Pushpa Toppo of village Mahilong used to be engaged in different types of farming activities without proper skill and adopted old traditional methods. Being young and energetic Poonam wanted to be an entrepreneur, start her own farm based small business and earn sufficient income. However, she lacked guidance and skill for undertaking a new and enterprising livelihood activity

## Intervention

Opportunity knocked at her door when the project team of Usha Martin Limited decided to introduced Mushroom cultivation in her village. Along with other women Poonam also received training on mushroom cultivation from bed preparation to



harvesting. During training the trainees were given practical demonstration on bed preparation, cutting, wetting sterilizing straw. After the training the trainees were supplied with spawn and polythene. Proper follow up taken by the field staff for better management. Poonam adopted the proper process.

## Impact

The findings that emerged from the social audit show that the project's development objectives have been achieved: community members engaged in mushroom cultivation have been enabled to make better informed decisions about it. Their incomes have improved due the high price of mushrooms in the market. In the case of Poonam, she is harnessing a very good yield of mushroom. She is earning up to fifty thousand annually from its sale. This has not only stabilized her income but it has also become a means of healthy nutritional lifestyle for her and her family.

## Key Learnings

Mushrooms can be successfully grown without access to land, and can provide a regular income throughout the year. Cultivation is also independent of weather, and can recycle agricultural by-products as composted substrate which, in turn, can be used as organic mulch in growing other horticultural crops, including vegetables. Mushroom cultivation is highly combinable with a variety of other traditional agricultural and domestic activities, and can make a particularly important contribution to the livelihoods of the disabled, of women and the landless poor who, with appropriate training and access to inputs, can increase their independence and self-esteem through income generation

## Good Practices

Usha Martin Foundation has taken very good practice to publish monthly magazine which indicates the way of working among the community also proud of other Organization those who have involved with Usha Martine Limited.



# Media Coverage





# National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

NABL / T-3250

11.05.2022

**TANMAY ROY**

ENVIRONMENTAL LABORATORY OF CPP, USHA MARTIN LTD., RANCHI

2\*10MW CPP, USHA MARTIN  
LTD, TATISILWAI

RANCHI, JHARKHAND-835103

Mobile: 8084688262

E-mail: tanmay\_roy@ushamartin.co.in

Subject: **Outcome of renewal assessment.**

Dear Sir,

I'm pleased to inform you the renewal of accreditation as per ISO/IEC 17025:2017 in the discipline of Chemical testing as per the scope recommended by the assessment team.

All the personnel proposed by the laboratory to report, review and authorize results are accepted.

Lab is advised to participate in PT/ILC with accredited laboratories and the performance to be verified in the next assessment.

Being an accredited laboratory of NABL, you must fulfil all the Terms and Conditions laid down in the document NABL 131. You shall refer and follow NABL 133 while using the NABL symbol (for claiming the NABL accreditation)

Labs accredited certificate TC-5404 with issue date 05.05.2022 and valid till 04.05.2024 will be issued after the mandatory procedure.

Lab to apply for Desktop Surveillance after 10 months of renewal of accreditation.

You are also required to submit the PT Plan versus Compliance for the entire scope in line with Form 18 of NABL 163.

\*Note: Payment of AAFEE charges is mandatory to view/download the scope and certificate.

Yours Sincerely,

**Ashutosh D. Tatwawadi**

ashutosh@nabl.qcin.org

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NABL House, Plot 45, Sector 44, Gurugram 122 003, Haryana, India

Tel. No.: +91-124-4679700 (30 lines) \* Fax: +91-124-4679799 \* Website: www.nabl-india.org

**Usha Martin Limited**  
(Wire Ropes & Speciality Products Division)

Works : Tatisilwai - 835 103, Ranchi, Jharkhand,  
Ph.: (00 91 651) 226 52 41/3051400/430, Fax : (00 91 651) 3051409/410

Ref No. UML/NKP/11-12/010

Date : 26<sup>th</sup> April, 2011.

To,  
The Deputy Commissioner,  
Ranchi.

**Sub: Environment Clearance for installation of 2x10MW Coal based Captive Thermal Power Plant at Vill : Tatisilwai, district Ranchi in Jharkhand.**

Dear Sir,

We are enclosing herewith photocopy of the Environment Clearance received by our company for installation of 2x10 MW coal based Thermal Power Plant at Tatisilwai from Government of India, Ministry of Environment & Forest vide their letter no. J-13012/122/2008 – I.A.II (T) dated 07/04/2011 for your kind perusal and information please.

Thanking you,

Yours faithfully,  
For USHA MARTIN LIMITED

*N. K. Patodia*  
(N. K. Patodia)  
Assistant Vice President.

Encl : As above.

CC ✓ The District Industries Centre  
Ratu Road, Ranchi.

Ranchi Municipal Corporation,  
Kutchery, Ranchi. ✓ *Pls 27-4-11*

The Zila Parishad, Ranchi.

The Chottanagpur Chamber of Commerce & Industries,  
Ranchi.

The Gram Panchayat,  
Vill : Tati, Ranchi.

The Gram Panchayat,  
Vill : Haratu, Ranchi.

The Regional Officer,  
Jharkhand State Pollution Control Board,  
Tipudana, Ranchi

Along with photocopy of one set of the above mentioned letter

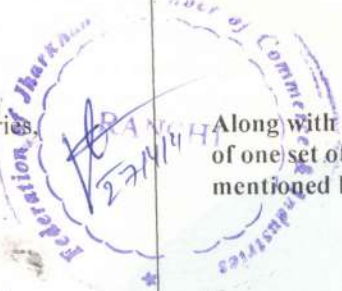
*27 APR 2011*  
Ranchi Municipal Corporation  
Ranchi

*27/4/11*  
D.I.C. Ranchi  
Zila Parishad Ranchi



**Jharkhand State Pollution Control Board**  
Ranchi

*Pls 27-4-2011*



Certified as an approved Manufacturer by Lloyd's Register of Shipping



Certified as an approved Manufacturer by Det Norske Veritas



Certified by the American Petroleum Institute Licence number 9A - 0017



Certified as an approved Manufacturer by American Bureau of Shipping



# Usha martin Limited, 2X10 MW CPP

## Display Board at CPP main Gate



**J. N. Agrawal & Co.**



**Chartered Accountants**

RMC Shop 2, Opp. Manik Corporate

Pahari Mandir Lane, Ratu Road,  
Ranchi 834001, Jharkhand

[Ca.abhishekjha@gmail.com](mailto:Ca.abhishekjha@gmail.com)

Date: 03<sup>rd</sup> May 2022

**TO WHOM IT MAY CONCERN**

On the basis of Books of Accounts, Fixed Assets Register and other related documents and Vouchers, which we thought necessary for certification purpose, provided by Usha Martin Ltd, (WR&SPD) Tatisilwai Ranchi, Jharkhand having CIN: L31400WB1986PLC091621, we hereby certify that the Project Cost of CPP (Captive Power Plant) as on 31-03-2022 is evaluated as per below:

<b>Assets Description</b>	<b>Total Cost (Gross Value)</b>
Land	Existing Land
Plant & Machinery	90,34,14,604.59
Building	26,05,35,277.33
Infrastructure	17,91,95,462.81
<b>Total</b>	<b>1,34,31,45,344.73</b>

**Note:**

- 1. Gross Value of Assets given above means Original Cost i.e without taking effect of Depreciation or retirement of any Assets.**
- 2. Plant & Machinery also includes Pollution control equipment's exact segregation of these equipment's from P & M is not possible because company is not recorded it properly in its books.**
- 3. Above Figures are taken from Books of Accounts as provided by Management as on 31-03-2022.**

**For J. N. Agrawal & Co**  
Chartered Accountants  
Firm registration No 000818C

*Abhishek Kumar Jha*



CA Abhishek Kumar Jha  
Membership No. 439610  
Place: Ranchi  
Date: 03<sup>rd</sup> May 2022  
UDIN No: - 22439610AIIXAN2603

**Compliance Status of Office Memorandum on dated 11<sup>th</sup> Nov'20 against File No: J-13012/8/2009-IA.II (T)**

**Usha Martin Ltd, 2x10MW CPP, Tatisilwai, Ranchi**

Respected Sir,

We have noted the content and hereby submitting the compliance status for your record.

**Point No: 7**

In order to simplify the procedure for change in coal source and encourage Thermal Power Plants to use domestic coal, the Ministry has decided the following procedure:

All the Thermal Power Plants (including Captive Power Plants) having Environmental Clearance can change the coal source (from imported to domestic, domestic to domestic, and domestic to imported) including Lignite, directly through e-auctions/short term linkage/long term linkage/other linkage options of Ministry of Coal or any organisation recognised for allotting coal linkages, without seeking the amendment in Environmental Clearance, subject to the following conditions and thereby making earlier conditions in the EC regarding coal source redundant:

- A) Details regarding change in source (location of the source, proposed quantity, distance from the power plant and mode of transportation), quality (Ash, Sulphur, Moisture content and Calorific value) shall be informed to the Ministry and its concerned Regional Office. The quantity of coal transported from each source along with the mode of transportation shall be submitted as part of EC Compliance Report.

**UML Compliance Status:** Complied. Proposed planning for FY21-23 is furnished for record.

Year	Proposed Coal Source	Proposed Qty	Mode of transportation	Proposed Ash %	Proposed Sulphur %	Proposed GCV (kcal/Kg)
2022-23	<ul style="list-style-type: none"><li>Through e-auction, CCL &amp; JSMD Coal Mines &amp; also Coal from TATA West Bokaro, Jamadoba &amp; HEC, Ranchi etc.)</li><li>We have executed FSA with CCL under NRS linkage for supply coal to CPP located at Tatisilwai, Ranchi.</li></ul>	0.183 MTPA	Road, Vehicles are fully covered with tarpaulin	Range : 34 to 40%	< 0.2%	Range : 4001 to 4501

- B) The applicable flue gas emissions standards for Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen and Mercury shall be complied in line with Ministry's Notification vide S.O.

3305(E) dated 7.12.2015 and subsequent emissions. A progress of implementation and its compliance shall be submitted as part of Compliance Report.

**UML Compliance Status:** Complied. Report submitted.

- C) Ash content in the Coal and Coal transportation is governed by the Ministry's Notification vide S.O. 1561(E) dated 21.5.2020. As far as possible, Coal transportation shall be done by rail/conveyor or other eco-friendly modes. However, road transportation is allowed with tarpaulin covered trucks till the railway/conveyor belt infrastructure is made available. A progress (Physical and financial) of rail connectivity from nearest railway siding or conveyor connectivity to the power plant shall be submitted in the EC compliance report.

**UML Compliance Status:** Complied. Report submitted.

- D) Additional ash pond is not allowed due to increase in ash content in the raw coal as against the ash pond permitted in the Environmental Clearance. The 100% flyash utilisation is to be achieved within 4 years in line with Flyash Notifications dated 14.9.1999, 27.8.2003, 3.11.2009 & 25.1.2016 and amended time to time or extant regulations on Fly ash Utilisation.

**UML Compliance Status:** Complied. Fly Ash Utilization Report submitted.

- E) In case of exceptional circumstances, project proponents may approach the Ministry for seeking permission to use an emergency ash pond with cogent reasons, if any.

**UML Compliance Status:** CPP utilized 100% generated fly ash in past years and report submitted.


- F) The details regarding monthly generation, utilisation and disposal of flyash (including bottom ash) shall be submitted to the Ministry and its Regional Office.

**UML Compliance Status:** Complied.

We trust the information furnished by us shall meet your requirement.

Thanking You

Yours faithfully,  
For Usha Martin Limited

  
(Authorized Signatory)

CPP (2 X 10MW)  
USHAMARTIN LTD.  
TATISIL WAI, RANCHI  
JHARKHAND. PIN-835103