SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL & CRZ CLEARANCES

2X600 MW COAL BASED THERMAL POWER PLANT

at

Melamarudur Village, Ottapidaram Taluk, Tuticorin - 628 105 Tamil Nadu

Submitted to:



Central Pollution Control Board Ministry of Environment, Forest & Climate Change (Govt of India)

TAMIL NADU POLLUTION CONTROL BOARD

Submitted By:



Coastal Energen Private Limited

PERIOD: JULY 2023 - DECEMBER 2023



(Under Corporate Insolvency Resolution Process vide order of Hon'ble NCLT dated 04.02.2022)

CEPL/ENV/2023 -24/02

February 05, 2024

The Director Ministry of Environment, Forest & Climate Change, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi - 110 003.

Dear Sir,

Sub: Submission of Half yearly MoEF & CC Clearances Compliance Report for the period July 2023 to December 2023 - Reg.

Ref: 1.Environment Clearance No.J-13011/41/2008-IA.II(T) dated 05.05.2009

2. Coastal Regulation Zone Clearance No. 11/32/2009-IA.III dated 10.08.2009

3.MoEF office memorandum No.F.No.J-13012 /8/2009-IA.II(T) dated 11.11.2020

This has reference to the captioned subject and cited references; we are herewith enclosing the Compliance Report of Environmental Clearance, Coastal Regulation Zone Clearance and MoEF office memorandum for the period July 2023 to December 2023.

This is for your kind information and records.

Thanking You



Station Director

- Copy to: 1. Director (S), MoEF &CC, Regional Office (South Eastern Zone), Chennai 600 003.
 - Central Pollution Control Board, Chennai 600 058.
 - 3. District Environmental Engineer, TNPCB, Tuticorin 628 002.



Ministry of Environment Forest & Climate Change Clearance Compliance

COMPLIANCE TO THE CONDITIONS LAID BY MOEF VIDE ENVIRONMENTAL CLEARANCE No.J-13011/41/2008-IA.II(T) dated 10.12.2008

Period: July 2023 to December 2023

Sl.No.	CONDITIONS STIPULATED BY MOEF	COMPLIENCE
	Environment clearance is subject to obtaining clearance under the wildlife (protection) Act, 1972 from the competent authority.	No Objection Certificate is obtained from principal Chief Conservator of Forests and chie wild life warden, Chennai vide Ref No.WL5/74098/2007 dated 03.03.2009.
1		As communicated by Principal Chief Conservato of Forest & Chief Wild Life Warden vide their Lr No. Ref. No. WL5/7774/2013 dated 16.04.2016 we have applied online in the MOEF & CC wel portal on 17 th Oct 2017 for obtaining Wild Life Clearance from National Board for Wildlife and we are following. Awaiting Response from NBWL
2	Environment clearance is subject to final order of the hon'ble court of India in the matter of Goa foundation vs union of India in writ petition (civil) no.460 of 2004 as may be applicable to this project.	Noted for Compliance.
3	The total land acquired shall not be more than 875 acres for all the activities / facilities of the power project put together.	Complied. The total land acquired is 875 acre.
4	Prior CRZ clearance for the activities / facilities to be located in the CRZ area shall be obtained before start of the project.	Complied. CRZ clearance received from MoEF vide No.11- 32/2009-IA-III dated 10.08.2009.
5	Ash and sulphur content in the imported coal to be used in the project shall not exceed 12% and 1.5 % respectively.	Complied. Ash and Sulphur content in the imported coal has not exceed 12% and 1.5 % respectively.
6	A multi-flue stack of 275m height shall be provided with continuous online monitoring equipments for Sox, NOx and particulate (heavy metals like Hg, Cr, As, Pb periodically). Exit velocity of atleast 22 m/s shall be maintained.	Complied. Multi Flue Stack is provided with Continuous online monitoring analyzers for measuring SO _x . NO _x and SPM and heavy metals like Hg, Cr, As, Pt are being monitored periodically
7	High efficiency Electro static precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50mg/Nm3.	Complied. High efficiency ESPs has been installed and the particulate emission does not exceed 50mg/Nm3.
8	CFBC technology with lime injection having efficiency of SO2 removal atleast 90% shall be installed.	Not applicable MoEF clearance obtained for Sub Critica Pulverized fuel Boilers vide clearance No.J 13011/41/2008-IA.II(T) dated 05.05.2009
9	Space provision shall be made for flue gas de- sulphurisation (FGD) unit, if required ata later stage.	Complied. Necessary space provision made for FGD Unit.
. 10	Adequate dust extraction system such as cyclone /bag filters and water spray system in dusty area such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	 Complied. Automatic water sprinklers provided in the coal storage yard. Closed conveyors provided for coal conveying Bag filters/ dust extraction system provided at all transfer points in the junction towers Ventilation system provided in all coal bunkers Bag filters provided in the ash silos Closed conveyors provided for bottom ash

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11	(silos) shall be provided 100% utilization of fly ash shall be achieved from day one. Unutilized fly ash in emergency and bottom ash shall be disposed off in the ash pond. Supernatant effluent from ash pond and leachates collected will be monitored for heavy metals (Hg, Cr, As, Pb etc.).	Fly Ash is collected in dry form and 100% utilization is being complied. There is no supernatant effluent generated from the ash pond as of now due to 100% ash utilization.
12	Ash pond shall be lined with HDPE lining. Adequate safety measure shall also be implemented to protect the ash dyke from getting breached.	Complied. Ash pond is lined with HDPE lining and Adequate safety measures are being taken to protect the ash dyke from getting breached.
13	Closed cycle cooling system with cooling towers as per the recommendations of chief wildlife warden shall be ensured.	Complied. Closed cycle cooling system with cooling towers is installed.
14	Continuous monitoring of coastal waters as per the recommendations of chief wildlife warden shall be ensured.	Complied. Continuous monitoring of coastal waters as per the recommendations of chief wildlife warden is being done.
15	Rain water harvesting shall be practiced. A detailed scheme for rain water harvesting to recharge the ground water aquifer shall be prepared in consultation with central ground water authority / state ground water and a copy of the same shall be submitted within three months to the ministry.	Storm water drains are already in place. Since, the existing ground water is more saline and not potable; recharging the storm water will not improve the existing ground water quality. Hence, the collected storm water is routed to nearby village pond for their domestic usage.
16	The treated effluents conforming to the prescribed standards only shall be discharged from cold water side in the sea. The temperature of the discharged effluents shall not exceed 5°C over and above the ambient water temperature of sea and it will be reduced to 0.5°C within 50m of the discharge point. The temperature of the discharge water shall be monitored continuously and records maintained.	 Cooling water blow down discharged from the cold water side of the induced draft cooling system. Dilution of discharge, using fresh sea water to reduce the temperature to 0.5° C within 50 m of the discharge point is being carried out. Temperature of the discharge water is being monitored continuously.
17	A sewage treatment plant shall be provided and the treated sewage conforming to the standards prescribed by SPCB shall be used for raising green belt/ plantation.	Complied. Sewage Treatment Plant is provided and functional at site premises. Treated water from STP is being used for gardening and Green belt development only.
18	Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and 6 monthly reports shall be submitted to the regional office of this ministry.	Complied. Regular monitoring of ground water in and around the ash bund area is being carried out. Copy of the report is enclosed as Annexure - 3.
19	Greenbelt of adequate width shall be developed all around the plant area, other utilities and ash pond covering 270acres of area preferably with local species.	Complied. Greenbelt (Approximately 79,819 trees) of adequate width is developed all around the plant area, other utilities and ash bund covering 270 acres of land with local species. Latest Photos of the developed greenbelt is enclosed as Annexure - 4.
20	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied First aid and sanitation arrangements were made for the drivers and other contract workers during construction phase.
21	Noise levels emanating from turbines, air compressors, steam leakage and other moving parts of the machine should be controlled in such a way that the ambient noise levels in the working environment do not exceed 75dBA. For people working in high noise area especially during maintenance phase or due to leakage of steam	Complied. Turbine & air compressors are provided with acoustic enclosures. Provided silencer in safety valve Provided earplugs and ear muffs to workers TUTICOPULE
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	etc., if it is not possible to control noise by adopting engineering methods including acoustical treatment, noise barriers etc., requisite personal protective equipment like ear plugs/ ear muffs etc., shall be provided. Workers engaged in noisy areas such turbines, air compressors etc shall be periodically examined and their audiometric records maintained and should be treated for any hearing loss including shifting to non noisy/less noisy areas.	 Workers engaged in noisy areas are being periodically examined and their audiometric records are being maintained and also shifted in rotational basis.
22	Regular monitoring of ground level concentration of SO2, NOx, SPM, RSPM and mercury 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 stations and frequency of monitoring shall be decided in consultation with SPCB. 6 monthly reports shall be submitted to the regional office of this ministry at Bangalore.	Complied. The monitoring of ground level concentration data for the period from July 2023 to December 2023 is enclosed as Annexure - 1. The Six months report on Environment monitoring are being submitted to Regional office of MoEF& CC on regular basis.
23	Adequate funds shall be ear marked for the activities under CSR and details of these activities shall also be submitted to the regional office of the ministry, SPCB and the ministry.	Complied. Separate funds earmarked for implementation of CSR activities. Details of CSR activities carried out during July 2023 to December 2023 are enclosed as Annexure - 5
24	Storage facilities for this liquid fuel such as LDO and HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities. Disaster management plan shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modification required, if any, shall be incorporated in the DMP.	Complied. LDO/HFO storage tanks are provided with dyke wall, automatic foam and water sprinkler system. Disaster Management plan is available and regular mock drills are being carried out.
25	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 at bangalore.	Complied. Automatic water sprinkler system provided in the coal stock yard
26	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/ municipal area /gram panchayat concerned and on the company's website 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 http://envfor.nic.in.	Complied
27	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied during construction phase.
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28	A separate environment monitoring cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Complied. Environment Cell with qualified staffs are in place for the Environmental monitoring, Marine monitoring, Green belt development activities, etc.
29	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this ministry, its regional office at Bangalore, CPCB and SPCB.	Complied. Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards is being submitted to this ministry, its regional office at Bangalore, CPCB and SPCB.
30	Regional office of the ministry of environment & forests located at Bangalore will monitor the implementation of the stipulated conditions. A complete set of documents plan along with the additional information submitted from time to time shall be forwarded to the regional office for their use during monitoring.	Complied. Compliance status of the all the stipulated conditions in the environment clearance letter is being communicated from time to time to the Regional office of the ministry of environment & forests located at Bangalore
31	Adequate funds shall be allocated for implementation of environmental protection measures along with item- wise breakup. 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.	Complied during construction phase.
32	Full cooperation shall be extended to the scientists/officer from the ministry / regional office of ministry at Bangalore/ the CPCB the SPCB who would be monitoring the compliance of environmental status.	Complied. Full Co-operation is being extended to the scientists/officer from the ministry / regional office of ministry at Bangalore/ the CPCB the SPCB who visits the plant for monitoring.
33	The project authorities shall inform the regional 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.	Complied. UNIT-01 - Date of Commissioning - 02/12/2014 UNIT-02 - Date of Commissioning - 02/01/2016
34	Compliance status of the stipulated conditions shall be displayed in website of the industry/company.	The Compliance status of stipulated conditions is uploaded in the company website. Screen shot of company website is attached as Annexure - 2.

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COMPLIANCE TO THE CONDITIONS LAID BY MoEF VIDE ENVIRONMENTAL CLEARANCE No.J-13011/41/2008-IA.II(T) dated 05.05.2009

Period: July 2023 to December 2023

SI.No.	CONDITIONS STIPULATED BY MOEF	COMPLIENCE
1	Regular monitoring of ground water in and around the ash pond area including heavy metals (Hg,Cr,As,Pb) shall be carried out, records maintained and six monthly reports shall be furnished 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.	Complied. Regular monitoring of ground water in and around the ash bund area is being carried out regularly. Analysis report for the period of July 2023 to December 2023 is attached as Annexure -3.
2	Regular monitoring of ground level concentration of SO2, NOx,Hg,SPM and RSPM 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 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 so monitored shall also be put on the website of the company.	Complied. The monitoring of ground level concentration data for the period July 2023 to December 2023 is enclosed as Annexure - 1 and the same is uploaded in the company website. Screen shot of company website is attached as Annexure - 2.
3	Space for FGD shall be provided at planning stage for the units.	Complied. Necessary space provision made for FGD Unit.
4	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the Local NGO, is 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.	Complied
5	The proponent shall upload the status of compliance of the stipulated EC 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, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the man gate of the company in the public domain.	Complied. The Six months report on Ambient Air Quality monitoring are being submitted to Regional office of MoEF / TNPCB on regular basis and the same is uploaded in the company website. Print Screen of company website is attached as Annexure - 2. Online scrolling Display System provided at the main gate of the company.
6	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Complied. The Six monthly Compliance report are being submitted to Regional office of MoEF& CC /CPCB/ TNPCB on regular basis.
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COMPLIANCE TO THE ADDITIONAL CONDITIONS LAID BY MOEF VIDE OFFICE MEMORANDUM No.J-11013/41/2006-IA.II(I) dated 06.04.2011

Period: July 2023 to December 2023

SI.No.	CONDITIONS STIPULATED BY MOEF	COMPLIENCE
1	Continuous monitoring of stack emissions as well as ambient air quality (as per notified standards) shall be carried out and continuous records maintained. Based on the monitored data, necessary corrective measures as may be required from time to time shall be taken to ensure that the levels are within permissible limits. The results of monitoring shall also be submitted to the respective Regional Office of MoEF regularly. Besides, the results of monitoring will also be put on the website of the company in the public domain.	Continuous Stack emission and ambient air quality monitoring are being carried out and records are being maintained. The monitored data for the period of July 2023 to December 2023 is enclosed as Annexure - 1. The results are well within the prescribed norms. The Six months report on Ambient Air Quality monitoring are being submitted to Regional office of MoEF& CC on regular basis and the same is uploaded in the company website. Screen Shot of company website is attached as Annexure - 2
2	The six monthly monitoring report as well as the monitored data on various parameters as stipulated in the environment clearance conditions shall be put on the website of the company and also regularly updated. The monitored data shall also be submitted to respective State Pollution Control Board / UTPCCs and the Regional office of MoEF.	The Six months report on Ambient Air Quality monitoring are being submitted to Regional office of MoEF& CC / TNPCB on regular basis and the same is uploaded in the company website. F Screen Shot of company website is attached as Annexure - 2.
3	The ambient air quality data as well as the stack emission data will also be displayed in public domain at some prominent place near the main gate of the company and updated in real time.	Complied. Online scrolling Display System provided at the main gate of the company.

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Coastal Regulation Zone Clearance Compliance

COMPLIANCE TO THE CONDITIONS LAID BY MOEF VIDE CRZ CLEARANCE No.11/32/2009-IA.III dated 10.08.2009

Period: July 2023 to December 2023

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SI.No.	CONDITIONS STIPULATED BY MOEF	COMPLIENCE
Specific	Conditions :	
1.	All the Conditions stipulated by Tamilnadu Coastal Zone Management Authority vide letter dated 03.04.2009 shall be strictly complied with.	All the Conditions stipulated by Tamilnadu Coastal Zone Management Authority vide letter dated 03.04.2009 is Complied. Compliance Status enclosed as Annexure - 6
2.	Sufficient dilution shall be carried out to meet the ambient parameters within 50m distance.	Complied. Sufficient dilution is being carried out to meet the ambient parameters within 50m distance.
3.	Independent monitoring shall be undertaken through a authorized agency.	Complied. Comprehensive Marine Environmental Monitoring is being carried out through M/s.Suganthi Devadasan Marine Research Institute, Thoothukudi, one of the identified institutions for coastal baseline studies and monitoring by the Tamil Nadu State Coastal Zone Management Authority.
4.	Filters in the way of extruders shall be provided at the intake point to prevent fishes entering in to the system. Fish culture shall be developed at the outfall point.	Complied. Fish Cage culture installed and monitoring is in progress. Report on Fish Cage culture monitoring is covered in Annexure -7.
5.	Regular monitoring especially for temperature and salinity shall be carried out at disposal site and six monthly reports shall be submitted to the ministry.	Complied. Monitoring data for the period July 2023 to December 2023 is enclosed as Annexure - 7.
6.	All the recommendations of EIA and DMP shall be strictly complied with	All the recommendations of EIA and DMP is complied
7.	There shall be no reclamation in Coastal Regulation Zone area.	Complied. No Reclamation done at CRZ area.
8.	The pipeline shall be buried at least 2m depth in the onshore area and 4 mts in the offshore area. Necessary permission with regard to the pipeline burial and laying shall be obtained from concerned authorities to ensure that the pipeline route does not fall in the navigation channel.	Complied. All the requirements has been fulfilled and necessary permission has been obtained with regard to the pipeline burial.
9.	The Project shall be implemented in such a manner that there is no damage whatsoever to the mangroves/other sensitive coastal ecosystems. If any damage to mangroves is anticipated / envisaged as a result of project activities then the clearance shall stand cancelled and the proponents shall seek fresh approval from the Ministry.	Not applicable. No mangroves are found in the project site.
10.	Consent shall be obtained from the Tamilnadu Pollution Control Board for the disposal of effluent into sea. The effluent shall meet the standards prescribed by Tamil Nadu Pollution Control Board before disposal.	Complied. Consents are obtained from TNPCB and being ensured that the effluent meet the standards prescribed by TNPCB before disposal.
11.	A continuous and comprehensive post - project marine quality monitoring programme shall be taken up. This shall include monitoring of water quality, sediment quality and biological characteristics and report	Complied. Monitoring data for the period July 2023 to December 2023 is enclosed as Annexure - 7.
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	submitted every 6 months to Ministry's Regional Office at Bangalore.	
12.	It shall be ensured that there is no displacement of people, houses or fishing activity as a result of the project.	Complied. No displacement of people, houses or fishing activity is involved.
13.	There shall be display boards at critical locations along the pipeline viz. road/rail/river crossings giving emergency instructions. This will ensure prompt information regarding location of accident during any emergency. Emergency information board shall contain emergency instructions in addition to contact details. Proper lighting shall be provided all along the road.	Complied.
14.	There shall be no withdrawal of ground water in CRZ, area, for this project.	Complied. No Withdrawal of Ground water is being done for the project.
15.	Necessary provisions shall also be made to develop a nursery for mangroves and the area should be demarcated specifically for the development of mangroves within the complex.	 The project site is not suitable for the development of mangroves as mangroves requires special environmental factors including fresh water sources along with marine (i.e) Esturain conditions. Hence, this condition is not applicable to us.
16.	Arrangement for treatment of liquid effluents shall be made so as to ensure that the untreated effluents are not allowed to be discharged into the sea/marine water.	Complied. Effluent Treatment Plant is provided in the Main plant and is in operation.
17.	Appropriate safety devices such as masks shall be provided for use by the workers at the site and their usage by them shall be ensured.	Complied and the same is being ensured continuously.
18.	Necessary provisions shall be made for emergency evacuation during natural and man-made disasters like floods, cyclone, tsunami and earthquake etc.	Complied. Adequate Provisions made for emergency evacuation during Natural and manmade disasters.
19.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health case, crèche etc. The house may be in the form of temporary structures to be removed after the completion of the project.	Complied. Necessary Infrastructure were provided during Project Phase.
20.	A First Aid Room will be provided in the project both during construction and operation of the project.	Complied. First Aid Center with ambulance facilities available at site on 24 x 7 basis.
21.	All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.	Complied.
22.	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	Complied.
23.	Any Hazardous Waste Generated During Construction Phase, Should Be Disposed Off As Per Applicable Rules And Norms With Necessary Approvals Of The Andhara Pradesh Pollution Control Board.	No Hazardous waste generated during Construction Phase.
24.	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (protection) Rules prescribed for air and noise emission standards.	Complied during Construction phase.
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25.	The Diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.	Complied during Construction phase.
26.	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.	Complied during Construction Phase.
27.	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ TNPCB.	Complied during Construction Phase.
28.	Storm water control and its-re-use as per CGWB and BIS standards for various applications.	Not applicable.
29.	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.	Complied during Construction Phase.
General	Conditions:	
1.	The construction of the structures should be undertaken as per the plans approved by the concerned local authorities/local administration, meticulously conforming to the existing local and central rules and regulations including the provisions of Coastal Regulation Zone Notification dated 19.02.1991 and the approved Coastal Zone Management Plan of Tamil Nadu.	Complied during Construction Phase.
2.	In the event of any change in the project profile a fresh reference shall be made to the Ministry of Environment and Forests.	No Change in Project Profile
3.	This Ministry reserves the right to revoke this clearance, if any, of the conditions stipulated are not complied with to the satisfaction of this Ministry.	Agreed for Compliance.
4.	This Ministry or any other competent authority may stipulate any additional conditions subsequently, if deemed necessary, for environmental protection, which shall be complied with.	Agreed for Compliance.
5.	Noise should be controlled to ensure that it does not	Complied.
	exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	Noise Levels are within the Permissible Limits
6.	The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.	Complied. Landscape developed in front of Sea water Pump house.
7.	The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.	Not applicable.
8.	The sand dune, if any, on the site should not be disturbed in any way.	No sand dune exists.
9.	The mangroves, if any, on the site should not be disturbed in any way.	No mangroves exists.
10.	The environment safeguards contained in the EIA Report should be implemented in letter and spirit.	Complied. The environment safeguards contained in the EIA Report has been implemented.

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11.	A separate Environment Management Cell with suitably qualified staff to carry out various environment related Executive who will report directly to the Chief Executive of the Company	Complied. Environment Cell with qualified staffs are in place for the Environmental monitoring, Marine monitoring, Green belt development activities, etc.
12.	The funds earmarked for environment protection measures shall be maintained in a separate account and there shall be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards shall be reported to this Ministry's Regional Office to Bangalore.	Fund for environmental protection measures is being allotted and no diversification of funds being done.
13.	In case of deviation or alteration in the project including the implementing agency, a fresh reference shall be made to this Ministry for modification in the clearance conditions or imposition of new one for ensuring environmental projection. The project proponents shall be responsible for implementing the suggested safeguard measures.	No Deviation/Alteration in the Project.
14.	This Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	Agreed.
15.	Full support should be extended to the officers of this Ministry's Regional Office at Bangalore and the offices of the Central and State Pollution Control Board by the project proponents during their inspection for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigative measures and other environmental protection activities.	Agreed and being Complied.
16.	These Stipulations Would Be Enforced Among Others Under The Provisions Of Water (Prevention And Control Of Pollution) Act, 1974 The Air (Prevention And Control Of Pollution) Act 1981, The Environment Municipal Solid Wastes (Management and Handling) Rules, 2000 including the amendments and rules made thereafter.	Agreed.
17.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) act, 1972 etc, shall be obtained, as applicable by project proponents from the respective competent authorities.	Complied. All other applicable statutory clearances has been Obtained.
18.	The project proponent should advertise in at least two local Newspapers widely circulated in the regions, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letter are available with the Tamil Nadu State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <u>Http://www.envfor.nic.in</u> . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bangalore.	Complied.
19.	Any appeal against this Environmental Clearance shall lie with the national Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under section 11 of the National Environment Appellate Act, 1997.	Noted.
20.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, ZillaParisad /	Complied.
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	Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	
21.	The proponent shall upload the status of compliance of the stipulated EC 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, So2, Nox (ambient levels as well as stack emissions) or critical sectoral parameters, indicated ror the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	The Compliance status of stipulated conditions is uploaded in the company website. Screen Shot of company website is attached as Annexure - 2.
22.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored date (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Complied. Submitting the six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored date to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
23.	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Complied.
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* Melamarudu

ANNEXURE - 1

Molecular control Control <th contro<<="" th=""><th>WHAR R</th><th>8</th><th></th><th></th><th></th><th></th><th></th><th>CO</th><th>2 X 600 N</th><th>ENERG IN MUTIAL</th><th>RA THERINU R OUALIT</th><th>IVATE AL POWER</th><th>LIMITE PLANT ORING RI</th><th>ED FPORT</th><th></th><th></th><th></th><th></th><th></th><th>я</th><th></th></th>	<th>WHAR R</th> <th>8</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>CO</th> <th>2 X 600 N</th> <th>ENERG IN MUTIAL</th> <th>RA THERINU R OUALIT</th> <th>IVATE AL POWER</th> <th>LIMITE PLANT ORING RI</th> <th>ED FPORT</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>я</th> <th></th>	WHAR R	8						CO	2 X 600 N	ENERG IN MUTIAL	RA THERINU R OUALIT	IVATE AL POWER	LIMITE PLANT ORING RI	ED FPORT						я	
Image: constrained black I		LUUF							Daily Av	rerage from	1 01.07.202	3 to 31.07.	2023						8			
Out Out <th></th> <th></th> <th>STATIO</th> <th>N-1 (Near A</th> <th>Aain Office</th> <th>(0</th> <th></th> <th>STAT</th> <th>JON-2 (Nes</th> <th>ur CHP)</th> <th></th> <th>Sare allo</th> <th>STATION</th> <th>N-3 (Near A</th> <th>(bnod hav</th> <th>and a</th> <th>ST</th> <th>ATION-4 (</th> <th>Sea Water</th> <th>Pump Hou</th> <th>ise)</th>			STATIO	N-1 (Near A	Aain Office	(0		STAT	JON-2 (Nes	ur CHP)		Sare allo	STATION	N-3 (Near A	(bnod hav	and a	ST	ATION-4 (Sea Water	Pump Hou	ise)	
matrix matrix<	Date	\$02	XON	PM10	PM2.5	CO	\$02	NON	PM10	PM2.5	CO	\$02	XON	PM10	PM2.5	co	S02	XON	PM10	PM2.5	CO	
10.00 10.00 0000 <		80	80	100	60	02	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02	
Munco Munco <th< td=""><td>1 1 1 20</td><td>m/bri</td><td>,m/6ri</td><td>_w/brt</td><td>,m/6rl</td><td>m)@m</td><td>"m/Bri</td><td>hg/m²</td><td>pg/ma</td><td>mg/m³</td><td>mg/ma</td><td>ng/m³</td><td>"m/Bri</td><td>pg/m²</td><td>em/6rt</td><td>em/gm</td><td>pro/una</td><td>pg/m²</td><td>em/Bri</td><td>em/6ri</td><td>mg/m^a</td></th<>	1 1 1 20	m/bri	,m/6ri	_w/brt	,m/6rl	m)@m	"m/Bri	hg/m ²	pg/ma	mg/m ³	mg/ma	ng/m ³	"m/Bri	pg/m ²	em/6rt	em/gm	pro/una	pg/m ²	em/Bri	em/6ri	mg/m ^a	
Anotes Dist Dist <thdist< th=""> Dist Dist <!--</td--><td>1-Jul-23</td><td>Z.0</td><td>10.0</td><td>39.0</td><td>16.0</td><td>0.8</td><td>6.0</td><td>4.0</td><td>44.0</td><td>23.0</td><td>6.0</td><td>0.7</td><td>8.0</td><td>49.0</td><td>21.0</td><td>0.7</td><td>6.0</td><td>7.0</td><td>48.0</td><td>18.0</td><td>0.9</td></thdist<>	1-Jul-23	Z.0	10.0	39.0	16.0	0.8	6.0	4.0	44.0	23.0	6.0	0.7	8.0	49.0	21.0	0.7	6.0	7.0	48.0	18.0	0.9	
3.44-50 10 00 230 100 230 100 230 100 230 100 230 100 230 100 230 100 230 100 230 100 230 100 230 230 100 </td <td>2-Jul-23</td> <td>6.0</td> <td>0'6</td> <td>32.0</td> <td>13.0</td> <td>0.8</td> <td>5.0</td> <td>5.0</td> <td>40.0</td> <td>23.0</td> <td>6.0</td> <td>8.0</td> <td>11.0</td> <td>48.0</td> <td>21.0</td> <td>0.9</td> <td>6.0</td> <td>7.0</td> <td>45.0</td> <td>19.0</td> <td>0.9</td>	2-Jul-23	6.0	0'6	32.0	13.0	0.8	5.0	5.0	40.0	23.0	6.0	8.0	11.0	48.0	21.0	0.9	6.0	7.0	45.0	19.0	0.9	
310 10 310 10 01 0	3-Jul-23	6.0	9.0	27.0	11.0	0.8	5.0	5.0	33.0	21.0	0.8	0.7	11.0	41,0	20.0	0.6	6.0	7.0	38.0	10.0	0.8	
6.462 0.0 20 20 0.0 <td>4-Jul-23</td> <td>0.7</td> <td>0.6</td> <td>32.0</td> <td>11.0</td> <td>0.8</td> <td>5.0</td> <td>5.0</td> <td>32.0</td> <td>22.0</td> <td>0.8</td> <td>8.0</td> <td>13.0</td> <td>51.0</td> <td>19.0</td> <td>0.8</td> <td>6.0</td> <td>7.0</td> <td>38.0</td> <td>13.0</td> <td>0.8</td>	4-Jul-23	0.7	0.6	32.0	11.0	0.8	5.0	5.0	32.0	22.0	0.8	8.0	13.0	51.0	19.0	0.8	6.0	7.0	38.0	13.0	0.8	
6.4433 6.0 9.0<	5-Jul-23	6.0	9.0	23.0	12.0	0.8	6.0	5.0	29.0	23.0	0.8	8.0	12.0	61.0	19.0	0.7	6.0	6.0	31.0	15.0	0.8	
Mukro 61 410 100 417 500 410 100 410 100 410 100 410 100 410 100 410 100 410 100 410 100 410 100 <td>6-Jul-23</td> <td>6.0</td> <td>8.0</td> <td>36.0</td> <td>10.0</td> <td>0.2</td> <td>5.0</td> <td>5.0</td> <td>23.0</td> <td>21.0</td> <td>0.3</td> <td>7.0</td> <td>12.0</td> <td>58.0</td> <td>18.0</td> <td>0.8</td> <td>7.0</td> <td>5.0</td> <td>28.0</td> <td>14.0</td> <td>0.3</td>	6-Jul-23	6.0	8.0	36.0	10.0	0.2	5.0	5.0	23.0	21.0	0.3	7.0	12.0	58.0	18.0	0.8	7.0	5.0	28.0	14.0	0.3	
Sulfactory E (0 No.0 V1 Col Col <th< td=""><td>7-Jul-23</td><td>6.0</td><td>8.0</td><td>41.0</td><td>10.0</td><td>0.7</td><td>5.0</td><td>6.0</td><td>14.0</td><td>12.0</td><td>0.7</td><td>8.0</td><td>11.0</td><td>64.0</td><td>16.0</td><td>0.8</td><td>6.0</td><td>5.0</td><td>26.0</td><td>0.6</td><td>0.8</td></th<>	7-Jul-23	6.0	8.0	41.0	10.0	0.7	5.0	6.0	14.0	12.0	0.7	8.0	11.0	64.0	16.0	0.8	6.0	5.0	26.0	0.6	0.8	
0 90 30 130 130 0.7 500 600 600 610	8-Jul-23	6.0	8.0	17.0	10.0	0.7	5.0	6.0	26.0	24.0	0.5	8.0	10.0	73.0	8.0	9.0	8.0	6.0	27.0	10.0	0.8	
0.0423 0.0<	9-Jul-23	6.0	9.0	33.0	13.0	0.7	5.0	6.0	49.0	24.0	0.6	8.0	10.0	41.0	21.0	0.7	7.0	6.0	44.0	20.0	6.0	
10 0	10-Jul-23	6.0	0.6	31.0	13.0	0.74	5.0	5.0	48.0	26.0	0.6	7.0	0.0	53.0	20.0	0.7	8.0	8.0	26.0	21.0	0.8	
Usualization 10 90 440 150 0.76 50 40 50 20 50	11-Jul-23	2.0	8.0	29.0	14.0	0.77	5,0	5.0	39.0	22.0	0.6	8.0	6.0	57.0	20.0	0.8	8.0	6.0	46.0	18.0	0.7	
13-uic23 70 90 320 120 074 50 40 300 200 60 60 50	12-Jul-23	7.0	0.0	44.0	15.0	0.76	5.0	4.0	53.0	24.0	0.6	8.0	8.0	47.0	23.0	0.7	6.0	6.0	51.0	22.0	0.7	
4-luncist 70 70<	13-Jul-23	7.0	0.6	24.0	12.0	0.74	5.0	4.0	30.0	22.0	0.6	8.0	6.0	59.0	20.0	6.0	5.0	5.0	31.0	13.0	0.7	
Holurdi TO Ga Ga TO Ga TO Ga TO Ga 1010 </td <td>14-Jul-23</td> <td>7.0</td> <td>7.0</td> <td>23.0</td> <td>12.0</td> <td>0.7</td> <td>5.0</td> <td>6.0</td> <td>30.0</td> <td>22.0</td> <td>0.6</td> <td>8.0</td> <td>9.0</td> <td>44.0</td> <td>21.0</td> <td>0.8</td> <td>6.0</td> <td>7.0</td> <td>31.0</td> <td>10.0</td> <td>0.1</td>	14-Jul-23	7.0	7.0	23.0	12.0	0.7	5.0	6.0	30.0	22.0	0.6	8.0	9.0	44.0	21.0	0.8	6.0	7.0	31.0	10.0	0.1	
(1-4) (2) (4) (1) (4) (1) (4) (1) (4) (1) </td <td>15-Jul-23</td> <td>7.0</td> <td>5.0</td> <td>26.0</td> <td>12.0</td> <td>0.7</td> <td>4.0</td> <td>4.0</td> <td>36.0</td> <td>23.0</td> <td>0.5</td> <td>7.0</td> <td>9.0</td> <td>57.0</td> <td>21.0</td> <td>0.7</td> <td>6.0</td> <td>7,0</td> <td>38.0</td> <td>15.0</td> <td>0.3</td>	15-Jul-23	7.0	5.0	26.0	12.0	0.7	4.0	4.0	36.0	23.0	0.5	7.0	9.0	57.0	21.0	0.7	6.0	7,0	38.0	15.0	0.3	
17-bit 28 7/0 4/0 3/0 14/0 0/0 4/0 3/0	16-Jul-23	0.7	5.0	40.0	14.0	0.7	4.0	5.0	48.0	23.0	0.6	8.0	9.0	50.0	22.0	9.0	6.0	7.0	44.0	20.0	0.3	
Hollowing 70 40 300 120 067 40 300 410 200 410 560 200 610 600 600 600 600 600 600 600 600 600 600 600 600 600 600 600 600 600 600 600 700 600 700<	17-Jul-23	2.0	4.0	37.0	14.0	0.7	4.0	4.0	43.0	23.0	0.6	8.0	11.0	64.0	21.0	0.6	5.0	7.0	46.0	15.0	0.2	
15-UH/23 60 40 70 60 40 70 60 40 70 60 70 <	18-Jul-23	2.0	4.0	36.0	12.0	0.67	4.0	3.0	41.0	22.0	0.5	8.0	13.0	54.0	20.0	0.7	5.0	7.0	40.0	15.0	0.2	
20-Jul-23 6.0 1.0 1.10 0.67 8.0 4.0 0.5 7.0 4.0 7.0 <th< td=""><td>19-Jul-23</td><td>6.0</td><td>4.0</td><td>29.0</td><td>12.0</td><td>0.66</td><td>4.0</td><td>4.0</td><td>36.0</td><td>22.0</td><td>0.5</td><td>8.0</td><td>11.0</td><td>57.0</td><td>19.0</td><td>0.7</td><td>4.0</td><td>6.0</td><td>35.0</td><td>13.0</td><td>0.3</td></th<>	19-Jul-23	6.0	4.0	29.0	12.0	0.66	4.0	4.0	36.0	22.0	0.5	8.0	11.0	57.0	19.0	0.7	4.0	6.0	35.0	13.0	0.3	
21-Jul-23 7/0 4/0 63.0 160 0.7 20 6.0 6	20-Jul-23	6.0	5.0	1.0	11.0	0.67	8.0	4.0	39.0	6.0	0.5	7.0	9.0	42.0	21.0	0.8	•	•	•		•	
Z-Jul-23 7.0 4.0 4.0 13.0 0.7 7.0 4.0 5.0 6.0	21-Jul-23	7.0	4.0	63.0	16.0	0.7	2.0	5.0	65.0	23.0	0.6	8.0	9.0	42.0	23.0	0.7	3.0	6.0	65.0	21.0	0.3	
23-Jul-53 7.0 4.0 31.0 11.0 0.7 7.0 6.0 5.0 5.0 6.0 5.0 5.0 6.0 5.0 7.0 7.0 6.0 5.0 7.0 7.0 6.0 5.0 7.0 7.0 6.0 7.0 6.0 2.0 0.3 8.0 8.0 8.0 5.0 7.0 6.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 6.0 2.0 0.3 8.0 8.0 8.0 5.0 17.0 0.0 0.0 17.0	22-Jul-23	7.0	4,0	49.0	13.0	0.7	2:0	4.0	53.0	23.0	0.64	8.0	9.0	44.0	22.0	0.8	4.0	6.0	56.0	18.0	0.3	
24-04-23 7.0 3.0 7.0 0.0 0.39 7.0 6.0 2.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.1 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	23-Jul-23	7.0	4.0	31.0	11.0	0.7	7.0	6.0	37.0	22.0	0.66	8.0	0.6	52.0	20.0	0.7	4.0	6.0	35.0	13.0	0.3	
25-Ul-23 7.0 4.0 10 0.7 7.0 6.0 2.0 0.6 18.0 0.8 5.0 18.0 0.8 5.0 7.0 2.7 13.0 13.0 25-Ul-23 7.0 4.0 18.0 9.0 0.7 8.0 8.0 2.4.0 19.0 0.4.5 8.0 0.4.5 8.0 5.0 17.0 0.7 5.0 7.0 26.0 10.0 0 25-Ul-23 7.0 4.0 18.0 9.0 0.7 8.0 8.0 9.0 17.0 0.7 5.0 7.0 26.0 10.0 0 25-Ul-23 7.0 4.0 23.0 11.0 0.8 9.0 7.0 17.0 0.7 5.0 7.0 26.0 10.0 0 10.0	24-Jul-23	2.0	3.0	23.0	10.0	0.39	7.0	6.0	29.0	22.0	0.38	8.0	8.0	54.0	19.0	0.7	5.0	6.0	21.0	17.0	0,1	
Z6-Jul-23 7.0 4.0 18.0 9.0 0.7 18.0 9.0 0.7 18.0 0.7 5.0 7.0 7.0 7.0 7.0 26.0 10.0 0 27-Jul-23 7.0 4.0 23.0 10.0 0.7 9.0 6.0 31.0 17.0 0.7 5.0 7.0 33.0 10.0 0 28-Jul-23 7.0 5.0 33.0 11.0 0.8 9.0 7.0 4.0 7.0 33.0 10.0 0 0 0 23.0 14.0 0 24.0 7.0 33.0 14.0 0 24.0 7.0 26.0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 26.0 14.0 0 26.0 18.0 26.0 14.0 0 14.0 0 14.0 0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 1	25-Jul-23	7.0	4.0	19.0	0.0	0.7	7.0	6.0	2.0	21.0	0.6	8.0	7.0	56.0	18.0	0.8	5.0	2.0	27.0	13.0	0.3	
Z7-Jul-23 7.0 4.0 23.0 17.0 0.45 8.0 0.0 16.0 0.4 5.0 7.0 33.0 10.0 0 28-Jul-23 7.0 5.0 5.0 7.0 0.8 0.0 14.0 0.6 3.0 14.0 0.0 14.0 0 14.0 0 14.0 0 14.0 0.6 3.0 14.0 0.0 14.0 0 14.0 0 14.0 0.6 14.0 0.6 3.0 14.0 0 14.0 0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 0.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	26-Jul-23	2.0	4.0	18.0	9.0	0.7	8.0	6.0	24.0	19.0	0.45	8.0	5.0	39.0	17.0	0.7	5.0	7.0	26.0	10.0	0.3	
28-Jul-23 7.0 5.0 3.0 19.0 0.6 3.0 6.0 45.0 14.0 0 29-Jul-23 7.0 4.0 4.0 14.0 0.8 9.0 7.0 4.0 4.0 6.0 45.0 14.0 0 0.6 3.0 6.0 45.0 14.0 0 0 0.6 3.0 0.6 4.0 4.0 7.0 4.0 4.0 50.0 14.0 0 0.0 14.0 0 0.0 14.0 0 0.0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	27-Jul-23	2.0	4.0	23.0	10.0	0.7	0.6	6.0	31.0	17.0	0.45	8.0	9.0	20.0	16.0	0.4	5.0	7.0	33.0	10.0	0.3	
29-Uul-23 7.0 4.0 4.0 0.8 9.0 7.0 4.0 0.5 4.0 6.0 50.0 14.0 0 30-Jul-23 7.0 4.0 4.0 0.8 10.0 7.0 490 26.0 0.5 8.0 9.0 24.0 21.0 0.7 4.0 6.0 50.0 16.0 0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 16.0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 0 16.0 16.0 0 16.0 0 16.	28-Jul-23	7.0	5.0	33.0	11.0	0.8	0.6	7.0	40.0	19.0	0.46	8.0	8.0	23.0	19.0	0.6	3.0	6.0	45.0	14.0	0.4	
30-Uu-23 7.0 4.0 4.0 0.8 10.0 7.0 490 20.0 0.5 8.0 9.0 24.0 21.0 0.7 4.0 6.0 50.0 16.0 0 31-Jul-23 7.0 5.0 45.0 7.0 0.8 10.0 7.0 52.0 0.8 20.0 16.0 0.0 16.0 50.0 16.0 50.0 16.0 50.0 16.0 50.0 16.0 50.0 16.0 51.0 16.0 51.0 16.0 51.0 16.0 50.0 16.0 51.0 16.0 16.0	29-Jul-23	7.0	4.0	42.0	14.0	0.8	9.0	7.0	47.0	16.0	0.5	8.0	9.0	26.0	18.0	0.6	4.0	6.0	50.0	14.0	0.4	
31-Jul-23 7.0 5.0 46.0 15.0 0.8 10.0 7.0 52.0 0.5 8.0 9.0 25.0 0.8 4.0 6.0 51.0 16.0 0 Remarks: * Due to network problem data not Received. * 10.0 7.0 52.0 0.5 26.0 26.0 27.0 0.8 4.0 6.0 51.0 16.0 0	30-Jul-23	7.0	4.0	45.0	14.0	0.8	10.0	7.0	49.0	20.0	0.5	8.0	9.0	24.0	21.0	0.7	4.0	6.0	50.0	16.0	0.4	
Remarks: * Due to network problem data not Received. For Coastal Energen Pvt. Limited	31-Jul-23	7.0	5.0	46.0	15.0	0.8	10.0	7.0	52.0	23.0	0.5	8.0	9.0	25.0	22.0	0.8	4.0	6.0	51.0	16.0	0.4	
For Coastal Energen Pvt. Limited Concernor	Remarks:	* Due to	network p	roblem dat	ta not Reci	eived.													N	1		
															P.	r Coastal	Energen	Pvt. Limit	ed Cm	(LIDEL		

A Non STUTICORIN E relamaru du't

MK Parameswaran Station Director

							CONTINU	Daily Ave	arage from	01.08.2023	1 to 31.08.2	023					01 - 10012	C. LANDAR	Contract Providence	
		STATION	-1 (Near Ma	ain Office)			STATH	ON-2 (Near	CHP)	2		STATION	3 (Near As	(puod l		STA	TION-4 (S	ea Water P	I I I I I I I I I I I I I I I I I I I	6
Date	S02	XON	PM10	PM2.5	co	502	XON	PM10	PM2.5	co	S02	XON	PM10	PM2.5	00	\$02	XON	PM10	PM2.5	00
	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02	80	600	Embor.	1 minut	motim
	,m/Srt	cm/Brl	hg/m ³	rm/6rt	mg/m ³	,m/6rl	hg/m ^a	_m/6rt	pg/m°	_mg/m	m/bri	m/Brt	m	m/gri	ungm	under 1	U a	51.0	16.0	0.4
1-Aug-23	7.0	4,0	48.0	15.0	0.8	8.0	7.0	50.0	3.0	0.5	8.0	6.0	24.0	0.01	*0	0.4	0.0	ARG	16.0	90
2-Aug-23	8.0	4.0	42.0	13.0	0.8	10.0	7.0	47.0	3.0	0.6	8.0	3.0	23.0	0.7	*0		0.0	0 UV	18.0	40
3-Aug-23	9.0	5.0	38.0	13.0	0.7	8.0	7.0	45.0	3.0	0.8	8.0	3.0	22.0	12.0	970	0.0		0.84	170	20
4-Aug-23	0.7	4.0	32.0	12.0	0.8	10.0	7.0	37.0	2.0	0.7	8.0	8.0	18.0	6.0	0.6	3.0	2	0.24	10.01	800
5-Aug-23	8.0	5.0	39.0	14.0	0.7	8.0	6.0	45.0	3.0	0.7	6.0	4.0	24.0	6.0	0.6	3.0	0.0	40.0	0.01	00
6-Aug-23	7.0	6.0	47.0	14.D	0.6	0'6	5.0	51,0	4.0	9.6	9.0	6.0	27.0	8.0	0.5	3.0	6.0	47.0	10:01	1.0
7-Aug-23	6.0	5.0	28.0	14.0	0.3	9.0	5.0	61.0	2.0	0.4	9.0	4.0	24.0	10.0	0.3	3.0	6.0	47.0	0.71	4'0
8-Aug-23	8.0	6.0	44.0	15.0	0.6	8.0	5.0	50.0	6.0	0.7	9.0	7.0	25.0	8.0	0.5	4.0	6.0	45.0	18.0	1.0
9-Aun-23	7.0	6.0	41.0	15.0	0.6	8.0	4.0	56.0	5.0	0.7	0.6	7.0	23.0	13.0	0.5	4.0	6.0	49.0	17,0	0.8
10-Aug-23	0.6	6.0	34.0	16.0	0.6	8.0	6.0	46.0	5.0	0.6	9.0	3.0	21.0	14.0	0.5	4.0	6.0	50.0	21.0	0.8
EC. DIA	70	08	48.0	18.0	0.6	8.0	4.0	56.0	6.0	0.5	8.0	4.0	26.0	10.0	0.5	3.0	6.0	64.0	17.0	0.7
10 VII0 23	02	2.0	39.0	16.0	0.6	8.0	8.0	44.0	5.0	0.4	9.0	5.0	29.0	11.0	0.6	4.0	7.0	53.0	19.0	0.7
07-60V-21	A 1	2.0	008	150	0.6	0.6	7.0	52.0	2.0	0.7	8.0	4.0	27.0	10.0	0.4	3.0	6.0	51.0	17.0	0.5
67-604-61		2.00	53.0	0.10	0.5	8.0	6.0	60.0	6.0	0.6	8.0	6.0	36.0	12.0	0.6	4.0	6.0	68.0	20.0	9.0
14-AUG-23	20	0.0	3 6 6 6	0.14	30	11.0	40	68.0	6.0	0.5	9.0	4.0	40.0	0.6	0.4	3.0	6.0	58.0	23.0	0.6
15-Aug-23	0.7	0.6	00.0	0.12	90	10.0	4.0	87.0	6.0	0.5	9.0	3.0	42.0	14.0	0.6	5.0	6.0	56.0	29.0	0.4
16-Aug-23	0. 4	0.01	0.20	2.12	2.0	a a	8.0	33.0	4.0	0.4	8.0	4.0	48.0	9,0	0.6	4.0	7.0	49.0	16.0	0.5
17-Aug-23	5.0	8.0	38.0	1.81	1.0	2.0	0.0	35.0	6.0	9.0	5.0	2.0	34.0	11.0	0.4	5.0	7.0	52.0	19.0	0.4
18-Aug-23	0'B	2, 5,	0.20	to or	90	80	80	40.0	8.0	0.4	8.0	6.0	34.0	8.0	0.3	6.0	4.0	52.0	13.0	0.3
19-Aug-23	0.0	0.4	10.45	44.0	90	50	0.6	41.0	0.6	0.6	9.0	6.0	39.0	12.0	0.4	6.0	6.0	56.0	16.0	0.6
20-Aug-23	0,0	0.0	44.6	00	0.7	80	60	47.0	4.0	7.0	8.0	7.0	41.0	11.0	0.4	0.7	5.0	49.0	18.0	0.4
21-Aug-23	8'N	0.0	0.44	0.0	10	0	08	51.0	6.0	0.6	8.0	6.0	46.0	0.6	0.4	6.0	6.0	54.0	14.0	9.6
22-9UA-23	0.0	0.0	0.24 x7.0	0.21	0.5	20	80	59.0	8.0	0.5	0.6	8.0	40.0	10.0	0.5	8.0	8.0	59.0	19.0	0.4
23-Pug-23	1001	0.0	0.04	0.11	50	80	5.0	75.0	5.0	0.5	7.0	3.0	29.0	9.0	0.6	8.0	6.0	68.0	18.0	0.4
C2-BNA-92	10.0		0 ag	14.0	0.6	80	5.0	81.0	5.0	0.6	8.0	4.0	42.0	12.0	0.5	9.0	7.0	78.0	14.0	9.0
62-Rnv-02	201	40	RR D	15.0	0.6	7.0	5.0	91.0	4.0	0.7	7.0	6.0	40.0	10.0	0.4	6.0	4.0	75.0	25.0	0.4
Co-finu-02	110	2.0	49.0	15.0	0.5	8.0	6.0	76.0	3.0	0.5	7.0	4.0	36.0	9.0	0.4	7.0	072	58.0	18.0	0.2
C- Fort of	10.01	2.0	36.0	14.0	0.5	7.0	5.0	49.0	6.0	0.6	8.0	4.0	32.0	7.0	0.4	7.0	7.0	61.0	17.0	0.5
50 kin 23	00	80	57.0	12.0	0.6	8.0	6.0	73.0	5.0	1.0	0.6	4.0	41.0	0'6	0.5	0.7	6.0	55.0	14.0	0.7
20-Min-23	00	60	44.0	10.0	0.5	7.0	5.0	42.0	4.0	0.6	7.0	6.0	29.0	0.7	0.4	6.0	6.0	46.0	14,0	0.5
PC-DIA-15	10.0	7.0	30.0	13.0	0.5	6.0	6.0	43.0	4.0	0.6	6.0	4.0	26.0	6.0	0.4	6.0	6.0	48.0	18.0	0.4
er finu-to	III			17 10 H 10														L'nerge	O Lis	
Velligina.														ιί.	or Coasta	al Energer	Pvt. Lim	oted	i.	
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MK Parameswaran Station Director

See al							CO	ASTAL 2 X 600 N	ENERG IW MUTIAL	RA THERMA	AL POWER	LIMITE PLANT DRING RE	PORT					Æ		
								Daily Av	erage from	01.09.202	3 to 30.09.	2023						<u>N</u>		
		STATION	-1 (Near M.	ain Office	10.00		STAT	iON-2 (Nea	r CHP)			STATION	4-3 (Near A	sh Pond)		STI	ATION-4 (S	Sea Water	Pump Hou	se)
Date	\$02	XON	PM10	PM2.5	co	\$02	XON	PM10	PM2.5	CO	S02	XON	PM10	PM2.5	co	S02	XON	PM10	PM2.5	co
	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02
	² m/Brl	² m/Brl	^z m/gu	"m/Bri	em/gm	em/gu	emigu	hg/m ³	pg/m ³	mg/ma	"m/bri	ng/m ³	"mg/m	em/6rt	mg/m ³	em/brt	µg/m ³	µg/m ³	, might	mg/m ³
1-Sep-23	12.0	8.0	48.0	15.0	0.6	0.6	6.0	60.09	4.0	0.6	10.0	4.0	36.0	12.0	0.5	6.0	6.0	50.0	18.0	0.3
2-Sep-23	10.0	7.0	29.0	8.0	0.5	7.0	6.0	45.0	11.0	0.6	10.0	5.0	21.0	9.0	0.4	6.0	6.0	46.0	19.0	0.3
3-Sep-23	10.0	9.0	34.0	12.0	0.6	2.0	6.0	44.0	6.0	0.7	9.0	6.0	23.0	6.0	0.4	6.0	6.0	64.0	25.0	0.5
4-Sep-23	10.0	5.0	13.0	4.0	0.5	6.0	5.0	23.0	9.0	0.6	11.0	6.0	14.0	11.0	0.4	6.0	5.0	28.0	7.0	0.5
5-Sep-23	10.0	4.0	21.0	8.0	0.5	6.0	5.0	28.0	4.0	0.5	9.0	6.0	19.0	12.0	0.4	7.0	5.0	32.0	11.0	0.5
6-Sep-23	10.0	4.0	23.0	8.0	0.3	6.0	5.0	32.0	7.0	0.3	10.0	5.0	22.0	9.0	0.2	6.0	6.0	61.0	18.0	0.4
7-Sep-23	9.0	5.0	24.0	10.0	0.7	6.0	4.0	37.0	10.0	0.6	9.0	4.0	28.0	4.0	0.3	7.0	4.0	53.0	19.0	0.7
8-Sep-23	9.0	7.0	21.0	13.0	0.4	6.0	5.0	39.0	11.0	0.4	11.0	6.0	29.0	9.0	0.3	6.0	5.0	49.0	14,0	0.4
9-Sep-23	9.0	6.0	23.0	12.0	0.5	6.0	4.0	36.0	0.6	0.6	10.0	4.0	25.0	9,0	0.3	6.0	0.0	44.0	13.0	0.5
10-Sep-23	9.0	2.0	12.0	3.0	0.6	6.0	4.0	25.0	8.0	0.7	8.0	5.0	22.0	8.0	0.4	6.0	7.0	27.0	8.0	0.6
11-Sep-23	9.0	3.0	24.0	9.0	0.7	6.0	4.0	24.0	6.0	0.7	10.0	6.0	22.0	8.0	0.4	7.0	7.0	29.0	7.0	0.6
12-Sep-23	8.0	4.0	24.0	9.0	0.7	6.0	4.0	37.0	10.0	0.6	0.0	6.0	29.0	6.0	0.4	6.0	7.0	36.0	12.0	0.7
13-Sep-23	8.0	3.0	22.0	10.0	0.6	6.0	4.0	34.0	10.0	0.6	10.0	7.0	37.0	8.0	0.4	7.0	7.0	38.0	11.0	0.6
14-Sep-23	9.0	3.0	27.0	6.0	0.6	6.0	4.0	30.0	11.0	0,6	10.0	6.0	23.0	5.0	0.6	7.0	7.0	34.0	13.0	0.6
15-Sep-23	9.0	5.0	46.0	12.0	0.3	6.0	4.0	51.0	13.0	0.1	9.0	5.0	23.0	6.0	0.4	7.0	7,0	66.0	18.0	0.6
16-Sep-23	6.0	4.0	31.0	0.9	0.3	6.0	4.0	29.0	11.0	0.3	10.0	3.0	16.0	9.0	0.5	7.0	5.0	74.0	13.0	0.6
17-Sep-23	9.0	5.0	33.0	9.0	0.6	6.0	4.0	45.0	13.0	0.7	10.0	5.0	30.0	7.0	0.5	7.0	6.0	63.0	24.0	0.8
18-Sep-23	10.0	5.0	30.0	8.0	0.6	6.0	5.0	56.0	14.0	0.7	11.0	5.0	25.0	8.0	0.4	6.0	5.0	50.0	21.0	0.8
19-Sep-23	10.0	7.0	27.0	8.0	0.6	6.0	5.0	45.0	10.0	0.8	11.0	5.0	21.0	0.6	0.5	6.0	7.0	40.0	11.0	0.7
20-Sep-23	10.0	0.7.0	24.0	0.6	0.6	7.0	5.0	43.0	11.0	0.7	10.0	3.0	21.0	11.0	0.5	6.0	7.0	44.0	19.0	0.6
21-Sep-23	8.0	6.0	24.0	11.0	0.3	7.0	5.0	45.0	0.6	0.5	9.0	4.0	27.0	7.0	0.2	6.0	8.0	62.0	15.0	0.4
22-Sep-23	8.0	6.0	62.0	18.0	0.4	7.0	5.0	82.0	10.0	0.8	9.0	5.0	39.0	11.0	0.5	6.0	7.0	76.0	35.0	0.7
23-Sep-23	7.0	4,0	35.0	12.0	0.1	7.0	4.0	34.0	9.0	0.4	6.0	5.0	22.0	7.0	0.3	6.0	6.0	49.0	16.0	0.3
24-Sep-23	6.0	8.0	17.0	7.0	0.4	7.0	4.0	29.0	6.0	0.7	6.0	4.0	12.0	13.0	0.6	5.0	7.0	33.0	11.0	0.7
25-Sep-23	6.0	2.0	34.0	12.0	0.4	6.0	4.0	47.0	5.0	0.7	9.0	5.0	20.02	8.0	0.5	5.0	7.0	55.0	21.0	0.7
26-Sep-23	6.0	8.0	44.0	17.0	0.4	7.0	3.0	44.0	7.0	0.5	6.0	4.0	23.0	9.0	0.4	5.0	6.0	62.0	12.0	0.7
27-Sep-23	6.0	8.0	29.0	11.0	0.5	10.01	4.0	47.0	9.0	0,4	10.0	6.0	28.0	8.0	0.4	5.0	7.0	59.0	16.0	0.7
28-Sep-23	6.0	6.0	24.0	8.0	0.5	7.0	4.0	30.0	7.0	0.4	6.0	5.0	21.0	6.0	0.4	5.0	6,0	46.0	13.0	0.7
29-Sep-23	7.0	4.0	21.0	3.0	9.6	8.0	4.0	22.0	8.0	0.4	6.0	7.0	24.0	10.0	0.5	5.0	7,0	63.0	12.0	0.7
30-Sep-23	6.0	4.0	15.0	4.0	0.5	10.0	4.0	21.0	8.0	0.4	8.0	0.7	15.0	6.0	0.4	5.0	7.0	26.0	11.0	0.6
Remarks:	* Due to	problem i	n network,	Data not	Received.															

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COASTAL ENERGEN PRIVATE LIMITED 2 X 600 MW MUTHARA THERMAL POWER PLANT

								Daily Av	arage from	01.10.202	3 to 31.10.	2023						εa π		
		STATION	-1 (Near M	ain Office			STATI	ON-2 (Neal	-CHP)			STATION	-3 (Near A	(puod ys	1	STA	VTION-4 (S	ea Water P	ump House	(a
Date	S02	XON	PM10	PM2.5	CO	\$02	XON	PM10	PM2.5	co	S02	XON	PM10	PM2.5	00	S02	NOX	PM10	PM2.5	co
	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02
	pg/m ^a	"mj6rt	, mg/m	,m/6ri	mg/m ³	cm/pu	,m/6rl	e ^{m/brt}	pg/m ³	mg/m ^a	pg/m ³	ug/m ^a	ug/m ³	pg/m ³	mg/m ³	ug/m ³	hg/m ²	pg/m ³	hg/m ³	"ulfu
1-Ocl-23	7.0	4.0	15.0	3.0	0.5	9.0	4.0	23.0	8.0	0.3	6.0	2.0	20.0	5.0	0.4	5.0	7.0	34.0	17.0	0.7
2-Oct-23	7.0	4.0	26.0	6.0	0.5	10.0	4.0	25.0	11.0	0.4	6.0	2.0	14.0	6.0	0.4	5.0	7,0	50.0	23.0	0.8
3-Oct-23	7.0	4.0	26.0	4.0	0.5	8.0	4.0	24.0	9.0	0.4	6.0	3.0	10.0	8.0	0.4	5.0	7.0	38.0	18.0	1.0
4-Oct-23	7.0	5.0	47.0	7.0	0.5	10.0	4.0	43.0	11.0	0.4	6.0	4.0	16.0	4.0	0.3	5.0	7.0	48.0	19.0	0.9
5-0d-23	7.0	5.0	33.0	10.0	0.5	8.0	4.0	41.0	8.0	0.2	7.0	4.0	22.0	7.0	0.4	5.0	7.0	64.0	22.0	1.0
6-Oct-23	7.0	6.0	51.0	17.0	0.6	6.0	5.0	57.0	14.0	0.2	7.0	4.0	34.0	10.0	0.5	5.0	7.0	72.0	35.0	1.0
7-Oct-23	7.0	7.0	74.0	26.0	0.6	6.0	5.0	91.0	13.0	0.6	6.0	4.0	49.0	15.0	0.5	6.0	7.0	70.0	23.0	0.8
8-Oct-23	8.0	5.0	61.0	20.0	9.0	6.0	5.0	68.0	10.0	0.6	5.0	4.0	36.0	9.0	0.4	5.0	7.0	68.0	27.0	0.7
9-Oct-23	8.0	6.0	49.0	14.0	0.6	6.0	5.0	73.0	12.0	0.6	5.0	4.0	36.0	2.0	0.3	6.0	7.0	46.0	21.0	0.8
10-Oct-23	9.0	6.0	48.0	13.0	0.6	7.0	5.0	51,0	9.0	0.5	5.0	4.0	23.0	9.0	0.3	5.0	7.0	44.0	22.0	0.7
11-Oct-23	8.0	7.0	42.0	14.0	0.5	7.0	5.0	24.0	9.0	0.6	6.0	4.0	29.0	8.0	0.3	5.0	4.0	23.0	20.0	0.7
12-Oct-23	0.0	6.0	43.0	11.0	0.5	7.0	5.0	31.0	10.0	0.6	6.0	4.0	27.0	7.0	0.4	5.0	6.0	41.0	21.0	0.8
13-Oct-23	9.0	7.0	52.0	19.0	0.8	7.0	5.0	75.0	11.0	0.6	5.0	4.0	34.0	0.0	0.6	5.0	7.0	57.0	23.0	1.0
14-Oct-23	7.0	6.0	47.0	20.0	0.8	5.0	5.0	42.0	14.0	9.6	5.0	4.0	31.0	0.0	0.7	5.0	6.0	72.0	30.0	1.0
15-Oct-23	0.7	5.0	40.0	24.0	0.8	4.0	5.0	39.0	13.0	0.7	5.0	4.0	33.0	10.0	0.6	5.0	6.0	66.0	36.0	1.1
16-Oct-23	7.0	7.0	22.0	11.0	0.8	4.0	5.0	41.0	5.0	0.6	5.0	3.0	17.0	5.0	0.6	6.0	6.0	39.0	11.0	0.8
17-Oct-23	7.0	6.0	23.0	13.0	0.5	4.0	5.0	34.0	0.6	0.5	5.0	3.0	19.0	6.0	0.6	5.0	6.0	35.0	28.0	0.7
18-Oct-23	5.0	5.0	37.0	25.0	0.4	4.0	5.0	34.0	9.0	0.4	5.0	4.0	25.0	10.0	0.6	5.0	6.0	63.0	36.0	0.7
19-Oct-23	4.0	5.0	63.0	34.0	0.2	4.0	5.0	50.0	12.0	0.1	5.0	3.0	32.0	12.0	0.6	5.0	6.0	74.0	47.0	0.8
20-Oct-23	5.0	4.0	72.0	43.0	0.2	3.0	5.0	59.0	14.0	0.2	5.0	3.0	35.0	16.0	0.6	5.0	6.0	78.0	47.0	0.7
21-Oct-23	4.0	4.0	47.0	34.0	9.0	2.0	5.0	67.0	14.0	0.2	6.0	3.0	35.0	14.0	0.6	5.0	7.0	84.0	47.0	0.7
22-Oct-23			٠	•		2.0	4.0	54.0	13.0	0.2	6.0	3.0	32.0	14.0	0.6	5.0	7.0	85.0	47.0	0.7
23-Oct-23	195		(F)	*	•	2.0	4.0	52.0	11.0	0.2	5.0	3.0	35.0	14.0	0.6	5.0	7.0	65.0	38.0	0.7
24-Oct-23	۲		•			2.0	4.0	65.0	8.0	0.2	6.0	3.0	26.0	8.0	0.6	5.0	7.0	60.09	25.0	0.7
25-Oct-23	6.0	4.0	32.0	12.0	0.3	2.0	4.0	47.0	6.0	0.2	5.0	3.0	30.0	7.0	0.6	6.0	0.7	37.0	16.0	0.6
26-Oct-23	5.0	3.0	33.0	11.0	0.3	3.0	4.0	36.0	9.0	0.4	5.0	3.0	27.0	11.0	0.6	6.0	7.0	55.0	33.0	0.6
27-Oct-23	5.0	2.0	58.0	37.0	0.5	6.0	4.0	30.0	12.0	0.6	5.0	3.0	46.0	16.0	0.6	5.0	7.0	70.0	42.0	0.4
28-Oct-23	4.0	2.0	51.0	32.0	0.6	5.0	3.0	53.0	8.0	0.7	5.0	2.0	67.0	15.0	0.5	7.0	7.0	67.0	47.0	0.8
29-Oct-23	5.0	2.0	34.0	21.0	0.5	6.0	3.0	42.0	9.0	0.6	6.0	2.0	28.0	9.0	0.5	7.0	8.0	45.0	35.0	0.8
30-Oct-23	5.0	2.0	12.0	6.0	0.5	6.0	3.0	23.0	3.0	0.6	6.0	2.0	22.0	8.0	0.5	5.0	7.0	26.0	14.0	0.8
31-Oct-23	5.0	2.0	45.0	31.0	0.6	6.0	3.0	16.0	14.0	0.7	6.0	3.0	27.0	12.0	0.6	7.0	7.0	61.0	46.0	0.9
Remarks:	* Due to	network p	problem da	ita not Rec	teived.											Constant 1	Did 1 100	40.4		
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MK Parameswaran Station Director

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	STATION-	NOX
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COASTAL ENERGEN PRIVATE LIMITED

	2						CONTI	NUOUS AI	MBIENT A	IR QUALIT n 01.11.202	Y MONIT	ORING RI	EPORT					ā		
		STATION	-1 (Near M	ain Office)			STA	TION-2 (Ne	ar CHP)			STATION	N-3 (Near A	(bnod ha		STA	ATION-4 (S	Sea Water	noH dund	se)
Date	\$02	XON	PM10	PM2.5	00	502	XON	PM10	PM2.5	CO	\$02	XON	PM10	PM2.5	co	\$02	NOX	PM10	PM2.5	CO
	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02
	hg/m ³	pg/m ²	m/6rt	,m/brt	mg/m*	-m/6n	m/bri	hg/m ³	pid ma	mg/m ³	emięu	hg/m ³	hg/m ^a	, m/6n	mg/m ³	ug/m ²	"m/bri	em/pu	"m/bri	ma/m ³
1-Nov-23	5.0	2.0	36.0	28.0	0.6	6.0	4.0	51.0	11.0	0.7	6.0	4.0	22.0	11.0	0.6	7.0	7.0	52.0	48.0	0.9
2-Nov-23	5.0	2.0	13.0	8.0	0.6	6.0	3.0	23.0	5.0	0.6	6.0	3.0	10.0	3.0	0.5	7.0	7.0	27.0	18.0	0.6
3-Nov-23	5.0	2.0	12.0	5.0	0.6	6.0	3.0	21.0	2.0	0.6	6.0	3,0	13.0	3.0	0.2	7.0	8.0	28.0	12.0	6.0
4-Nov-23	5.0	3.0	22.0	0.6	0.6	6.0	3.0	33.0	4.0	9.6	6.0	3.0	15.0	4.0	0.4	6.0	8.0	39.0	18.0	0.9
5-Nov-23	5.0	3.0	37.0	7.0	0.5	6.0	3.0	29.0	3.0	0.6	6.0	2.0	25.0	4.0	0.4	7.0	7.0	31.0	13.0	0.8
6-Nov-23	5.0	3.0	12.0	9.0	0.6	6.0	3.0	23.0	2.0	0.6	6.0	2.0	0.11	3.0	0.5	6.0	7.0	25.0	10.0	0.9
7-Nov-23	5.0	3.0	19.0	8.0	0.5	6.0	3.0	20.0	4.0	0.6	6.0	3.0	20.0	2.0	0.4	7.0	7.0	22.0	12.0	0.9
8-Nov-23	5.0	3.0	6.0	4.0	0.7	6.0	3.0	26.0	3.0	0.6	6.0	4.0	20.0	4.0	0.4	7.0	7.0	31.0	20.0	1.0
9-Nov-23	5.0	2.0	7.0	2.0	0.7	6.0	4.0	12.0	4.0	0,6	6.0	3.0	19.0	2.0	0.4	6.0	7.0	20.0	13.0	1.0
10-Nov-23	5.0	2.0	12.0	8.0	2.0	6.0	5.0	26.0	5.0	0.6	6.0	3.0	42.0	6.0	0.5	7.0	7.0	26.0	16.0	1.0
11-Nov-23	4.0	2.0	64.0	46.0	0.8	6.0	5.0	71.0	19,0	0.7	6.0	3.0	58.0	18.0	0.4	7.0	8.0	70.0	47.0	1.0
12-Nov-23	4.0	2.0	89.0	41.0	0.9	2.0	5.0	84.0	16.0	0.6	6.0	4.0	57.0	24.0	0.5	6.0	8.0	96.0	76.0	0.9
13-Nov-23	5.0	2.0	96.0	43.0	0.7	7.0	5.0	58.0	19.0	0.5	6.0	3.0	59.0	29.0	0.5	7.0	8.0	94.0	96.0	0.8
14-Nov-23	5.0	2.0	59.0	49.0	0.8	7.0	4.0	11.0	16.0	0.6	6.0	4.0	32.0	18.0	0.6	7.0	7.0	75.0	56.0	0.9
15-Nov-23	6.0	3.0	16.0	12.0	0.6	6.0	5.0	11.0	13.0	0.5	7.0	3.0	20.0	13.0	0.5	6.0	6.0	61.0	46.0	0.8
16-Nov-23	5.0	2.0	17.0	11.0	0.7	6.0	5.0	16.0	14.0	0.5	6.0	4.0	23.0	12.0	0.6	7.0	6.0	59.0	39.0	0.7
17-Nov-23	4.0	2.0	43.0	32.0	0.5	7.0	4.0	37.0	12.0	0.7	6.0	3.0	24.0	10.0	0.4	7.0	7.0	58.0	48.0	0.5
18-Nov-23	4.0	2.0	20.0	18.0	0.6	6.0	4.0	14.0	5.0	0.6	8.0	4.0	14.0	5.0	0.4	7.0	7,0	34.0	22.0	0.6
19-Nov-23	4.0	2.0	12.0	8.0	0.6	5.0	4.0	22.0	3.0	0.6	8,0	4.0	10.0	3.0	0.5	7.0	8.0	24.0	14.0	0.6
20-Nov-23	4.0	2.0	26.0	15.0	0.4	5.0	4.0	39.0	7.0	0.6	8.0	4.0	15.0	5.0	0.3	7.0	8.0	40.0	25.0	0.5
21-Nov-23	4,0	3.0	26.0	18.0	0.5	6.0	4,0	21.0	6.0	0.6	6.0	3.0	16.0	10.0	0.6	6.0	4.0	31.0	21.0	0.6
22-Nov-23	4.0	3.0	22.0	11.0	0.5	6.0	4.0	26.0	11.0	0.5	7.0	3.0	18.0	6.0	0.5	6.0	6.0	21.0	23.0	0.5
23-Nov-23	4.0	5.0	15.0	6.0	0.4	5.0	5.0	19.0	9.0	0,6	8.0	4.0	11.0	0.6	0.5	6.0	5.0	24.0	16.0	0.5
24-Nov-23	4.0	4.0	12.0	6.0	0.4	5.0	4.0	24.0	4.0	0.6	8.0	4.0	17.0	8.0	0.5	7.0	6.0	24.0	12.0	0.6
25-Nov-23	4.0	3.0	16.0	4.0	0.5	5.0	4.0	23.0	3.0	0.6	8.0	4.0	0.6	3.0	0.5	4.0	7.0	24.0	0.6	9.0
26-Nov-23	4.0	2.0	26.0	6.0	0.5	5.0	4.0	27.0	3.0	0.6	8.0	4.D	14.0	4.0	0.5	8.0	9.0	32.0	14.0	0.6
27-Nov-23	4.0	2.0	27.0	18.0	0.5	5.0	5.0	28.0	4.0	0.6	8.0	4.0	21.0	5.0	0.4	8.0	0.6	36.0	28.0	0.4
28-Nov-23	4.0	2.0	26.0	4.0	0.4	4.0	5.0	32.0	4.0	0.6	8.0	4.0	18.0	4.0	0.4	8.0	9.0	35.0	071	0.6
29-Nov-23	4.0	2.0	24.0	6.0	0.4	4.0	4.0	24.0	3.0	0.5	8.0	4.0	11.0	4.0	0.5	8.0	8.0	31.0	16.0	0.6
30-Nov-23	4.0	2.0	24.0	5.0	0.4	4.0	4.0	17.0	6.0	0.6	8.0	4.0	0.6	2.0	6.0	8.0	8.0	20.0	11.0	0.7
amarks.	* Nil																1000	Strategical and		

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N							COP	2 X 600 MI	N MUTIAR	EN PRIV A THERMAL QUALITY	VATE L L POWER P MONITO	LIMITE LANT DRING REI	D							
		STATION	-1 (Near Mi	ain Office)	N. 167	SC W	STATI	ON-2 (Near	CHP)			STATION	-3 (Near A	sh Pond)		STA	ATION-4 (S	ea Water F	snoH dwn	e)
	eus	NUN	DM10	PMD 5	CO	502	XON	PM10	PM2.5	co	\$02	XON	PM10	PM2.5	co	\$02	NOX	PM10	PM2.5	co
Date	BU	80	100	60	02	80	80	100	60	02	80	80	100	60	02	80	80	100	60	02
	ua/m ²	na/ma	^c m/sn/	pg/m3	mg/m ³	19/m2	pig/m3	e ^{m/6rl}	pg/m ³	cm/pm	hg/m ³	em/64	hg/m ³	-ng/m ²	emigm	emilian	hg/m ²	hg/m ³	pg(m ³	mg/m ²
1-Dec-23	4.0	6.0	33.0	21.0	0.4	4.0	4.0	29.0	6.0	0.6	7.0	5.0	19.0	4.0	0.5	7.0	6.0	39.0	14.0	0.6
2-Dec-23	3.0	4.0	31.0	18.0	0.5	5.0	6.0	36.0	8.0	0.6	8.0	6.0	26.0	9.0	0.4	8.0	072	43.0	26.0	0.7
3-Dec-23	4.0	5.0	24.0	34.0	0.5	4.0	5.0	31.0	9.0	0.6	8.0	4.0	25.0	8.0	0.5	8.0	6.0	53.0	43.0	0.8
4-Dec-23	4.0	4.0	29.0	36.0	0.5	4.0	5.0	59.0	9.0	0.7	0.6	6.0	33.0	9.0	0.5	8.0	7.0	65.0	40.0	0.9
5-Dec-23	4.0	7.0	30.0	27.0	0.5	5.0	6.0	67.0	7.0	0.7	9.0	9.0	26.0	8.0	0,4	8.0	7.0	64.0	45.0	0.9
6-Dec-23	3.0	7.0	33.0	35.0	0.6	4.0	6.0	67.0	072	0.7	9.0	9.0	30.0	10.0	0.4	7.0	8.0	63.0	40.0	0.6
7-Dac-23	4.0	7.0	39.0	27.0	0.5	4.0	4.0	53.0	7.0	0.7	9:0	9.0	24.0	7.0	0.4	8.0	8.0	72.0	38.0	0.7
8-Dar-23	4.0	6.0	37.0	19.0	0.4	4.0	4.0	32.0	4.0	0.6	9.0	0.0	15.0	4.0	0.4	8.0	8.0	36.0	27.0	0.6
o Dec 23	0.4	2.0	36.0	18.0	0.5	4.0	4.0	20.0	9.0	0.6	9.0	0.0	0.7	2.0	0.4	8.0	7.0	22.0	14.0	0.9
07-040-A	OV.	02	0.64	23.0	9.0	4.0	4.0	33.0	5.0	0.7	8.0	0.6	13.0	5.0	0.4	7.0	8.0	38.0	28.0	0.7
07-090-01			VGV	34.0	90	4.0	4.0	44.0	7.0	0.7	8.0	9.0	19.0	9.0	0.2	7.0	8.0	50.0	38.0	0.7
C7-D90-11	7. 4 t	200	30.0	44.0	0.7	40	4.0	41.0	9.0	0.7	8.0	9.0	23.0	10.0	0.4	7.0	6.0	56.0	46.0	0.6
12-DeC-25	0.4	0.0	0.00	0.00	NO.		60	36.0	14.0	0.6	9.0	9.0	30.0	12.0	0.4	8.0	7.0	46.0	36.0	0.6
13-Uec-23	0.0	0.0	13.0	24.0	80	4.0	4.0	11.0	13.0	0.7	8.0	9.6	32.0	14.0	0.4	2.0	8.0	82.0	41.0	0.6
14-LIeC-23	0.4		0.04	36.10	20		4.0	39.0	15.0	0.7	8.0	9.0	38.0	19.0	0.4	8.0	8.0	0.99	43.0	0.7
13-1360-23	0.4	2 4	VEN	No.	10	40	4.0	51.0	13.0	0.8	8.0	9.0	21.0	11.0	0.5	8.0	8.0	68.0	0.98	0.6
67-09(1-91	4.0	0.1		24 D		07	4.0	31.0	7.0	0.7	8.0	9.0	12.0	6.0	0.4	7.0	9.0	33.0	37.0	0.8
17-Dec-23	4.0				3		•	•	•				26.2	•	•	•	*		14	
18-Dec-23	•			•		•	•				•	•	944			à	•	1.	*	•
19-080-23	•				•		•				•	•	•	•	***	4		•		
27-08-12		•	•	•			•		•	٠			•		•	•		3	•	
10 Dar 22	•	•		۲	•	۲	•		•	•	*		•	199	2.4.5	•		•	•	•
22-DEU-23	•	•	*		•			12	•		*	1.40	*	1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 - 1447 -	*	•	•	•	•	•
07-020-07	*	•		•	•	•			•	٠	*		•		*	•	•	•	•	9
02-DBU-42		*	•	•		٠	•	1.	•		•	•	*		(•)	X	•	•	•	•
00-000-00		•		•		•			*	•			•	•	•		•	•	•	•
C2-090-07		•	•		•		*			8	*				•	•	•1	•	*	•
Z1-UED-23		•			*	4.0	50	34.0	*	0.7	•		*	*			•	٠	•	•
28-Dec-23	•				•	4.0	6.0	39.0	#	0.7	s • s	*	•	100		668			•	
C2-090-62		•				4.0	4.0	38.0	#	0.7		•		191		1940	•	•	e	•
30-Dec-23			•			UV	50	49.0	#	0.6			•	•	•	3.813	•		•	•
31-Dec-23				- V II	1	4.V	un													
Remarks:	* Netwo	vrk issue då	nta not rece	eived. # An	alyzer prov	blem data.	VIADAT JOR	ea.						ľ		I.	1 1 1 m	Paral Paral		

For Coastal Energen Pvt. Limited

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) Jul-23				Aug-2	8			ONTINU sep-2	OUS ST/ Daily Aver	age from	SSION M 01.07.2023 NIT-1	ONITORI to 31.12.2	023 23	KI		Nov	8			Dec-23	
SO2 NOX Date SPM SO2 NOX	VOX Date SPM SO2 NOX nate	Date SPM SO2 NOX Parts	SPM SO2 NOX Date	SO2 NOX nate	NOX Date	Date	and the second se	SPM	\$02	NOX	Cale	SPM	502	NOX	Date	SPM	SO2	NOX	n the	SPM	SO2 NOX
າຜູາໄທ້ ³ [200 ຫຍູກໄທ້ ³] 450 ຫຍູກໄທ້ ³ [50 ຫຍູກໄທ້ ³] 200 ຫຍູກໄທ ³] 450 ຫຍູກໄທ້ ³ [50	mg/km ² 50 mg/km ³ 450 mg/km ² 50 mg/km ² 50	50 mg/um ² 200 mg/um ³ 450 mg/um ² 000 50	50 mg/hm ² 200 mg/hm ³ 450 mg/hm ² 040	200 mg/km ³ 455 mg/km ² 0 ate	450 mg/hm ² 0.010	50 E0	8	mg/Nm ³	"minion odd	150 mg/Nm ¹	nate	50 mg/Nm ²	200 ing/him2	450 mg/Nm ⁴	Date	50 mg/Mm ³	200 mg/Nm ³	450 mg/Nm ³	Late	50 mg/km ² 200	mg/Nm ³ 450 mg/h
1-Aug-23 43 170 204 1-Sep-23	1-Aug-23 43 170 204 1-Sep-23	1-Aug-23 43 170 204 1-Sep-23	43 170 204 1-Sep-23	170 204 1-Sep-23	204 1-Sep-23	1-Sep-23		41	141	139	1-Oct-23	47	117	97	1-Nov-23	37	123	133	1-Dec-23		
2-Aug-23 43 176 207 2-Sep-23	2-Aug-23 43 176 207 2-Sep-23	2-Aug-23 43 176 207 2-Sep-23	43 176 207 2-Sep-23	176 207 2-Sep-23	207 2-Sep-23	2-Sep-23		45	146	119	2-Oct-23	47	112	95	2-Nov-23	38	120	141	2-Dec-23		
3-Aug-23 39 131 150 3-Sep-23	3-Aug-23 39 131 150 3-Sep-23	3-Aug-23 39 131 150 3-Sep-23	39 131 150 3-Sep-23	131 150 3-Sep-23	150 3-Sep-23	3-Sep-23		42	154	125	3-0ct-23	48	136	126	3-Nov-23	37	121	148	3-Dec-23		
4-Aug-23 45 191 226 4-Sep-23	4-Aug-23 45 191 226 4-Sep-23	4-Aug-23 45 191 2226 4-Sep-23	45 191 226 4-Sep-23	191 226 4-Sep-23	226 4-Sep-23	4-Sep-23		45	143	114	4-Oct-23	47	154	171	4-Nov-23	66	146	124	4-Dec-23		
02-09-20 9-20-20	o-velocity of the second of th	0-Mug-20	2-06P-23	0-060-C0	0-260-52	0-040-C2		5	124	20	5-001-23	48	CQL	0/1	SZ-VON-C	8	82	511	5-Dec-23		
0-och-rs	0-060-0	ez-dae-o	6-3cb-69	0-060-53	0-3ep-23	0-965-0			711	101	0-UCI-23				62-VON-0	40	13/	nzL	0-Dec-23		
	1-209-23	1-Aug-43	1-Sep-23	1-Sep-23	1-Sep-23	1-Sep-23		45	142	138	1-Uct-23	12D	nol in operat	upo	2-NON-73				7-Dec-23		
9-Mug-23 9-Auto-23	0-NU2-63 9-64:0-23	0-Mug-23 0-Airo-23	8-56P-23	8-21ep-2.3 0.Sec-23	8-216P-2.3	8-369-23 0.San-23		44 64	100	177	8-UCT-23	44	145	187	EZ-VON-8				8-Dec-23		
10-Auto-23	TC-Auo-23	10-Aug-23	10-Sec-23	10-Sen-23	10-Sen-23	10-Sen-23		45	162	173	10-04-23	46	154	160	EC-NON-DI				10.Dec.93		
Unit not in operation 11-Aug-23 11-Sep-23	11-Aug-23 11-Sep-23	11-Aug-23	11-Sep-23	11-Sep-23	11-Sep-23	11-Sep-23		45	149	166	11-Oct-23	42	169	172	11-Nov-23				11-Dec-23		
12-Aug-23 12-Sep-23	12-Aug-23	12-Aug-23	12-Sep-23	12-Sep-23	12-Sep-23	12-Sep-23		45	184	214	12-Oct-23	40	116	167	12-Nov-23				12-Dec-23		
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24 , 4_{ubc} \cdot \cdot 24 , $5ep$ 39 169 \cdot 24 , $0cb$ 415 \cdot 24 , $5ep$ 39 161 109 25 , $0cb$ 24 45 166 17 26 , $4up$ \cdot \cdot 25 , $2ep$ 39 161 109 25 , $0wc$ 43 151 16 26 , $4up$ 165 193 26 , $5ep$ 32 46 170 190 $2e$, $0wc$ 43 151 16 27 , $4up$ 138 165 177 27 , $5ep$ 34 154 182 28 , $6ep$ 34 141 12 27 , $4up$ 36 155 182 28 , $5ep$ 34 161 123 28 , $0c+23$ 34 142 17 12 29 , $4up$ 160 25 , $6ep$ 33 182 186 28 44 125 115 29 , $4up$ 163 102 29 163 163 160 26 160 27 <	24. Aug.23 41 \cdot 24. Sep.23 39 169 \cdot 24. Oct.23 45 176 179 24. Now-23 45 166 179 24. Oct.23 25. Aug.23 41 \cdot 25. Sep.23 39 161 109 25. Oct.23 45 161 169 24. Oct.23 45 161 170 24. Oct.23 45 161 170 24. Oct.23 46 170 190 25. Now-23 46 171 132 24. Oct.23 24 161 132 26. Oct.23 40 161 160 25. Oct.23 24 161 162 26. Now-23 44 141 132 24. Oct.23 24 161 162 25. Oct.23 24 161 162 25. Oct.23 24 161 162 26. Oct.23 24 162 161 162 26. Oct.23				23-Aug-23	3 47	128	147	23-Sep-23	36	132	86	23-Oct-23	49	195	183	23-Nov-23	45	172	201	23-Dec-23	Unit	not in operati	50	
25-Aug-23 41 \cdot z 25-Sep-23 39 161 109 25-Oct-23 46 170 190 26-Nov-23 43 151 16 26-Aug-23 38 165 193 25-Sep-23 42 160 123 26-Oct-23 42 164 186 27-Nov-23 44 141 12 27-Aug-23 36 155 186 177 27-Sep-23 37 182 160 152 201 27-Nov-23 44 142 15 28-Aug-23 36 155 180 28-Sep-23 37 182 160 152 201 27-Nov-23 44 142 15 28-Aug-23 36 153 160 29-Sep-23 37 182 28-Nov-23 44 142 15 29-Aug-23 43 163 163 29-Sep-23 37 117 21-Oct-23 37 140 162 28-Nov-23 44 152 15 15 30-Aug-23 43 163 160 150-Oct-23 36 170 </td <td>Z5-Aug-23 41 • 29-Sep-23 39 161 109 25-Sob/23 43 161 165 25-Dec/23 Z6-Aug-23 38 165 193 26-Sep-23 42 160 123 26-Oc/23 44 141 132 26-Dec/23 27-Dec/23 Z6-Aug-23 38 165 177 Z7-Sep-23 44 154 145 143 132 26-Dec/23 37 Z7-Aug-23 36 155 186 177 27-Sep-23 37 181 170 152 261 27-Dec/23 37 29-Dec/23 37 141 132 26-Dec/23 37 29-Dec/23 37 141 132 26-Dec/23 37 29 27-Dec/23 37 29 29 27-Dec/23 37 20 20 27-Dec/23 37 20 20 27-Dec/23 37 29 29 27-Dec/23 37 29 27-Dec/23 36 17 20 20 27-De</td> <td></td> <td></td> <td></td> <td>24-Aug-23</td> <td>41</td> <td>•</td> <td>٠</td> <td>24-Sep-23</td> <td>39</td> <td>169</td> <td>•</td> <td>24-Oct-23</td> <td>48</td> <td>176</td> <td>179</td> <td>24-Nov-23</td> <td>45</td> <td>166</td> <td>179</td> <td>24-Dec-23</td> <td></td> <td></td> <td></td>	Z5-Aug-23 41 • 29-Sep-23 39 161 109 25-Sob/23 43 161 165 25-Dec/23 Z6-Aug-23 38 165 193 26-Sep-23 42 160 123 26-Oc/23 44 141 132 26-Dec/23 27-Dec/23 Z6-Aug-23 38 165 177 Z7-Sep-23 44 154 145 143 132 26-Dec/23 37 Z7-Aug-23 36 155 186 177 27-Sep-23 37 181 170 152 261 27-Dec/23 37 29-Dec/23 37 141 132 26-Dec/23 37 29-Dec/23 37 141 132 26-Dec/23 37 29 27-Dec/23 37 29 29 27-Dec/23 37 20 20 27-Dec/23 37 20 20 27-Dec/23 37 29 29 27-Dec/23 37 29 27-Dec/23 36 17 20 20 27-De				24-Aug-23	41	•	٠	24-Sep-23	39	169	•	24-Oct-23	48	176	179	24-Nov-23	45	166	179	24-Dec-23				
Ze.Aug-23 38 165 193 26-Sep-23 42 164 185 26-Nov23 44 141 13 Z7-Aug-23 43 186 177 27-Sep-23 44 154 118 27-Oct23 40 152 201 27-Nov23 44 142 17 Zr-Aug-23 36 155 182 28-Sep-23 37 182 183 28-Oct-23 34 162 27-Nov23 44 142 15 28-Aug-23 36 153 180 29-Sep-23 37 182 28-Nov23 44 142 15 12 28-Aug-23 38 153 180 29-Sep-23 37 177 112 29-Oct-23 37 140 162 28-Nov-23 44 152 15 30-Aug-23 43 163 160 29-Sep-23 34 163 162 28-Nov-23 44 152 16 30-Aug-23 36 143 163 </td <td>26. Aug.23 38 165 193 26. Set Sep 23 42 160 123 26-0c-23 26-0c-23 44 134 132 26-0c-23 26-0c-23</td> <td></td> <td></td> <td></td> <td>25-Aug-2</td> <td>3 41</td> <td>•</td> <td></td> <td>26-Sep-23</td> <td>39</td> <td>161</td> <td>109</td> <td>25-Oct-23</td> <td>46</td> <td>170</td> <td>190</td> <td>26-Nov-23</td> <td>43</td> <td>151</td> <td>165</td> <td>25-Dec-23</td> <td></td> <td></td> <td></td>	26. Aug.23 38 165 193 26. Set Sep 23 42 160 123 26-0c-23 26-0c-23 44 134 132 26-0c-23				25-Aug-2	3 41	•		26-Sep-23	39	161	109	25-Oct-23	46	170	190	26-Nov-23	43	151	165	25-Dec-23				
Z7.Aug-23 43 186 177 27.Sep-23 44 154 118 27.Oct-23 40 152 201 27.Nov-23 44 142 133 2B-Aug-23 36 155 182 28.Sep-23 37 182 103 28-Oct-23 34 163 182 28-Nov-23 44 125 12 2B-Aug-23 38 153 160 29-Sep-23 37 177 112 29-Oct-23 37 140 162 28-Nov-23 44 155 16 29-Aug-23 43 163 160 29-Sep-23 37 167 122 24 162 28-Nov-23 44 155 16 30-Aug-23 43 163 160 162 28-Nov-23 44 152 16 16 166 30-Nov-23 44 155 16 16 160 166 316 156 156 15 156 15 156 156 15 <td< td=""><td>Z7.Aug.23 43 186 177 Z7.Sep.23 44 154 118 Z7.Ocb.23 40 152 201 Z7.Nov.23 44 142 137 Z7.Dec.23 37 27.Dec.23 37 27.Dec.23 37 27.Dec.23 37 182 182 163 182 182 182 182 182 182 28.Nov.23 44 125 123 28-Dec.23 37 1 29.Aug.23 36 153 160 29.Sep.23 37 112 29-Ouc.23 24 162 29-Nov.23 44 125 126 29-Dec.23 37 1 29.Aug.23 36 144 183 30-Sep.23 34 160 166 30-Nov.23 44 152 106 36 16 36 36 37 16 36 36 16 36 36 36 16 36 36 36 36 36 36 36 36 36 36</td><td></td><td></td><td></td><td>26-Aug-22</td><td>3 38</td><td>165</td><td>193</td><td>26-Sep-23</td><td>42</td><td>160</td><td>123</td><td>26-Oct-23</td><td>42</td><td>164</td><td>185</td><td>26-Nov-23</td><td>44</td><td>141</td><td>132</td><td>26-Dec-23</td><td></td><td></td><td></td></td<>	Z7.Aug.23 43 186 177 Z7.Sep.23 44 154 118 Z7.Ocb.23 40 152 201 Z7.Nov.23 44 142 137 Z7.Dec.23 37 27.Dec.23 37 27.Dec.23 37 27.Dec.23 37 182 182 163 182 182 182 182 182 182 28.Nov.23 44 125 123 28-Dec.23 37 1 29.Aug.23 36 153 160 29.Sep.23 37 112 29-Ouc.23 24 162 29-Nov.23 44 125 126 29-Dec.23 37 1 29.Aug.23 36 144 183 30-Sep.23 34 160 166 30-Nov.23 44 152 106 36 16 36 36 37 16 36 36 16 36 36 36 16 36 36 36 36 36 36 36 36 36 36				26-Aug-22	3 38	165	193	26-Sep-23	42	160	123	26-Oct-23	42	164	185	26-Nov-23	44	141	132	26-Dec-23				
28-Aug-23 36 155 182 28-Sep-23 37 182 103 28-Oct-23 34 163 182 28-Nov-23 44 125 12 29-Aug-23 38 153 160 29-Sep-23 37 177 112 29-Oct-23 37 140 162 28-Nov-23 44 155 15 30-Aug-23 43 144 183 30-Sep-23 34 163 30-Oct-23 36 170 162 28-Nov-23 45 155 15 31-Aug-23 36 142 183 30-Sep-23 34 163 30-Nov-23 45 156 15 31-Aug-23 36 142 185 36 33 160 154 36 156 </td <td>ZP-Aug-23 36 155 182 28-56-23 37 182 163 182 28-Now-23 44 125 123 28-06-23 37 37 29-Aug-23 38 153 160 29-Sep-23 37 171 112 29-06-23 37 140 162 29-Now-23 44 153 28-Dec-23 35 30-Aug-23 36 144 183 30-Sep-23 37 112 29-06-23 37 140 162 29-Now-23 44 155 30-Dec-23 35 36</td> <td></td> <td></td> <td></td> <td>27-Aug-22</td> <td>43</td> <td>186</td> <td>177</td> <td>27-Sep-23</td> <td>44</td> <td>154</td> <td>118</td> <td>27-Oct-23</td> <td>40</td> <td>152</td> <td>201</td> <td>27-Nov-23</td> <td>44</td> <td>142</td> <td>137</td> <td>27-Dec-23</td> <td></td> <td></td> <td></td>	ZP-Aug-23 36 155 182 28-56-23 37 182 163 182 28-Now-23 44 125 123 28-06-23 37 37 29-Aug-23 38 153 160 29-Sep-23 37 171 112 29-06-23 37 140 162 29-Now-23 44 153 28-Dec-23 35 30-Aug-23 36 144 183 30-Sep-23 37 112 29-06-23 37 140 162 29-Now-23 44 155 30-Dec-23 35 36				27-Aug-22	43	186	177	27-Sep-23	44	154	118	27-Oct-23	40	152	201	27-Nov-23	44	142	137	27-Dec-23				
29-huje-23 38 153 160 29-sep-23 37 112 29-oct-23 37 140 162 29-hov-23 44 152 10 30-huje-23 43 144 183 30-sep-23 34 163 104 30-oct-23 36 170 196 30-Nov-23 45 156 15 31-Aug-23 36 142 183 30-sep-23 34 163 30-oct-23 36 15 156 15	29-Aug-23 38 153 160 29-Sep-23 37 177 112 29-Oct-23 37 140 162 29-Nov-23 44 152 106 29-Dec-23 35 36 37 31 170 160 162 29-Nov-23 45 155 30-Dec-23 35 31 30-Aug-23 36 144 183 30-Sep-23 34 163 30-Nov-23 45 155 30-Dec-23 35 31 31-Aug-23 36 142 185 30-Sep-23 34 160 154 36 155 30-Dec-23 35 16 31 36 17 166 31 31 31 31 36 154 156 156 31 31 31 31 31 31 31 36 160 154 156 31 31 31 31 31 31 31 31 31 31 31 31 31 31 <td< td=""><td></td><td></td><td></td><td>2B-Aug-22</td><td>1 36</td><td>155</td><td>182</td><td>28-Sep-23</td><td>37</td><td>182</td><td>103</td><td>28-Oct-23</td><td>34</td><td>163</td><td>182</td><td>28-Nov-23</td><td>44</td><td>125</td><td>123</td><td>28-Dec-23</td><td>37</td><td>122</td><td>E</td></td<>				2B-Aug-22	1 36	155	182	28-Sep-23	37	182	103	28-Oct-23	34	163	182	28-Nov-23	44	125	123	28-Dec-23	37	122	E	
30-Aug-23 43 144 183 30-Sep-23 34 163 104 30-Oct-23 36 170 196 30-Nov-23 45 156 15 31-Aug-23 36 142 185 30-Sep-23 34 163 104 30-Oct-23 35 156 36 154 36 154 156 15	30. Aug.23 43 144 183 30-Sep.23 34 163 170 196 30-Nov.23 45 155 30-De0.23 31 31-Aug.23 36 142 185 30-Sep.23 34 31-Out.23 33 160 154 756 155 31-De0.23 31 31-Aug.23 36 142 185 30-Sep.23 31 160 154 76 155 31-De0.23 31 Intro 8 marks . Remarks . . Remarks . Remarks .				29-Aug-2	38	153	160	29-Sep-23	37	177	112	29-Oct-23	37	140	162	29-Nov-23	44	152	106	29-Dec-23	98	146	64	
31-Aug-23 36 142 185 31-Oct-23 33 160 154 51	31-Aug-23 36 142 185 185 31-Oct-23 33 160 154 9 31-Occ-23 Unit no 1 Remarks				30-Aug-25	43	144	183	30-Sep-23	34	163	104	30-Oct-23	36	170	196	30-Nov-23	45	156	155	30-Dec-23	31	164	69	
	. Remarks . Remarks . Remarks . Remarks .				31-Aug-2:	36	142	185					31-Oct-23	33	160	154					31-Dec-23	Unit	not in operati	uo	
Remarks Remarks - Re					Remarks	1.			Remarks	*			Remarks	8			Remarks				Remarks				

MARM CINERER P. 1.

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Interference (not for the matrix) Interference (not for the matrix)<	SIE	2						2 X 600 MW MUTIAKA THEKWAL METROLOGICAL STATION Daily Average from 01.08.2023 t	REPORT 0.31.08.2022						
min type	ato.	Amb	ient Tempera	ture (°C)	Barom	letric Pressure	(m.bar)	Predominant Wind direction	WE	nd Speed (Km	(Hr)	Rela	ative Humidity	(%)	Rain Fall (mm)
900 70 901 700 1000		Min	Max	Avg	Min	Max	Avg	Blowing trom	Min	Max	Avg	Min	Max	Avg	
9:9 9:1 2:3 10:0 10:3 10	ug-23	27.8	39.3	32.4	1036	1039	1037	West & South West	ю	25.81	11.56	32.1	67.8	50,7	0
(3) (3) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) <td>52-00</td> <td>27.8</td> <td>39.1</td> <td>32,3</td> <td>1037</td> <td>1039</td> <td>1038</td> <td>West & South West</td> <td>4.75</td> <td>27.7</td> <td>13.33</td> <td>30</td> <td>64.9</td> <td>50.7</td> <td>0</td>	52-00	27.8	39.1	32,3	1037	1039	1038	West & South West	4.75	27.7	13.33	30	64.9	50.7	0
30 210 301 201 301	10-23	26.9	39.5	32.2	1036	1039	1038	West & South West	1.23	29.13	11.98	33.4	70.4	53.7	0
30 31<	10-23	27.6	39.3	32.7	1037	1040	1039	West & South East	1.23	26.15	9.83	32,4	68.1	51.6	0
3 2:1 3:2 3:1 1:1	52-01	26.5	37.7	31.3	1038	1041	1040	West & South East	1.23	29.07	10.24	33.3	74.3	55.7	0
3 3 5	0-23	27.1	38.7	32	1037	1041	1039	West & South East	1.81	31.16	10.76	36	71.6	55.4	0
3 3 1	0-23	25.8	39.2	31.5	1036	1039	1038	West & South East	1.23	33.37	9.97	36.1	75.8	58.8	0
0 0	50-0	26.7	38.1	31.3	1037	1040	1038	South East & West	1.23	29.83	9.46	37.3	84.9	61.1	0
3 5 6 2 10 101 103 Sunflast Ent 123 243 0 2 6 6 66 763 701 0 3 5 5 5 5 5 5 5 5 5 6 7 5 6 7 5 7 10 0 3 5 5 1<	EC-D	25.6	37.2	30.5	1038	1040	1039	South East & North West	1.23	30.9	9.02	42.1	80.4	65.5	0
3.2 3.6 3.6 1.01 1.01 1.03 Southered Shoth Wetet 1.23 27.3 3.6 27.5 27.3 3.6 3.7 7.7 7.7 3.23 3.26 3.07 1.007 1.000 1.038 South Meet & South State & Neth Wetet 1.23 3.61 7.21 6.63 6.64 0.0 3.23 3.2 3.16 1.007 1.000 1.038 South Meet & South State & Neth Wetet 1.23 2.978 9.93 7.17 6.63 0 3.24 3.27 3.26 3.27 3.26 3.27 7.23 2.93 7.17 5.93 0 <td>10-23</td> <td>25.9</td> <td>35.6</td> <td>29.8</td> <td>1038</td> <td>1041</td> <td>1039</td> <td>South East & East</td> <td>1.23</td> <td>24.83</td> <td>8.59</td> <td>50.2</td> <td>84.6</td> <td>69.8</td> <td>0</td>	10-23	25.9	35.6	29.8	1038	1041	1039	South East & East	1.23	24.83	8.59	50.2	84.6	69.8	0
3 3	10-23	25.4	35.8	29.8	1037	1041	1039	South East & North West	1.23	27.31	5.8	52	82.9	70.7	0
3 3 0 103 100 103 Soun Test & North Wett 1/2 3/1 6/2 3/2 6/2 103	10-23	25.4	36.6	29.7	1037	1040	1039	West & North West	1.23	28.18	7.61	40.7	80.9	67.8	0
model model 103	10-23	26.3	38	30.6	1037	1040	1038	South East & North West	1.23	34.16	7.52	39.4	85.2	66.4	0
model model filter filter <td>20.0</td> <td>28.4</td> <td>37</td> <td>Æ</td> <td>1037</td> <td>1040</td> <td>1038</td> <td>West & South East</td> <td>1.23</td> <td>29.69</td> <td>9.54</td> <td>44.9</td> <td>7.17</td> <td>60.9</td> <td>0</td>	20.0	28.4	37	Æ	1037	1040	1038	West & South East	1.23	29.69	9.54	44.9	7.17	60.9	0
grow size size <th< td=""><td>20-03</td><td>25.9</td><td>98</td><td>31</td><td>1037</td><td>1040</td><td>1039</td><td>South East & West</td><td>1.23</td><td>32.47</td><td>11,39</td><td>41.9</td><td>76.4</td><td>59.8</td><td>Q</td></th<>	20-03	25.9	98	31	1037	1040	1039	South East & West	1.23	32.47	11,39	41.9	76.4	59.8	Q
arr 11 (107) (100) (108) South Weet & South East 312 315 751 553 701 563 701 arr 362 313 109 1090 1030 1038 Weet & South Weet & South East 513 259 751 553 500 0 arr 363 313 1030 1038 Weet & South Weet & Weet 513 209 751 653 0 arr 313 314 1035 Veet & South East 123 320 313 418 825 660 0 arr 313 101 Veet & South East & Veet 123 317 110 107 10 0 arr 313 313 1037 Weet & South East 123 313 121 313 121 313 110 100 100 100 100 100 100 100 100 100 100 100 100 100 100 10	20.01	25.6	35.7	30.4	1037	1040	1039	South West & South East	1.37	32.26	11.21	36.8	73.7	58.4	0
37.1 36.1 31.9 1036 1030 1036 50.00 1036 1030 1037 1036 1036 1036 1037 1036 1036 1037 1036 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1037 1036 1037 1037 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 <t< td=""><td>EC-01</td><td>25.9</td><td>38.2</td><td>31.6</td><td>1037</td><td>1040</td><td>1039</td><td>South West & South East</td><td>3.02</td><td>31.5</td><td>12.67</td><td>28.9</td><td>75.1</td><td>55.3</td><td>0</td></t<>	EC-01	25.9	38.2	31.6	1037	1040	1039	South West & South East	3.02	31.5	12.67	28.9	75.1	55.3	0
37.5 38.4 32. 103e 103e Viset & South West: 5.31 32.38 14.12 31.1 66.5 51.2 00 0 0 92.32 25.9 37.7 30.7 1006 1037 South Test & West 123 31.0 1067 66.1 7.23 56.9 36.5 62.8 56.0 0 92.32 26.4 37.2 30.7 1006 1037 South Test & West 123 31.7 10.07 66.1 77.3 65.8 0 92.33 26.5 31.7 1066 1039 1037 South Test & West 123 31.7 13.8 123 31.7 13.8 17.3 35.9 10.7 56.0 0 0 92.33 26.5 36.9 1037 South Test & West 123 31.7 11.39 31.7 11.39 31.7 11.39 56.0 0 0 92.33 26.9 1037 South Test & West 1.22 <td< td=""><td>0-23</td><td>26.7</td><td>38</td><td>31.9</td><td>1036</td><td>1040</td><td>1038</td><td>South West & West</td><td>2.49</td><td>32.66</td><td>12.83</td><td>29.7</td><td>71.3</td><td>50.9</td><td>0</td></td<>	0-23	26.7	38	31.9	1036	1040	1038	South West & West	2.49	32.66	12.83	29.7	71.3	50.9	0
973 261 377 30.7 1006 1037 West & South East & West 123 32.0 93.9 93.6 64.4 60.7 60.7 90.1 923 762 37.4 1005 1037 South East & West 123 31.0 1007 61.7 73.5 59.9 0 923 765 31.7 1036 1037 South East & West 12.3 31.61 12.17 35.5 66.0 0 923 765 31.7 1036 1037 South East & West 12.3 31.61 12.17 35.5 66.0 0 0 923 765 31.7 1036 1037 South East & West 12.3 31.61 12.17 32.7 69.2 56.0 0 0 923 76.5 31.7 1036 1037 South East & West 12.2 31.61 12.17 32.7 69.3 60.0 0 0 0 0 0 0 0	10-23	27.5	38.4	32	1035	1039	1038	West & South West	5.31	32.98	14.12	31.1	66.5	51.2	0
g23 B2 314 1035 1037 Scunfest & West 1.23 310 1017 461 77.3 65.0 0 g23 28.4 37.5 31.7 1036 1037 Scunfest & West 1.23 33.01 1037 461 77.3 65.0 0 g23 28.5 31.7 1036 1039 Scunfest & West 1.23 33.17 9.68 55.0 0 0 g23 26.5 36.5 31.0 1036 Vest & Scunfest & West 1.23 33.17 9.68 56.0 0 0 g23 26.5 36.5 31.0 1036 Vest & Scunfest 1.23 33.17 11.39 37.8 56.0 0 0 g23 36.5 36.7 1038 Vest & Scunfest 1.23 37.9 13.9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <t< td=""><td>10-23</td><td>25.9</td><td>37.7</td><td>30.7</td><td>1036</td><td>1039</td><td>1037</td><td>West & South East</td><td>1.23</td><td>32.0</td><td>66'6</td><td>33.8</td><td>84.9</td><td>60.7</td><td>0</td></t<>	10-23	25.9	37.7	30.7	1036	1039	1037	West & South East	1.23	32.0	66'6	33.8	84.9	60.7	0
q-g-3 besit 1036 1036 1036 1037 South East & Worth Visat 1007 46.1 77.3 60.00 0 g-23 26.6 1036 1036 1036 1037 South East & Worth 123 31.0 1037 66.0 0 g-23 26.5 31.7 1036 1039 1037 South East & West 1.23 31.77 11.36 22.5 66.0 0 g-23 26.5 31.7 1036 1039 1037 South East & West 1.23 31.77 11.36 27.6 66.0 0 g-23 26.5 37.4 32.7 1036 1036 South West & South East & West 1.23 31.77 11.36 37.8 76.9 60.8 0 0 g-23 26.5 37.4 32.5 30.9 1036 West & South East & West 1.23 31.77 11.45 36.3 60.8 0 0 g-23 26.3 36.9	1g-23	26.2	37.6	31.4	1035	1038	1037	South East & West	1,23	31	9.61	38.5	82.8	08.8	0
gr 23 26.6 1036 1036 1037 West & Wost 123 33.99 1037 44.8 92.5 66.0 0 gr 23 26.7 31.7 1035 1037 West & South East & West 123 31.17 1398 92.5 56.4 0 gr 23 26.5 31.0 1036 1037 West & South East 123 31.71 1398 32.51 58.4 0 0 gr 23 25.5 36.5 31.0 1036 1038 South West & South East 123 31.71 1398 32.51 58.9 0 0 gr 32 25.5 36.5 37.4 32 1036 1038 South West & South West 123 31.7 11.85 36.9 36.9 60.8 0 gr 32.5 36.1 1036 1038 South West & South West 123 37.2 56.9 60.8 0 0 gr 32.5 36.1 1036 1038 South West & South West </td <td>1g-23</td> <td>26.4</td> <td>37.2</td> <td>30.7</td> <td>1035</td> <td>1039</td> <td>1037</td> <td>South East & North West</td> <td>1.23</td> <td>31.01</td> <td>10.01</td> <td>46.1</td> <td>2173</td> <td>65.8</td> <td>0</td>	1g-23	26.4	37.2	30.7	1035	1039	1037	South East & North West	1.23	31.01	10.01	46.1	2173	65.8	0
ages arr arr<	IQ-23	26	35.8	30.6	1036	1039	1038	South East & West	1.23	33.99	10.31	44.8	82.6	65.0	0
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19-23 26.1 36 31 1036 1037 1036 1037 1036 <t< td=""><td>Jq-23</td><td>25.6</td><td>36.5</td><td>31.0</td><td>1036</td><td>1039</td><td>1037</td><td>South East & West</td><td>1,23</td><td>33.17</td><td>9.98</td><td>35.1</td><td>74.5</td><td>28.0</td><td>0</td></t<>	Jq-23	25.6	36.5	31.0	1036	1039	1037	South East & West	1,23	33.17	9.98	35.1	74.5	28.0	0
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1 1 <td>ua-23</td> <td>26.5</td> <td>37.4</td> <td>32</td> <td>1036</td> <td>1040</td> <td>1038</td> <td>West & South West</td> <td>1.23</td> <td>34.2</td> <td>11.93</td> <td>36.9</td> <td>68.2</td> <td>55.8</td> <td>o</td>	ua-23	26.5	37.4	32	1036	1040	1038	West & South West	1.23	34.2	11.93	36.9	68.2	55.8	o
10-23 25.9 35.1 29.9 1036 1038 South East & West 1.23 29.27 9.03 45.2 78.7 66.8 0 10-23 26.2 35.3 30.2 1036 1036 1038 South East & West 1.23 24.5 9.33 61.8 86.5 69.3 0 10-21 26.2 35.3 30.2 1036 1036 South East & West 1.23 24.5 9.33 51.8 86.5 69.3 0 10-10 mm. 0.0 mm. 0.0 mm. 10.3 10.3 10.0 mm.	un-23	26.3	35.9	30.9	1035	1039	1038	South East & South West	1.23	30	10.65	45.5	78.9	63.5	0
10-23 26.2 35.3 30.2 1036 1036 1036 1036 1036 1036 1036 1036 1036 1036 1036 1036 1036 1037 1037 1036 1036 1036 1036 1036 1036 1036 1036 1037	ug-23	25.9	35.1	29.9	1036	1039	1038	South East & West	1.23	29.27	9.03	45.2	7.87	66.8	0
Total Rainfail for the month 0.0 mm.	ug-23	26.2	35.3	30.2	1036	1039	1038	South East & West	1.23	24.5	9.33	51.8	86.5	69.3	0
For Coasta Lineral For Coasta Lineral For Coasta Lineral Liner	arks:	Total Rain	fall for the mo	nth	0.0	mm.									1 1
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Min May May <th>min mode mode</th> <th>Inte Mat Mat<th></th><th>Ambier</th><th>It Temperatur</th><th>'e (°C)</th><th>Barom</th><th>etric Pressure</th><th>(m.bar)</th><th>Predominant Wind direction</th><th>iWi</th><th>nd Speed (Km</th><th>(Hr)</th><th>Rel</th><th>ative Humidity</th><th>(%)</th><th>Rain Fall (mm)</th></th>	min mode	Inte Mat Mat <th></th> <th>Ambier</th> <th>It Temperatur</th> <th>'e (°C)</th> <th>Barom</th> <th>etric Pressure</th> <th>(m.bar)</th> <th>Predominant Wind direction</th> <th>iWi</th> <th>nd Speed (Km</th> <th>(Hr)</th> <th>Rel</th> <th>ative Humidity</th> <th>(%)</th> <th>Rain Fall (mm)</th>		Ambier	It Temperatur	'e (°C)	Barom	etric Pressure	(m.bar)	Predominant Wind direction	iWi	nd Speed (Km	(Hr)	Rel	ative Humidity	(%)	Rain Fall (mm)
201 302 202 100 <th>2 3 3 10 100</th> <th>0 0.20 0.00 100 0.0</th> <th></th> <th>Min</th> <th>Max</th> <th>Avg</th> <th>Min</th> <th>Max</th> <th>Avg</th> <th>Blowing from</th> <th>Min</th> <th>Max</th> <th>Avg</th> <th>Min</th> <th>Max</th> <th>Avg</th> <th></th>	2 3 3 10 100	0 0.20 0.00 100 0.0		Min	Max	Avg	Min	Max	Avg	Blowing from	Min	Max	Avg	Min	Max	Avg	
Disc Sign Disc Topic Conditioned List Sign	0 0	0 0	53	25.8	35.3	29.9	1036	1040	1038	South East & South West	1.23	31.77	11.27	51.1	81.4	¥ 69	0
3 3 2 7 2 103	1 1 2 1 2 1 2 1 2 1 2 1	1 1	63	25.4	36.4	28.8	1036	1039	1038	South West & West	1.23	38.16	8.7	46.6	89.2	73.5	-
3 3 3 1	9 9 9 1 9 1 0	0 0	33	25	37	29.7	1035	1039	1037	South West & West	1.23	32.8	10.89	39.7	86.5	68.2	0
1 2 5 3:1 1005 1003	1 1 105 108 103	0 255 371 106 107 Wert Stant/Wat 327 121 </td <td>33</td> <td>26.7</td> <td>35.8</td> <td>30.5</td> <td>1035</td> <td>1037</td> <td>1036</td> <td>West & South West</td> <td>2.59</td> <td>33.31</td> <td>15.51</td> <td>38.3</td> <td>75.6</td> <td>58.7</td> <td>D</td>	33	26.7	35.8	30.5	1035	1037	1036	West & South West	2.59	33.31	15.51	38.3	75.6	58.7	D
3 27.9 37.6 31.3 1005 1007 1000 1003 5001 1003 10	0 229 37.1 37.	0 729 931 1031 1030 1037 5030 1037 1031	33	28.6	35.6	31.1	1035	1038	1037	West & South West	4,31	28.12	13.32	41.8	64.8	55.6	0
3 26.5 36.6 30.3 1037 1040 1038 South West & West 2577 26.66 11.16 10.3 71.2 55.7 71.2 55.7 71.3 55.7 71.3 55.7 71.3 55.7 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 60.0 71.3 55.6 55.3 55.6 71.3 55.6 71.3	3 3 1037 1040 1033 South Week & Weel 2 3 3 1037 1040 1030 1	0 0.05 0.07 0.00 0.05 SouthWast & Verset 2.87 9.86 1.16 0.92 7.34 6.57 0.05	13	27.9	37.8	31.3	1036	1039	1037	South West & West	3.26	31.21	12.11	35.1	67.6	55.8	0
3 27.3 37.5 31.3 1037 1040 1038 South Wast & Weist 2.861 34.56 71.2 55.6 71.2 55.6 71.2 55.6 71.2 55.6 71.2 55.6 71.2 55.6 71.2 55.6 71.2 55.6 55.2 55.9 70.0 2 28.3 37.1 31.3 1036 1039 1037 Numst & Weit & South West & South West & Weit & South West & South West & South West & South West & Weit & South West & We	72 3/5 3/15 107 100 103 Sommwerk Wreet 249 3426 123 3456 17.2 556 70.2 550 70.2	0 223 313 010 1040 103 Sommweix Wreit 246 3430 1345 645 712 655 70 2 245 317 103 1039 1037	03	26.5	35.6	30.3	1037	1040	1038	South West & West	2.57	26.95	11.16	40.9	73.4	59.7	0
3 28.4 38.1 31.6 1036 1036 1036 1036 1036 1037 South West & West 2.34 3.45 6.61 5.2.6 6.2.3 5.2.6 6.2.3 5.2.6 6.2.3 5.2.6 6.2.3 5.2.3 6.0 0 21 71.7 37.2 31.7 1036 1037 West & South West & West 4.15 2.343 36.5 6.2.5 5.2.3 0 0 21 37.2 37.1 1036 1039 103	3 3 3 1	0 0	6	27.3	37.5	31.3	1037	1040	1038	South West & West	2.69	34.23	13.69	35.6	71.2	55.6	0
21 36.0 32.0 1036 1036 1037 Nexid South West 4.19 3.6.5 1.5.6 5.2.9 <	216 320 103 <td>316 310 312 105 103<td>23</td><td>28.4</td><td>38.1</td><td>31.8</td><td>1035</td><td>1039</td><td>1038</td><td>South West & West</td><td>2.34</td><td>34,95</td><td>15.21</td><td>34.6</td><td>66.1</td><td>53.6</td><td>0</td></td>	316 310 312 105 103 <td>23</td> <td>28.4</td> <td>38.1</td> <td>31.8</td> <td>1035</td> <td>1039</td> <td>1038</td> <td>South West & West</td> <td>2.34</td> <td>34,95</td> <td>15.21</td> <td>34.6</td> <td>66.1</td> <td>53.6</td> <td>0</td>	23	28.4	38.1	31.8	1035	1039	1038	South West & West	2.34	34,95	15.21	34.6	66.1	53.6	0
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2 3 5 103	777 37.2 31.7 (156) (106) (103) (104) 80.11 (15) 202 (12) 202 10.2 <	2 27.2 31.7 10.66 108 109 </td <td>22</td> <td>28.3</td> <td>37.1</td> <td>31.3</td> <td>1036</td> <td>1039</td> <td>1037</td> <td>West & South West</td> <td>4.66</td> <td>30.88</td> <td>13.85</td> <td>36.5</td> <td>66.2</td> <td>54.9</td> <td>D</td>	22	28.3	37.1	31.3	1036	1039	1037	West & South West	4.66	30.88	13.85	36.5	66.2	54.9	D
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2 31 36 323 1036 1039 1036 South West & South 4.1 3.4.13 13.4.2 31.5 11.2 51.8 65.9 0 2 35.6 37.2 30.2 1037 1040 1038 South West & South 2.25 36.66 13.21 40 77.6 65.9 0 2 35.5 36.4 2.30 1038 South West & South 1.23 31.26 13.41 44.7 74.2 65.8 0 2 35.5 36.4 2.30 1038 South West & South 1.23 31.26 11.09 77.6 65.8 0 0 2 35.5 36.4 2.33 36.4 12.33 76.7 46.5 75.4 0 0 2 35.7 36.5 10.30 1038 South West & South Mest 1.23 75.7 46.5 75.4 0 0 2 36.5 36.5 36.5 10.30 1038 <td>211 36.6 32.3 106<!--</td--><td>2 3:1 3:6 3:3 1:00 1:00 1:00 0:00<</td><td>23</td><td>1 10</td><td>38.2</td><td>32.1</td><td>1035</td><td>1039</td><td>1038</td><td>South West & West</td><td>1.66</td><td>29.92</td><td>12</td><td>35.0</td><td>68.3</td><td>53.2</td><td>0</td></td>	211 36.6 32.3 106 </td <td>2 3:1 3:6 3:3 1:00 1:00 1:00 0:00<</td> <td>23</td> <td>1 10</td> <td>38.2</td> <td>32.1</td> <td>1035</td> <td>1039</td> <td>1038</td> <td>South West & West</td> <td>1.66</td> <td>29.92</td> <td>12</td> <td>35.0</td> <td>68.3</td> <td>53.2</td> <td>0</td>	2 3:1 3:6 3:3 1:00 1:00 1:00 0:00<	23	1 10	38.2	32.1	1035	1039	1038	South West & West	1.66	29.92	12	35.0	68.3	53.2	0
26.6 37.2 30.2 1037 1040 1038 South West & South 2.25 36.66 13.21 40 77.6 65.9 0 28.5 36.4 30.0 1037 1040 1038 South West & South 2.36 32.94 15.08 44.7 84.2 65.8 0 28 36.4 28.3 1036 10039 1038 South West & South 1.23 31.96 11.09 46.5 96.9 73.4 7 0 28 36.5 28.5 1036 10010 1038 South West & South 1.23 31.96 11.09 46.5 96.8 77.4 0 7 28 35.5 35.7 36 25.3 10.37 10.00 1038 South West & South 1.23 20.29 7.71 46.9 96.8 77.4 0 7 28 26.4 35.3 28.4 1.23 30.29 17.3 46.7 34.0 7 4	20 302 1037 1040 1038 South Weet & South 225 36.66 132.1 4.0 77.6 65.3 0 21 35.3 36.4 30 1037 1040 1038 South Weet & South 12.3 31.56 13.3 65.3 65.3 65.3 65.3 65.3 65.3 65.3 65.3 65.3 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.7 65.3 75.3 75.7 65.3 75.3 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7 70.7<	20 37.2 30.2 (107) (104) (108) South Weat & South 2.25 26.66 (12.1) 4.0 7.76 66.9 7.76 66.9 7.76 66.9 7.76 66.9 7.76 66.9 7.76 66.9 7.76 66.9 7.74 90.2 7.76 66.9 7.84 90.2 7.77 40.3 86.3 96.3 7.74	20	28.1	38.6	32.3	1036	1039	1038	South West & West	4.21	34.13	13.42	33.5	71.2	51.8	0
28 36.4 30 1037 1040 1038 South West & South 2.36 32.84 15.08 43.8 82.56 65.2 65.2 0 28 26.3 36.4 20.9 1036 1036 1036 1038 South West & South 1.24 34.26 17.04 64.5 65.8 65.8 0 28 25.5 36.5 26.3 1037 1040 1038 South West & South 1.23 30.23 7.57 46.9 96.9 73.4 7 28 25.5 36.5 26.5 1037 1040 1038 South West & South 1.23 30.23 7.57 46.9 97.3 70.7 0 28 24.4 34.8 28.3 Nest & South West 1.23 30.32 8.97 50.9 97.3 16.7 0 0 15.8 17.2 16.9 17.2 16.9 17.2 16.9 17.2 16.9 17.2 16.7 16.9 16.7 <td>28 36.4 30 1037 1040 1038 South Weet & South 12.4 12.4 15.4 16.5</td> <td>20 36.4 30 1037 100 1038 South Wert & South 12.8 32.84 15.08 16.28 16.24 16.2 16.2 16.3 <th16.3< th=""> <th16.3< th=""> <th16.3< th=""></th16.3<></th16.3<></th16.3<></td> <td>20</td> <td>26.9</td> <td>37.2</td> <td>30.2</td> <td>1037</td> <td>1040</td> <td>1039</td> <td>South West & South</td> <td>2.25</td> <td>36.66</td> <td>13.21</td> <td>64</td> <td>77.6</td> <td>65.9</td> <td>0</td>	28 36.4 30 1037 1040 1038 South Weet & South 12.4 12.4 15.4 16.5	20 36.4 30 1037 100 1038 South Wert & South 12.8 32.84 15.08 16.28 16.24 16.2 16.2 16.3 <th16.3< th=""> <th16.3< th=""> <th16.3< th=""></th16.3<></th16.3<></th16.3<>	20	26.9	37.2	30.2	1037	1040	1039	South West & South	2.25	36.66	13.21	64	77.6	65.9	0
model model 1036 1036 1036 1036 50.401 1124 34.26 12.44 44.7 84.2 65.8 65.9 78.4 7 23 25.5 36.4 28.3 1036 1040 1038 South West & South 11.23 31.96 11.09 46.5 96.9 78.4 7 7 23 25.1 36.5 26.3 1037 1040 1039 South West & South 1.23 31.23 7.77 46.9 96.7 74.0 0 23 25.5 36.5 26.5 1037 1040 1039 South West & South 1.23 32.32 87.7 46.9 96.7 74.0 0 23 25.5 35.7 30.0 1038 South West & South West 1.23 37.3 87.7 16.9 77.2 16.9 77.4 91.5 77.3 15 24 35.7 35.7 36.8 North West 1.23 37.3 87.7 <td>20 52.9 10.96 10.96 10.96 50.041 Weet & South 1.24 3.4.29 12.44 44.1 84.2 65.8 7.4.4 47.1 94.2 65.8 7.4.4 7 25 55.5 25.5 10.96 10.00 10.98 South West & South 1.23 31.39 46.7 64.2 7.4.4 7 26 35.5 25.5 10.97 10.00 10.98 South West & South 1.23 31.33 8.97 7.07 46.9 96.7 7.4.4 91.7 91.9 91.7 91.9 91.7</td> <td>27 56.9 1036 1036 1036 5041 Vert. 8 South 1124 34.26 174 44.7 94.2 65.8 7 23 55.6 23.3 1037 1040 1038 South Wert. 8 South 123 30.23 7.77 46.9 94.2 7.8.4 7 23 55.6 25.5 1037 1040 1038 South Wert. 8 South 1.23 30.23 177 46.9 94.3 72.4 0 23 55.7 36.5 25.7 1037 1040 1038 South Fast. 1.23 30.23 85.7 105 107 10 23 25.5 37.7 018 1038 South Fast. 1.23 37.13 85.7 16.7 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 12 37.2 89.7 22.9 82.1 10</td> <td>20</td> <td>28.9</td> <td>36.4</td> <td>30</td> <td>1037</td> <td>1040</td> <td>1039</td> <td>South West & South</td> <td>2.36</td> <td>32.84</td> <td>15.08</td> <td>43.8</td> <td>82.8</td> <td>65.2</td> <td>Ð</td>	20 52.9 10.96 10.96 10.96 50.041 Weet & South 1.24 3.4.29 12.44 44.1 84.2 65.8 7.4.4 47.1 94.2 65.8 7.4.4 7 25 55.5 25.5 10.96 10.00 10.98 South West & South 1.23 31.39 46.7 64.2 7.4.4 7 26 35.5 25.5 10.97 10.00 10.98 South West & South 1.23 31.33 8.97 7.07 46.9 96.7 7.4.4 91.7 91.9 91.7 91.9 91.7	27 56.9 1036 1036 1036 5041 Vert. 8 South 1124 34.26 174 44.7 94.2 65.8 7 23 55.6 23.3 1037 1040 1038 South Wert. 8 South 123 30.23 7.77 46.9 94.2 7.8.4 7 23 55.6 25.5 1037 1040 1038 South Wert. 8 South 1.23 30.23 177 46.9 94.3 72.4 0 23 55.7 36.5 25.7 1037 1040 1038 South Fast. 1.23 30.23 85.7 105 107 10 23 25.5 37.7 018 1038 South Fast. 1.23 37.13 85.7 16.7 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 12 37.2 89.7 22.9 82.1 10	20	28.9	36.4	30	1037	1040	1039	South West & South	2.36	32.84	15.08	43.8	82.8	65.2	Ð
23 36.4 28.3 1036 1040 1038 South West & South 1.23 31.96 11.09 46.5 96.9 78.4 7.7 23 55.1 36.5 26.3 1037 1040 1038 South West & West 1.23 30.28 7.77 46.9 96.5 74.0 0 23 25.5 26.5 1037 1040 1039 South East & West & 1.23 30.28 7.77 46.9 96.5 77.2 0 0 23 25.5 35.7 36.7 1037 1040 1036 South East & South East 1.23 31.3 8.91 48.7 91.5 70.7 0 24 35.7 30.0 1036 1040 1036 East & North East 1.23 31.3 8.91 48.7 91.5 70.7 0 0 25 35.7 30.0 1036 1040 1036 East & North West 1.23 31.3 8.91 48.7 91.5	215 36.4 28.3 1036 1040 1038 South West & South 12.3 31.96 11.99 46.5 96.9 78.4 0 28 55.1 35.5 25.3 1037 1040 1036 South West & West & South East 1.23 23.3 7.77 46.9 96.2 74.0 0 28 36.5 26.5 1037 1040 1036 South East 1.23 23.3 7.77 46.9 96.3 77.2 0 0 28 24.4 28.4 1037 1040 1036 South East & South East 1.23 23.3 16.3 70.3 16.3 70.3 16.3 28 28.7 30.6 1037 1040 1038 South East & Merrh West 1.23 33.1 96.1 46.5 96.5 70.4 0 28 28.7 30.6 1036 1036 1036 1036 1036 1036 1036 1036 1036 1036 <t< td=""><td>2 35.4 28.3 1036 1040 1038 South West & South 1123 3136 1139 46.5 96.6 77.4 4.0 0 2 35.5 35.6 25.3 1037 1040 1038 South West & South Tests 1.23 23.3 7.57 46.9 96.7 7.07 0 0 25 55.7 36.5 26.61 1037 1040 1038 South West 1.23 23.3 6.57 6.69 87.3 70.7 0 26 55.7 36.5 1037 1040 1038 South West 1.23 31.33 6.91 87.3 70.7 0 1 96 77.2 97.1 97 97.1 97 97.1 97 97.1 97 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 <td< td=""><td>50</td><td>26.3</td><td>36</td><td>29.9</td><td>1036</td><td>1039</td><td>1038</td><td>South West & South</td><td>1.24</td><td>34.29</td><td>12,44</td><td>44.7</td><td>84.2</td><td>65.8</td><td>o</td></td<></td></t<>	2 35.4 28.3 1036 1040 1038 South West & South 1123 3136 1139 46.5 96.6 77.4 4.0 0 2 35.5 35.6 25.3 1037 1040 1038 South West & South Tests 1.23 23.3 7.57 46.9 96.7 7.07 0 0 25 55.7 36.5 26.61 1037 1040 1038 South West 1.23 23.3 6.57 6.69 87.3 70.7 0 26 55.7 36.5 1037 1040 1038 South West 1.23 31.33 6.91 87.3 70.7 0 1 96 77.2 97.1 97 97.1 97 97.1 97 97.1 97 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 97.1 <td< td=""><td>50</td><td>26.3</td><td>36</td><td>29.9</td><td>1036</td><td>1039</td><td>1038</td><td>South West & South</td><td>1.24</td><td>34.29</td><td>12,44</td><td>44.7</td><td>84.2</td><td>65.8</td><td>o</td></td<>	50	26.3	36	29.9	1036	1039	1038	South West & South	1.24	34.29	12,44	44.7	84.2	65.8	o
25.1 35.5 22.3 1037 1040 1036 South West & West 1.23 30.26 7.77 46.9 95.2 74.0 0 23 25.7 35.5 29.5 1037 1040 1036 South East & West & Nest 1.23 29.3 7.57 46.9 94 73.4 0 23 25.7 36 29.5 1037 1040 1036 Nest & South East & West 1.23 29.3 7.57 46.9 94 73.4 0 23 25.7 36.7 1037 1040 1036 Nest & South East & Neth 1.23 29.3 8.97 46.7 91.5 70.7 0 23 24.4 36.7 1037 1040 1038 East & North East 1.23 30.32 8.97 46.7 91.5 70.7 0 0 23 25.5 35.7 30.0 1036 East & North West 1.23 31.33 8.91 47.7 81.5 70.9	25.1 36.5 25.3 (1037) (1040) (1028) South West & West (1,23) 23.3 7.77 46.9 96.2 74.0 0 28 36.5 26.5 26.5 1030 1030 West & South West 1.23 23.3 7.77 46.9 96.2 77.2 46.1 28 36.5 28.7 1037 1040 1038 South West 1.23 23.3 8.77 96.8 77.2 46.1 28 36.3 28.7 1037 1040 1038 South West 1.23 23.33 8.77 96.8 77.2 46.1 28 36.7 30.4 1038 South West 1.23 37.3 8.77 96.8 77.2 46.9 96.8 77.2 46.1 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9	751 35.5 28.3 103 103 302.6 73.7 46.9 96.2 74.0 0 28 28.6 28.5 1036 1000 1036 South East & Naist 1.23 23.3 73.7 46.9 96.2 74.0 0 28 28.6 1037 1000 1036 South East & Naist 1.23 23.3 73.7 96.5 77.2 97.5 0 0 0 28 28.7 30.6 1037 1000 1036 East & North West 1.23 30.32 82.7 96.5 77.2 27.3 0 28 35.7 30.0 1036 East & North West 1.23 30.3 9.7 91.5 70.3 10 0 0 28 35.7 30.0 1036 East & North West 1.23 37.1 91.7 91.5 70.3 1 1 1 1 1 23.5 56.8 0 0 0 0	100	23.5	35.4	28.3	1036	1040	1038	South West & South	1.23	31.96	11.09	46.5	96.9	78.4	7
25.6 35.5 29.5 1036 1040 1036 South East & West 1.23 29.3 7.57 46.9 94 7.3.4 0 25.7 35. 26.5 1037 1040 1036 West & South East & West 1.23 27.34 8.97 50.9 87.3 70.7 16 25 35.7 36.8 1037 1040 1036 Kest & South East & North West 1.23 30.32 8.97 50.9 87.3 70.7 16 1 26 37.3 1037 1040 1038 East & North West 1.23 31.33 8.91 48.7 91.5 70.3 1 1 26 37.7 30.0 1036 10240 1038 East & North West 1.23 31.3 6.91 48.7 91.5 70.3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 26.5 26.5 10.6 10.0 1006 South East & West 1.2.3 23.3 7.57 46.9 9.4 7.3.4 0 2 25.6 35.5 26.5 1007 1040 1006 West & South West 1.2.3 27.2.4 8.97 5.0.3 9.7.3 70.7 0 2 24.4 3.88 28.4 1007 1040 1036 East & North East 1.2.3 31.33 8.97 5.0.3 9.7.3 70.7 0 2 24.4 3.87 30.0 1026 1020 1036 East & North East 1.2.3 31.3 8.97 5.0.3 5.2.1 5.0.3 5.2.1 5.0.3 5.2.1 5.0.3 5.2.1 5.0.3 5.2.1 5.0.3 5.2.1 5.2.1 5.2.1 5.2.1 5.2.1 5.2.1 5.2.1 5.2.3 5.2.1 5.2.3 5.2.1 5.2.3 5.2.1 5.2.3 5.2.1 5.2.3 5.2.1 5.2.3 5.2.3 5.2.3 5	25 265 265 106 100 1026 South East & Wast 123 233 757 463 94 734 0 25 35 253 253 253 253 523 523 533 537 531 537 531	00	25.1	36.5	29.3	1037	1040	1039	South West & West	1.23	30.28	1.77	46.9	95.2	74.0	0
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2 2 3 10 100 1000	24.4 34.8 26.4 1037 1040 1036 South West 1.23 30.32 8.22 5.29 96.6 77.2 1 28 24.6 35.3 28.7 1037 1040 1036 East & North West 1.23 31.33 8.91 48.7 91.5 70.9 1 28 36.7 30.0 1036 1040 1036 East & North East 1.34 27.05 0.15 61.1 0 28 3 35 3 35 3 36 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <td>24.4 26.4 1037 1040 1036 South East & South West 1.23 30.32 8.23 77.2 77.2 1 28 34.5 35.3 26.7 1037 1040 1036 East & North West 1.23 31.3 8.17 4.17 7.13 1 28 35.7 30.0 1036 1030 East & North West 1.23 31.1 9.61 4.7 8.1 0 0 28 35.3 35.4 30.0 1036 East & North West 1.23 31.1 9.61 4.7 8.1 0 0 28 35.4 30.4 1036 East & North West 1.23 31.1 9.61 4.7 8.1 0</td> <td>8</td> <td>25.7</td> <td>35</td> <td>29.5</td> <td>1037</td> <td>1040</td> <td>1039</td> <td>West & South East</td> <td>1.23</td> <td>27.94</td> <td>8.97</td> <td>50.9</td> <td>87.3</td> <td>70.7</td> <td>0</td>	24.4 26.4 1037 1040 1036 South East & South West 1.23 30.32 8.23 77.2 77.2 1 28 34.5 35.3 26.7 1037 1040 1036 East & North West 1.23 31.3 8.17 4.17 7.13 1 28 35.7 30.0 1036 1030 East & North West 1.23 31.1 9.61 4.7 8.1 0 0 28 35.3 35.4 30.0 1036 East & North West 1.23 31.1 9.61 4.7 8.1 0 0 28 35.4 30.4 1036 East & North West 1.23 31.1 9.61 4.7 8.1 0	8	25.7	35	29.5	1037	1040	1039	West & South East	1.23	27.94	8.97	50.9	87.3	70.7	0
21.6 35.3 29.7 1037 1040 1036 East & Morth West 1.23 31.33 8.91 48.7 91.5 70.9 1 23 26.5 37 30.8 10.36 10.40 1036 East & Morth West 1.34 27.05 10.6 38.5 75.3 62.1 0 23 25.5 35.7 30.0 1036 1036 East & Morth West 1.23 33.03 9.21 43 89.2 66.8 0 23 25.5 37.7 30.7 1036 1039 1036 East & Morth West 1.23 31.1 9.61 43.7 83.1 64.1 0 23 25.5 37.7 30.7 1036 1039 1038 East & North East 2.11 26.96 10.53 86.6 89.1 61.1 86.5 25 37.1 37 30.5 10.36 1038 East & North East 2.11 26.96 10.53 36.6 81.1 <t< td=""><td>21.6 35.3 29.7 1037 1040 1036 East & Morth West 12.3 8.91 48.7 91.5 70.9 10.1 23 26.5 37 30.8 1026 1026 1026 1036 East & Morth East 1.23 33.03 9.21 4.1 8.6. 0 23 25.5 35.7 30.0 1036 1036 East & Morth East 1.123 38.0 4.3 8.6.1 0 0 25 35.7 30.7 1036 1038 East & Morth East 2.12 35.1 4.3 8.6.1 0 0 25 37.7 30.7 1036 1038 East & Morth East 2.12 36.5 16.1 8.6 0 0 25 37.7 20.7 1039 1038 East & Morth East 2.12 36.5 16.7 36.8 0 0 23 56.4 1037 1039 1038 East & Morth East 1.23 36.5</td><td>216 53.3 29.7 1037 1040 1036 East & Month Weat 12.3 31.33 8.91 44.7 91.5 70.9 1 23 26.5 37 30.8 1036 1020 1036 East & Month East 1.94 27.05 10.6 6.11 9.61 6.11 9.61 0.0 23 55.5 37.7 30.0 1036 1039 East & Month West 12.3 3.13.3 9.61 4.1 9.61 9.61 9.63 0.0 25 55.5 37.7 30.7 1036 1039 East & Month East 2.11 2.61 10.3 8.61 9.61 9.63 6.61 9.63 0 25 37.1 37 30.6 1039 1038 East & Month East 2.63 16.23 7.33 56.8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>23</td><td>24.4</td><td>34.8</td><td>28.4</td><td>1037</td><td>1040</td><td>1039</td><td>South East & South West</td><td>1.23</td><td>30.32</td><td>8.52</td><td>52.9</td><td>96.8</td><td>77.2</td><td>15</td></t<>	21.6 35.3 29.7 1037 1040 1036 East & Morth West 12.3 8.91 48.7 91.5 70.9 10.1 23 26.5 37 30.8 1026 1026 1026 1036 East & Morth East 1.23 33.03 9.21 4.1 8.6. 0 23 25.5 35.7 30.0 1036 1036 East & Morth East 1.123 38.0 4.3 8.6.1 0 0 25 35.7 30.7 1036 1038 East & Morth East 2.12 35.1 4.3 8.6.1 0 0 25 37.7 30.7 1036 1038 East & Morth East 2.12 36.5 16.1 8.6 0 0 25 37.7 20.7 1039 1038 East & Morth East 2.12 36.5 16.7 36.8 0 0 23 56.4 1037 1039 1038 East & Morth East 1.23 36.5	216 53.3 29.7 1037 1040 1036 East & Month Weat 12.3 31.33 8.91 44.7 91.5 70.9 1 23 26.5 37 30.8 1036 1020 1036 East & Month East 1.94 27.05 10.6 6.11 9.61 6.11 9.61 0.0 23 55.5 37.7 30.0 1036 1039 East & Month West 12.3 3.13.3 9.61 4.1 9.61 9.61 9.63 0.0 25 55.5 37.7 30.7 1036 1039 East & Month East 2.11 2.61 10.3 8.61 9.61 9.63 6.61 9.63 0 25 37.1 37 30.6 1039 1038 East & Month East 2.63 16.23 7.33 56.8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23	24.4	34.8	28.4	1037	1040	1039	South East & South West	1.23	30.32	8.52	52.9	96.8	77.2	15
25.5 37 30.8 1036 1040 1036 East & North East & North 134 27.05 10.6 38.5 75.3 62.1 0 25 25.7 30.0 1036 1040 1036 East & North West 1.23 33.03 9.21 43 88.2 66.8 0 26 25.5 37.7 30.0 1036 1039 East & North West 1.23 31.1 9.61 43 88.5 66.1 0 27 25.5 37.7 30.7 1036 1039 1038 East & North 12.3 31.1 9.61 43 88.6 61.1 66.1 66.5 27 37.7 30.7 1036 1039 1038 East & North 2.56 28.5 16.6 10.7 86.6 61.1 86.5 28 37.1 37 30.6 10.39 1038 East & North 2.56 28.5 16.7 39.3 56.8 <td>26.5 37 30.8 1036 1036 1036 1036 1036 1036 1036 27.3 52.1 53.5 53.1 5</td> <td>25 37 808 1036 1036 East & Month West 1.34 27.05 10.5 62.1 0 25 55.7 30.0 1036 1036 1036 1036 1331 64.1 10 0 25 55.4 30.0 1036 1036 East & Month West 1.23 33.1 64.1 86.6 96.8 0 25 55.4 30.7 1036 1039 East & Month West 1.23 33.1 26.1 36.8 96.8 61.1 0 25 55.4 30.7 1036 1039 1038 East & Month East 2.56 12.7 36.7 36.8 61.1 0 25 55.1 30.7 1037 1037 1038 Nonth East & East & Month East 1.23 31.33 95.3 43.3 85.2 85.2 85.8 0 25 55.1 31.37 26.5 10.53 95.3 43.3 87.2 85.3 70.4</td> <td>es es</td> <td>24.6</td> <td>35.3</td> <td>29.7</td> <td>1037</td> <td>1040</td> <td>1039</td> <td>East & North West</td> <td>1.23</td> <td>31.33</td> <td>8.91</td> <td>48.7</td> <td>91.5</td> <td>70.9</td> <td></td>	26.5 37 30.8 1036 1036 1036 1036 1036 1036 1036 27.3 52.1 53.5 53.1 5	25 37 808 1036 1036 East & Month West 1.34 27.05 10.5 62.1 0 25 55.7 30.0 1036 1036 1036 1036 1331 64.1 10 0 25 55.4 30.0 1036 1036 East & Month West 1.23 33.1 64.1 86.6 96.8 0 25 55.4 30.7 1036 1039 East & Month West 1.23 33.1 26.1 36.8 96.8 61.1 0 25 55.4 30.7 1036 1039 1038 East & Month East 2.56 12.7 36.7 36.8 61.1 0 25 55.1 30.7 1037 1037 1038 Nonth East & East & Month East 1.23 31.33 95.3 43.3 85.2 85.2 85.8 0 25 55.1 31.37 26.5 10.53 95.3 43.3 87.2 85.3 70.4	es es	24.6	35.3	29.7	1037	1040	1039	East & North West	1.23	31.33	8.91	48.7	91.5	70.9	
25 35.7 30.0 1036 1040 1038 East & North West 1.23 33.03 9.21 43 89.2 66.8 0 26 25.3 35.9 30.4 1036 1039 1036 East & North West 1.23 31.1 9.61 42.7 83.1 64.1 0 28 25.5 37.7 30.7 1036 1039 1038 East & North East 2.11 26.96 10.53 89.6 61.1 8.5 28 27.1 37 36.8 1039 1038 East & North East 2.11 26.96 10.53 36.6 81.1 8.5 61.1 8.5 28 27.1 37 30.6 1037 1036 1038 Konth East & Fast 2.56 28.5 44.3 83.2 56.8 0 28 34.7 29.4 1037 1040 1039 North East & East 1.2 31.33 9.63 44.3 83.2 56.8 0 <td>25 35.7 30.0 1036 1040 1038 East & North West 1.23 33.13 9.21 4.33 89.2 66.8 0 28 25.3 35.4 30.4 1036 1036 East & North West 1.23 31.1 9.61 4.27 83.1 64.1 0 28 25.5 37.7 30.7 1036 1038 East & North East 2.11 2.65.6 10.53 36.6 61.1 6.1 0 28 25.1 37.7 30.7 1036 1038 East & North East 2.11 2.65.6 10.53 36.6 61.1 6.5 28 36.7 20.9 1037 1038 North East & East & North East 2.65.5 11.27 38 2.3.3 2.63.8 6.5.3 0 28 36.1 1037 1039 North East & East & North East & North East & East & Nor</td> <td>25 35.7 30.0 1036 1040 1038 East & Morth West 1.23 33.03 9.21 4.3 8.92 66.8 0 26 25.5 37.7 30.7 1036 1038 East & Morth West 1.23 31.1 9.51 43.7 85.1 64.1 8.5 25 37.7 30.7 1036 1038 East & Morth East 2.71 26.5 11.27 38.6 86.1 8.5 61.1 8.5 25 31.7 30.7 1036 1038 Kanth East 2.73 31.3 9.53 44.3 83.2 86.2 66.1 0 23 25.6 31.7 20.9 1038 North East & East 1.9 26.54 10.52 35.2 10.5 10.5 23 25.6 1039 North East & East 1.9 26.54 10.62 45.1 8.28 70.4 0 23 25.7 20.8 10.3 10.33 10.33</td> <td>53</td> <td>26.5</td> <td>37</td> <td>30.8</td> <td>1036</td> <td>1040</td> <td>1038</td> <td>East & North East</td> <td>1.94</td> <td>27.05</td> <td>10.6</td> <td>38.5</td> <td>75.3</td> <td>52.1</td> <td>0</td>	25 35.7 30.0 1036 1040 1038 East & North West 1.23 33.13 9.21 4.33 89.2 66.8 0 28 25.3 35.4 30.4 1036 1036 East & North West 1.23 31.1 9.61 4.27 83.1 64.1 0 28 25.5 37.7 30.7 1036 1038 East & North East 2.11 2.65.6 10.53 36.6 61.1 6.1 0 28 25.1 37.7 30.7 1036 1038 East & North East 2.11 2.65.6 10.53 36.6 61.1 6.5 28 36.7 20.9 1037 1038 North East & East & North East 2.65.5 11.27 38 2.3.3 2.63.8 6.5.3 0 28 36.1 1037 1039 North East & East & North East & North East & East & Nor	25 35.7 30.0 1036 1040 1038 East & Morth West 1.23 33.03 9.21 4.3 8.92 66.8 0 26 25.5 37.7 30.7 1036 1038 East & Morth West 1.23 31.1 9.51 43.7 85.1 64.1 8.5 25 37.7 30.7 1036 1038 East & Morth East 2.71 26.5 11.27 38.6 86.1 8.5 61.1 8.5 25 31.7 30.7 1036 1038 Kanth East 2.73 31.3 9.53 44.3 83.2 86.2 66.1 0 23 25.6 31.7 20.9 1038 North East & East 1.9 26.54 10.52 35.2 10.5 10.5 23 25.6 1039 North East & East 1.9 26.54 10.62 45.1 8.28 70.4 0 23 25.7 20.8 10.3 10.33 10.33	53	26.5	37	30.8	1036	1040	1038	East & North East	1.94	27.05	10.6	38.5	75.3	52.1	0
25 25.3 35.9 30.4 1036 1039 1038 East & North West 1.23 31.1 9.61 42.7 83.1 64.1 0 23 25.5 37.7 30.7 1036 1039 1036 East & North East 2.11 26.96 10.53 36.6 89.5 61.1 6.5 0 23 27.1 37 30.6 1039 1036 East & North East 2.56 28.5 11.27 39 73.3 59.8 0 23 26.5 34.7 28.5 11.27 39 73.3 59.8 0 0 23 26.5 34.7 28.5 11.27 39 73.3 59.8 0 0 23 26.5 34.7 28.9 1040 1039 North East & East 1.2 31.33 9.63 44.3 83.2 65.2 0 23 26.5 36.5 10.62 45.1 83.2 65.2 0	23 35.8 30.4 1036 1037 1040 1036 1036 1037 1040 1036 North East & North East 2.56 2.85 11.27 36 85.3 66.1 8.0 23 36.6 1037 1040 1036 North East & North East 2.86 11.27 39 33.2 65.2 0 0 23 35.1 26.9 1037 1040 1039 North East & East 1.9 26.54 10.62 70.4 0 26 35.1 28.9 1038 North East & East & North East & East 1.9 26.54 10.62 70.4 0 26.1 28.5 10.3 26.54 10.62 45.1 82.8	25 25.3 35.4 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1036 1037 1037 1037 1036 1037 1036 1037 1036 1037 1037 1036 1036 1037 1036 1037 1032 1	23	25	35.7	30.0	1036	1040	1038	East & North West	1.23	33.03	9.21	43	89.2	66.8	٥
25 37.7 30.7 1036 1039 1036 1036 1036 1036 1036 61.1 8.6 89.6 61.1 8.5 23 27.1 37 30.6 1036 1039 1036 58.6 59.6 61.1 8.5 0 23 27.1 37 30.6 1037 1039 1038 East & North East 2.56 2.8.5 11.27 39 73.3 59.8 0 23 26.5 34.7 29.4 1037 1040 1039 North East & East 1.2 31.33 9.63 44.3 83.2 65.2 0 23 26.5 31.33 9.63 45.1 82.8 70.4 0 23 26.5 36.5 10.62 45.1 82.8 70.4 0 23 35.3 56.54 10.62 45.1 82.8 70.4 0 24 35.4 10.62 45.1 82.8 70.4	25 37.7 30.7 1036 1039 1036 East & North East 2.11 26.66 10.53 36.6 89.6 61.1 6.6 23 27.1 37 30.6 1036 1036 1038 East & North East 2.56 28.5 11.27 39 50.3 66.1 0 23 26.6 1037 1040 1036 North East & Seat 12.3 9.63 44.3 83.2 65.2 0 23 35.1 26.9 1037 1040 1039 North East & East 1.9 26.54 10.62 70.4 0 23 35.1 26.9 1038 North East & East 1.9 26.54 10.62 70.4 0 26 35.1 28.9 1040 1039 North East & East 1.9 26.54 10.62 70.4 0 26.1 36.5 mm 30.5 mm 1038 North East & East & 1.9 26.53 45.1 8.2.8	23 25.5 37.7 30.7 1036 1036 1036 1036 1036 1036 1036 1036 1036 1036 1037 1036 1037 1036 1037 1036 1036 1037 1036 1037 1036 East & North East 256 28.5 1127 39 73.3 56.3 0 23 26.6 1037 1040 1039 Nonth East & East 1.23 9.53 9.53 9.53 56.2 0 23 26.6 1038 Nonth East & East 1.23 31.33 9.53 70.3 8.6.2 70.4 0 23 26.5 1036 Nonth East & East 1.23 31.33 9.6.3 70.4 0 25 26.5 35.1 26.9 10.52 3.6.53 10.62 70.4 0 26 35.1 26.54 10.62 45.3 70.4 0 0 26.1 10.15 30.5 m.	23	25.3	35.9	30.4	1036	1039	1038	East & North West	1.23	31.1	9.61	42.7	83.1	64.1	0
27.1 37 30.6 1036 1038 East & North East 2.58 28.5 11.27 39 73.3 59.8 0 23 25.6 34.7 29.4 1037 1040 1039 North East & East 1.23 31.33 9.63 44.3 83.2 65.2 0 23 25.5 35.1 2.8,9 1037 1040 1039 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 23 26.5 35.1 2.8,9 1038 1040 1039 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 23 26.5 36.5 10.62 45.1 82.8 70.4 0 24 36.5 36.5 10.62 45.1 82.8 70.4 0	27.1 37 30.6 1036 1039 1038 East & North East 2.58 28.5 11.27 39 73.3 59.8 0 23 25.6 34.7 29.4 1037 1040 1039 North East & East 1.2 34.3 9.63 44.3 83.2 65.2 0 23 25.6 35.1 29.4 1037 1040 1039 North East & East 1.9 26.54 10.62 47.3 82.8 70.4 0 23 35.1 26.9 1038 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 23 35.1 26.9 1038 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 26.1 10.5 m. Rainfall Recorded on 2, 18, 22, 23 and 27th September. For Coastal Energen Pyt. Limited For Coastal Energen Pyt. Limited 26.1 30.5 m. 30.5 m. Rainfall Recorded on 2, 18, 22	27.1 37 30.6 1036 1036 East & North East 2.58 28.5 11.27 39 73.3 59.8 0 23 25.6 31.7 29.4 1037 1040 1039 North East & East 1.23 9.63 44.3 83.2 65.2 0 23 25.6 35.1 28.9 1037 1040 1039 North East & East 1.9 26.54 10.52 45.1 20.4 0 23 25.5 35.1 28.9 1038 North East & East 1.9 26.54 10.62 47.3 82.9 70.4 0 26.1 30.5 m. Rainfall Recorded on 2, 18, 22, 23 and 27 th September. For Coastal Forgen Prt. Linted For Coastal Forgen Prt. Linted For Coastal Forgen Prt. Linted 30.5 m. 30.5 m. Rainfall Recorded on 2, 18, 22, 23 and 27 th September. For Coastal Forgen Prt. Linted	23	25.5	37.7	30.7	1036	1039	1038	East & North East	2.11	26.96	10.53	36.6	89,6	61.1	6.5
23 26.6 34.7 29.4 1037 1040 1039 North East & East 1.23 31.33 9.63 44.3 83.2 85.2 0 23 26.5 35.1 28.9 1038 1040 1039 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 23 26.5 35.1 28.9 1036 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 7 row In Sinful Key this meanth 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September. 26.54 10.62 45.1 82.8 70.4 0	23 25.6 34.7 29.4 1037 1040 1039 North East & East 1.23 31.33 9.63 44.3 83.2 65.2 0 23 26.5 33.1 28.9 1036 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 23 26.5 33.1 28.9 1040 1039 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 26 70.4 1.9 26.54 10.62 45.1 82.8 70.4 0 26 70.4 1.9 26.54 10.62 45.1 1.9 26.54 10.62 10.4 26 70.4 1.9 26.54 10.62 45.1 1.9 26.54 10.6 1.9 26 70.4 1.9 26.54 1.9 26.54 1.0 1.9 26.54 10.65 1.0 1.0 26 70.4 1.9 </td <td>23 26.4 1037 1040 1039 North East & East 1.23 31.33 5.33 44.3 83.2 85.2 0 23 26.5 35.1 28.9 1036 1040 1039 North East & East 1.9 26.54 10.62 44.3 83.2 85.2 0 23 26.5 35.1 28.9 1040 1039 North East & East 1.9 26.54 10.62 47.3 83.2 85.2 0.4 0 25 Total Rainfall for the month 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September. For Coastal Energen Pvt. Limited</td> <td>23</td> <td>27.1</td> <td>37</td> <td>30.6</td> <td>1036</td> <td>1039</td> <td>1038</td> <td>East & North East</td> <td>2.58</td> <td>28.5</td> <td>11.27</td> <td>BB</td> <td>73.3</td> <td>59.8</td> <td>0</td>	23 26.4 1037 1040 1039 North East & East 1.23 31.33 5.33 44.3 83.2 85.2 0 23 26.5 35.1 28.9 1036 1040 1039 North East & East 1.9 26.54 10.62 44.3 83.2 85.2 0 23 26.5 35.1 28.9 1040 1039 North East & East 1.9 26.54 10.62 47.3 83.2 85.2 0.4 0 25 Total Rainfall for the month 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September. For Coastal Energen Pvt. Limited	23	27.1	37	30.6	1036	1039	1038	East & North East	2.58	28.5	11.27	BB	73.3	59.8	0
2 2.6.5 35.1 2.8.9 1038 1040 1039 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 Travel Paintall Ker this month 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September. 26.54 10.62 45.1 82.8 70.4 0	23 26.5 35.1 28.9 1040 1039 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 5. Total Rainfall for the month 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September. For Coastal Energen Pvt. Limited A MK Parameswaran A TUTICO	23 26.5 10.36 10.40 1035 North East & East 1.9 26.54 10.62 45.1 82.8 70.4 0 25 Total Rainfall for the month 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September. For Coastal Energen Pvt. Limited n	23	25.8	34.7	29.4	1037	1040	1039	North East & East	1.23	31.33	9,63	44.3	83.2	65.2	0
Travel Deleted for the month 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September.	Iteral Rainfall for the month 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September. For Coastal Energen Pvt. Limited MK Parameswaran Right Pvt. Limited	Item Initial for the month 30.5 mm. Rainfall Recorded on 2, 18, 22, 23 and 27th September. For Coastal Energen Pvt. Limited For Coastal Energen Pvt. Limited MK Parameswaran MK Parameswaran Station Director M	23	26.6	35.1	28.9	1038	1040	1039	North East & East	1.9	26.54	10.62	45.1	82.8	70.4	0
	For Coastal Energen PVL Limited	For Coastal Energen Pri. Limited	s: Tota	al Rainfall	for the mont	4	30.5	mm.	Rainfall Reco	rded on 2, 18, 22, 23 and 27th Se	ptember.						-

See	Q					8	ASTAL ENERGEN PRIV 2 X 600 MIV MUTIARA THERMAL METROLOGICAL STATION Daily Average from 01.10.2023 t	ATE LIM POWER PLANT REPORT 0 31,10,2023	ITED					121
- Tank	Ambi	ent Temperat	ure (°C)	Baron	netric Pressure	(m.bar)	Predominant Wind direction	M	nd Speed (Km	(HI)	Rela	ative Humidity	(%)	Rain Fall (mm)
Date	Min	Max	Avg	Min	Max	Avg	Blowing from	Min	Max	Avg	Min	Max	Avg	
1-Oct-23	25.6	34.9	29.3	1037	1040	1039	North East & East	1.23	29.14	10.11	46.4	85.7	69.0	0
2-Oct-23	25.8	36.5	29,6	1037	1040	1039	North & North East	2.1	33.73	13.05	40.1	82.7	69,4	0
3-Oct-23	25.7	98	29.2	1037	1040	1039	North & North East	3.35	34.12	13.69	44.4	86	72.1	0
4-Oct-23	25.1	35.8	29.5	1037	1040	1039	North & North East	1.23	34.44	13.72	44.6	87.7	70.7	0
5-0ct-23	24.9	34.9	29.7	1036	1040	1038	North West & South East	1.23	31.85	10.12	49.4	87.8	70.9	0
6-Oct-23	25.6	36	30.3	1036	1039	1038	North West & East	1.23	25.5	7.82	45.8	86.9	70.1	0
7-Oct-23	25.2	35.3	30.1	1036	1040	1038	North West & South East	1.23	26.87	8.92	61.4	85.2	1.17	0
8-Oct-23	25.5	35.4	30	1037	1041	1039	North & North West	1.23	31.68	11.68	49.5	83.1	68.6	0
9-Oct-23	24.6	35	28.9	1038	1042	1040	North & North West	1.23	31.28	10.09	54.3	96	77.1	1.5
10-Oct-23	26.5	35.0	29.3	1038	1042	1040	North East & North West	1.23	28.32	10.59	56	88.4	77.0	0
11-Oct-23	25.2	36.5	29.7	1037	1041	1040	North East & North West	1.22	28.32	9.01	53.4	68	72.4	0
12-Oct-23	24.8	34.8	28.6	1038	1042	1040	North West & South East	1.23	25.39	7.16	51.1	88.9	73.9	o
13-Oct-23	24.8	34.6	28.8	1039	1042	1041	East & North West	1.23	212	6.3	53.3	91.6	75.7	0
14-Oct+23	25.1	34.2	28.2	1039	1042	1041	East & South East	1.23	24.08	5.64	54.2	90.6	7.77	0
15-Oct-23	24.9	34.7	28.3	1037	1042	1040	North West & South East	1.23	22,47	7.27	48.7	90.8	76.5	0
16-Oct-23	24.9	34.3	28	1038	1042	1040	North East & West	1.23	23.29	6.28	54.2	86.4	75.8	0
17-Oct-23	23.7	34.2	27.2	1039	1042	1040	South East & East	123	19.1	5.24	55.3	95.7	83.8	3.5
18-Oct-23	23.9	34.2	25	006	1042	1029	South East & North West	1.23	14.85	5.8	54.3	96.7	76.8	0
19-Oct-23	24.7	33.3	28.1	1039	1042	1041	North West & South East	1.23	19.35	6.3	59.8	96.1	80.5	0
20-Oct-23	24.7	32.9	28.2	1039	1042	1041	South East & North West	1.23	19.8	7.03	54.6	90.4	6.77	0
21-Oct-23	23.5	32.1	26.2	1040	1042	1041	South East & North West	1.23	10.52	2.68	57.1	95.5	85.4	0
22-Oct-23	24.5	34.6	29	1039	1043	1041	South East & North West	1.23	20.58	7.42	49.9	86.5	73.0	0
23-Oct-23	24.3	33.6	28.3	1039	1042	1041	South East & North West	1.23	22.15	7.26	55.2	92.2	76.8	0
24-Oct-23	24.9	34.5	29.1	1039	1042	1.040	South East & West	1.23	24.93	9.05	49.9	88.5	73.1	0
25-Oct-23	25.3	34.5	29.0	1040	1043	1041	South East & West	1.23	21,54	6.64	54.4	89.6	75.3	o
26-Oct-23	24.7	34,4	28.9	1039	1042	1041	East & North West	1.23	20.8	6.87	51.1	90.4	75.3	0
27-Oct-23	25.1	34.5	28.7	1038	1042	1040	East & North West	1.23	25,16	6.99	56.4	89.4	75.0	0
28-Oct-23	25.6	33.6	28.8	1038	1042	1040	East & South East	1.24	21.3	7.2	56.1	86	75.0	0
29-Oct-23	25.2	33.3	27.4	1039	1042	1040	North West & East	1.24	21.12	7.04	58	91.5	80.6	0
30-Oct-23	23.1	31.7	27	1039	1042	1040	East & North West	1.24	17.76	7.61	63	96.1	82.4	5.5
31-Oct-23	23.8	33.5	27.8	1038	1042	1040		1.23	19.5	7.58	56.2	96.5	80.2	0
Remarks:	Total Rainfa	ill for the mor	th	10.5	mm.	Rainfall Reco.	rded on 9, 17, and 30th October.							
											2	r Coastal Ener	gen Pvt. Limit	ed Competen Prices
											15	Station	Director	0/101101/C
														A North Color
														Vemers

Achieved Trappacture (72) Bearenity Frenues (73) Bearenity Frenues (74) Restand (74) Active (74) <th>Ambient Temper Ambient Temper Min Max 24.6 34.4 24.3 32.5 23.9 32.4 23.9 32.4</th> <th>ature (°C)</th> <th></th> <th></th> <th></th> <th>Daily Average from 01.11.2023 to</th> <th>5 30.11.2023</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>State and a state</th>	Ambient Temper Ambient Temper Min Max 24.6 34.4 24.3 32.5 23.9 32.4 23.9 32.4	ature (°C)				Daily Average from 01.11.2023 to	5 30.11.2023						State and a state
Mot Mot <th>Min Max 24.6 34.4 24.3 32.5 23.9 32.4 23.9 32.4</th> <th>A</th> <th>Barom</th> <th>stric Pressure</th> <th>(m.bar)</th> <th>Predominant Wind direction</th> <th>W</th> <th>nd Speed (Km</th> <th>(Hr)</th> <th>Rela</th> <th>ative Humidity</th> <th>(%)</th> <th>Rain Fall (mm)</th>	Min Max 24.6 34.4 24.3 32.5 23.9 32.4 23.9 32.4	A	Barom	stric Pressure	(m.bar)	Predominant Wind direction	W	nd Speed (Km	(Hr)	Rela	ative Humidity	(%)	Rain Fall (mm)
31 32.4 3	24.6 34.4 24.3 32.5 23.9 32.4 7.0 20.0	AVG	Min	Max	Avg	Blowing from	Min	Max	Avg	Min	Max	Avg	
3 3	24.3 32.5 23.9 32.4	28.3	1038	1042	1040	North West & South East	1.23	29.14	10.11	46.4	85.7	69.0	35
32 32.4 32.4 10.3 1	23.9 32.4	28.1	1038	1041	1040	North West & East	2.1	33.73	13.05	40.1	82.7	69.4	6
3 3 2 5 103 103 NUM Medi & Sud Mudel 123 344 173 703 <t< td=""><td></td><td>27.3</td><td>1037</td><td>1040</td><td>1039</td><td>North West & South East</td><td>3.35</td><td>34.12</td><td>13.69</td><td>44.4</td><td>86</td><td>72.1</td><td>10.5</td></t<>		27.3	1037	1040	1039	North West & South East	3.35	34.12	13.69	44.4	86	72.1	10.5
3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 7 1 1 2 3 3 1 3 1 3 3 1 3 1 <th< td=""><td>24 24.4</td><td>25,5</td><td>1038</td><td>1041</td><td>1039</td><td>North West & West</td><td>1.23</td><td>34.44</td><td>13.72</td><td>44.6</td><td>87.7</td><td>70.7</td><td>22.5</td></th<>	24 24.4	25,5	1038	1041	1039	North West & West	1.23	34.44	13.72	44.6	87.7	70.7	22.5
3 3 3 5 7 2 6 0 0 East South East 1/2 7/2 6 0	23.6 30.3	26.4	1037	1040	1039	North West & South West	1.23	31.85	10.12	49.4	87.8	20.9	Arres
3 3 3 1	24.1 33.6	27.2	1038	1043	1040	East & South East	1,23	25.5	7.82	45.8	86.9	70.1	36
23 23.4 26.4 26.2 10.0 10.01 10.41 North Weit & Nuel. 11.23 31.66 10.61 10.65 10.6 10.	23.2 32.7	26.3	1039	1042	1041	North West & West	1.23	25.87	8.92	51.4	85.2	1.17	13
22 31.3 28.6 (003 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 1043 North West & Kest 12.3 23.32 1010 1033 1041 South East & South East & 1.23 23.32 1013 123 73.7 123 23.33 13.6 13.7 13.7 13.3 13.3 13.3 13.3 13.3 13.3 13.3 13.3 13.3 13.3 23.47 13.3 23.47 13.7 13.9 13.7 13.9 13.7 13.9 13.7 13.3 13.	23.4 33.4	26.2	1038	1043	1041	North West & West	1.23	31.68	11.68	49.5	83.1	68.6	18
visit B0/1 ZE6 1040 1043 1042 North Week E East 1122 253.2 105 56.4 77.0 2 56.2 10.2 56.4 77.0 2 <th2< th=""> 2 2 <th2< th=""></th2<></th2<>	22.8 31.3	26.5	1039	1043	1041	North West & West	1.23	31.28	10.09	54.3	95	77.1	9.5
vzg 25 305 266 (000 (003 (011 Exet & South 122 25.32 716 839 72.4 65 vzg 245 321 77.3 1000 1043 1041 Exet & South 85.3 53.3 916 75.7 0.0 vzg 25.4 30.1 27.3 1030 1042 1041 Exet & South Viest 1.23 27.4 65.4 55.4 65.4 75.9 0.0 vzg 23.4 33.1 28.4 1003 1042 1041 Exet & North Exet 1.23 27.4 65.3 96.7 76.9 0.0 vzg 33.1 28.4 1003 1042 1041 Exet & North Exet 1.23 27.4 65.3 96.7 76.8 0 0 0 vzg 32.1 21.6 1002 1041 Exet & North Exet 1.23 74.0 65.4 76.8 0 0 0 0 0 0	3 24.6 30.7	26.8	1040	1043	1042	North West & East	1.23	28.32	10.59	99	88.4	77.0	2
VXX 214 273 1000 1041 South East & South 123 2530 716 511 589 736 0.0 VXX 246 273 1000 1002 1001 East & North East 1123 213 513 916 757 0 0 VXX 234 331 28 1039 1002 1040 North West & VESt 123 22.47 7.87 96.6 757 0 0 VXX 234 331 28 1039 1002 1040 North West & VESt 123 22.47 7.27 96.6 757 0 0 VXX 231 28 1039 1002 1041 North West & VESt 123 124 55.3 56.4 75.8 0 0 1.5 VXX 231 28.4 1039 1041 1040 East & North East & VESt 1.23 124 55.3 56.5 75.8 0 0 1.5	3 25 30.5	26.6	1040	1043	1041	East & South West	1.22	28,32	9.01	53.4	68	72.4	6.5
218 20.5 27.8 1039 1047 East & North East 123 21.2 6.3 5.3.3 91.6 7.7.7 0 v23 25.4 30.4 27.2 1039 1042 1041 East & North East 1.23 2.4.00 5.6.4 6.5.3 90.6 7.7.7 0 v23 25.4 33.1 2.8 1039 1042 1041 East & North East 1.23 2.4.00 5.6.4 5.6.4 7.6.8 0 7.7.7 0 v23 26 331 28.2 1039 1042 1041 East & North East 1.23 19.1 5.4.3 96.7 76.8 0 0 v23 27.5 1039 1041 1040 East & North East 1.23 19.8 7.0.3 56.8 96.7 77.9 0 0 v23 27.5 27.9 1039 1041 1040 East & North East 1.23 19.6 7.7.7 46.7 76.8	3 24.5 32.1	27.8	1040	1043	1041	South East & South	1.23	25.39	7.16	51.1	88.9	73.9	0.5
25.4 30.4 27.2 10.30 10.42 10.41 South South West 1.23 24.06 56.4 56.4 56.2 90.6 77.7 0 v23 33.1 28.4 1039 1042 1040 North West & West 1.123 22.47 7.27 66.7 56.4 75.5 0 v23 2.6 33.1 2.84 1039 10.42 1040 East & North West & West 1.23 2.247 56.3 96.7 76.5 0 0 v23 2.6 32 27.8 1039 10.42 1040 East & North West 1.23 19.3 5.4 56.3 96.7 76.8 0.15 v23 2.7 2.41 1039 10.41 1040 East & North West 1.23 19.3 5.4 56.3 96.7 76.8 0.15 v23 2.44 3.28 5.7 2.46 5.7 19.6 77.9 96.7 76.8 77.9 96.7 76.	3 24.8 32.5	27.8	1039	1042	1041	East & North East	1.23	21.2	6.3	53.3	91.6	75.7	0
31 28 103 1042 1040 North Wesi & Wesi 1/23 22.47 7.27 48.7 90.6 76.5 0 v23 24.6 33.1 28.2 1039 1042 1041 East & South East 1/23 123 5.24 5.63 96.7 75.8 0 v23 25 33 28.4 1039 10.42 1041 North West & West 1/23 19.5 6.3 96.7 76.8 0 v23 25 32.7 24.7 1039 10.41 1040 East & North West & West 1/23 19.5 6.3 96.7 76.8 0 v23 25.7 32.4 1039 10.41 1040 East & North West & West 1/23 19.5 54.6 96.7 77.9 0 0 v23 22.7 1039 1041 1040 East & North East 1/23 20.55 7.42 96.7 77.9 0 0 0 0 0	30.4	27.2	1039	1042	1041	South & South West	1.23	24.08	5.64	54.2	90.6	1.17	0
vzz 24.6 33.1 28.2 1032 1042 1041 East & North East 123 123 54.6 54.2 56.4 75.8 0 vzz 25 33 28.4 1039 1042 1041 East & North East 123 145.5 53.5 55.4 55.3 96.7 76.8 1.5 vzz 26.7 24.5 1038 1042 1040 East & North East 123 155.6 53.6 56.7 76.3 96.7 76.3 96.5 74.5 94.5 96.5 74.5 94.5 96.5 73.6 0 vz3 23.6 37.1 1038 1041 1040 East & North West 123 10.5 26.6 96.5 73.1 0 96.5 73.1 0 96.5 73.1 0 0 96.5 73.1 0 96.5 73.1 0 0 96.5 73.1 0 0 95.5 73.1 0 0 95.5 <td>3 23.4 33.1</td> <td>28</td> <td>1039</td> <td>1042</td> <td>1040</td> <td>North West & West</td> <td>1.23</td> <td>22.47</td> <td>7,27</td> <td>48.7</td> <td>90.8</td> <td>76.5</td> <td>0</td>	3 23.4 33.1	28	1039	1042	1040	North West & West	1.23	22.47	7,27	48.7	90.8	76.5	0
V23 25 33 28.4 1039 1041 East & North East 123 19,1 5,24 56.3 96.7 83.8 0 0 V23 26 32 27.8 1038 1042 1040 East & North East 1,23 19.35 6.6 56.8 56.7 83.8 0.6 7.6 0.15 V23 27.8 73.9 1039 1040 East & North West 1.23 19.35 56.8 56.7 83.6 77.9 0 V23 23.7 32.8 77.9 1038 1041 1040 East & North West 1.23 10.52 2.86 57.1 86.5 73.0 0 0 V23 23.6 31.2 26.3 1038 1041 1040 East & North West 1.23 20.16 54.6 96.7 75.3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <	3 24.6 33.1	28.2	1039	1042	1041	East & South East	1.23	23.29	6.28	54.2	86.4	75.8	0
vzg 2 27.8 1038 1042 1040 East & South East 12.3 14.85 6.5 9.6.7 7.6.8 1.5 vzg 21.8 26.7 24.5 1039 1042 1041 North West & West 1.2.3 19.35 6.3 56.4 9.6.7 7.6.8 3.4.5 vzg 23.7 32.8 27.4 1039 1042 1040 East & North West 1.2.3 19.35 6.3 56.1 96.7 76.8 3.4.5 vzg 24.1 30.9 27.1 1038 1041 1040 East & North West 1.2.3 23.16 7.42 49.9 96.5 73.0 0 vzg 24.4 32.9 27.6 1038 1041 1040 East & South East 1.2.3 21.43 96.5 73.0 0 0 0 0.5.3 0.5.3 0.5 3.3.0 0.5.3 0.5.2 76.8 73.0 0 0 0.5.5.2 0.5.8 73.5 <	3 25 33	28.4	1039	1042	1041	East & North East	1.23	19.1	5.24	56.3	95.7	83.8	Q
V23 21.8 26.7 24.5 1036 1042 1041 North West & West 1.23 19.35 6.3 59.8 96.1 80.5 94.5 94.5 v23 23.7 32.8 27.4 1039 1040 East & North East 1.23 19.35 6.3 54.6 90.4 77.9 0 0 v23 24.2 32.7 72.9 1038 1041 1040 East & North West 1.23 13.6 7.03 54.6 90.4 77.9 0 0 v23 24.2 32.7 1038 1041 1040 East & North West 1.23 22.16 57.4 86.5 73.0 0 <td>3 26 32</td> <td>27.8</td> <td>1038</td> <td>1042</td> <td>1040</td> <td>East & South East</td> <td>1.23</td> <td>14,85</td> <td>5.8</td> <td>54.3</td> <td>96.7</td> <td>76.8</td> <td>1.5</td>	3 26 32	27.8	1038	1042	1040	East & South East	1.23	14,85	5.8	54.3	96.7	76.8	1.5
v23 23.7 32.8 27.4 1039 1042 1040 East & North East 1.23 19.8 7.03 54.6 90.4 77.9 0 v23 24.2 32.7 27.9 1037 1041 1040 East & North West 1.23 10.52 2.68 57.1 96.5 73.0 0 v23 24.8 31.2 26.3 1036 1041 1040 East & North West 1.23 20.58 7.42 49.9 86.5 73.0 0 v23 23.6 31.2 26.3 1036 1041 1039 East & South East 1.23 20.15 7.26 45.2 78.5 78.6 78.7 0 v23 24.4 32.9 27.4 1039 1041 1039 East & South East 1.23 20.56 55.2 78.6 78.7 78.6 78.5 78.6 78.5 78.6 78.5 78.6 78.7 78.7 78.6 56.5 78.6 78.	3 21.8 26.7	24.5	1039	1042	1041	North West & West	1.23	19.35	6.3	59.8	96.1	80.5	34.5
v23 24.2 32.7 27.9 1038 1041 1040 East & North West 1.23 10.52 2.68 57.1 96.5 B5.4 0 v23 24.6 30.9 27.1 1037 1041 1040 South East & North West 1.23 20.68 7.42 49.9 96.5 73.0 0 v23 23.6 31.2 26.3 1036 1041 1030 East & North West 1.23 22.15 7.26 55.2 73.0 0 0 v23 25 31.4 22.7 1036 1042 1040 East & North West 1.23 20.5 6.87 73.6 73.7 0 0 v23 24.5 32.6 37.4 1036 1042 1040 East & North West 1.23 20.5 6.87 76.3 76.3 0 0 v23 24.5 32.1 56.4 6.99 6.64 64.4 89.6 76.3 0 0	3 23.7 32.8	27.4	1039	1042	1040	East & North East	1.23	19.8	7.03	54,6	90.4	677	0
v23 24.6 30.9 27.1 1037 1041 1040 South East & Morth West 1.23 20.58 7.42 49.9 96.5 7.30 0 v23 23.6 31.2 26.3 1036 1041 1040 East & Morth West 1.23 22.15 7.26 55.2 92.2 76.8 20.5 v23 25 31.4 32.6 27.6 1036 1041 1039 East & South East 1.23 21.54 6.64 54.4 89.6 75.3 0 0 v23 24.5 32.6 27.7 1036 1041 1030 East & South East 1.23 20.5 6.87 51.1 90.4 75.3 0 0 v23 24.5 32.1 26.7 1038 1041 1030 East & South East 123 21.54 6.64 75.3 75.3 0 0 v23 24.5 32.1 26.7 123.8 56.14 20.5 56.4	3 24.2 32.7	27.9	1038	1041	1040	East & South East	1.23	10.52	2.68	57.1	95.5	85.4	0
vz3 23.6 31.2 26.3 1038 1040 East & North West 1.23 22.15 7.26 55.2 92.2 76.8 20.5 v23 24.4 32.9 27.6 1036 1041 1039 East & South East 123 21.54 6.64 54.4 88.5 73.1 0 v23 24.5 32.6 27.7 1039 1042 1040 East & South East 1.23 21.54 6.64 54.4 89.6 75.3 0 0 v23 24.5 32.6 32.1 26.7 1039 1041 1030 East & South East 1.23 20.5 6.87 51.1 90.4 75.3 0 0 v23 24.5 32.1 26.7 1038 1041 1030 East & South East 123 21.3 72 6.81 75.3 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 24.8 30.9	27.1	1037	1041	1040	South East & North West	1.23	20.58	7,42	49.9	86.5	73.0	0
v23 24,4 32,9 27,6 1036 1041 1039 East & South East 123 24,93 9.05 49,9 88.5 73.1 0 v23 25 31,4 27,4 1039 1042 1040 East & South East 1.23 21.54 6.64 54.4 89.6 75.3 0 v23 24,5 32,6 27,7 1039 1041 1030 East & South East 1.23 20.6 6.87 51.1 90.4 75.3 0 0 v23 24,5 32,1 26,7 1038 1041 1039 East & South West 1.23 21.54 6.64 75.0 75.0 0 0 0 v23 24,4 30.9 26,7 1038 1041 1039 East & North East 1.24 21.3 72 6.61 75.0 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 23.6 31.2	26.3	1038	1041	1040	East & North West	1.23	22.15	7.26	55.2	92.2	76.8	20.5
v23 25 31.4 27.4 1039 1042 1040 East & South East 1.23 21.54 6.64 6.4.4 89.6 75.3 0 v23 24.5 32.6 27.7 1039 1042 1041 75.3 0 v23 24.5 32.6 25.7 1038 1041 1030 East & South East 123 20.8 6.87 51.1 90.4 75.3 0 0 v23 24.5 32.1 26.7 1038 1041 1039 East & South West 123 25.16 6.99 56.4 89.6 75.0 0 0 v23 24.7 30.9 26.7 1038 1041 1039 East & North East 12.4 21.12 7.0 56.1 86.6 75.0 0.5 v23 24.7 32.5 1038 1041 1039 East & North East 12.4 21.12 7.0 56.1 86.6 76.0 0.5 0 0	3 244 32.9	27.6	1038	1041	1039	East & South East	1.23	24.93	9.05	49.9	88.5	73.1	0
v23 24,5 32,6 27,7 1039 1642 163 123 20,6 6.87 6.1,1 90,4 75.3 0 v23 24,3 32,1 26,7 1038 164,1 1040 56,4 89,4 75.3 0 v23 24,4 30,9 26,7 1038 1041 1030 East & South West 123 25,16 6,99 56,4 75,0 0 0 v23 24,4 30,9 26,7 1038 1041 1039 East & South West 124 21,12 7,04 86 75,0 0 0 v23 24,7 32,5 25,5 1038 1041 1039 East & North East 1,24 21,12 7,04 56 76,0 0,5 v23 24,4 31,4 26,5 1039 1042 1039 East & North East 1,24 21,12 7,04 56 76,0 0,5 v23 24,4 31,4 26,5 1039 East & North East 1,24 7,17 6,51 6,99 6,61 8,0,6 0,5 v24 31,4 26,5 1039 1042 1040 124 1,77 7,04 56	3 25 31.4	27.4	1039	1042	1040	East & South East	1.23	21.54	6.64	54.4	89.68	75.3	0
v23 24.3 32.1 26.7 1038 1041 1040 South West & West 1.23 25.16 6.99 56.4 89.4 75.0 0 v23 24.4 30.9 26.7 1038 1041 1039 East & South West 1.24 21.3 7.2 56.1 86 75.0 0.5 v23 24.7 30.5 27.6 1038 1041 1039 East & North East 1.24 21.3 7.2 56.1 86 75.0 0.5 v23 24.4 31.4 26.5 1038 1041 1039 East & North East 1.24 21.12 7.04 56 96.1 80.6 0 v23 24.4 31.4 26.5 1039 East & North East 1.24 21.12 7.04 56.1 82.6 0.5 3.5 v4xit 10.47 1039 East & North East 1.24 17.76 7.64 58.1 8.1 8.5 3.5 v4s	3 24.5 32.6	27.7	1039	1042	1041	East & South East	1.23	20.8	6.87	51.1	90.4	75.3	0
v-23 24,4 30.9 25.7 1038 1041 1039 East & South West 1.24 21.3 7.2 58.1 86 75.0 0.5 v-23 24,7 32.5 27.6 1038 1041 1039 East & North East 1.24 21.12 7.04 58 96.1 82.6 0 v-23 24,4 31.4 26.5 1039 1042 1040 East & North East 1.24 7.17 7.04 58 96.1 82.4 3.5 v-23 24,4 31.4 26.5 1040 East & North East 1.24 7.176 7.61 63 96.1 82.4 3.5 v-24. 7.61 Rainfall for the month 186.5 mm. 17.76 7.61 63 96.1 82.4 3.5	3 24.3 32.1	26.7	1038	1041	1040	South West & West	1.23	25.16	6.99	56.4	89.4	75.0	o
w23 24.7 32.5 27.6 1038 1041 1039 East & North East 1.24 21.12 7.04 58 91.5 80.6 0 v-23 24.4 31.4 26.5 1039 1042 1040 East & North East 1.24 7.61 63 96.1 82.4 3.5 v-23 24.4 31.4 26.5 1039 1042 1040 East & North East 1.24 17.76 7.61 63 96.1 82.4 3.5 Ass. Total Rainfall for the month 186.5 mm. For Coastal Energen Pvt. Limited Ass.	3 24.4 30.9	26.7	1038	1041	1039	East & South West	1.24	21.3	7.2	56.1	86	75.0	0.5
v.23 24.4 31.4 26.5 1039 1040 East & North East 1.24 17.76 7.61 63 96.1 82.4 3.5 v.23 24.4 31.4 26.5 1039 1042 1040 East & North East 1.24 17.76 7.61 63 96.1 82.4 3.5 Ass: Total Rainfall for the month 186.5 mm. For Coastal Energen Pvt. Limited Control	3 24.7 32.5	27.6	1038	1041	1039	East & North East	1.24	21.12	7.04	58	91.5	80.6	Ø
rotal Rainfall for the month 186.5 mm. For Goastal Energen Pyt. Limited	3 24.4 31.4	26.5	1039	1042	1040	East & North East	1.24	17,76	7.61	8	96.1	82.4	3.5
	Total Rainfall for the m	onth	186.5	mm.						4 L	-Canadal Error	timit 1 init	-
										Y	MK Pal	ameswaran	101 TUTICO

Anither Function Anither Function<	HAR	Sour Sour					8	ASTAL ENERGEN PRIV 2 X 600 MW MUTIARA THERMAL I METROLOGICAL STATION Daily Average from 01.12.2023 to	ATE LIM POWER PLANT REPORT 0 31.12.2023	ITED					e. M
Offer Date App Date		Amb	lent Temperatur	re (°C)	Barome	stric Pressure	(m.bar)	Predominant Wind direction	W	nd Speed (Km.	(Hr)	Rela	ative Humidity	r (%)	Rain Fall (mm)
Common Common<	nate	Min	Max	Avg	Min	Max	Avg	Blowing from	Min	Max	Avg	Min	Max	Avg	
Columne Columne <t< td=""><td>1-Dec-23</td><td>23.4</td><td>32.5</td><td>27.5</td><td>1037</td><td>1041</td><td>1039</td><td>North East & East</td><td>1.23</td><td>20.59</td><td>6.73</td><td>56</td><td>95.1</td><td>79.9</td><td>0</td></t<>	1-Dec-23	23.4	32.5	27.5	1037	1041	1039	North East & East	1.23	20.59	6.73	56	95.1	79.9	0
3.1 3.61 0.61 0.60 0.63 6.64 9.23 0.57 0.64 0.64 0.60 3.64 0.67 0.60 0.60 0.60 0.61 0.67 0.63 0.63 0.63 0.61 0.6	2-Dec-23	24.6	33.3	28.5	1036	1040	1038	West & South West	1.23	18.04	5.59	55.5	6.02	76.4	0
4.00000 5.1 5.41 2.37 10.05 1	3-Dec-23	24.1	33.9	28.4	1037	1040	1038	North West & South East	1.23	15.73	5.1	54,8	97.5	80.4	0
Glower Sith <	4-Dec-23	25	34.1	28.7	1036	1039	1037	South East & North West	1.23	20.22	6.37	58.9	96.7	81.1	0
Gluezia 3.46 9.4 2.36 0.07 10.01 0.03 Sound Sound Early 1.23 7.06 7.34 6.13<	5-Dec-23	25.1	36.4	29.5	1036	1039	1037	South East & South	1.23	18.97	7	49.6	95.3	1.17	o
Miners Size Tige Tige Storn Field Tige Storn Field Tige Storn Field Tige Storn Field Storn Field Tige Storn Field Storn Field Tige Storn Field	6-Dec-23	24.6	34	28.8	1037	1040	1039	South & South East	1.23	20.87	7.38	61.9	97.5	81.1	o
One-root 2:4 3:5 1:00 <	7-Dec-23	25.2	31.8	27.3	1039	1041	1039	South & South East	1.23	17.03	5.84	66.8	95.6	87.6	0
30 10 100	8-Dec-23	24.4	33.5	28.3	1038	1041	1040	East & South East	1.23	16.41	5.25	59.7	97.3	82.9	0
100-0000 231 201 200 1000 East Norm East 1120 1140 631	9-Dec-23	24	31.9	27,3	1039	1043	1041	East & North East	1.23	17.07	5.54	68.5	69.3	88.7	18.5
110mcCi 233 30 771 1030 1042 1043 114 301 733 1043 231 233 1043 231 233 1043 231 233 1043 231 233 1043 231 233 1043 231 233 1043 231 233 2013	10-Dec-23	25.1	29.1	26.8	1039	1042	1040	East & North East	1.23	14.87	6.32	75.4	95.1	88.1	0
Clonector 2/2 311 27 (100) Test & South East 11.5 13.6 61.6 63.1 77.6 Chonector 72.0 72.0 72.0 14.6 71.1 71.0 71.0 71.1 71.0 Chonector 72.0 72.0 72.0 72.0 72.0 73.0 73.1 73.0 Chonector 72.0 72.0 72.0 73.0 73.1 73.0 73.0 73.0 Chonector 72.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 Chonector 72.1 73.0 73.0 73.0 73.0 73.0 73.0 73.0 Chonector 72.1 73.0 73.0 73.1 73.0 73.0 73.0 73.0 Chonector 72.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0 73.0	11-Dec-23	25.3	8	27.1	1039	1042	1040	East & North East	2.63	18.32	8.06	71.4	90	82.9	0
Concests 2.17 0.01 1.02 1.042 1.014 1.015 1.015 0.01 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.23 0.00 9.21 0.00 9.71	12-Dec-23	24.2	31.1	27	1039	1041	1040	East & South East	1.23	19.46	8.43	61.6	93.1	79.6	0
(40ercs) 2.3 3.1 2.66 10.2 1042 1042 1042 1043 1044 1056 95.3 1033 95.3 <	13-Dec-23	22.7	30.7	26	1039	1042	1040	East & North East	1.45	21.61	e.13	60.8	95.2	80.0	0
(5-0ecc3) 2.87 2.87 0.64 102 1047 South 8 South Test 3.36 2.363 10.02 17.91 9.77 9.10 (1-0ecc3) 2.31 2.65 2.37 10.32 10.44 5.31 15.66 9.77 9.10 (1-0ecc3) 2.31 6.66 10.41 10.64 South 8 South 11.6 2.61 9.65 9.65 9.77 9.10 (1-0ecc3) 2.31 7.96 6.61 2.63 10.64 South 56.64 11.6 2.77 9.66 9.65 9.71 9.10 (1-0ecc3) 2.31 2.00 10.43 10.41 South 56.64 11.2 2.17 10.82 9.61 8.69 9.71 9.69 9.71 9.69 9.61 8.69 9.71 <td< td=""><td>14-Dec-23</td><td>22.9</td><td>31</td><td>26.6</td><td>1039</td><td>1042</td><td>1041</td><td>East & South East</td><td>1.95</td><td>26.53</td><td>10.03</td><td>53.9</td><td>87.9</td><td>74.1</td><td>0</td></td<>	14-Dec-23	22.9	31	26.6	1039	1042	1041	East & South East	1.95	26.53	10.03	53.9	87.9	74.1	0
(EDec23 2a1 265 247 103 East South East 144 756 613 913 913 (EDec23 233 257 243 103 1047 1041 1039 East South East 1.48 253 921 955 953	15-Dec-23	24.8	28.7	26.4	1039	1042	1041	South & South East	3.38	23.63	10.03	69	85.3	78.0	0
Troneccia 22.3 22.7 24.3 10.66 10.41 10.69 East & South East & 1.23 23.5 9.6 9	16-Dec-23	23.1	26.5	24.7	1039	1042	1041	South & South West	1.6	19.44	7.96	84.8	57.7	91.0	48
General Decision 21/6 28/2 10/3 10/4 20/4 10/3 66/6 96/5	17-Dec-23	23.3	25.7	24.3	1038	1041	1039	East & South East	1.44	25.31	13.68	92.1	6.95	97.1	0
G-Dec23 221 24.0 10.0 10.43 10.41 South East South 1.39 26.2 9.39 12.4 9.66 86.5 9	18-Dec-23	21.6	24.8	23.2	1039	1042	1041	South East & South	1.88	31.74	10.82	86.6	99.5	95.9	374
Drocezis 22.7 28.9 1040 1041 South East South 13 21.7 108.3 69.6 65.9 96.6 65.9 96.0 85.9 90.0 71-0rcczis 23.1 27.9 24.8 1040 1041 East & North East 12.3 23.35 61.06 73.2 96.9 96.0 94.0 71-0rcczis 23.6 31.2 26.8 10.01 10.41 East & North East 1.23 21.9 60.8 97.1 83.3 90.0 97 76.5 97.6 83.3 94.4 80.9 97 76.5 97.6 83.3 94.4 80.9 96.6 81.3 80.9 97 76.5 96.9 96.9 96.9 96.9 96.9 96.9 97 76.5 93.3 93.4 80.9 97 76.5 93.9 96.9 96.9 96.9 96.9 96.9 96.9 96.9 96.9 96.9 96.9 97 76.5 96.5 96.14 96.	19-Dec-23	22.6	27.7	24.8	1040	1043	1041	South East & South	1.39	26.22	9.39	72.9	96.1	86.6	94
21-Dec:23 23.1 27.9 24.3 10-01 10-43 10-41 12.3 23.16 73.2 9.69 90.0 91.4 93.3 90.0 91.4 93.3 91.0 </td <td>20-Dec-23</td> <td>22.7</td> <td>29.8</td> <td>25.3</td> <td>1040</td> <td>1043</td> <td>1041</td> <td>South East & South</td> <td>1.9</td> <td>21.7</td> <td>10.83</td> <td>69.8</td> <td>96.6</td> <td>85.9</td> <td>0</td>	20-Dec-23	22.7	29.8	25.3	1040	1043	1041	South East & South	1.9	21.7	10.83	69.8	96.6	85.9	0
22-Dec/23 23.0 0.0 1041 1041 East & South East 123 22.13 6.34 6.2.7 9.6.9 64.0 23-Dec/23 22.13 31.2 25.6 1041 1044 1042 East & North East 1.23 19.76 8.13 60.0 97.4 83.3 23-Dec/23 22.2 30.6 56.6 1040 1042 East & North East 2.81 2.72 9.66 61.2 83.3 81.3 83.3 25-Dec/23 23.3 31.6 26.6 1040 1043 1042 East & South East 2.81 1.82 5.30 91.6 80.9 80.9 25-Dec/23 23.3 31.4 26.0 1040 1043 1041 East & South East 2.39 2.41 80.9 81.2 80.9 81.2 80.9 81.2 80.9 81.2 80.9 81.2 80.9 81.2 82.3 81.9 80.9 81.2 81.2 81.3 81.2 81.3 81.3 </td <td>21-Dec-23</td> <td>23.1</td> <td>27.9</td> <td>24.8</td> <td>1040</td> <td>1043</td> <td>1041</td> <td>South & South West</td> <td>1.23</td> <td>23.55</td> <td>10.05</td> <td>79.2</td> <td>66</td> <td>90.06</td> <td>0</td>	21-Dec-23	23.1	27.9	24.8	1040	1043	1041	South & South West	1.23	23.55	10.05	79.2	66	90.06	0
22-Dec-22 22.6 31.2 25.8 1041 1042 East & North East 123 160.8 97.4 83.8 24-Dec-23 22.8 30.6 25.8 1064 1042 East & North East 136 60.8 97.4 83.8 24-Dec-23 23.2 31.9 26.6 1060 1042 East & South East 23.9 16.9 97.4 83.8 16.9 97.4 83.8 16.9 97.4 83.8 16.9 97.4 83.8 16.9 97.4 83.8 16.9 97.4 83.8 16.9 97.4 83.8 16.9 97.4 83.9 16.9 97.4 83.9 16.9 97.4 80.9 97.4 80.9 97.4 80.9 97.4 80.9 97.4 80.9 97.4 80.9 97.4 80.9 97.4 80.9 97.4 80.9 97.8 97.8 97.9 97.8 96.9 17.9 96.1 17.9 96.1 97.9 97.9 97.9	22-Dec-23	23.2	30.9	26	1040	1043	1041	East & South East	1.23	22.13	8.34	62.7	98.9	84.0	0
24-Dec:23 22.8 30.6 26.8 1041 1042 South East & East & North East 1.46 21.98 10.3 60.9 97 75.5 1 25-Dec:23 23.3 31.6 26.6 1040 1043 1042 East & North East 2.81 27.2 9.86 61.2 53.2 81.0 10.0 25-Dec:23 23.3 31.6 26.8 1000 1043 1042 East & South East 2.81 27.2 9.86 61.2 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 77.6 9.05 9.05 77.6 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05 9.05	23-Dec-23	22.6	31.2	25.8	1041	1044	1042	East & North East	1.23	19.76	8.13	60.8	97.4	83.8	o
25-Dec:23 23.2 31.9 26.6 1040 1043 1042 East & North East 2.81 27.2 9.86 61.2 83.3 91.0 80.9 25-Dec:23 23.8 31.6 26.8 1040 1043 1042 East & South East 1.82 23.03 10.85 58.3 91.9 80.9 90.9 27-Dec:23 23 31.4 27.0 1003 1043 1041 East & South East 37.3 25.3 11.97 6.52 98.6 81.2 80.9 27-Dec:23 23.3 31.3 27.0 10040 1043 1041 East & South East 2.37 12.91 81.7 81.2 81.2 81.2 81.2 81.2 81.2 81.2 81.2 81.2 81.3 81.2 81.2 81.3 81.3 81.3 81.3 81.3 81.3 81.3 81.3 81.3 81.3 81.4 81.3 81.3 81.4 81.3 81.4 81.3 81.4 <td< td=""><td>24-Dec-23</td><td>22.8</td><td>30.6</td><td>25.8</td><td>1041</td><td>1044</td><td>1042</td><td>South East & East</td><td>1.46</td><td>21.98</td><td>10.3</td><td>60.9</td><td>97</td><td>79.5</td><td>0</td></td<>	24-Dec-23	22.8	30.6	25.8	1041	1044	1042	South East & East	1.46	21.98	10.3	60.9	97	79.5	0
28-Dec/23 23.6 31.6 26.8 1040 1043 1042 East & South East 1.82 23.03 10.85 58.3 94.4 80.9 80.9 27-Dec/23 23.9 31.4 26.6 1040 1043 1042 East & South East 2.39 25.53 11.97 62.0 90.5 77.6 80.9 28-Dec/23 23.3 27.0 1040 1043 1041 East & North East 2.37 25.53 11.97 62.0 90.6 81.2 80.8 29-Dec/23 23.3 27.0 1040 1043 1041 East & North East 2.61 2.01 91.6 93.8 80.8 29-Dec/23 24.3 31.2 28.7 1040 1041 East & North East 2.61 91.8 91.8 90.4 80.8 29-Dec/23 24.3 31.2 28.6 1041 East & North East 2.61 91.8 90.4 80.4 80.8 39-Dec/23 24.3 10.31 <td>25-Dec-23</td> <td>23.2</td> <td>31.9</td> <td>26.8</td> <td>1040</td> <td>1043</td> <td>1042</td> <td>East & North East</td> <td>2.81</td> <td>27.2</td> <td>9.86</td> <td>61.2</td> <td>93.2</td> <td>81.0</td> <td>0</td>	25-Dec-23	23.2	31.9	26.8	1040	1043	1042	East & North East	2.81	27.2	9.86	61.2	93.2	81.0	0
77-Dec.23 22.9 31.4 26.8 1040 1043 1042 East & South East 2.33 25.3 11.97 62.0 90.5 77.6 77.6 28.0c.23 23 31.4 27 1039 1043 1041 East & North East 3.73 25.4 12 66.2 99.6 81.2 8.8 26.0c.23 24.9 31.3 27.0 1040 1043 1041 East & North East 2.81 1.1.25 66.2 99.1 8.8.8 8.6.8 8.1.2 8.8.8 8.6.9 81.2 8.8.8 8.6.8 8.6.9 81.2 8.8.8 8.6.8 8.8.8 8.6.8 8.6.8 8.8.8 <td< td=""><td>26-Dec-23</td><td>23.8</td><td>31.6</td><td>26.8</td><td>1040</td><td>1043</td><td>1042</td><td>East & South East</td><td>1.82</td><td>23.03</td><td>10.85</td><td>58.3</td><td>94.4</td><td>80.9</td><td>0</td></td<>	26-Dec-23	23.8	31.6	26.8	1040	1043	1042	East & South East	1.82	23.03	10.85	58.3	94.4	80.9	0
28-Dec.23 23 31.4 27 1039 1043 1041 East & South East 3.73 25.4 12 66.2 98 81.2 26-Dec.23 24.9 31.3 27.0 1040 1043 1041 East & North East 2.97 26.42 11.25 66.2 93.1 82.8 80.4 26-Dec.23 24.9 31.3 27.2 1040 1043 1041 East & North East 2.61 2.431 10.31 64.1 81.8 80.8 80.4 30-Dec.23 24.3 31.2 268 1043 1041 East & North East 2.05 2.93 91.8 80.4 80.4 31-Dec.23 24.3 31.2 266.2 34.3 1041 East & North East 2.05 2.94 91.8 80.4 90.4 31-Dec.23 24.3 1041 534.5 Morth East 2.05 2.93 91.8 80.4 1.4 10 534.5 Mit 534.5 Mit 53.3 91.8 80.4 1.4 10 10 1041	27-Dec-23	22.9	31.4	26.8	1040	1043	1042	East & South East	2.39	25.53	11.97	62.0	90.5	77.6	0
20-Dec:23 24.3 31.3 27.0 1040 1041 East & North East 2.97 26.42 11.25 67.9 93.1 82.8 30-Dec:23 24.9 31.3 27.2 1040 1041 East & North East 2.61 31.3 91.8 90.8 90.8 30-Dec:23 24.3 31.2 26.8 1043 1041 East & North East 2.05 2.08 91.8 80.8 90.4 31-Dec:23 31.2 26.8 1043 1041 East & North East 2.05 2.08 91.8 80.8 90.4 31-Dec:23 31.2 26.8 1043 East & North East 2.05 2.08 91.8 80.4 90.4 Atmatrial for the month 534.5 mm. 5.35 3.16 63.3 91.8 80.4 90.4 Atmatrial for the month 534.5 mm. 5.35 2.2.98 9.16 63.3 91.4 90.4	28-Dec-23	23	31.4	27	1039	1043	1041	East & South East	3.73	25.4	12	66.2	98	81.2	0
30-Dec:23 24.9 31.3 27.2 1040 1043 1041 East & North East 261 21.8 64.1 91.8 80.8 31-Dec:23 24.3 31.2 26.8 1033 1041 East & North East 2.05 22.98 9.18 60.4 80.8 31-Dec:23 24.5 mm. 534.5 mm. 534.5 mm. Nt Parameter	29-Dec-23	24.3	31.3	27.0	1040	1043	1041	East & North East	2.97	26.42	11.25	67.9	93.1	82.8	0
31-Dec:23 24.3 31.2 26.8 1043 1041 East & North East 2.05 22.98 9.18 63.3 90.4 Remarks: Total Rainfall for the month 534.5 mm. 534.5 mm. MK Paramewaran	30-Dec-23	24.9	31.3	27.2	1040	1043	1041	East & North East	2.61	24.31	10.31	64.1	91.8	80.8	0
Remarks. Total Rainfall for the month 534.5 mm. 534.5 mm. For Coastal Energen Pvt. Limited MK Parameswaran Lond	31-Dec-23	24.3	31.2	26.8	1039	1043	1041	East & North East	2.05	22.98	9.18	63.3	91.8	80.4	0
For Goastal Energen Pvt. Limited	Remarks:	Total Rainfe	all for the month	-	534.5	mm.							-1		•
MK Parametereran Loos												Fo	r Coastal Ener	rgen Pvt. Limi	ted nergen
Station Director 0												`	MK Par	ameswaran	al TITICOR
x													Station	Director	101
															1.4/

EXTERNAL ROA-AMBIENT AIR MONITORING



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		Tecas		ING			landin	
(eport,	ULR No :	TC693	2-23-0-000007446-P	Re	port Date :	Single Street	27.11.202	3
Custom	er Name & Address :	M/S. C 2 x 600 Melan Tutico Ph : 95	oastal Energen Private Limited) MW, Mutiara Thermal Power Plant, iaruthur Village, Ottapidaram (Tk), rin (Dt) - 628 004. 00831401					
iample	Description :	Ambie	nt Air	Sal	nple Refere	ence No :	EL-NL-AA-	108-11-2023
iample	Drawn By :	Labora	tory	Sai	nple Collec	ted Date :	16.11.202	3
amplin	g Time :	24 Hou	ITS	Sa	nple Receiv	red on :	18.11.202	3
ty of S	ample Received :	Filter P	aper(2 nos) & Approx 25 ml Solution(4 nos)	Tes	t Comment	ed on :	18.11.202	3
ample	Condition on Receipt :	Good	n transformer and the last	Te	st Complete	d on :	25.11.202	3
amplin	g Environment Condition :	Tempe	rature - 32.0°C ; RH - 50.8%	Sar	npling Met	hod / Plan :	IS 5182	
ample	Mark :	Main C	Iffice	and the second second	Pa	20 13 2032		
nsu um	ents used for sampling :	Iwana C	Simplified Sampler (ID No: EL-IT-P75) with Calibratic	an valio	nty due on t	18.12.2023		
S. No	Name of the Test		Test Method		Units	Res	ults	Limits of NAA
hemica	al Testing							
1	Ammonia (as NH ₃)		CPCB Guidelines, Volume I, NAAQMS/36/2012:	2013	µg/m ³	<	i.0	400
2	Carbon Monoxide (as CO)		SOP No.EL-SOP-ARS-17 Issue No.01 January,1:	2015	mg/m ³	<	.2	2.0 (8 Hours
3	Oxides of Nitrogen (as NO ₂)	1	IS 5182 (Part 6) :2006		µg/m ³	12	1.8	80
4	Particulate Matter 10µ (as F	PM10)	IS 5182 (Part 23) : 2006		µg/m ³		.7	100
5	Particulate Matter 2.5µ (as	PM 2.5)	EPA 40 CFR (Part 50) Appendix L : July : 201	1	µg/m³	25	.2	60
6	Oxidants (as Ozone O ₃)	All and a	IS 5182 (Part IX) :1974		µg/m ³	<1	0.0	100 (8 Hours
7	Sulphur Dioxide (as SO ₂)		IS 5182 (Part 2) :2001		µg/m³	6	1	80
olycyc	lic Aromatic Hydrocarbons:							
8	Benzo [a] Pyrene (as C ₂₀ H ₁₂)		CPCB Guidelines, Volume I, NAAQMS/36/2012:	2013	ng/m ³	<0	.5	1.0 (Annual)
race M	etal Parameters:							
9	Arsenic (as As)		CPCB Guidelines, Volume I, NAAQMS/36/2012:	2013	ng/m ³	<0	.1	6.0 (Annual)
10	Lead (as Pb)		Clause No.5 of IS 5182 (Part 22) :2004		µg/m ⁸	<0	.5	1.0
11	Nickel (as Ni)		CPCB Guidelines, Volume I, NAAQMS/36/2012:	2013	ng/m ³	<1	.0	20 (Annual)
latile	Organic Compounds:							
12	Benzene (as C ₆ H ₆)	Sec. 17	IS 5182 (Part 11) :2006		µg/m³	<0	.5	5.0 (Annual)
tateme 24 hour	ent of Conformity: The concer rs)	trations	of the parameters tested in the above location are	withir	the prescri	bed permissible	limits of NA	AQs tolerance limit
			< End of Report>	-				
	Report Verified by	Ni	1	-		For EXCEL	LENCE LABO	RATORY
	DO 15						VA	
	Technical Personne	el 💦	ace Lap			Autho	orized Signat	ory
	R.REVATH Technical Man	11 ager	A K YIO O CONTRACTOR			R.S. Qu	DINAK/ ality Man	ARAN ager
	and a start of the	(141) - State of the second	and the processing of the second s		And the second second	12	40	The second s



Lab: No.23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010.

B.O. No.4/6-26, Amar Jothi Jai Nagar, Kannampalayam, Sulur, Coimbatore - 641 402, B.O: No.22/33A Second Street, Ram Nagar, Tiruppur - 641 602.



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TEST REPORT

AMBIENT AIR MONITORING

Report / ULR No :	TC6932-23-0	0-000007446-P			27.1	1.2023
Customer Name & Address :	M/S. Coasta 2 x 600 MW Melamaruth Tuticorin (Dr Ph : 950083	I Energen Private Limited , Mutiara Thermal Power Plant, nur Village, Ottapidaram (Tk), t) - 628 004. 1401				
Sample Description :	Ambient Air			Sample Reference No :	EL-N	IL-AA-108-11-2023
Sample Drawn By :	Laboratory		11.000	Sample Collected Date :	16.1	1.2023
Sampling Time :	24 Hours			Sample Received on :	18.1	1.2023
Qty of Sample Received :	Filter Paper	2 nos) & Approx 25 ml Solution(4 nos)		Test Commenced on :	18.1	1.2023
Sample Condition on Receipt :	Good			Test Completed on :	25.1	1.2023
Sampling Environment Condition	: Temperatur	e - 32.0°C ; RH - 50.8%		Sampling Method / Plan :	IS 53	182
Sample Mark :	Main Office		_			
Instruments Used for Sampling :	Mini Combin	ned Sampler (ID No: EL-IT-F75) with calil	bration v	alidity due on 08.12.2023		
S. 40 Name of t	he Test	Test Method	Units	Results		Max. Permissible Limits of NAAQ
Chemical Testing						
1 Mercury (as Hg)*		EPA Method 29 (Title 40) : 1991 & AAS-VGA	µg/m³	<1.0		NA
Statement of Conformity:						/
		< End of Report -	->			
Report Verifi	ed by EC sonnel			For EXC	ELLENCE	Signatory
R.REV Technical	ATHI Manager	-		R.S	S.DIN	Manager



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Disclaimer : 1. This test report shall not be reproduce in full or part without the written approval of the Laboratory. The test results relate only to the test item tested and results apply to the sample "as received conditions".
 This test results does not account the MU value in the statement of conformity unless or otherwise specified in the report. 4. The laboratory is not responsible for information provided by customer and it does not come under the scope of accreditation. 5. This test item will not be retained more than 10 days from date of issue of test reports, unless or otherwise requested by customer. 5. This test tiem will not be related more than 10 days full date or issue of east teports, these or one was requested by automatic. 6. Total liability of our laboratory is limited to the invoice amount and any dispute ansing out of this report is subject to Madurai Jurisdiction only. 7. This report cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing. 8. Sample is not drawn by faboratory unless stated in the report, if the sample drawn by the customer, the laboratory is not responsible for sampling stage. 9. (BDL) - Below Detectable Limit; (DL) - Detectable Limit; (MU) - Measurement Uncertainty; (NA) - Not Applicable; (CFU) - Colony Forming Unit. 10.No additions, deviations or exclusions from the above test methods mentioned unless or otherwise specified in the report. 11.(*) Mark indicates the tests does not comes under scope of accreditation and (#) Mark indicates the tests are subcontracted to other certified laboratory.



Lab: No. 23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010. B.O : No. 15, Metha Layout, Masakalipalayam Road, Peelamedu, Coimbatore - 641 004. B.O: No. 22/33A Second Street, Ram Nagar, Tiruppur - 641 602.



TEST REPORT

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Report / ULR	No:	TC6932	2-23-0-000007447-P	Rep	oort Date :		27.11.20	23
Customer Nar	me & Address :	M/S. C 2 x 600 Melam Tuticor Ph : 95	oastal Energen Private Limited MW, Mutiara Thermal Power Plant, aruthur Village, Ottapidaram (Tk), in (Dt) - 628 004. 00831401					
Sample Descr	iption :	Ambier	nt Air	San	nple Referenc	e No :	EL-NL-AA	-109-11-2023
Sample Draw	n By :	Labora	tory	San	nple Collected	d Date :	16.11.20	23
ampling Tim	e:	24 Hou	r's	San	nple Received	i on :	18.11.20	23
ty of Sample	Received :	Filter P	aper(2 nos) & Approx 25 ml Solution(4 nos)	Tes	t Commenced	lon:	18.11.20	23
iample Condi	tion on Receipt :	Good	20.0 ⁰ C. BH 40.00/	Tes	t Completed	on :	25.11.20	23
ampling Env	ironment Condition :	Tempe	rature - 32.3 C ; RH - 49.8%	san	npling wetho	o / Pian :	15 5182	
nstruments l	: Ised for Sampline :	Mini Co	ombined Sampler (ID No: EL-IT-F76) with calibrati	on valid	ity due on 08	.12.2023		
S. No	Name of the Test		Test Method	- 62	Units	Re	sults	Max. Permissib Limits of NAAC
Chemical Test	ting							
1 Am	monia (as NH3)		CPCB Guidelines, Volume I, NAAQMS/36/2012	: 2013	µg/m³	4	:5.0	400
2 Car	bon Monoxide (as CO)		SOP No.EL-SOP-ARS-17 Issue No.01 January,1	2015	mg/m ³		1.2	2.0 (8 Hours)
3 Oxi	des of Nitrogen (as NO ₂)		IS 5182 (Part 6) :2006		µg/m ³	1	.6.7	80
4 Par	ticulate Matter 10µ (as Pl	V10)	IS 5182 (Part 23) : 2006	120	µg/m ³		2.5	100
5 Par	ticulate Matter 2.5µ (as P	M 2.5)	EPA 40 CFR (Part 50) Appendix L : July : 20	11	µg/m ³	2	16.2	60
6 Oxi	dants (as Ozone O ₃)	SOLUTI	IS 5182 (Part IX) :1974		µg/m ³	1.56	10.0	100 (8 Hours)
7 Sul	phur Dioxide (as SO ₂)		IS 5182 (Part 2) :2001		µg/m ³		8.5	80
Polycyclic Arc	omatic Hydrocarbons:				den en en el co	· · · · · · · · · · · · · · · · · · ·		
8 Ben	zo [a] Pyrene (as C ₂₀ H ₁₂)	17	CPCB Guidelines, Volume I, NAAQMS/36/2012	: 2013	ng/m ¹		0.5	1.0 (Annual)
Trace Metal F	Parameters:				ale see a las			
9 Ars	enic (as As)		CPCB Guidelines, Volume I, NAAQMS/36/2012	: 2013	ng/m ³	<	0.1	6.0 (Annual)
10 Lea	d (as Pb)		Clause No.5 of IS 5182 (Part 22) :2004		µg/m ³		0.5	1.0
11 Nic	kel (as Ni)		CPCB Guidelines, Volume I, NAAQMS/36/2012	: 2013	ng/m ³	<	1.0	20 (Annual)
blatile Orga	nic Compounds:	101 - 11			1			
12 Ben	izene (as C ₆ H ₆)	Ne.	IS 5182 (Part 11) :2006		µg/m ³	<	0.5	5.0 (Annual)
Statement of (24 hours)	Conformity: The concent	trations	of the parameters tested in the above location a	e withir	the prescrib	ed permissibl	e limits of N	AAQs tolerance limits
			< End of Report>				1	
	Report Verified by					For EXCE	LLENCE LAB	ORATORY
	LAUS Technical Personne		ace Lab			Auti	norized Sign	atory
	R.REVATH	ll ager	A A A A A A A A A A A A A A A A A A A			R.S.	DINAK ality Man	ARAN ager
			41 direct					



Lab: No.23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010.

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TEST REPORT

AMBIENT AIR MONITORING

Report / ULR No :	TC6932-23-0-000	007447-P		Report Date:	27.11.2023
Customer Name & Address :	M/S. Coastal Ene 2 x 600 MW, Mut Melamaruthur Vi Tuticorin (Dt) - 62 Ph : 9500831401	rgen Private Limited iara Thermal Power Plant, llage, Ottapidaram (Tk), 28 004.			
Sample Description :	Ambient Air			Sample Reference No :	EL-NL-AA-109-11-2023
Sample Drawn By :	Laboratory			Sample Collected Date :	16.11.2023
Sampling Time :	24 Hours			Sample Received on :	18,11.2023
Qty of Sample Received :	Filter Paper(2 no:	s) & Approx 25 ml Solution(4 nos)		Test Commenced on :	18.11.2023
Sample Condition on Receipt :	Good			Test Completed on :	25.11.2023
Sampling Environment Condition :	Temperature - 32	2.3°C; RH - 49.8%		Sampling Method / Plan :	IS 5182
Sample Mark :	Near Salt Area				
Instruments Used for Sampling :	Mini Combined S	ampler (ID No: EL-IT-F76) with calibr	ation validity d	ue on 08.12.2023	
Name of the	: Test	Test Method	Units	Results	Max. Permissible Limits o NAAQ
Chemical Testing					
1 Mercury (as Hg)*		EPA Method 29 (Title 40) : 1991 & AAS-VGA	μg/m ³	<1.0	NA
Statement of Conformity:					/
		< End of Repor	t>		
Report Verified	d by			For EXCELLENC	LABORATORY
Technical Perso	nnel			Authorized	Signatory
R.REV Technical	ATHI Manager			R.S.DI Quali	NAKARAN ty Manager
		4			
		4			





Lab: No. 23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010.

B.O : No. 15, Metha Layout, Masakalipalayam Road, Peelamedu, Coimbatore - 641 004. B.O: No. 22/33A Second Street, Ram Nagar, Tiruppur - 641 602.



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	IESI	REP	OKI_								
Anna AND N		170000	22.0.000	AMI	BIENT AIR MC	ONITORING	3				
customer Name	& Address :	M/S. Co 2 x 600 Melama Tuticori Ph : 950	-23-0-000 pastal Ene MW, Mut aruthur Vi n (Dt) - 62 0831401	rgen Private tara Thermal llage, Ottapid 28 004.	Limited Power Plant, laram (Tk),		Report Da	te :		27.11.202	
ample Descript	ion :	Ambien	t Air				Sample Re	ference	No:	EL-NL-AA-1	110-11-2023
ample Drawn B	y:	Laborat	ory				Sample Co	llected	Date :	16.11.2023	3
ampling Time :	The second second second	24 Hour	'S				Sample Re	ceived	on :	18.11.2023	3
ty of Sample R	eceived :	Filter Pa	iper(2 nos	s) & Approx 29	5 ml Solution(4 n	os)	Test Comn	nenced	on :	18.11.2023	3
ample Conditio	n on Receipt :	Good					Test Comp	leted o	n :	25.11.2023	3
ampling Enviro	nment Condition :	Temper	ature - 32	.3°C ; RH - 48	.2%	1	Sampling I	Nethod	/ Plan :	IS 5182	
ample Mark :	d for Compline :	Near W	atering To	Wer	. EL IT E37) with		-1: d:a		0.0000		
isu umenta Ose	d for sampling .	Ivini co	momed 5a	ampier (it) No	r: cc-m-F77) with	campration va	anony due	on ua. i	2.2023		Anna Danadarit
S. No	Name of the Test			т	est Method		Uni	ts	Res	uits	Limits of NAA
nemical Testin	3										
1 Ammo	nia (as NH₃)		CPCB Gu	uidelines, Voli	ume I, NAAQMS/	36/2012: 201	13 μg/r	n ³	<5	.0	400
2 Carbon	n Monoxide (as CO)		SOP No	EL-SOP-ARS-	17 Issue No.01 Ja	anuary,1: 201	5 mg/1	n ³	<1	.2	2.0 (8 Hours
3 Oxides	of Nitrogen (as NO ₂)			IS 518	2 (Part 6) :2006		μg/r	n ³	12	.4	80
4 Particu	ilate Matter 10µ (as PM	M10)		IS 5182	2 (Part 23) : 2006		µg/r	n ³	47	.0	100
5 Particu	ilate Matter 2.5µ (as P	M 2.5)	EPA	40 CFR (Part	50) Appendix L :	July : 2011	µg/r	n ³	23	.7	60
6 Oxidar	its (as Ozone O ₃)			IS 518	2 (Part IX) :1974		µg/r	n ³	<1(0.0	100 (8 Hours
7 Sulphu	r Dioxide (as SO ₂)			IS 518	2 (Part 2) :2001		µg/r	n ^a	6.	3	80
olycyclic Arom	atic Hydrocarbons:										
8 Benzo	[a] Pyrene (as C ₂₀ H ₁₂)		CPCB Gu	uidelines, Volu	ume I, NAAQMS/	36/2012: 201	3 ng/r	n [#]	<0	.5	1.0 (Annual)
race Metal Para	ameters:										
9 Arseni	c (as As)		CPCB Gu	uidelines, Volu	ume I, NAAQMS/:	36/2012: 201	3 ng/n	n ³	<0.	.1	6.0 (Annual)
10 Lead (a	is Pb)	1.2.2	C	Clause No.5 of	f IS 5182 (Part 22) :2004	µg/r	n ³	<0	5	1,0
11 Nickel	(as Ni)		CPCB Gu	uidelines, Volu	ume I, NAAQMS/	36/2012: 201	3 ng/n	13	<1	.0	20 (Annual)
latile Organic	Compounds:										
12 Benzer	ie (as C ₆ H ₆)			IS 5182	2 (Part 11) :2006		µg/n	13	<0.	5	5.0 (Annual)
tatement of Co 24 hours)	nformity: The concent	rations o	f the para	meters tester	d in the above loo	cation are wit	hin the pr	escribed	d permissible	limits of NA/	AQs tolerance limit
				Contraction of the local data	< End of Repo	ort>				(
	Report Verified by			1	l		ma p		For EXCELL	ENCE CABO	ATORY
	OBIE									VY/	
	Technical Personnel				ace Lat	5-			Autho	rized Signat	ory
Tec	R.REVATHI hnical Manag	er			So-isrupert	alory *9			R.S.E Qua)INAKA Ility Mana	RAN ger
		SHIT SHERE SHIT		1000 000 - 1000 000 -				- ANALS			and a state of the



2. The test results relate only to the test item tested and results apply to the sample "as received conditions".
3. This test results does not account the MU value in the statement of conformity unless or otherwise specified in the report.
4. The laboratory is not responsible for information provided by customer and it does not come under the scope of accreditation.
5. This test item will not be retained more than 10 days from date of issue of test reports, unless or otherwise requested by customer.
6. Total liability of our laboratory is limited to the invoice amount and any dispute arising out of this report is subject to Madural Jurisdiction only.
7. This report cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
8. Sample is not drawn by laboratory unless stated in the report, if the sample drawn by the customer, the laboratory is not responsible for sampling stage.
9. (BDL) - Below Detectable Limit; (DL) - Detectable Limit; (MU) - Measurement Uncertainty; (NA) - Not Applicable; (CFU) - Colony Forming Unit.
10. No additions, deviations or exclusions from the above test methods mentioned unless or otherwise specified in the report.
11. (#) Mark indicates the tests are subcontracted to other accredited laboratory.

Lab: No.23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010.

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TEST REPORT

AMBIENT AIR MONITORING

Report / ULR No :	TC6932-23-0-000	0007448-P		Report Date :	27.11.2023
M/S. Coastal Energen Private Limited 2 x 600 MW, Mutiara Thermal Power Plant, Customer Name & Address : Melamaruthur Village, Ottapidaram (Tk), Tuticorin (Dt) - 628 004. Ph : 9500831401					
Sample Description :	Ambient Air			Sample Reference No :	EL-NL-AA-110-11-2023
Sample Drawn By :	Laboratory			Sample Collected Date :	16.11.2023
Sampling Time :	ime : 24 Hours			Sample Received on :	18.11.2023
Oty of Sample Received : Filter Paper(2 nos) & Approx 25 ml Solution(4 nos)				Test Commenced on :	18.11.2023
Sample Condition on Receipt :			Test Completed on :	25.11.2023	
Sampling Environment Condition :	Temperature - 3	2.3°C ; RH - 48.2%		Sampling Method / Plan :	IS 5182
Sample Mark :					
Instruments Used for Sampling :	Mini Combined S	ampler (ID No: EL-IT-F77) with calibrat	ion validity due	e on 08.12.2023	
Name of the	: Test	Test Method	Units	Results	Max. Permissible Limits o NAAQ
Chemical Testing		I to a construction of the second of the			
1 Mercury (as Hg)*		EPA Method 29 (Title 40) : 1991 & AAS-VGA	µg/m ⁸	<1.0	NA
Statement of Conformity:					/
		< End of Report -	->	(
Report Verified by				For EXCELLENCE	TABORATORY Signatory
D DEV/A	TUI			R.S.DIK Quality	

R.REVATHI Technical Manager





Lab: No. 23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010.

B.O : No. 15, Metha Layout, Masakalipalayam Road, Peelamedu, Coimbatore - 541 004. B.O: No. 22/33A Second Street, Ram Nagar, Tiruppur - 641 602.



TEST REPORT

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Report /	ULR No :	TC6932	2-23-0-000007449-P	Re	port Date :		27.11.2023		
M/S. 2 x 60 Customer Name & Address : Melar Tutico Ph • a			oastal Energen Private Limited MW, Mutiara Thermal Power Plant, aruthur Village, Ottapidaram (Tk), in (Dt) - 628 004. 00831401						
Sample D	Description :	Ambier	nt Air	Sar	nple Refere	nce No :	EL-NL-AA-1	11-11-2023	
Sample D	Drawn By :	Labora	tory	Sar	nple Collect	ed Date :	16.11.2023		
ampling	; Time :	24 Hou	rs	Sar	nple Receiv	ed on :	18.11.2023		
ty of Sa	mple Received :	Filter P	aper(2 nos) & Approx 25 ml Solution(4 nos)	Tes	t Commenc	ed on :	18.11.2023		
iample C	Condition on Receipt :	Good		Tes	t Complete	d on :	25.11.2023		
ampling	Environment Condition :	Tempe	rature - 33.0°C ; RH - 49.5%	Sar	npling Meth	od / Plan :	IS 5182		
iample N	Vark :	Near C	rusher Area						
nstrume	ints Used for Sampling :	Mini Co	ombined Sampler (ID No: EL-IT-F78) with calibrati	on valio	lity due on (8.12.2023			
S. No	No Name of the Test		Test Method		Units	Re	sults	Max. Permissit Limits of NAA	
hemica	l Testing								
1	Ammonia (as NH ₃)		CPCB Guidelines, Volume I, NAAQMS/36/2012	: 2013	µg/m ³	<	5.0	400	
2	Carbon Monoxide (as CO)		SOP No.EL-SOP-ARS-17 Issue No.01 January,1:	2015	mg/m ³	-	1.2	2.0 (8 Hours)	
3	Oxides of Nitrogen (as NO ₂)		IS 5182 (Part 6) :2006		µg/m³	1	16.7		
4	Particulate Matter 10µ (as PM10)		IS 5182 (Part 23) : 2006		µg/m ³	5	6.2	100	
5	Particulate Matter 2.5µ (as I	PM 2.5)	EPA 40 CFR (Part 50) Appendix L : July : 20	11	µg/m ³	2	7.2	60	
6	Oxidants (as Ozone O ₃)		IS 5182 (Part IX) :1974		µg/m ³	<	0.0	100 (8 Hours	
7	7 Sulphur Dioxide (as SO ₂)		IS 5182 (Part 2) :2001		µg/m³	8	.5	80	
Polycycli	c Aromatic Hydrocarbons:								
8	Benzo [a] Pyrene (as C ₂₀ H ₁₂)		CPCB Guidelines, Volume I, NAAQMS/36/2012	2013	ng/m ³	<	0.5	1.0 (Annual)	
race Me	etal Parameters:								
9	Arsenic (as As)		CPCB Guidelines, Volume I, NAAQMS/36/2012	2013	ng/m ³	<	0.1	6.0 (Annual)	
10	Lead (as Pb)		Clause No.5 of IS 5182 (Part 22) :2004		µg/m ³	<).5	1.0	
11	Nickel (as Ni)		CPCB Guidelines, Volume I, NAAQMS/36/2012	2013	ng/m ³	<	1.0	20 (Annual)	
olatile (Organic Compounds:								
12	Benzene (as C ₆ H ₆)		IS 5182 (Part 11) :2006		µg/m ³	<	0.5	5.0 (Annual)	
tatemer 24 hour:	nt of Conformity: The concen s)	trations	of the parameters tested in the above location ar	e withir	the prescri	bed permissible	limits of NAA	Qs tolerance limit	
		_	<- End of Report>				(
	Report Verified by		ace Lab			For EXCEL	Orized Signate	ATORY	
	R.REVAT Technical Mai	HI nager	A VIA CONTRACT OF			R.S.DI Quality	NAKARA y Manager	AN .	



66 Disclaimer : 1. This test report shall not be reproduce in full or part without the written approval of the Laboratory. 2. The test results relate only to the test item tested and results apply to the sample "as received conditions". 3. This test results does not account the MU value in the statement of conformity unless or otherwise specified in the report. 4. The laboratory is not responsible for information provided by customer and it does not come under the scope of accreditation. (43) 5. This test item will not be retained more than 10 days from date of issue of test reports, unless or otherwise requested by customer. 6. Total liability of our laboratory is limited to the invoice amount and any dispute arising out of this report is subject to Madurai Jurisdiction only. 7. This report cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing. 8.Sample is not drawn by laboratory unless stated in the report, if the sample drawn by the customer, the laboratory is not responsible for sampling stage. 9.(BDL) - Below Detectable Limit; (DL) - Detectable Limit; (MU) - Measurement Uncertainty; (NA) - Not Applicable; (CFU) - Colony Forming Unit. 10.No additions, deviations or exclusions from the above test methods mentioned unless or otherwise specified in the report. 11. (#) Mark indicates the tests are subcontracted to other accredited laboratory.

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TEST REPORT

			AMBIENT AIR MONIT	ORING		
Report / L	JLR No :	TC6932-23-0-00	00007449-P		Report Date :	27.11.2023
Customer	Name & Address :	M/S. Coastal Er 2 x 600 MW, M Melamaruthur Tuticorin (Dt) - Ph : 950083140	nergen Private Limited utiara Thermal Power Plant, Village, Ottapidaram (Tk), 528 004. 1			
Sample D	escription :	Ambient Air			Sample Reference No :	EL-NL-AA-111-11-2023
Sample D	rawn By :	Laboratory			Sample Collected Date :	16.11.2023
Sampling	Time :	24 Hours	Sample Received on :	18.11.2023		
Qty of Sa	mple Received :	Filter Paper(2 n	Test Commenced on :	18.11.2023		
Sample Condition on Receipt : Good					Test Completed on :	25.11.2023
Sampling	Environment Condition :	Temperature -	33.0°C ; RH - 49.5%		Sampling Method / Plan :	IS 5182
Sample N	Nark :	Near Crusher A	rea			
Instrume	nts Used for Sampling :	Mini Combined	Sampler (ID No: EL-IT-F78) with calibrat	ion validity du	e on 08.12.2023	
S.No	Name of the	Test	Test Method	Units	Results	Max. Permissible Limits of NAAQ
Chemical	Testing					
1	Mercury (as Hg)*		EPA Method 29 (Title 40) : 1991 & AAS-VGA	µg/m³	<1.0	NA
Stateme	nt of Conformity: -					/
			< End of Report -	->		
	Report Verified	d by			For EXCELLENC	ELABORATORY
1 Lifett Technical Personnel					Authorize	deignatory
<u>.</u>	R.REV Technical	ATHI Manager			R.S.DIN Quality	





B.O : No. 15, Metha Layout, Masakalipalayam Road, Peelamedu, Coimbatore - 641 004. B.O: No. 22/33A Second Street, Ram Nagar, Tiruppur - 641 602.



TEST REPORT

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Report /	ULR No :	TC6932	-23-0-00	0007450-P	Rep	ort Date :	Nelson Philipp	27.11.202	3
Customer Name & Address : M/S. 2 x 60 Melar Tutico Ph : 9		M/S. Co 2 x 600 Melama Tuticorii Ph : 950	oastal En MW, Mu Iruthur V n (Dt) - 6 10831401	ergen Private Limited tiara Thermal Power Plant, illage, Ottapidaram (Tk), 28 004.					
Sample	Description :	Ambien	t Air		Sam	ple Refere	nce No :	EL-NL-AA-	112-11-2023
Sample	le Drawn By : Labor		ory		Sam	ple Collect	ed Date :	16.11.202	3
Samplin	g Time :	24 Hour	5	•	San	ple Receiv	ed on :	18.11.202	3
ty of S	ample Received :	Filter Pa	per(2 no	s) & Approx 25 ml Solution(4 nos)	Test	t Commence	ed on :	18.11.202	3
ample	Condition on Receipt :	Good	-		Test	t Completer	i on :	25.11.202	3
amplin	g Environment Condition :	Temper	ature - 32	2.8°C ; RH - 50.3%	Sam	pling Meth	od / Plan :	IS 5182	
betrum	WARK :	Near Ba	tching Pla	ant		<u>a</u>			
nscram	ents used for bainpling ,	AFUS (IL	7 NO: EL-I	1-F42) with calibration validity due on 10.	05.20	24			
S.No	Name of the Test			Test Method		Units	Res	ults	Limits of NAA
nemica	l Testing					4			
1	Ammonia (as NH3)		CPCB G	uidelines, Volume I, NAAQMS/36/2012: 2	013	µg/m ³	<5	.0	400
2	Carbon Monoxide (as CO)		SOP No	EL-SOP-ARS-17 Issue No.01 January, 1: 20)15	mg/m ³	<1.2		2.0 (8 Hours)
3	Oxides of Nitrogen (as NO ₂)			IS 5182 (Part 6) :2006		µg/m ³	14.3		80
4	Particulate Matter 10µ (as P	PM10)	Shi ton	IS 5182 (Part 23) : 2006		µg/m ³	51	.5	100
5	Particulate Matter 2.5µ (as PM 2.5)		EPA	40 CFR (Part 50) Appendix L : July : 2011		µg/m ³	25	.7	60
6	Oxidants (as Ozone O ₃)		SAPL T	IS 5182 (Part IX) :1974	100	µg/m ³	<10	0.0	100 (8 Hours
7	Sulphur Dioxide (as SO ₂)			IS 5182 (Part 2) :2001		µg/m ³	7.1		80
olycycl	ic Aromatic Hydrocarbons:								
8	Benzo [a] Pyrene (as C ₂₀ H ₁₂)		CPCB G	uidelines, Volume I, NAAQMS/36/2012: 20)13	ng/m ³	<0	5	1.0 (Annual)
race Me	etal Parameters:								
9	Arsenic (as As)		CPCB G	uidelines, Volume I, NAAQMS/36/2012: 20)13	ng/m ³	<0.	1	6.0 (Annual)
10	Lead (as Pb)			Clause No.5 of IS 5182 (Part 22) :2004		µg/m ⁸	<0.	5	1.0
11	Nickel (as Ni)		CPCB G	idelines, Volume I, NAAQMS/36/2012: 20)13	ng/m ³	<1.	0	20 (Annual)
latile	Organic Compounds:								
12	Benzene (as C ₆ H ₆)			IS 5182 (Part 11) :2006		µg/m³	<0.	5	5.0 (Annual)
tatemei 24 hour:	nt of Conformity: The concen	trations of	the para	meters tested in the above location are w	vithin	the prescrib	oed permissible I	imits of NAA	Qs tolerance limits
	and the second			< End of Report>					
	Report Verified by			1	-	T	For EXCELL	ENCELABOR	ATORY
	0-0 Ht							$() \gamma$	/
	Technical Personne	1		CR Lab			Autho	rized Signate	ory
	R.REVAT Technical Ma	HI nager		And			R.S. Qu	DINAK ality Man	ARAN ager



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TEST REPORT

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		AMBIENT AR MONT	IONING		
Report / ULR No :	TC6932-23-0-00	0007450-P		Report Date :	27.11.2023
Customer Name & Address :	M/S. Coastal En 2 x 600 MW, Mu Melamaruthur V Tuticorin (Dt) - 6 Ph : 950083140	ergen Private Limited utiara Thermal Power Plant, /illage, Ottapidaram (Tk), 528 004. 1			
Sample Description :	Ambient Air			Sample Reference No :	EL-NL-AA-112-11-2023
Sample Drawn By :	Laboratory			Sample Collected Date :	16.11.2023
Sampling Time :	24 Hours		-	Sample Received on :	18.11.2023
Qty of Sample Received :	Filter Paper(2 n	os) & Approx 25 ml Solution(4 nos)		Test Commenced on :	18.11.2023
Sample Condition on Receipt :			Test Completed on :	25.11.2023	
Sampling Environment Condition :	Temperature - 3	32.8°C ; RH - 50.3%		Sampling Method / Plan :	IS 5182
Sample Mark :	Near Batching P	lant	- Minutes		
Instruments Used for Sampling :	-IT-F42) with calibration validity due on	10.05.2024			
. No Name of the	S. No Name of the Test		Units	Results	Max. Permissible Limits of NAAQ
Chemical Testing					
1 Mercury (as Hg)*		EPA Method 29 (Title 40) : 1991 & AAS-VGA	µg/m³	<1.0	NA
Statement of Conformity:				1	1
	7	< End of Report -	->		
Report Verified by				For EXCELLENC	LABORATORY
R.REVATI	41			R.S.DIN Quality	

A ADURATE ALD MACAUTODING

R.REVATHI Technical Manager



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EXTERNAL ROA-STACK MONITORING



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TEST REPORT

STACK EMISSION MONITORING

Page 1 of 2

Report /	ULR No :	TC6932-23-0	-00005116-P		Report Date :	22.09.2023
Custome	r Name & Address :	M/S. Coastal 2 x 600 MW, Melamaruth Tuticorin (Dt Ph : 9500833	I Energen Private Limited Mutiara Thermal Power Plant, ur Village, Ottapidaram (Tk),) - 628 004. 401			
Sample E	Description :	Stack Emissio	n		Sample Reference No :	EL-NL-SE-71-09-2023
Sample L	Drawn By :	Laboratory			Sample Collected Date :	14.09.2023
Sampling	Time :	45 Minutes		-	Sample Received on :	15.09.2023
Oty of Sa	mple Received :	Thimble(1 nd), Approx 50 ml Solution(3 nos) & Gas	(1L)	Test Commenced on :	15.09.2023
Sample C	Condition on Receipt :	Good			Test Completed on :	21.09.2023
Sampling	Environment Condition :	Temperature	×33.1 C		Sampling Method / Plan :	15 11255
Sample	Aark :	Boiler -1				
Instrumo	inter Lised for Sampling	SM KIT (ID N/	: EL-IT-ES7) with calibration validity du	ie on 02 (18 2024	
S. No	5. No Name of the Test		Test Method	Units	Résults	Max. Permissible TNPCB Norms for Thermal Power Plant & MoEF Climate Notification
Chemica	I Testing		COD No FL FOR ARE 15 Inc. No OT	1		
1	Ambient Temperature		Dated 01.01: 2015	°C	33	NA
2	Carbon Dioxide (as CO ₂)		Clause No.4 of IS 13270 : 1992	% (v/v)	9.8	NA
∢ 3	Carbon Monoxide (as CO).		SOP No.EL-SOP-SKS-10 Issue No.01 February: 2020	ppm	<1.0	NA
4	Chromium (as Cr)		USEPA Method 29 : 2017	mg/Nm	o ³ <0.1	NA
5	Flue Gas Temperature		Clause No.6 of IS 11255 (Part 3) : 2008	°C	112	NA
6	Flue Gas Velocity		Clause No.5 of IS 11255 (Part 3) : 2008	m/S	16.5	NA
7	Lead (as Pb)		USEPA Method 29 : 2017	mg/Nm	³ <0.1	NA
8	Moisture Content (as H ₂ O)		Clause No.8 of 1S 11255 (Part 3) : 2008	%	<0.5	NA
4	Oxides of Nitrogen (as NO ₂)		IS 11255 (Part 7) : 2005	mg/Nm	1 ³ 263	450
10	Oxygen (as O ₂)		Clause No.4 of 15 13270 : 1992	% (v/v	8.7	NA
11	Particulate Matter (PM)		IS 11255 (Part 1) : 1985	mg/Nm	3 ³ 32.7	50
12	Sulphur Dioxide (as SO ₂)		IS 11255 (Part 2) : 1985	mg/Nn	1 ³ 162	200
Stateme MoEF Cli	nt of Conformity: The concen mate Change Notification.	trations of the	parameters tested in the above Stack	Emission	are within the prescribed limit	s of TNPCB tolerance limits &
			<- FUENDE ATEOL	12		
	Report Verified by		X SI	ator	For EXCE	LLENCE LABORATORY
	DO W.			YX/	of Hill Do	VM
	Technical Personne	1	1300 (Jal 6250)	/	Auth	orized Signatory
	RREVATH			- C	RSD	INAKARAN
Disclaimer	: 1. This dest reportes sell into beyon	pouse in full or p	art without the written approval of the Laborato	ary.	Qual	ity Manager
	2. The test results relate only to t 3. This test results does not accord 4. The laboratory is not responsib 5. This test fitem will not be retain 6. Total liability of our laboratory if 7. This report cannot be used as 8. Sample is not drawn by laborat 9. (BDL) - Below Detectable Limit	test item tester and the MU value te for information ad more than 10 of s limited to the in evidence in the or ory unless stated t; (DL) - Detectal	d and results apply to the sample "as received in the statement of conformity unless or otherv provided by customer and it does not come un lays from date of issue of test reports, unless, voice amount and any dispute arising out of the out of law and should not be used in any adve- in the report, if the sample drawn by the custo of Limit, (MU) - Measurement Uncertainty. (N	conditions" vise specific der the sot or otherwise is report is intrusing med omer, the la vA) - Not A	. Unif) (III ad in the report, ope of accreditation, a requested by customer, subject to Madurai Junsdiction only, lia without our special permission in w boratory is not responsible for samplin opticable; (CFU) - Colony Formine U	riting. ng stage. nt
	 Sample is not drawn by laboral (BDL) - Below Detectable Limit No additions, deviations or ex (a) Mark indicates the tests of 	t; (DL) - Detectal	In the report, in the sample drawn by the custo ole Limit; (MU) - Measurement Uncertainty; (he above test methods mentioned unless or other plane second according and (#) Mark ind	A) - Not A wise specification	poratory is not responsible for samplin pplicable; (CFU) - Colony Forming U fied in the report.	nit.

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TEST REPORT

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			STACK EMISSION MOI	NITORIN	G		
Report / I	ULR No :	TC6932-23-0	-00005116-P			22.0	09.2023
Customer	Name & Address :	M/S. Coastal 2 x 600 MW, Melamaruth Tuticorin (Dt) Ph : 9500831	Energen Private Limited Mutiara Thermal Power Plant, ur Village, Ottapidaram (Tk),) - 628 004. 401				
Sample D	escription :	Stack Emissic	20 20		Sample Reference No :	EL-I	NL-SE-71-09-2023
Sample D	rawn By :	Laboratory			Sample Collected Date :	14.0	09.2023
Sampling	Time :	45 Minutes			Sample Received on :	15.0	09.2023
Qty of Sa	mple Received :	Thimble(1 no),Approx 50 ml Solution(3 nos) & Gas	(1L)	Test Commenced on :	15.0	09.2023
Sample C	ondition on Receipt :	Good			Test Completed on :	21.0	09.2023
Sampling	Environment Condition :	Temperature	::33.1 C		Sampling Method / Plan :	IS 1	1255
Sample N	lark :	Boiler -1					
Instrume	nts Used for Sampling :	SM Kit (ID No	e: EL-IT-F57) with calibration validity d	ue on 02.0	8.2024		
S. No	S. No Name of the Test		Test Method	Units	Results		Max. Permissible TNPCB Norms for Thermal Power Plant & MoEF Climate Notification
Chemical	Testing						
1	Arsenic (as As)*		USEPA Method 29: 2017 & AAS & VGA Method	mg/Nm	¹ <1.0		NA
2	Gaseous Flow Discharge *		Clause No.10 of IS 11255 (Part 3) : 2008	Nm³/Hr	2084668		NA
3	Mercury (as Hg) *	Carl Land	EPA Method 29 (Title 40) : 1991	mg/Nm	³ <0.0003	1.2	0.03
Statemer MoEF Cli	nt of Conformity: The conce mate Change Notification.	ntrations of the	parameters tested in the above Stack	c Emission	are within the prescribed limi	its of TI	NPCB tolerance limits &
			<- End of Report	>	1		
	Report Verified b L.htt Technical Personn	y el			For EXCI	horized	t LABORATORY
0	R.REVATHI Technical Manager		l'himmini	ht.	R.S.DIN Quality	VAK. Man	ARAN ager
			all	atory kg			
			and the second			-	11



11.(*) Mark indicates the tests does not comes under scope of accreditation and (#) Mark indicates the tests are subcontracted to other certified laborator Lab: No. 23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010.

10.No additions, deviations or exclusions from the above test methods mentioned unless or otherwise specified in the report.

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TEST REPORT

Page 1 of 2

STACK	EMISSION	MONITORING
STACK	EIVIIJJIOIV	MOMITORING

Report /	ULR No :	TC6932-23-0	-00005115-P		Report Date :	22.09.2023	
Custome	r Name & Address :	M/S. Coastal 2 x 600 MW, Melamaruth Tuticorin (Dt Ph : 9500831	I Energen Private Limited Mutiara Thermal Power Plant, ur Village, Ottapidaram (Tk),) - 628 004. 401				
Sample D	nple Description : Stack Emission				Sample Reference No :	EL-NL-SE-70-09-2023	
Sample D	Prawn By :	Laboratory			Sample Collected Date :	14.09.2023	
Sampling	Time :	45 Minutes		1	Sample Received on :	15.09.2023	
Qty of Sa	mple Received :	Thimble(1 no),Approx 50 ml Solution(3 nos) & Gas	(1L)	Test Commenced on :	15.09.2023	
Sample C	ondition on Receipt :	Good			Test Completed on :	21.09.2023	
ampling	Environment Condition :	Temperature	:33.1 C		Sampling Method / Plan :	IS 11255	
Sample N	Aark :	Boiler - 2					
Ime	nts Used for Sampling :	SM Kit (ID No	p: EL-IT-F57) with calibration validity du	ue on 02.(08.2024		
S. No Name of the Test		Test Method	Units	Results	Max. Permissible TNPCB Norms for Thermal Power Plant & MoEF Climate Notification		
Chemical	Testing						
1	Ambient Temperature		SOP No.EL-SOP-ARS-15 Issue No.01 Dated 01.01: 2015	°C	33	NA	
2	Carbon Dioxide (as CO ₂)		Clause No.4 of IS 13270 : 1992	% (v/v)	9.7	NA	
₫ 3	Carbon Monoxide (as CO).		SOP No.EL-SOP-SKS-10 Issue No.01 February: 2020	ppm	<1.0	NA	
4	Chromium (as Cr)		USEPA Method 29 : 2017	mg/Nm	3 <0.1	NA	
5	Flue Gas Temperature		Clause No.6 of IS 11255 (Part 3) : 2008	°C	101	NA	
6	Flue Gas Velocity		Clause No.5 of IS 11255 (Part 3) : 2008	m/S	18.0	NA	
7	Lead (as Pb)		USEPA Method 29 : 2017	mg/Nm	3 <0.1	NA	
8	Moisture Content (as H ₂ O)		Clause No.8 of IS 11255 (Part 3) : 2008	%	<0.5	NA	
9	Oxides of Nitrogen (as NO ₂)		IS 11255 (Part 7) : 2005	mg/Nm	3 326	450	
10	Oxygen (as O ₂)		Clause No.4 of IS 13270 : 1992	% (v/v)	8.8	NA	
11	Particulate Matter (PM)		IS 11255 (Part 1) : 1985	mg/Nm	3 28.2	50	
12	Sulphur Dioxide (as SO ₂)	and the	IS 11255 (Part 2) : 1985	mg/Nm	³ 152	200	
Statemer MoEF Cli	nt of Conformity: The conce mate Change Notification.	ntrations of th	e parameters tested in the above Sta	ick Emissi	ion are within the prescribed li	mits of TNPCB tolerance limits	
			<- (Fig of Report	52			
	Report Verified by CRUE Technical Personne	1	+ 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4	ory	For EXCEL	LENCE CABORA TORY	
Disclaimer	1.This test report self-notice for 2.Therein the self-notice for 3.This test results does not acco 4.The laboratory is not responsit 5.This test item will not be retain 6.Total liability of our laboratory i 7.This report cannot be used as: 8.Sample is not drawn by laborat 9.(BDL) - Below Detectable Limi 10.No additions. deviations or ex- tentions of the self-self-self-self-self-self-self-self-	Induce in full or part is the tested in the MU value i the for information and more than 10 d is limited to the inv evidence in the co- ory unless stated t; (DL) - Detectab clusions from the a	art without the written approval of the Laborato I and results apply to the sample "as received- in the statement of conformity unless or otherw provided by customer and it does not come un fays from date of issue of test reports, unless of roice amount and any dispute arising out of thi jurt of law and should not be used in any adve in the report, if the sample drawn by the custo ble Limit; (MU) - Measurement Uncertainty; (N above test methods mentioned unless or other	ry. conditions", vise specifie der the sco or otherwise s report is s rtising med mer, the lat (A) - Not A wise specifi	R.S.DT Quality d in 1004pert. per of accreditation. requested by customer. subject to Madural Jurisdiction only. a without our special permission in wr poratory is not responsible for samplin pplicable; (CFU) - Colony Forming Ur led in the report.	MARARAN Manage g stage.	

Lab: No. 23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010. B.O : No. 15, Metha Layout, Masakalipalayam Road, Peelamedu, Coimbatore - 641 004. B.O: No. 22/33A Second Street, Ram Nagar, Tiruppur - 641 602.



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Page 2 of 2

			STACK EMISSION MO	VITORIN	G	
Report / I	ULR No :	TC6932-23-0	-00005115-P			22.09.2023
Customer	Name & Address :	M/S. Coastal 2 x 600 MW, Melamaruth Tuticorin (Dt Ph : 9500831	Energen Private Limited Mutiara Thermal Power Plant, ur Village, Ottapidaram (Tk),) - 628 004. 401			
Sample D	escription :	Stack Emissio	20		Sample Reference No :	EL-NL-SE-70-09-2023
Sample D	rawn By :	Laboratory			Sample Collected Date :	14.09.2023
Sampling	Time :	45 Minutes			Sample Received on :	15.09.2023
Qty of Sa	mple Received :	Thimble(1 no),Approx 50 ml Solution(3 nos) & Gas	(1L)	Test Commenced on :	15.09.2023
Sample C	ondition on Receipt :	Good			Test Completed on :	21.09.2023
Sampling	Environment Condition :	Temperature	:33.1 C		Sampling Method / Plan :	IS 11255
Sample N	Nark :	Boiler - 2				
Instrume	nts Used for Sampling :	SM Kit (ID No	; EL-IT-F57) with calibration validity d	ue on 02.0	8,2024	
S. No	o Name of the Test		Test Method	Units	Results	Max. Permissible TNPCB Norm for Thermal Power Plant & MoEF Climate Notification
Chemical	Testing					
1	Arsenic (as As)*		USEPA Method 29: 2017 & AAS & VGA Method	mg/Nm	* <1.0	NA
2	Gaseous Flow Discharge *		Clause No.10 of IS 11255 (Part 3) : 2008	Nm³/Hr	2341071	NA
3	Mercury (as Hg) *		EPA Method 29 (Title 40) : 1991	mg/Nm	<0.0003	0.03
Statemer MoEF Cli	nt of Conformity: The concer mate Change Notification.	ntrations of the	parameters tested in the above Stack	Emission	are within the prescribed limi	ts of TNPCB tolerance limits &
			< End of Report	>		1
	Report Verified by	1			For EXCE	LLENCE LABORATORY
	Technical Personne	el	AN AND AND AND AND AND AND AND AND AND A	1	Aut	horized Signatory
R.REVATHI Technical Manager				¹ ¹ ¹	R.S.D Quali	INAKARAN ty Manager



Disclaimer : 1. This test report shall not be reproduce in full or part without the written approval of the Laboratory.	"
2. The test results relate only to the test item tested and results apply to the sample "as received conditions".	
3. This test results does not account the MU value in the statement of conformity unless or otherwise specified in the report.	
4. The laboratory is not responsible for information provided by customer and it does not come under the scope of accreditation.	
5. This test item will not be retained more than 10 days from date of issue of test reports, unless or otherwise requested by customer.	Salt Strate
6. Total isolity of our laboratory is limited to the invoice amount and any dispute arising our of this report is subject to Madural Junisdiction only.	1.22762
7. This report came by backeting in the open of the condition of a single dama by averaging mean window our special permission in windy.	
9 (Bpt) - Relow protectable (Long (D) - Detectable (mit: (M)) - Measurement Uncertainty. (NA) - Not Applicable: (CFU) - Colony Forming Unit.	
10. No additions, deviations or exclusions from the above test methods mentioned unless or otherwise specified in the report,	
11.(*) Mark indicates the tests does not comes under scope of accreditation and (#) Mark indicates the tests are subcontracted to other certified labor	ratory.

Lab: No. 23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010. B.O : No. 15, Metha Layout, Masakalipalayam Road, Peelamedu, Coimbatore - 641 004. B.O: No. 22/33A Second Street, Ram Nagar, Tiruppur - 641 602.

ANNEXURE - 2



COASTAL ENERGEN PVT LTD

Home	About Us	Key Strengths	Core Team	Careers	Contact Us	Tenders	
Welcome Coal and C Company in Mining, Ship Coastal Ene Coal and Oi district of Tu Our maiden of our multi our varied e advantage a Approximate the top sup producers i Maharashtra experience of are in a con cost of power	to Coastal End bill Group is a Ray volved in various oping, Logistics and rgen Pvt Ltd (ENE disciplinary capal experiences in "Fu as a low cost Power ely 60% of the co pliers of imported n India like Tata a State Electricit under our belt and mfortable position er generated.	Even Pyt. Ltd. A 2400 crores (USS 500 s aspects of Energy sup d Power Generation. RGEN), the Power Generation a 2400 MW coal fired to of Tamil Nadu , India. RGEN), the Power Generation to of power comprises of fired to al to some of the lead to rorducer. st of power comprises of fired to al to some of the lead to reflectively management to effectively manage the	 Million) Integrated plies including Coal to the second strengths and lever second strengths and lever second to the second strengths and lever second to the second strengths and lever second strengths and public second strengths and strengths at a strength strengths at a strength	Energy rading, of the in the ension distinct one of power Board, such act, we ally the	Inment Clearance C Ity Environment Re Ity Ash Report Directors e of Annual Gener al Return Projects rin has been identified ment of India and hadu as a power ern Tamilnadu lying a power corridor. ed only 13 kms fro t enjoys the following Close proximity to a m Within 21 kms of a ma Excellent road, Rail & Excellent grid connect project has achieved ption. Land fully acquired PPA Agreement Signed MOEF Clearance issue Funding fully tied up a BTG order finalized Discussion with PGCIL Engineering Consultant Manpower in place Site preparation comp Geo-technical investig Construction water an Water allocated by Th edomentions	Compliance Sta port al Meeting ed by both the C State Governm generating cent is it does in the m Tuticorin town advantages: major town (13 kn ajor port Air connectivity ivity fast progress si d d and secured for power evacu- its appointed leted ations completed d power in place WAD Board for p	tus Central ent of re for middle n, our ns) nce its ation
Home Al	hout Us Key Sh M Rights Reserv	rengths Core Team C ed.	areers Contact Us	Tenders	Terms & Conditi	ons Privacy Po fueled by ideaso	nie nie
					Thtegrated Energ	y solutions	

ANNEXURE - 3

INTERNAL ROA-GROUND WATER



2 X 600 MW MUTIARA THERMAL POWER PLANT

BOREWELL WATER ANALYSIS REPORT - JULY'23

Sample Collected on 06.07.2023

SAMPLE COLLECTED BY

S. No	PARAMETERS	UNIT	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4
1	рH	•	8.10	7.33	8.24	7.89
2	Electrical conductivity	(µs/cm)	11600	25200	9160	6210
3	Total Suspended Solids	ppm	38	52	29	36
4	Total Dissolved Solids	ppm	7540	16380	5954	4037
5	Total Hardness	ppm	940	3600	650	460
6	Calcium Hardness	ppm	690	2250	470	340
7	Magnesium Hardness	ppm	250	1350	180	120
8	Total Chloride	ppm	1418	6735	1077	815
9	Sodium	ppm	810	1380	760	564
10	Potassium	ppm	32	71	30	20
11	Lead	ppm	BDL	BDL	BDL	BDL
12	Boron	ppm	0.10	0.12	0.09	0.07
13	BOD	mg/l	3.4	2.9	2.3	1.8
14	DO	mg/l	5.2	4.9	5.5	4.5
15	COD	mg/l	43	54	41	38
16	Sulphate	ppm	694	960	528	494
17	Oil & Grease	mg/l	BDL	BDL	BDL	BDL
18	Mercury	ppm	BDL	BDL	BDL	BDL
19	Arsenic	ppm	BDL	BDL	BDL	BDL
20	Chromium	ppm	BDL	BDL	BDL	BDL
	Remarks	Nil				
Borewe	Il Locations:					
SI.No.	Sample Identification		E	Borewell Locat	ion	
1	SAMPLE 1		South West o	f Ash Bund (Ne	ear CAAQMS-3	3)
2	SAMPLE 2		S	outh of Ash Bu	ınd	
3	SAMPLE 3		Sou	th East of Ash	Bund	
4	SAMPLE 4		Nor	th East of Ash	Bund	
(xd. 20			ĸ	L. Val	Energen AL

LAB CHEMIST



2 X 600 MW MUTIARA THERMAL POWER PLANT

BOREWELL WATER ANALYSIS REPORT - AUGUST'23

S. No	PARAMETERS	UNIT	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4
1	рН	-	7.96	7.26	7.81	7.68
2	Electrical conductivity	(µs/cm)	12200	25300	18920	6110
3	Total Suspended Solids	ppm	25	40	32	16
4	Total Dissolved Solids	ppm	7930	16445	12298	3972
5	Total Hardness	ppm	1020	3680	1320	446
6	Calcium Hardness	ppm	736	2280	880	332
7	Magnesium Hardness	ppm	284	1400	440	114
8	Total Chloride	ppm	1531	6806	2183	794
9	Sodium	ppm	780	1360	670	540
10	Potassium	ppm	30	68	32	18
11	Lead	ppm	BDL	BDL	BDL	BDL
12	Boron	ppm	0.07	0.09	0.07	0.06
13	BOD	mg/l	1.8	2.4	2.0	1.7
14	DO	mg/l	5.2	5.1	5.3	5.1
15	COD	mg/l	38	48	42	36
16	Sulphate	ppm	640	910	684	476
17	Oil & Grease	mg/l	BDL	BDL	BDL	BDL
18	Mercury	ppm	BDL	BDL	BDL	BDL
19	Arsenic	ppm	BDL	BDL	BDL	BDL
20	Chromium	ppm	BDL	BDL	BDL	BDL
	Remarks	Nil				
Borewe	ll Locations:					
SI.No.	Sample Identification		E	orewell Locat	ion	
1	SAMPLE 1		South West o	f Ash Bund (Ne	ear CAAQMS-3	3)
2	SAMPLE 2		S	outh of Ash Bu	ind	
3 '	SAMPLE 3		Sou	th East of Ash	Bund	
4	SAMPLE 4		Nor	th East of Ash	Bund	
S/	Divature AMPLE COLLECTED BY					SterBen PW



2 X 600 MW MUTIARA THERMAL POWER PLANT

BOREWELL WATER ANALYSIS REPORT - SEPTEMBER'23

Sample Collected on 04.09.2023

S. No	PARAMETERS	UNIT	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4
1	рН	-	7.78	7.33	8.02	7.95
2	Electrical conductivity	(µs/cm)	11690	24600	20100	14100
3	Total Suspended Solids	ppm	22	33	41	22
4	Total Dissolved Solids	ppm	7599	15990	13065	9165
5	Total Hardness	ppm	960	3420	1540	1080
6	Calcium Hardness	ppm	712	2140	970	820
7	Magnesium Hardness	ppm	248	1280	570	260
8	Total Chloride	ppm	1486	6614	2564	1627
9	Sodium	ppm	740	1260	740	890
10	Potassium	ppm	28	64	40	42
11	Lead	ppm	BDL	BDL	BDL	BDL
12	Boron	ppm	0.07	0.09	0.07	0.08
13	BOD	mg/l	1.9	2.1	2.0	1.9
14	DO	mg/l	5.0	5.3	5.1	5.1
15	COD	mg/l	31	46	43	34
16	Sulphate	ppm	590	950	700	640
17	Oil & Grease	mg/l	BDL	BDL	BDL	BDL
18	Mercury	ppm	BDL	BDL	BDL	BDL
19	Arsenic	ppm	BDL	BDL	BDL	BDL
20	Chromium	ppm	BDL	BDL	BDL	BDL
	Remarks	Nil	15.7 <u>1.</u>			
Borewe	Il Locations:					
SI.No.	Sample Identification		E	Borewell Locat	ion	
1	SAMPLE 1		South West o	f Ash Bund (Ne	ear CAAQMS-3	3)
2	SAMPLE 2		S	outh of Ash Bu	ind	
3	SAMPLE 3		Sou	th East of Ash	Bund	
4	SAMPLE 4		Nor	th East of Ash	Bund	
SI	MULLECTED BY				L. VAL	ITICORIN



2 X 600 MW MUTIARA THERMAL POWER PLANT

BOREWELL WATER ANALYSIS REPORT - OCTOBER'23

Sample Collected on 05.10.2023

S. No	PARAMETERS	UNIT	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4
1	рН	-	7.91	7.27	8.1	7.87
2	Electrical conductivity	(µs/cm)	12120	25100	19860	15200
3	Total Suspended Solids	ppm	19	27	36	29
4	Total Dissolved Solids	ppm	7878	16315	12909	9880
5	Total Hardness	ppm	1020	3580	1490	1210
6	Calcium Hardness	ppm	756	2260	940	890
7	Magnesium Hardness	ppm	264	1320	550	320
8	Total Chloride	ppm	1536	6826	3494	1810
9	Sodium	ppm	760	1340	910	820
10	Potassium	ppm	30	66	46	38
11	Lead	ppm	BDL	BDL	BDL	BDL
12	Boron	ppm	0.08	0.08	0.07	0.09
13	BOD	mg/l	1.8	2.2	2.1	1.9
14	DO	mg/l	5.4	5.5	5.3	5.2
15	COD	mg/l	34	48	45	36
16	Sulphate	ppm	610	980	720	655
17	Oil & Grease	mg/l	BDL	BDL	BDL	BDL
18	Mercury	ppm	BDL	BDL	BDL	BDL
19	Arsenic	ppm	BDL	BDL	BDL	BDL
20	Chromium	ppm	BDL	BDL	BDL	BDL
	Remarks	Nil				
Borewe	Il Locations:					CARTY ADD D-2 (A
SI.No.	Sample Identification		E	Borewell Locat	ion	
1	SAMPLE 1		South West o	f Ash Bund (N	ear CAAQMS-	3)
2	SAMPLE 2	· · · · · · · · · · · · · · · · · · ·	S	outh of Ash Bu	ind	
3	SAMPLE 3		Sou	th East of Ash	Bund	
5			Nor	th East of Ash	Bund	

SAMPLE COLLECTED BY

LAB CHEMIS Vara



2 X 600 MW MUTIARA THERMAL POWER PLANT

BOREWELL WATER ANALYSIS REPORT - NOVEMBER'23

Sample Collected on 08.11.2023

S. No	PARAMETERS	UNIT	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4
1	рН	-	7.86	7.59	8.28	7.81
2	Electrical conductivity	(µs/cm)	10740	21350	16620	14600
3	Total Suspended Solids	ppm	33	86	53	32
4	Total Dissolved Solids	ppm	6981	13878	10803	9490
5	Total Hardness	ppm	960	2620	1360	1180
6	Calcium Hardness	ppm	736	1480	840	860
7	Magnesium Hardness	ppm	224	1140	520	320
8	Total Chloride	ppm	1476	4526	2864	1682
9	Sodium	ppm	690	1160	864	790
10	Potassium	ppm	28	58	42	36
11	Lead	ppm	BDL	BDL	BDL	BDL
12	Boron	ppm	0.07	0.07	0.06	0.07
13	BOD	mg/l	2.0	2.3	2.3	2.1
14	DO	mg/l	5.6	5.7	5.5	5.4
15	СОД	mg/l	36	46	48	38
16	Sulphate	ppm	570	890	680	640
17	Oil & Grease	mg/l	BDL	BDL	BDL	BDL
18	Mercury	ppm	BDL	BDL	BDL	BDL
19	Arsenic	ppm	BDL	BDL	BDL	BDL
20	Chromium	ppm	BDL	BDL	BDL	BDL
	Remarks	Nil				
Borewe	ll Locations:					
SI.No.	Sample Identification		B	orewell Locat	ion	
1	SAMPLE 1		South West o	f Ash Bund (Ne	ear CAAQMS-3	3)
2	SAMPLE 2		So	outh of Ash Bu	ind	
	SAMPLE 3		Sou	th East of Ash	Bund	
3		1	W 2000			

(L. Vasathara)

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and the second



2 X 600 MW MUTIARA THERMAL POWER PLANT

BOREWELL WATER ANALYSIS REPORT - DECEMBER'23

Sami	ole	Col	lected	on	06.12	2023
						and the same time

S. No	PARAMETERS	UNIT	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4
1	рН	-	7.63	7.56	7.38	7.66
2	Electrical conductivity	(µs/cm)	9770	17300	18580	18680
3	Total Suspended Solids	ppm	30	96	58	32
4	Total Dissolved Solids	ppm	6351	11245	12077	12142
5	Total Hardness	ppm	920	2120	2250	2420
6	Calcium Hardness	ppm	710	1160	1240	1650
7	Magnesium Hardness	ppm	210	960	1010	770
8	Total Chloride	ppm	1321	4462	6120	5980
9	Sodium	ppm	660	1112	1340	1220
10	Potassium	ppm	26	62	56	68
11	Lead	ppm	BDL	BDL	BDL	BDL
12	Boron	ppm	0.08	0.05	0.07	0.07
13	BOD	mg/l	2.1	2.8	2.5	2.5
14	DO	mg/l	5.7	5.3	5.7	5.5
15	COD	mg/l	38	44	48	40
16	Sulphate	ppm	530	650	710	720
17	Oil & Grease	mg/l	BDL	BDL	BDL	BDL
18	Mercury	ppm	BDL	BDL	BDL	BDL
19	Arsenic	ppm	BDL	BDL	BDL	BDL
20	Chromium	ppm	BDL	BDL	BDL	BDL
	Remarks	Nil		Let .		
Borewe	Il Locations:	Contrast (1 de terro				
SI.No.	Sample Identification		E	orewell Locat	ion	
1	SAMPLE 1		South West o	f Ash Bund (N	ear CAAQMS-3	3)
2	SAMPLE 2		S	outh of Ash Bu	ind	
3	SAMPLE 3		Sou	th East of Ash	Bund	
4	SAMPLE 4		Nor	th East of Ash	Bund	

SAMPLE COLLECTED BY



EXTERNAL ROA-GROUND WATER



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TEST REPORT

DOLL OF	R No :	TC6932-23-0-00	0006624-P	Report	Date :	02.11.2023
stomer N	lame & Address :	M/S. Coastal Er 2 x 600 MW, M Melamaruthur Tuticorin (Dt) - Ph : 950083140	nergen Private Limited utiara Thermal Power Plant, Village, Ottapidaram (Tk), 628 004. 1	. For the second		
mple Des	scription :	Ground Water		Sample	Reference No :	EL-NL-GW-17-10-2023
mple Dra	wn By :	Customer		Sample	Collected Date :	17.10.2023
mpling Ti	ime :	02.00 PM		Sample	e Received on :	19.10.2023
ty of Sam	ple Received :	4 Liter (Approxi	mately)	Test Co	immenced on :	19.10.2023
imple Cor	ndition on Receipt :	Good		Test Co	ompleted on :	28.10.2023
mpling E	nvironment Condition :	-		Sampli	ng Method / Plan :	•
mple Ma	rk:	Bore Well Wate	er -1 (South West of Ash Pond)	_		
strument	s Used for Sampling :					
S.No	Name of t	the Test	Test Method		Units	Results
iological T	Testing				Present/	Present
1	Coliforms Bacteria		IS 15185 : 2016		Absent/ 100mL	Present
2	Escherichia coli		IS 15185 : 2016		Present/ Absent/ 100mL	Absent
hemical T	festing					
£			and the second sec		- I	
3	Aluminium (as Al)		Clause No.5 of IS 3025 (Part	55) :2003	mg/L	<0.02
3	Aluminium (as Al) Ammonia (as Total NH ₃	-N)	Clause No.5 of IS 3025 (Part Clause No.2.5 of IS 3025 (Part	55) :2003 34) :1988	mg/L mg/L	<0.02
3 4 5	Aluminium (as Al) Ammonia (as Total NH ₄ Anionic Detergents (as	-N) MBAS)	Clause No.5 of IS 3025 (Part Clause No.2.5 of IS 3025 (Part Annex K of IS 13428 :2	55) :2003 : 34) :1988 005	mg/L mg/L mg/L	<0.02 <0.1 <0.01
3 4 5 6	Aluminium (as Al) Ammonia (as Total NH ₃ Anionic Detergents (as Barium (as Ba)	-N) MBAS)	Clause No.5 of IS 3025 (Part Clause No.2.5 of IS 3025 (Part Annex K of IS 13428 :2 Annex F of IS 13428 :2	55) :2003 : 34) :1988 005 005	mg/L mg/L mg/L mg/L	<0.02 <0.1 <0.01 <0.1
3 4 5 6 7	Aluminium (as Al) Ammonia (as Total NH ₃ Anionic Detergents (as Barium (as Ba) Boron (as B)	-N) MBAS)	Clause No.5 of IS 3025 (Part Clause No.2.5 of IS 3025 (Part Annex K of IS 13428 :2 Annex F of IS 13428 :2 Clause No.6 of IS 3025 (Part	55) :2003 : 34) :1988 005 005 57) :2005	mg/L mg/L mg/L mg/L mg/L	<0.02 <0.1 <0.01 <0.1 <0.1
3 4 5 6 7 8	Aluminium (as Al) Ammonia (as Total NH ₄ Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd)	-N) MBAS)	Clause No.5 of IS 3025 (Part Clause No.2.5 of IS 3025 (Part Annex K of IS 13428 :2 Annex F of IS 13428 :2 Clause No.6 of IS 3025 (Part Clause No.6 of IS 3025 (Part	55) :2003 34) :1988 005 005 57) :2005 41) :1992	mg/L mg/L mg/L mg/L mg/L mg/L	<0.02 <0.1 <0.01 <0.1 <0.1 0.031
3 4 5 6 7 8 9	Aluminium (as Al) Ammonia (as Total NHa Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd) Calcium (as Ca)	-N) MBAS)	Clause No.5 of IS 3025 (Part Clause No.2.5 of IS 3025 (Part Annex K of IS 13428 :2 Annex F of IS 13428 :2 Clause No.6 of IS 3025 (Part Clause No.6 of IS 3025 (Part Clause No.5 of IS 3025 (Part	55) :2003 : 34) :1988 005 005 57) :2005 41) :1992 40) :1991	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.02 <0.1 <0.01 <0.1 <0.1 <0.1 0.033 842
3 4 5 6 7 8 9 10	Aluminium (as Al) Ammonia (as Total NH ₃) Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd) Calcium (as Ca) Chloramines (as Cl ₂)	-N) MBAS)	Clause No.5 of IS 3025 (Part Clause No.2.5 of IS 3025 (Part Annex K of IS 13428 :2 Annex F of IS 13428 :2 Clause No.6 of IS 3025 (Part Clause No.6 of IS 3025 (Part Clause No.5 of IS 3025 (Part	55) :2003 34) :1988 005 005 57) :2005 41) :1992 40) :1991 G : 2017	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.02 <0.1 <0.01 <0.1 <0.1 0.031 842 <0.1



Lab: No.23/93, Fifth Street, Ram Nagar, S.S. Colony, Madural - 625 010.

B.O. No.4/6-26, Amar Jothi Jai Nagar, Kannampalayam, Sulur, Coimbatore - 641 402. B.O: No.22/33A Second Street, Ram Nagar, Tiruppur - 641 602.



ISO/IEC 17025:2017 Quality Management System Implemented & NABL Accredited Laboratory For Food & Environmental (Chemical & Biological) Testing Service vide Certificate No. TC-6932 ⊠ Info@excellencelaboratory.com www.excellencelaboratoryRage 20 0ft 92-4506252



	TABLE I TABLE OF INT	Report / ULR No : TC6932-23-0-00006624-P		
12	Colour	Clause No.2 of IS 3025 (Part 04) :2021	cu	5.0
13	Copper (as Cu)	Clause No.6 of IS 3025 (Part 42) :1992	mg/L	0.02
14	Cyanide (as CN)	Clause No.2 of IS 3025 (Part 27) :1986	mg/L	<0.02
15	Fluoride (as F)	APHA 23 rd Edition (4500 F – D) : 2017	mg/L	1.8
16	Free Residual Chlorine (RFC)	APHA 23 rd Edition (4500 -Cl – G) : 2017	mg/L	<0.1
17	Iron (as Fe)	Clause No.7 of IS 3025 (Part 53) :2003	mg/L	0.12
18	Lead (as Pb)	Clause No.8 of IS 3025 (Part 47) :1994	mg/L	<0.01
19	Magnesium (as Mg)	Clause No.6 of IS 3025 (Part 46) :1994	mg/L	216
20	Manganese (as Mn)	Clause No.6 of IS 3025 (Part 59) :2006	mg/L	<0.01
21	Mercury (as Hg)	Clause No.5 of IS 3025 (Part 48) :1994	mg/L	<0.001
22	Molybdenum (as Mo)	APHA 23 rd Edition (3500 - Mo) : 2017	mg/L	<0.05
23	Nickel (as Ni)	Clause No.7 of IS 3025 (Part 54) :2003	mg/L	<0.02
24	Nitrate (as NO ₃₎	Clause No.3.3 of IS 3025 (Part 34) :1988	mg/L	21
25	Odour	IS 3025 (Part 05) : 2018	-	Agreeable
26	pH value @ 25°C	Clause No.2 of IS 3025 (Part 11) :1983	No.	6.5
27	Phenolic Compounds (as C ₆ H ₅ OH)	Clause No.6 of IS 3025 (Part 43) :1992	mg/L	<0.001
28	Phenolphthalein Alkalinity (as CaCO ₃)	Clause No.8.1 of IS 3025 (Part 23) : 1986	mg/L	Nil
29	Selenium (as Se)	Clause No.6 of IS 3025 (Part 56) :2003	mg/L	<0.01
30	Silver (as Ag)	Anney 101 18 13 20.2005	mg/L	<0.01





Lab: No.23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010.

B.O. No.4/6-26, Amar Jothi Jai Nagar, Kannampalayam, Sulur, Colmbatore - 641 402. B.O: No.22/33A Second Street, Ram Nagar, Tiruppur - 641 602.



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	THE STATE OF	Report / ULR No : TC6932-23-0-00006624-P		
31	Sulphates (as SO4)	Clause No.2 of IS 3025 (Part 24) :1986	mg/L	1752
32	Sulphide (as H ₂ S)	Clause No.3 of IS 3025 (Part 29) :1986	mg/L	<0.05
33	Taste	IS 3025 (Part 8) : 1984	-	Not Conducted
34	Total Alkalinity (as CaCOa)	IS 3025 (Part 23) :1986	mg/L	152
35	Total Arsenic (as As)	Clause No.2 of IS 3025 (Part37) : 1988	mg/L	<0.005
36	Total Chromium (as Cr)	Clause No.7 of IS 3025 (Part52) : 2003	mg/L	<0.05
37	Total Dissolved Solids	IS 3025 (Part 16) :1984	mg/L	12570
38	Total Hardness (as CaCO ₃)	Clause No.5 of IS 3025 (Part 21) :2009	mg/L	2988
39	Turbidity	IS 3025 (Part 10) :1984	NTU	>100
40	Zinc (as Zn)	Clause No.6 of IS 3025 (Part 49) :1994	mg/L	4.5
tement	of Conformity:			
_		< End of Report>		
	Report Verified by		For E	AUTHOFIZEd Signatory

R.REVATHI Technical Manager

T. KARTHIKEYAN Head - Laboratory



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____TEST REPORT_____GROUND WATER ANALYSIS

Report / ULR No :	TC6932-23-0-00006624-P			02.11.2023
Customer Name & Address :	M/S. Coastal Energen Priva 2 x 600 MW, Mutiara Thern Melamaruthur Village, Otta Tuticorin (Dt) - 628 004. Ph : 9500831401	ite Limited nal Power Plant, pidaram (Tk),	2011	
Sample Description :	Ground Water	Sample Reference No		EL-NL-GW-17-10-2023
ample Drawn By :	Customer	Sample Collected Date	e :	17,10.2023
ampling Time :	02.00 PM	Sample Received on :		19.10.2023
the of Sample Received :	4 Liter (Approximately)	Test Commenced on :		19.10.2023
ample Condition on Receipt :	Good	Test Completed on :		28.10.2023
ampling Environment Condition		Sampling Method / P	lan :	
ample Mark	Ground Water -1 (South W	est of Ash Pond)		
nstruments Used for Sampling :				
S. No Nan	ne of the Test	Test Method	Units	Results
" omical Testing				
1 Polynuclear Aromati	c Hydrocarbons (as PAH)*	APHA 23 rd Edition 2017 (6440)	mg/L	<0.00001
Statement of Conformity:				
and the second		< End of Report>		/
Report Verifie	d by	s true of mapping a	For E	XCELLENCE LABORATORY
leve	5			Authorized Senatory
Technical Mana	ager			Quality Manager
		4		
		A A A A A A A A A A A A A A A A A A A		
isclaimer : 1. This test report shall not be 2. The test results relate only 3. This test results does not at 4. The laboratory is not respor 5. This test item will not be ret 6. Total liability of our faborato 7. This report cannot be used	reproduce in full or part without the writt to the test item tested and results apply count the MU value in the statement of isible for information provided by custon ained more than 10 days from date of it ry is limited to the invoice amount and a a evidence in the court of law and sho	ten approval of the Laboratory. to the sample "as received conditions". conformity unless or otherwise specified in the ner and it does not come under the scope of ac ssue of test reports, unless or otherwise reques any dispute arising out of this report is subject to uld not be used in any advertising media withou	report. creditation. ted by customer: o Madural Jurisdiction only at our special permission i	

10.No additions, deviations or exclusions from the above test methods mentioned unless or otherwise specified in the report. 11.(*) Mark indicates the tests does not comes under scope of accreditation and (#) Mark indicates the tests are subcontracted to other certified laboratory. Lab: No. 23/93, Fifth Street, Ram Nagar, S.S. Colony, Madurai - 625 010.

8.Sample is not drawn by laboratory unless stated in the report, if the sample drawn by the customer, the laboratory is not responsible for sampling stage. 9.(BDL) - Below Detectable Limit; (DL) - Detectable Limit; (MU) - Measurement Uncertainty; (NA) - Not Applicable; (CFU) - Colony Forming Unit.

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TEST REPORT

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			GROUND WATER A	NALYSIS	_	Will Compare the second s
Report / UL	R No :	TC6932-23-0-00006	625-P	Report	Date :	02.11.2023
Customer N	Name & Address :	M/S. Coastal Energ 2 x 600 MW, Mutiar Melamaruthur Villa Tuticorin (Dt) - 628 Ph : 9500831401	en Private Limited 'a Thermal Power Plant, ge, Ottapidaram (Tk), 004.			
Sample Des	scription :	Ground Water		Sample	e Reference No :	EL-NL-GW-18-10-2023
Sample Dra	wn By :	Customer		Sample	e Collected Date :	17.10.2023
Sampling Ti	ime :	02.00 PM		Sample	e Received on :	19.10.2023
Qty of Sam	ple Received :	4 Liter (Approximat	ely)	Test Co	ommenced on :	19.10.2023
Sample Cor	ndition on Receipt :	Good		Test Co	ompleted on :	28.10.2023
Sampling E	nvironment Condition :	-		Sampli	ing Method / Plan :	
Sample Ma	irk :	Bore Well Water-2	(South of Ash Pond)			
Instrument	ts Used for Sampling :	-				
S. No	Name of	the Test	Test Metho	d	Units	Results
Biological	Testing		~			
1	Coliforms Bacteria		IS 15185 : 20	16	Present/ Absent/100mL	Present
2	Escherichia coli		15 15185 : 20	16	Present/ Absent/100mL	Absent
Chemical T	festing					
3	Aluminium (as Al)		Clause No.5 of IS 3025 (Part 55) :2003	mg/L	<0.02
4	Ammonia (as Total NH)	-N)	Clause No.2.5 of IS 3025	(Part 34) :1988	me/l	<0.1
5			the state of the second second second second			
	Anionic Detergents (as	MBAS)	Annex K of IS 1342	28 :2005	mg/L	<0.01
6	Anionic Detergents (as Barium (as Ba)	MBAS)	Annex K of IS 1342 Annex F of IS 1342	28 :2005 28 :2005	mg/L mg/L	<0.01
6	Anionic Detergents (as Barium (as Ba) Boron (as B)	MBAS)	Annex K of IS 1342 Annex F of IS 1342 Clause No.6 of IS 3025 (28 :2005 28 :2005 28 :2005 Part 57) :2005	mg/L mg/L	<0.01 <0.1 <0.1
6	Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd)	MBAS)	Annex K of IS 134. Annex F of IS 134. Clause No.6 of IS 3025 (Clause No.6 of IS 3025 (28 :2005 28 :2005 Part 57) :2005 Part 41) :1992	mg/L mg/L mg/L mg/L	<0.01 <0.1 <0.1 0.025
6 7 8 9	 Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd) Calcium (as Ca) 	MBAS)	Annex K of IS 134: Annex F of IS 134: Clause No.6 of IS 3025 (Clause No.6 of IS 3025 (Clause No.5 of IS 3025 (28 :2005 28 :2005 Part 57) :2005 Part 41) :1992 Part 40) :1991	mg/L mg/L mg/L mg/L mg/L	<0.01 <0.1 <0.1 0.025 875
6 7 8 9 10	 Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd) Calcium (as Ca) Chloramines (as Cl₂) 	MBAS)	Annex K of IS 134: Annex F of IS 134: Clause No.6 of IS 3025 (Clause No.6 of IS 3025 (Clause No.5 of IS 3025 (APHA 23 rd Edition 450 CE La,	28 :2005 28 :2005 Part 57) :2005 Part 41) :1992 Part 40) :1991	mg/L mg/L mg/L mg/L mg/L	<0.01 <0.1 <0.1 0.025 875 <0.1

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	Report / ULR No : TC6932-23-0-00006625-P						
12	Colour	Clause No.2 of IS 3025 (Part 04) :2021	CU	5.0			
13	Copper (as Cu)	Clause No.6 of IS 3025 (Part 42) :1992	mg/L	0.03			
14	Cyanide (as CN)	Clause No.2 of IS 3025 (Part 27) :1986	mg/L	<0.02			
15	Fluoride (as F)	APHA 23 rd Edition (4500 F – D) : 2017	mg/L	1.8			
16	Free Residual Chlorine (RFC)	APHA 23 rd Edition (4500 -Cl – G) : 2017	mg/L	<0.1			
17	Iron (as Fe)	Clause No.7 of IS 3025 (Part 53) :2003	mg/L	0.25			
18	Lead (as Pb)	Clause No.8 of IS 3025 (Part 47) :1994	mg/L	<0.1			
19	Magnesium (as Mg)	Clause No.6 of IS 3025 (Part 46) :1994	mg/L	210			
20	Manganese (as Mn)	Clause No.6 of IS 3025 (Part 59) :2006	mg/L	<0.01			
21	Mercury (as Hg)	Clause No.5 of IS 3025 (Part 48) :1994	mg/L	<0.001			
22	Molybdenum (as Mo)	APHA 23 rd Edition (3500 – Mo) : 2017	mg/L	<0.05			
23	Nickel (as Ni)	Clause No.7 of IS 3025 (Part 54) :2003	mg/L	<0.02			
24	Nitrate (as NO ₃₎	Clause No.3.3 of IS 3025 (Part 34) 1988	mg/L	27			
25	Odour	IS 3025 (Part 05) : 2018		Agreeable			
26	pH value @ 25*C	Clause No.2 of IS 3025 (Part 11) :1983	No.	6.5			
27	Phenolic Compounds (as C ₆ H ₅ OH)	Clause No.6 of IS 3025 (Part 43) :1992	mg/L	<0.001			
28	Phenolphthalein Alkalinity (as CaCO ₃)	Clause No.8.1 of IS 3025 (Part 23) : 1986	mg/L	Nil			
29	Selenium (as Se)	Clause No.6 of IS 3025 (Part 56) :2003	mg/L	<0.01			
30	Silver (as Ag)	Annex 100 58 13429,2005	mg/L	<0.01			



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		Report / ULR No : TC6932-23-0-00006625-P		
31	Sulphates (as SO ₄)	Clause No.2 of IS 3025 (Part 24) :1986	mg/L	2100
32	Sulphide (as H ₂ S)	Clause No.3 of IS 3025 (Part 29) :1986	mg/L	<0.05
33	Taste	IS 3025 (Part 8) : 1984	-	Not Conducted
34	Total Alkalinity (as CaCO ₃)	IS 3025 (Part 23) :1986	mg/L	197
35	Total Arsenic (as As)	Clause No.2 of IS 3025 (Part37) : 1988	mg/L	<0.005
36	Total Chromium (as Cr)	Clause No.7 of IS 3025 (Part52) : 2003	mg/L	<0.05
37	Total Dissolved Solids	IS 3025 (Part 16) :1984	mg/L	13400
38	Total Hardness (as CaCO ₃)	Clause No.5 of IS 3025 (Part 21) :2009	mg/L	3048
39	Turbidity	IS 3025 (Part 10) :1984	NTU	>100
40	Zinc (as Zn)	Clause No.6 of IS 3025 (Part 49) :1994	mg/L	0.87
itement	t of Conformity:			
-		< End of Report>		
	Report Verified by		For E	Authorized Signatory

R.REVATHI Technical Manager

T. KARTHIKEYAN Head - Laboratory



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TEST REPORT _____ GROUND WATER ANALYSIS

Report / UL	R No :	TC6932-23-0-00006625-	P				02.11.2023	
Customer Name & Address :		M/S. Coastal Energen Private Limited 2 x 600 MW, Mutiara Thermal Power Plant, Melamaruthur Village, Ottapidaram (Tk), Tuticorin (Dt) - 628 004. Ph : 9500831401						
Sample Des	cription :	Ground Water		Sample Reference No :	1 3 2 3		EL-NL-GW-18-10-2023	
Sample Drawn By : Sampling Time : Qty of Sample Received : Sample Condition on Receipt :		Customer		Sample Collected Date :	A. 1. S. 1. S.		17.10.2023	
		02.00 PM		Sample Received on :	1 Tanking		19.10.2023	
		4 Liter (Approximately)		Test Commenced on :		1	19.10.2023	
		Good		Test Completed on :	Statelly		28.10.2023	
Sampling Er	nvironment Condition :	-		Sampling Method / Plan :			-	
Sample Mar	rk :	Bore Well Water-2 (South of Ash Pond)						
Instrument	s Used for Sampling :							
S. No	Nam	e of the Test		Test Method	Units	P. mar	Results	
nical Te	esting							
1	Polynuclear Aromatic H	lydrocarbons (as PAH)*	APHA:	23 rd Edition 2017 (6440)	mg/L		<0.00001	
Statement	of Conformity:						1	
			< End c	of Report>			/	
	Report Verified	by				For EXCEL	LENOCLABORATORY	
	Lever Technical Person	=				Auth	orized Signatory	
ų	R.REVATHI	jer				R.S.D	INAKARAN ty Manager	



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			GROUND WATER ANA	LYSIS		
port / ULF	R No :	TC6932-23-0-0000	6626-P	Report	Date :	02.11.2023
ustomer Name & Address : M/S. Coastal Energe 2 x 600 MW, Mutiara Melamaruthur Villag Tuticorin (Dt) - 628 0 Ph - 9500831401		gen Private Limited ara Thermal Power Plant, age, Ottapidaram (Tk), 8 004.				
ample Desc	cription :	Ground Water		Sample	e Reference No :	EL-NL-GW-19-10-2023
imple Dray	wn By :	Customer		Sample	e Collected Date :	17.10.2023
moling Tir	me:	02.00 PM		Sample	e Received on :	19.10.2023
ty of Samo	le Received :	4 Liter (Approxima	tely)	Test C	ommenced on :	19.10.2023
ample Con	dition on Receipt :	Good		Test C	ompleted on :	28.10.2023
ampling En	vironment Condition :	-	2	Sampl	ing Method / Plan :	-
ample Mar	de t	Bore Well Water-3	(South East of Ash Pond)			
struments	Used for Sampling :					
S. No	Name of	the Test	Test Method		Units	Results
iological T	esting		14			
1	Coliforms Bacteria		IS 15185 : 2016		Present/ Absent/100mL	Present
2	Escherichia coli		15 15185 : 2016	and the	Present/ Absent/100mL	Present
hemical Te	esting		an and a second s			
3	Aluminium (as Al)		Clause No.5 of IS 3025 (Par	t 55) :2003	mg/L	<0.02
4	Ammonia (as Total NH	-N)	Clause No.2.5 of IS 3025 (Pa	rt 34) :1988	mg/L	<0.1
5	Anionic Detergents (as	MBAS)	Annex K of IS 13428 :	2005	mg/L	<0.01
6	Barium (as Ba)		Annex F of IS 13428 :2005		mg/L	<0.1
7	Boron (as B)		Clause No.6 of IS 3025 (Par	Clause No.6 of IS 3025 (Part 57) :2005		<0.1
8	Cadmium (as Cd)		Clause No.6 of IS 3025 (Par	Clause No.6 of IS 3025 (Part 41) :1992		0.016
	Calcium (as Ca)		Clause No.5 of IS 3025 (Par	t 40) :1991	mg/L	683
9	Calcium (as Ca)				the second se	COLUMN ADDRESS OF ADDRES
9 10	Calcium (as Ca) Chloramines (as Cl ₂₎		APHA 23 rd Edition, 4500 (I G : 2017	mg/L	<0.1

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		Report / ULR No : TC6932-23-0-00006626-P		
2	Colour	Clause No.2 of IS 3025 (Part 04) :2021	CU	5.0
.3	Copper (as Cu)	Clause No.5 of IS 3025 (Part 42) :1992	mg/L	<0.02
.4	Cyanide (as CN)	Clause No.2 of IS 3025 (Part 27) :1986	mg/L	<0.02
15	Fluoride (as F)	APHA 23 rd Edition (4500 F – D) : 2017	mg/L	1.9
16	Free Residual Chlorine (RFC)	APHA 23 rd Edition (4500 -Cl – G) : 2017	mg/L	<0.1
17	Iron (as Fe)	Clause No.7 of IS 3025 (Part 53) :2003	mg/L	<0.05
18	Lead (as Pb)	Clause No.8 of IS 3025 (Part 47) :1994	mg/L	<0.01
19	Magnesium (as Mg)	Clause No.6 of IS 3025 (Part 46) :1994	mg/L	140
20	Manganese (as Mn)	Clause No.6 of IS 3025 (Part 59) :2006	mg/L	<0.01
21	, Mercury (as Hg)	Clause No.5 of IS 3025 (Part 48) :1994	mg/L	<0.001
22	Molybdenum (as Mo)	APHA 23 ^{re} Edition (3500 – Mo) : 2017	mg/L	<0.05
23	Nickel (as Ni)	Clause No.7 of IS 3025 (Part 54) :2003	mg/L	<0.02
24	Nitrate (as NO ₃₎	Clause No.3.3 of IS 3025 (Part 34) :1988	mg/L	11
25	Odour	IS 3025 (Part 05) : 2018	170	Agreeable
26	pH value @ 25°C	Clause No.2 of IS 3025 (Part 11) :1983	No.	6.4
27	Phenolic Compounds (as C_6H_5OH)	Clause No.6 of IS 3025 (Part 43) :1992	mg/L	<0.001
28	Phenolphthalein Alkalinity (as CaCO ₃)	Clause No.8.1 of IS 3025 (Part 23) : 1986	mg/L	Nil
29	Selenium (as Se)	Clause No.6 of IS 3025 (Part 56) :2003	mg/L	<0.01
30	Silver (as Ag)	Anney 100 12 13428 2005	mg/L	<0.01



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		Report / ULR No : TC6932-23-0-00006626-P		
31	Sulphates (as SO4)	Clause No.2 of IS 3025 (Part 24) :1986	mg/L	1375
32	Sulphide (as H ₂ S)	Clause No.3 of IS 3025 (Part 29) (1986	mg/L	<0.05
33	Taste	IS 3025 (Part 8) : 1984	-	Not Conducted
34	Total Alkalinity (as CaCO ₃)	IS 3025 (Part 23) :1986	mg/L	134
35	Total Arsenic (as As)	Clause No.2 of IS 3025 (Part37) : 1988	mg/L	<0.005
36	Total Chromium (as Cr)	Clause No.7 of IS 3025 (Part52) : 2003	mg/l-	<0.05
37	Total Dissolved Solids	IS 3025 (Part 16) :1984	mg/L	11270
38	Total Hardness (as CaCO ₃)	Clause No.5 of 15 3025 (Part 21) :2009	mg/L	2280
39	Turbidity	15 3025 (Part 10) :1984	NTU	>100
40	Zinc (as Zn)	Clause No.6 of IS 3025 (Part 49) :1994	mg/L	4.1
ement	of Conformity:			
		< End of Report>		
	Report Verified by		For E	Authorized Signatory

R.REVATHI Technical Manager

114

T. KARTHIKEYAN Head - Laboratory



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leport / ULR	No:	TC6932-23-0-00006626-P			02.11.2023	
Customer Name & Address : Sample Description :		M/S. Coastal Energen Privato 2 x 600 MW, Mutiara Therma Melamaruthur Village, Ottapi Tuticorin (Dt) - 628 004. Ph : 9500831401	e Limited il Power Plant, idaram (Tk),			
		Ground Water	Sample Reference No :	A Longitude	EL-NL-GW-19-10-2023	
ample Drav	wn By :	Customer	Sample Collected Date :		17,10.2023	
iampling Tir	ne :	02.00 PM	Sample Received on :		19.10.2023	
Qty of Sample Received : Sample Condition on Receipt :		4 Liter (Approximately)	Test Commenced on :	Test Commenced on : Test Completed on :		
		Good	Test Completed on :			
Sampling Environment Condition :		-	Sampling Method / Plan	Sampling Method / Plan :		
Sample Mark :		Bore Well Water-3 (South East of Ash Pond)				
nstruments Used for Sampling :		-				
S. No	Name	e of the Test	Test Method	Units	Results	
mical Te	esting					
1	Polynuclear Aromatic H	ydrocarbons (as PAH)*	APHA 23 rd Edition 2017 (6440)	mg/L	<0.00001	
Statement	of Conformity:					
			< End of Report>		1	
	Report Verified b	iy l		For E	XCELLENCE ABORATORY	
	lhot				Authorized Signatory	

R.REVATHI Technical Manager

R.S.DINAKARAN Quality Manager



13



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TEST REPORT.

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			GROUND WATER ANA	LYSIS		
eport / UL	R No :	TC6932-23-0-000066	27-P	Report	Date :	02.11.2023
M/S. Coastal Energy 2 x 600 MW, Mutia Customer Name & Address : Melamaruthur Villa Tuticorin (Dt) - 628 Ph : 9500831401		M/S. Coastal Energe 2 x 600 MW, Mutiara Melamaruthur Villag Tuticorin (Dt) - 628 0 Ph: 9500831401	n Private Limited Thermal Power Plant, e, Ottapidaram (Tk), 04.			
ample Des	cription :	Ground Water		Sample	e Reference No :	EL-NL-GW-20-10-2023
ample Dra	wn By :	Customer		Sample	e Collected Date :	17.10.2023
ampling Ti	me :	02.00 PM		Sample	e Received on :	19.10.2023
Div of Same	ale Received :	4 Liter (Approximate	y)	Test Co	ommenced on :	19.10.2023
ample Con	dition on Receipt :	Good		Test Co	ompleted on :	28.10.2023
ampling Fr	nvironment Condition :	-		Sampli	ing Method / Plan :	-
ample Ma	rk :	Bore Well Water-4 (1	North East of Ash Pond)			
netrumont	s Used for Sampling :					
S. No	Name of	the Test	Test Method		Units	Results
Biological T	festing		2			
1	Coliforms Bacteria		IS 15185 : 2016		Present/ Absent/100mL	Present
2	Escherichia coli		15 15185 : 2016		Present/ Absent/100mL	Absent
Chemical T	esting					<i>,</i>
3	Aluminium (as Al)		Clause No.5 of IS 3025 (Par	t 55) :2003	mg/L	<0.02
4	Ammonia (as Total NH	-N]	Clause No.2.5 of IS 3025 (Pa	rt 34) :1988	mg/L	<0.1
4	Ammonia (as Total NH Anionic Detergents (as	-N) MBAS)	Clause No.2.5 of IS 3025 (Pa Annex K of IS 13428 :	rt 34) :1988 2005	mg/L mg/L	<0.1
4 5 6	Ammonia (as Total NH Anionic Detergents (as Barium (as Ba)	-N) MBAS)	Clause No.2.5 of IS 3025 (Pa Annex K of IS 13428 : Annex F of IS 13428 :	rt 34) :1988 2005 2005	mg/L mg/L mg/L	<0.1 <0.01 <0.1
4 5 6 7	Ammonia (as Total NH Anionic Detergents (as Barium (as Ba) Boron (as B)	-N) MBAS)	Clause No.2.5 of IS 3025 (Pa Annex K of IS 13428 : Annex F of IS 13428 : Clause No.6 of IS 3025 (Par	rt 34) :1988 2005 2005 t 57) :2005	mg/L mg/L mg/L mg/L	<0.1 <0.01 <0.1 <0.1
4 5 6 7 8	Ammonia (as Total NH) Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd)	-N) MBAS)	Clause No.2.5 of IS 3025 (Pa Annex K of IS 13428 : Annex F of IS 13428 : Clause No.6 of IS 3025 (Par Clause No.6 of IS 3025 (Par	rt 34) :1988 2005 2005 t 57) :2005 t 41) :1992	mg/L mg/L mg/L mg/L mg/L	<0.1 <0.01 <0.1 <0.1 <0.003
4 5 7 8 9	Ammonia (as Total NHa Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd) Calcium (as Ca)	-N) MBAS)	Clause No.2.5 of IS 3025 (Pa Annex K of IS 13428 : Annex F of IS 13428 : Clause No.6 of IS 3025 (Par Clause No.6 of IS 3025 (Par Clause No.5 of IS 3025 (Par	rt 34) :1988 2005 2005 t 57) :2005 t 41) :1992 t 40) :1991	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.1 <0.01 <0.1 <0.1 <0.003 79
4 5 7 8 9 10	Ammonia (as Total NHa Anionic Detergents (as Barium (as Ba) Boron (as B) Cadmium (as Cd) Calcium (as Ca) Chloramines (as Cl ₂₁)	-N) MBAS)	Clause No.2.5 of IS 3025 (Pa Annex K of IS 13428 : Annex F of IS 13428 : Clause No.6 of IS 3025 (Par Clause No.6 of IS 3025 (Par Clause No.5 of IS 3025 (Par Clause No.5 of IS 3025 (Par	rt 34) :1988 2005 2005 t 57) :2005 t 41) :1992 t 40) :1991 t G : 2017	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.1 <0.01 <0.1 <0.1 <0.003 79 <0.1



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12	Colour	Clause No.2 of IS 3025 (Part 04) :2021	eu	<1.0
13	Copper (as Cu)	Clause No.6 of IS 3025 (Part 42) :1992	mg/L	<0.02
14	Cyanide (as CN)	Clause No.2 of IS 3025 (Part 27) :1986	mg/L	<0.02
15	Fluoride (as F)	APHA 23 rd Edition (4500 F – D) : 2017	mg/L	<0.1
16	Free Residual Chlorine (RFC)	APHA 23 ¹⁰ Edition (4500 -Cl - G) : 2017	mg/L	<0.1
17	tron (as Fe)	Clause No.7 of IS 3025 (Part 53) :2003	mg/L	<0.05
18	Lezd (as Pb)	Clause No.8 of IS 3025 (Part 47) :1994	mg/L	<0.01
19	Magnesium (as Mg)	Clause No.6 of IS 3025 (Part 46) :1994	mg/L	12
20	Manganese (as Mn)	Clause No.6 of IS 3025 (Part 59) :2006	mg/l	<0.01
21	Mercury (as Hg)	Clause No.5 of IS 3025 (Part 48) :1994	mg/L	<0.001
22	Molybdenum (as Mo)	APHA 23 rd Edition (3500 – Mo) : 2017	mg/L	<0.05
23	Nickel (as Ni)	Clause No.7 of IS 3025 (Part 54) :2003	mg/L	<0.02
24	Nitrate (as NO ₃₁	Clause No.3.3 of IS 3025 (Part 34) :1988	mg/L	<1.0
25	Odour	IS 3025 (Part 05) : 2018		Agreeable
26	pH value @ 25°C	Clause No.2 of IS 3025 (Part 11) :1983	No.	6.9
27	Phenolic Compounds (as C ₆ H ₅ OH)	Clause No.6 of IS 3025 (Part 43) :1992	mg/L	<0.001
28	Phenolphthalein Alkalinity (as CaCO ₃)	Clause No.8.1 of IS 3025 (Part 23) : 1986	mg/L	Nil
29	Selenium (as Se)	Clause No.6 of IS 3025 (Part 56) ;2003	mg/L	<0.01
30	Silver (as Ag)	Annex 10145 13428-2005	mg/L	<0.01

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UNKNOWN

Disclaimer: 1. This test report shall not be reproduce in full or part without the written approval of the Laboratory. 2. The test results relate only to the test item tested and results apply to the sample "as received conditions". 3. This test results relate only to the test item tested and results apply to the sample "as received conditions". 4. The laboratory is not responsible for information provided by customer and it does not come under the scope of accreditation. 5. This test item will not be retained more than 10 days from date of issue of lest reports, unless or otherwise requested by customer. 6. Total liability of our laboratory is limited to the invoice amount and any dispute arising out of this report is subject to Madurai Jurisdiction only. 7. This report cannot be used as evidence in the ceport, if the sample drawn by the customer, the laboratory is not responsible for sampling steger. 9. (BDL) - Below Detectable Limit; (DL) - Detectable Limit; (MU) - Measurement Uncertainty, (NA) - Not Applicable; (CFU) - Colony Forming Unit. 10. No additions, deviations or exclusions from the above test methods mentioned unless or otherwise specified in the report. 11. (#) Mark indicates the tests are subcontracted to other accredited faboratory.

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		Report / OLK NO . TEUS32-23-0-0000002. T	Contraction of the	
31	Sulphates (as SO4)	Clause No.2 of IS 3025 (Part 24) :1986	mg/L	575
32	Sulphide (as H ₂ S)	Clause No.3 of IS 3025 (Part 29) :1986	mg/L	<0.05
33	Taste	IS 3025 (Part 8) : 1984	-	Not Conducted
34	Total Alkalinity (as CaCO ₃)	IS 3025 (Part 23) :1986	mg/L	605
35	Total Arsenic (as As)	Clause No.2 of IS 3025 (Part37) : 1988	mg/L	<0.005
36	Total Chromium (as Cr)	Clause No.7 of IS 3025 (Part52) : 2003	mg/L	<0.05
37	Total Dissolved Solids	IS 3025 (Part 16) :1984	mg/L	3400
38	Total Hardness (as CaCO ₃)	Clause No.5 of IS 3025 (Part 21) :2009	mg/L	346
39	Turbidity	IS 3025 (Part 10) :1984	NTU	<0.1
40	Zinc (as Zn)	Clause No.6 of IS 3025 (Part 49) :1994	mg/L	0.75
ement	of Conformity:			
		< End of Report>		
	Report Verified by		For E	XCELLENCE LABORATORY

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aport / III R Alo :	TC6932-23-0-00006627-	2		02.11.2023
teport / UER No : TCb932-23-0-00000627-P M/S. Coastal Energen Private Limited 2 x 600 MW, Mutiara Thermal Power Plant, Customer Name & Address : Melamaruthur Village, Ottapidaram (Tk), Tuticorin (Dt) - 628 004. Pb - 9500831401				
ample Description	Ground Water	Sample Reference No :		EL-NL-GW-20-10-2023
mple Description :	Customer	Sample Collected Date		17.10.2023
imple brawn by .	loz oo PM	Sample Received on :		19.10.2023
mpling line :	(Liter (Approvimately)	Test Commenced on :	Constant Sector	19,10.2023
ty of Sample Received :	Good	Test Completed on :		28.10.2023
imple Condition on Receipt :	GOOU	Sampling Method / Pla	n :	
ampling Environment Condition	Roro Wall Water AlNorth	a East of Ash Pond)		
ample Mark :	Bore Wen Water Hivord			
istruments used for sampling .			Hatte	Pasults
S. No N	ame of the Test	lest Miethod	Units	Hussing, and
mical Testing				
1 Polynuclear Aromat	ic Hydrocarbons (as PAH)*	APHA 23 rd Edition 2017 (6440)	mg/L	<0.00001
tatement of Conformity:				
		< End of Report>		1
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Report verm				
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Technical Pers	onnel			Authorized Signatory
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		A Hold Range Real Party		
			and the second second	
isclaimer : 1. This test report shall not be 2. The test results relate only 3. This test results does not 4. The laboratory is not resp 5. This test item will not be n 6. Total liability of our labora 7. This report cannot be used	reproduce in full or part without the v to the test item tested and results ap account the MU value in the statemen unsible for information provided by cus atained more than 10 days from date ony is limited to the invoice amount and as evidence in the court of law and d	written approval of the Laboratory. ply to the sample "as received conditions". t of conformity unless or otherwise specified in the ri- stomer and it does not come under the scope of accr of issue of test reports, unless or otherwise requester and any dispute arising out of this report is subject to should not be used in any advertising media without	eport. edilation. d by customer. Madurai Junisdiction on our special permission	

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9.(BDL) - Below Detectable Limit; (DL) - Detectable Limit; (MU) - Measurement Uncertainty; (NA) - Not Applicable; (CFU) - Colony Forming Unit.

11.(•) Mark indicates the tests does not comes under scope of accreditation and (#) Mark indicates the tests are subcontracted to other certified laboratory

10.No additions, deviations or exclusions from the above test methods mentioned unless or otherwise specified in the report.

ANNEXURE - 4

Greenbelt Maintenance Photos (July 2023 to December 2023)



Thoothukudi, Tamil Nadu, India Coastal Energen Rd, Tamil Nadu 628105, India Lat 8.905362° Long 78.141756° 19/01/24 02:26 PM GMT +05:30

5000



GPS Map Camera

Thoothukudi, Tamil Nadu, India Coastal Energen Rd, Tamil Nadu 628105, India Lat 8.922706° Long 78.159987° 19/01/24 12:55 PM GMT +05:30 , Thoothukudi, Tamil Nadu, India Coastal Energen Rd, Tamil Nadu 628105, India Lat 8.922706° Long 78.159987° 19/01/24 12:55 PM GMT +05:30

💽 GPS Map Camera 🔊







Thoothukudi, Tamil Nadu, India Coastal Energen Rd, Tamil Nadu 628105, India Lat 8.905575° Long 78.140938° 19/01/24 02:30 PM GMT +05:30





Thoothukudi, Tamil Nadu, India Coastal Energen Rd, Tamil Nadu 628105, India Lat 8.905809° Long 78.140998° 19/01/24 02:28 PM GMT +05:30





Coastal Energen Rd, Tamil Nadu 628105, In Lat 8.919976° Long 78.160647° 19/01/24 01:17 PM GMT +05:30

Good





Mela Maruthur, Tamil Nadu, India W4CV+67V, Mela Maruthur, Tamil Nadu 628105, India Lat 8.920917° Long 78.143397° 19/01/24 01:58 PM GMT +05:30

ALLI LI PI PI





Mela Maruthur, Tamil Nadu, India W4CV+67V, Mela Maruthur, Tamil Nadu 628105, India Lat 8.920917° Long 78.143397° 19/01/24 01:58 PM GMT +05:30









Thoothukudi, Tamil Nadu, India Coastal Energen Rd, Tamil Nadu 628105, India Lat 8.921199° Long 78.160957° 19/01/24 01:02 PM GMT +05:30



Thoothukudi, Tamil Nadu, India Coastal Energen Rd, Tamil Nadu 628105, India Lat 8.909365° Long 78.142889° 19/01/24 02:35 PM GMT +05:30

🥯 GPS Map Camera





Thoothukudi, Tamil Nadu, India Coastal Energen Rd, Tamil Nadu 628105, India Lat 8.909244° Long 78.143093° 19/01/24 02:38 PM GMT +05:30

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🧕 GPS Map Camera





Mela Maruthur, Tamil Nadu, India W48W+2G3, Mela Maruthur, Tamil Nadu 628105, India Lat 8.914635° Long 78.146112° 19/01/24 01:21 PM GMT +05:30



ANNEXURE - 5

CSR Activities (July 2023 to December 2023)

Corporate Social Responsibility Flood Relief Materials Distribution to Villages Under CEPL CSR, 2023 - 2024 Benefited Villages

Melamaruthur - 170 Relief kits

Kummarapuram - 270 Relief kits

Sakkammalpuram - 250 Relief kits

AM Patti - 500 Relief kits

Pattinamarudur - 320 Relief kits

Puliyamarathu Arasady - 350 Relief kits

Thoothukudi - 1000 Relief Kits

Description of Flood Relief Materials

S. No	Description of Relief Materials	UoN	Qty
1	Rice	Kg	10kg
2	Toor Dhall	Kg	2kg
3	Sugar	Kg	1kg
4	Urad Gram white	Kg	1kg
5	Sunflower Oil	lts	1 lts
6	Rava	Kg	500g
7	Maida	Kg	500g
8	Cummin Seed	Gm	100g
9	Feenu Greek	Gm	100g
10	Mustard Seed	Gm	100g
11	Chilli Powder	Gm	100g
12	Termeric Powder	Gm	100g
13	Tamarind	Kg	500g

Distribution of Relief Materials to AM Patti village by Mr. M K Parameswaran - Sr. Vice President and Station Director and Mr. Ramesh -Chairman, Ottapidaram & Mr. Suresh - Thasildhar, Ottapidaram on 23 Dec, 2023



Distribution of Relief Materials to Pattinamarudur village by Mr. M K Parameswaran - Sr. Vice President and Station Director and Mr. Immam -Panchayat President, Pattinamarudur on 29 Dec, 2023



Distribution of Relief Materials to Sakkammalpuram village by Mr. M K Parameswaran - Sr. Vice President and Station Director on 29 Dec, 2023



Distribution of Relief Materials to Melamaruthur village by Mr. M K Parameswaran - Sr. Vice President and Station Director and Mr. Ramesh - Chairman, Ottapidaram & Mr. Suresh - Thasildhar, Ottapidaram & Mrs. Rohini Kathir - Panchayat President on 28 Dec, 2023



Distribution of Relief Materials to Mrs Geetha Jeevan Minister of Social Welfare and women Empowerment, TN by Mr. M K Parameswaran - Sr. Vice President and Station Director



CEPL News has been published in Dinakaran and Dinamalar news papers regarding distribution of flood relief materials at AM Patti, Melamaruthur, A Kummarapuram and Puliyamarathu Arasady villages



மேலமருதுார் பகுதிகளில் ஆயிரம் குடும்பங்களுக்கு யூனியன் சோமன் ரமேஷ் நிவாரண பொருட்கள் வழங்கினார்.

ஓட்டப்பிடாரம் அருகே மழையால் பாதிக்கப்பட்ட 1000 குடும்பங்களுக்கு நிவாரணப் பொருட்கள் யூனியன் சேர்மன் வழங்கினார்

ஒட்டப்பிடாரம், டிச. 31-ஒட்டப்பிடாரம் அருகே GLONLOCT துார் உள்ளிட்ட பகு மழையால் திகளில் பாதிக்கப்பட்ட 1000 குடும்பங்களுக்கு யூனி யன் சேர்மன் ரமேஷ் நிவாரண பொருட் வழங்கினார். கள் மேலஅரசடி பஞ்., மேலமருதுார் ஏ. குமா ரபுரம் மற்றும் புளியம ரக்து அரசடி ஆகிய பகு திகளில் கனமழையால் பாதிக்கப்பட்ட 1000 குடும்பங்களுக்கு ஒட் டப்பிடாரம் எம்.எல்.ஏ., சண்முகையா ஏற்பாட்

டின் பேரில், கோஸ்டல் எனர்ஜன் நிறுவனத்தின் உதவியுடன் நிவாரண பொருட்கள் வழங்கும் நிகழ்ச்சி நடந்தது.

ஒட்டப்பிடாரம் யூனி யன் சேர்மன் ரமேஷ் கலந்து கொண்டு 15 பொருட்கள் அடங்கிய தொகுப்பினை பொது மக்களுக்கு வழங்கினார் நிகழ்ச்சியில் தாசில்தார் சுரேஷ், துணை தாசில் தார் ஸ்டாலின், கோஸ் டல் நிலைய இயக் குநர் பரமேஸ்வரன், வி.ஏ.ஒ., ராஜசெல்வம் உட்பட பலர் கலந்து கொண்டனர்.

^{தருவைகுளம்} அருகே **நிவாரணாம் வழங்கல்**

குளத்தூர்,டிச.26: தருவை குளம் அருகே அனைந்தமா டன் பச்சேரி கிராமத்தில் வெள்ளம் பாதிக்கப்பட்ட மக் களுக்கு நிவா ரண பொருட்களை யூனியன் சேர்மன் ரமேஷ் வழங்கி னார்.

குளத்தாரையடுத்த தரு வைகுளம் ஊராட்சிக்குட் பட்ட அனைந்தமாடன்பச் சேரி கிராமத்தில் கடந்த வாரம் பெய்த கனமழை யில் வெள்ளப்பெருக்கெ டுத்து ஊருக்குள் தண்ணீர் புகுந்து பொதுமக்கள் வாழ் வாதாரமின்றி பாதிக்கப் பட்டனர். இதையடுத்து பாதிக்கப்பட்ட அப்பகுதி பொதுமக்களுக்கு ஒட்டப் பிடாரம் எம்எல்ஏ சண்மு கையா ஏற்பாட்டின்பேரில் தனியார் நிறுவனத்தின் உத வியுடன் ஒட்டப்பிடாரம் யூனியன் சேர்மன் ரமேஷ் தலை மையில் அரிசி, பருப்பு, காய்கறிகள் என சுமார் 15 பொருட்கள் அடங்கிய தொகுப்பினை சுமார் 500 குடும்பங்களுக்கு வழங்கினர்.

வட்டாட் சியர் கள் கரேஷ், செல்வக்குமார், தேர்தல் துணை வட்டாட் சியர் கருப்பசாமி, கோஸ் டல் நிலைய இயக்குனர் பரமேஸ்வரன், விஏஓ மாரி முத்து, கிளை செயலாளர் பாலமுருகன், இளைஞ ரணி மாயகிருஷ்ணன், கிருஷ்ணமூர்த்தி ஆகியோர் உடனி(ருந்தனர்.



தருவைகுளம் அருகே அனைந்தமாடன்பச்சேரி கிரா மத்தில் வெள்ளம் பாதிக்கப்பட்ட மக்களுக்கு நிவாரண பொருட்களை யூனியன் சேர்மன் ரமேஷ் வழங்கினார்.

ANNEXURE - 6

Annexure - 6

COMPLIANCE TO THE CONDITIONS STIPULATED BY TAMILNADU COASTAL ZONE MANAGEMENT AUTHORITY VIDE LETTER DATED 03.04.2009

Period: July 2023 to December 2023

SI.No.	CONDITIONS STIPULATED BY TNCZM AUTHORITY	COMPLIENCE
a)	The unit should adhere to the norms prescribed by Ministry of Environment and Forests, Government of India and State Pollution Control Board in respect of discharging of cooling water / treated effluent in to sea.	Complied. In respect of discharging of cooling water / treated effluent in to sea, All the norms prescribed by MoEF & CC/ SPCB is being followed.
b)	The unit shall consider adopting the latest technologies such as providing cooling towers to reduce the temperature of the condenser cooling water, so as to safe guard the marine eco-system	Complied. Cooling towers to reduce the temperature of the condenser cooling water is Installed, commissioned and in operation.
c)	Marking the intake and outfall pipelines adequately such that fishing vessels and fishermen are made aware of its presence.	Complied. Marker Buoys Provided.
d)	It may be ensured that mercury concentration is not present in the end product.	Being ensured
e)	The activities such as intake pipeline and outfall line and intake arrangement in sea and the pipeline should not cause hindrance to fishing activities and to boat movement.	Complied. No hindrance for fishing or boat movement.
f)	The proposed activities should not cause coastal erosion and alter the beach configuration	Complied. No Such activities are being carried out which can cause coastal erosion or beach configuration.
g)	No blasting activities in Coastal Regulation Zone is permissible	Complied. No Such activities are being carried out.
h)	The proponent should not prevent public from easy access to the beach.	Complied. Access is not prevented from Public.
i)	Untreated chemical waste generated due to membrane protection activity and the sewage generated should not be discharged into the sea.	Complied. No Untreated chemical waste is being discharged into sea.
j)	The proponent should ensure that the saline water shall not gain access into ground while conveying or processing the sea water	Being Ensured that the saline water is not gaining access into ground while conveying or processing the sea water.
k)	The project activity should not affect the coastal ecosystem including marine flora and fauna.	The project activity does not affect the coastal ecosystem including marine flora and fauna.
l)	There should not be any extraction of ground water in Coastal Regulation Zone.	Complied. Ground Water not extracted in the Coastal Regulation Zone.
m)	The proponent shall not undertake any activity, which is violative of the provisions of Coastal Regulation zone Notification 1991 and the subsequent amendments.	Complied. No Such activities are being carried out.
n)	The Coastal Regulation Zone clearance will be revoked if any of the condition stipulated is not complied with	Agreed.

Chashing

Me

ANNEXURE - 7

Comprehensive Environmental Monitoring for 2 X 600 MW Mutiara Thermal Power Plant at Pattinamaruthoor, Tuticorin

Monitoring Report

(July 2023 - December 2023)

Executive Summary



Submitted to

Mutiara Thermal Power Plant Melamaruthur Village, Ottapidaram Thaluk Tuticorin District - 628 105

by



Suganthi Devadason Marine Research Institute (SDMRI)

(Recognized by Manonmaniam Sundaranar University and U.G.C. & Recognized Scientific and Industrial Research Organization by the DSIR, GOI) 44 - Beach Road, Tuticorin - 628 001, Tamil Nadu Tel: 0461 - 2336488, 2323007; E.mail: director@sdmri.in Web: http://www.sdmri.in

12 January 2024

Comprehensive Environmental Monitoring for 2 X 600 MW Mutiara Thermal Power Plant at Pattinamaruthoor, Tuticorin

Monitoring Report

Executive Summary (July 2023 - December 2023)

to

M/S. Mutiara Thermal Power Plant, Melamaruthur Village, Ottapidaram Thaluk, Tuticorin District - 628 105



by

Suganthi Devadason Marine Research Institute

(Recognized by Manonmaniam Sundaranar University and U.G.C. & Recognized Scientific and Industrial Research Organization by the DSIR, GOI) 44 - Beach Road, Tuticorin - 628 001 Tamil Nadu

12 January 2024

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Comprehensive Coastal Environmental Monitoring for 2 X 600 MW Mutiara Thermal Power Plant at Pattinamaruthoor, Tuticorin

1. Background

M/S. Mutiara Thermal Power Plant has started production of its first unit of 2 x 600 MW coal based thermal power plant near Pattinamaruthur village of Tuticorin District, Tamilnadu and comprehensive coastal monitoring has been started from February 2015.

The comprehensive baseline data collection on physical, chemical and biological, covering all marine flora & fauna covering four seasons in each year was conducted for 3 years from 2010 to 2013 and comprehensive data on fish landings and catch details in was collected for one year from 10 coastal villages located within 10 km radius of the project site.

While granting No Objection Certificate to establish the Thermal Power Plant, the Tamil Nadu Forest Department made it compulsory to implement the following Coastal Environmental Management Plan and Monitoring Protocol.

- 1. Marine Water Quality
- 2. Marine Sediment Quality
- 3. Coral Reef Monitoring
- 4. Seagrass Monitoring
- 5. Fish Production Monitoring

The details of parameters, monitoring locations and monitoring frequency provided by the Tamil Nadu Forest Department are followed and the present half yearly report provides the results of the monitoring from July 2023 to December 2023.

2. Methodology

2.1. Fixing Permanent Monitoring Locations

Permanent monitoring locations were fixed to study the marine water and sediment quality and to monitor seagrasses and coral reefs. Totally 4 locations were fixed for the analysis of marine water and sediment quality at intake site. Location 1 is on the intake point and locations 2 and 3 are 100 m away in each side of the intake point while location 4 is 200 m away from the intake point into the sea. Totally 12 stations were fixed at discharge point. Locations 2 and 3 occur near the discharge point and locations 1 and 4 are 100 m away from locations 2 and 3 respectively. Locations 5 and 6 occur 25 m away from Location 2 and 3 and locations 7 and 8 fixed at 50m away from location 5 and 6 respectively. Locations 9 and 10 were fixed at 200m away from discharge point and Locations 11 and 12 were located 400m away from discharge point towards marine side. Parameters monitored in water samples were physical parameters such as pH, salinity, temperature, turbidity and total suspended solids; chemical parameters such as dissolved oxygen, nutrients, BOD and COD; heavy metals were Copper, Lead, Nickel, Cadmium, Chromium and Mercury; bacterial parameter coliform count; marine biological parameters such as phytoplankton and zooplankton. Parameters monitored in sediment samples were pH, organic matter and nutrients. For coral monitoring, totally 13 sites were selected. Three locations were selected around each of the Tuticorin islands Vaan, Koswari, Kariyachalli and Vilanguchalli and one location at Vilanguchalli patch reef. Physical parameters such as temperature, turbidity, total suspended solids and sedimentation were analysed in these locations and biological parameters such as coral status, growth, recruitment, diseases and bleaching were monitored. Temperature loggers will be deployed in these locations also. For seagrass monitoring, totally 13 sites were selected randomly within 3 km radius from the discharge point. Physical parameters such as temperature, turbidity, total suspended solids and sedimentation were assessed. Biological properties such as seagrass status, growth, shoot density, diseases, productivity and biomass were monitored. Fish diversity and abundance were also monitored in all the seagrass monitoring locations.

The details of monitoring locations and GPS coordinates are given in Figs. 1 to 3 and Tables 1 to 3.

The fish landing data and catch details will be collected from 10 landing centres / villages (Thirespuram, Mottaigopuram, Siluvaipatti, Vellapatti, Tharuvaikulam, Pattinamaruthoor, Sippikulam, Vaipar, Periyasamipuram and Vembar) located in and around Pattinamaruthur coast, covering 10 km radius from the project site (Fig.4)



Fig.1: Monitoring Locations Marine Water and Sediment Quality Monitoring

Intake point	GPS Mark
Location- 1	N8 55.084 E78 11.229
Location- 2	N8 55.143 E78 11.252
Location- 3	N8 55.046 E78 11.357
Location- 4	N8 55.007 E78 11.198
Discharge point	
Location- 1	N8 55.125 E78 11.252
Location- 2	N8 55.189 E78 11.285
Location- 3	N8 55.266 E78 11.333
Location- 4	N8 55.336 E78 11.374
Location- 5	N8 55.086 E78 11.654
Location- 6	N8 55.067 E78 11.624
Location- 7	N8 55.070 E78 11.666
Location- 8	N8 55.059 E78 11.657
Location- 9	N8 55.112 E78 11.409
Location- 10	N8 55.186 E78 11.461
Location- 11	N8 55.071 E78 11.540
Location- 12	N8 55.168 E78 11.610

Table 1: GPS Mark for locations for Marine water and sediment quality monitoring



Fig.2: Locations for coral reef monitoring

Location	GPS Mark		
Vaan Island	Vaan Island		
Location 1	N8 50.487 E78 12.759		
Location 2	N8 50.099 E78 12.974		
Location 3	N8 49.729 E78 12.881		
Koswari Island			
Location 1	N8 51.829 E78 13.376		
Location 2	N8 51.791 E78 13.793		
Location 3	N8 52.193 E78 13.909		
Vilanguchalli patch reef			
Location 1	N8 54.127 E78 15.391		
Vilanguchalli Island			
Location 1	N8 56.606 E78 16.423		
Location 2	N8 56.109 E78 16.245		
Location 3	N8 56.369 E78 15.936		
Kariyachalli Island			
Location 1	N8 57.185 E78 14.921		
Location 2	N8 56.950 E78 15.202		
Location 3	N8 57.198 E78 15.584		

Table 2: Coral reef monitoring locations



Fig.3: Seagrass and fish population monitoring locations

Location	GPS Mark
Location 1	N8 54.919 E78 11.338
Location 2	N8 55.043 E78 11.244
Location 3	N8 54.589 E78 11.177
Location 4	N8 54.128 E78 11.209
Location 5	N8 54.342 E78 11.921
Location 6	N8 54.652 E78 12.110
Location 7	N8 55.019 E78 11.971
Location 8	N8 55.351 E78 11.618
Location 9	N8 55.701 E78 11.940
Location 10	N8 55.224 E78 12.588
Location 11	N8 54.526 E78 12.508
Location 12	N8 53.885 E78 12.203
Location 13	N8 53.799 E78 11.357

Table 3: GPS Mark for Seagrass and Fish Population monitoring locations


Fig.4: Map showing the 10 coastal villages / fish landing centres for fish landing data and catch details monitoring

2.2. Parameters are being monitored

Marine Water Quality

Physical properties: pH, Salinity, Temperature, Turbidity, Total Suspended Solids Chemical Properties: Dissolved Oxygen, Nutrients, BOD, COD Heavy metals: Cu, Pb, Ni, Cd, Cr, Hg Bacteriological parameters: Coliform Count Marine Biology: Phytoplankton, Zooplankton Monitoring frequency - Fortnight Sampling

Marine Sediment Quality

Physical & Chemical properties: pH, Organic Matter, Nutrients Heavy metals: Cu, Pb, Ni, Cd, Cr, Hg Bacteriological parameters: Coliform Count Marine Biology: Macro and meio benthic fauna and Macro flora Monitoring frequency - Fortnight Sampling

Coral Reef Monitoring

Physical properties: Temperature, Turbidity, Total Suspended Solids, Sedimentation Biological properties: Status, Coral growth, recruits, disease, bleaching Monitoring frequency - Fortnight Sampling

Seagrass Monitoring

Physical properties: Temperature, Turbidity, Total Suspended Solids, Sedimentation Biological properties: Status, Growth, shoot density, disease, Productivity, Biomass Monitoring frequency - Fortnight Sampling

Fish Population Monitoring

Diversity and Abundance Monitoring frequency - Fortnight Sampling

Fish Landing and Catch Monitoring

Common fish landed Seasonal landing pattern Total fish landing - quantity, species wise, landing as per craft and gear Monitoring frequency - Daily

2.3. Analysis and monitoring methods

Physico-chemical parameters

Seawater temperature was measured using a standard digital thermometer. Salinity was determined using refracto meter. Seawater pH was measured soon after collection by using pre-calibrated digital pH-meter. Turbidity was measured using Elico water quality analyzer. Total Suspended Solids (TSS) was measured by filtering a known volume of sample through a pre-weighed 0.45μ Whatman glass fibre filter paper (GF/C) using a Millipore filtering system. Dissolved oxygen (DO), Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) were analyzed by following Strickland and Parsons

method (1972). Analyses of calcium (Ca), magnesium (Mg) and chlorides will be done titrimetrically. Nitrates (NO₃) and nitrites (NO₂) were measured spectrophotometrically by following the method of Strickland and Parson (1972). Total coliform bacteria were measured using MPN method.

Sediment samples were collected from all the sites by using Van Veen Grab sampler. Sediment pH was measured using pH meter. Oil and grease in sediment was analysed using separating funnel method. Organic matter in sediment was estimated by the method described by El Wakeel and Riley (1957). Phytoplankton and zoo plankton samples were collected from the surface water at all the stations. For the quantitative estimation, a Sedgewick Rafter Counting Cell was used. The sediment samples pre stained with Rose Bengal was sieved through 1 mm and 63μ mesh sieves by adding copious amount of water for separating macro and meio benthic fauna respectively. The organisms retained in the sieves were preserved in 5% formalin and were identified using standard manuals. Heavy metals such as lead, nickel, cadmium, chromium and mercury in the water samples and heavy metals such as manganese, lead, nickel, cadmium, chromium and mercury in the sediment samples were analysed using Atomic Absorption Spectrophotometer (AAS). Sedimentation rate was measured by deploying sediment traps (English et al, 1997) under the water.

Coral monitoring

The percentage cover of corals and other sessile benthic categories were assessed by Line Intercept Transect (LIT) method following English *et al.*, (1997). The survey was started with mapping of Island reef areas, using manta tow technique (Done *et al.*, 1982). The assessment involved SCUBA diving. Depending on the size of the reefs, 15 to 25 transects were laid on each Island. The percentage cover of each life form category, percentage of bleaching and disease prevalence were calculated following the method of English *et al.*, (1997). Coral recruitment was recorded using haphazardly placed permanent 1 m² quadrats. The permanent quadrats, used for long term monitoring of recruits, were placed on substrates suitable for coral settlement, in particular dead reefs (Tamelander, 2002). Linear growth coral of coral colonies were measured by tagging the colony and measuring the distance from the baseline to the end of the branch with flexible plastic ruler (Gladfelter, *et al.*, 1978). Coral diseases were identified by following the coral disease handbook of Raymundo and Harvell, (2008). Disease prevalence in a study location were calculated by a simple formula; percentage of diseases is the proportion of diseased colonies to the total measured population of colonies.

Number of diseased colonies per site

Disease prevalence = X 100

Number of colonies examined per site

Life form Categories and codes

CATEGORIES	CODE	NOTES / REMARKS
Dead Coral	DC	recently dead, white to dirty white
Dead Coral with Algae	DCA	this coral is standing, skeletal structure can still
		be seen
Acropora Branching	ACB	at least 2° branching, e.g. Acropora palmate,
		A.formosa
Encrusting	ACE	usually the base-plate of immature Acropora
		forms, e.g. A. palifera and A. cuneata
Sub massive	ACS	robust with knob or wedge-like form e.g. A.
Digitata		palifera
Digitate	ACD	humilis A digitifera and A gemmifera
Tabular	ACT	horizontal flattened plates e.g. <i>A. hyacinthus</i>
Non – Acropora Branching	CB	at least 2° branching e.g. Seriatopora hystrix
Encrusting	CE	major portion attached to substratum as a laminar
		plate e.g. Porites vaughani, Montipora undata
Foliose	CF	Coral attached at one or more points, leaf-like, or
		plate-like appearance e.g. Merulina ampliata,
		Montipora aequituberculata
Massive	СМ	Soild boulder or mound e.g. Platygyra daedalea
Submas	sive CS	tends to form small columns, knobs, or wedges
		e.g. Porites lichen, Psammocora digitata
Mushroe	om CMR	solitary, free-living corals of the Fungia
Heliopo	ra CHL	blue coral
Millepor	ra CME	fire coral
Tubipor	a CTU	organ-pipe coral, Tubipora musica
Other Fauna:		
Soft Coral	SC	soft bodied coral
Sponge	SP	
Zoanthids	ZO	examples are Platythoa, Protopalythoa
Others	OT	Ascidians, anemones, gorgonians, giant clams
		etc.
Algae Algal Assemblag	e AA	consists of more than one species
Coralline Algae	CA	
Halimeda	HA	
Macroalgae	MA	weedy/fleshy browns, reds, etc.
Turf Algae	ТА	lush filamentous algae, often found inside
i un riigue		damselfish territories
Abiotic Sand	S	
Rubble	R	unconsolidated coral fragments
Silt	SI	
Water	WA	tissures deeper than 50 cm
Rock	RCK	
Other	DDD	Missing data

Seagrass monitoring

Quadrates (50 cm \times 50 cm) divided into 25 squares (10 cm \times 10 cm) were used to study the percentage cover of seagrass species through visual estimation (Saito and Atobe,

1970). 100 m transects were made on the seagrass meadows and transects were separated from each other by a reasonable distance (50 -100 m) and were parallel to each other and perpendicular to the shore. Quadrates were laid at regular intervals (5 m) along each transect. Minimum 2-4 replicates of quadrates were laid depending on the abundance of the seagrass. Individual shoots were also counted randomly at every transect. Each seagrass species was collected and sorted by taxnomical order for further identification (English *et al.*, 1997). Biomass was estimated using the method of Mellors (1991). The biomass or standing crop is expressed in dry weight m².

Fish population monitoring

Fish density and diversity was assessed by visual census applying Belt Transect method (English et al., 1997).

Fish Landing Data

Fish landing data was collected by following the method of Srinath *et al.*, (2005). The following are the steps:

- i. Enquiring of the total number of fishing days in the particular village (Sampling will be done normally for 16-18 days per month in each selected village).
- ii. Enquiring of the total number of fishing crafts on the particular fishing day.
- iii. 1: 6 boats will be surveyed in case of large numbers of boats (Random). A minimum total of 15 boats at least will be surveyed in which 100% of the catch has to be checked.
- iv. The different fishing gears will be surveyed. Fish catch by different gears will be noted down if necessary.
- v. Species composition of the fish landed will be checked out.
- vi. Weight of a group (eg: carangids, groupers) / genus (*Scomberoides, Tylosurus* etc.) / species (*Sardinella longiceps, Rastrelliger kanagurta*) per the fishing crafts surveyed to be calculated. For this the weight of a standard basket will be enquired and the total number of standard baskets in that boat has to be enquired (Eg:- Weight of one standard basket of Grouper in Tuticorin landing center = 10 kg. Total number of standard baskets in the boat 'A' = 5. Groupers landed in boat 'A' = 10 x 5 = 50).
- vii. Similarly the weight of groupers in all the boats surveyed is calculated. The resultant data gives the total groupers landed in the given day in the surveyed boats. This data is then made up to the total number of boats gone for fishing in the particular fishing day. The resultant data is further calculated up to one month by multiplying the total number of fishing days during that month.

3. Results - Executive Summary (July 2023 to December 2023 - Half Yearly Report)

3.1. Marine water and sediment quality

The water temperature was recorded between 25.7 and 30.9° C; Salinity value was recorded between 33.50 and 36.15 ppt; pH level was recorded between 5.80 and 8.34; turbidity level ranged from 5.97 to 25.56 NTU; TSS level ranged from 105.50 to 195.50 mg/l; dissolved oxygen level was recorded between 4.63 and 5.48 mg/l; BOD level ranged from 1.75 to 2.80 mg/l; COD level ranged from 1.27 to 1.64 mg/l; calcium content was recorded between 320 and 660 mg/l; magnesium value varied from 1244.5 to 1396.5 mg/l; nitrate level ranged from 1.24 to 1.67 µg at/l; nitrite level ranged from 0.21 to 1.06 µg at/l; chloride level ranged from 17.39 to 17.81 g/l; and oil and grease level varied from 0.20 to 0.57 mg/l.

In sediment samples, the pH value was recorded between 7.92 and 8.33; oil and grease level varied from 0.28 to 0.52 mg/kg; organic matter value ranged from 2.636 to 4.168%; and heavy metal level in water and sediment samples was within the acceptable limits.

No coliform bacteria were recorded in water and sediment samples. The phytoplankton density was recorded between 257.68 and 397.83 cells/l. The zooplankton density was recorded between 160520 and 313205 no/m³. Among the benthic macro fauna, gastropods and bivalves were the dominant categories.

In coral reef area, water temperature was recorded between 25.60 and 30.45° C; turbidity level varied from 4.32 to 18.57 NTU; TSS level ranged from 70.5 to 152.5 mg/l; and sedimentation rate varied from 55.78 to 87.26 mg/cm²/day.

In sea grass area, water temperature was recorded between 25.45 and 30.35°C; turbidity level varied from 4.25 to 16.38 NTU; TSS level ranged from 63.50 to 172.66 mg/l; and sedimentation rate varied from 64.84 to 83.25 mg/cm²/day.

3.2. Coral monitoring

The live coral cover in Vaan Island was 22.63, 32.22 and 34.93% respectively in sites 1, 2 and 3 during July 2023; it was 22.64, 32.23 and 34.95 respectively during August 2023; it was 22.65, 32.24 and 34.95% respectively during September 2023; it was 22.64, 32.25 and 34.97% respectively during October 2023; it was 22.64, 32.26 and 34.99% respectively during November 2023; it was 22.65, 32.25 and 35.01% respectively in December 2023. In July 2023, the soft coral cover was 7.66, 2.02 and 2.34% respectively in sites 1, 2 and 3; it was 7.67, 2.02 and 2.33% respectively during August 2023; it was 7.68, 2.01 and 2.31% respectively during September 2023; during October 2023, it was 7.69, 2.00 and 2.32% respectively; during November 2023, it was 7.7, 2.00 and 2.31% respectively and it was 7.71, 2.01 and 2.33% respectively during December 2023. CM and ACB were the dominant coral life form categories during July to December 2023. Coral recruitment was highest for the genera Acropora, Porites and Montipora and most common coral species were Acropora muricata, A.cytherea, A. intermedia, A. robusta, Montipora foliosa, Pocillopora damicornis and Porites sp. In Vaan Island, nine types of coral health issues were recorded which include bleaching, BBD, BSD, PSD, WBD, WPD, WSD, YBD, YSD and B. Among disease type, BBD was the most dominant category with 3.15% followed by WBD with 2.36%

respectively during July to December 2023 mainly in genus Montipora. Totally six coral genera were affected by them which are *Goniastrea*, *Dipsastrea*, *Favites*, *Porites*, *Turbinaria* and *Acropora*.

The live coral cover in Koswari Island was 21.55, 21.13 and 19.46% respectively in sites 1, 2 and 3 during July 2023; it was 21.56, 21.15 and 19.45% respectively during August 2023; it was 21.58, 21.16 and 19.44% respectively during September 2023; during October 2023, it was 21.59, 21.17 and 19.46% respectively; during November 2023, it was 21.58, 21.19 and 19.47% respectively and during December 2023, it was 21.59, 21.21 and 19.48% respectively. In July 2023, the soft coral cover was 1.86, 3.57 and 2.63% respectively; it was 1.85, 3.58 and 2.64% respectively during August 2023; it was, 1.86, 3.57 and 2.64% respectively during September 2023; during October 2023, it was 1.87, 3.58 and 2.65% respectively; during November 2023, it was 1.88, 3.57 and 2.64% respectively and it was 1.89, 3.57 and 2.65% respectively during December 2023. CM, CF and ACB were the dominant coral life form categories during July to December 2023. Coral recruitment was highest for the genera Acropora, Turbinaria and Porites and most common coral species were Acropora muricata, A.cytherea, A. intermedia, A. robusta, Montipora foliosa, Pocillopora damicornis and Porites sp. In Koswari Island, ten types of coral health issues were recorded which are BBD, BSD, PSD, WBD, WPD, WSD, YBD, YSD, T and B. Among disease type, PSD was the most dominant category with 2.37% followed by BBD with 2.36% respectively during July to December 2023 mainly in genus Acropora. Totally six coral genera were affected which are Goniastrea, Dipsastrea, Favites, Porites, Turbinaria and Acropora.

The live coral cover in Kariyachalli Island was 34.08, 33.47 and 33.91% respectively in sites 1, 2 and 3 during July 2023; it was 34.07, 33.48 and 33.92% respectively during August 2023; it was 34.09, 33.47 and 33.93% respectively during September 2023; during October 2023, it was 34.11, 33.46 and 33.95% respectively; during November 2023, it was 34.12, 33.47 and 33.94% respectively and during December 2023 it was 34.13, 33.48 and 33.94% respectively. The soft coral cover in July 2023 was 4.86, 4.39 and 7.43% respectively; it was 4.87, 4.39 and 7.43% respectively during August 2023; it was 4.88, 4.41 and 7.42% respectively during September 2023; it was 4.87, 4.42 and 7.44% respectively during October 2023; it was 4.85, 4.43 and 7.45% respectively during November 2023; and it was 4.86, 4.43 and 7.45% respectively during December 2023. The CM and CF were the dominant coral life form categories during July to December 2023. Coral recruitment was highest for the genera Acropora, Porites and Montipora and most common coral species were Acropora muricata, A.cytherea, A. intermedia, A. robusta, Montipora foliosa, Pocillopora damicornis and Porites sp. Totally ten types of coral health issues were recorded which include bleaching, BBD, BSD, PSD, WBD, WPD, WSD, YBD, YSD, T and B. Among disease type, BBD was the most dominant category with 2.27% followed by BSD with 1.63% respectively during July to December 2023 mainly in genus Acropora. Totally seven coral genera were affected by them which are Montipora, Goniastrea, Dipsastrea, Favites, Porites, Turbinaria and Acropora.

The live coral cover in Vilanguchalli Island was 19.62, 20.05 and 26.52% respectively in sites 1, 2 and 3 during July 2023; it was 19.63, 20.06 and 26.53% respectively during August 2023; it was 19.64, 20.07 and 26.55% respectively during September 2023; it was 19.65, 20.09 and 26.56% respectively during October 2023; it was 19.64, 20.11 and 26.57% respectively during November 2023; and during December 2023 it was 19.65, 20.12 and 26.58% respectively. In July 2023, the soft coral cover was 1.84, 1.77 and 1.81%

respectively; it was 1.85, 1.78 and 1.82% during August 2023; it was 1.86, 1.79 and 1.83% respectively during September 2023; it was 1.87, 1.79 and 1.82% respectively during October 2023; 1.88, 1.79 and 1.83% respectively during November 2023; and during December 2023, it was 1.89, 1.79 and 1.84% respectively. The CF and CE were the dominant coral life form categories during the period July to December 2023. Coral recruitment was highest for the genera *Acropora* and *Turbinaria* while most common coral species were *Acropora muricata*, *A. cytherea*, *A. intermedia*, *A. robusta*, *Pocillopora damicornis* and *Porites* sp. In Vilanguchalli Island, ten types of coral health issues were recorded which are BBD, BSD, PSD, WBD, WPD, WSD, YBD, YSD, T and B. Among disease type, BBD was the most dominant category with 2.17% followed by WBD with 2.15% respectively during July to December 2023 mainly in genus Acropora. Five coral genera were affected by them which are *Goniastrea*, *Porites*, *Montipora*, *Turbinaria* and *Acropora*.

The live coral cover in Villanguchalli Patch reef was 43.38, 43.37, 43.36, 43.37, 43.38 and 43.39% respectively during July, August, September, October, November and December 2023. Soft coral cover was 3.35, 3.34, 3.33, 3.35, 3.34 and 3.33% respectively. The ACB and CF were the dominant coral life form categories during the period between July to December 2023. Coral recruitment was highest for the genera *Acropora, Turbinaria, Porites* and *Dipsastraea* while most common coral species were *Acropora muricata, A.cytherea, A. intermedia, A. robusta, Montipora foliosa, Pocillopora damicornis* and *Porites* sp. Totally ten types of coral health issues were recorded which are BBD, BSD, PSD, WBD, WPD, WSD, YBD, YSD, T and B. Among disease type, BBD was the most dominant category with 1.14% respectively during July to December 2023 mainly in genus *Acropora.* Five coral genera were affected by them *Goniastrea, Porites, Montipora, Turbinaria* and *Acropora*.

3.3. Seagrass and fish population monitoring

The overall seagrass percentage cover was observed as 64.29% in July 2023 at station 13 followed by 63.42% in September 2023 at station – 13. No diseases were observed. In total, seven seagrass species were recorded and they are *Thalassia hemprichii*, *Halophila stipulacea, Halophila ovalis, Cymodocea serrulata, Halodule pinifolia, Halodule uninervis* and *Syringodium isoetifolium*. Among the seven seagrass species, the dominant shoot density was recorded in *Cymodocea serrulata* as 181.47 nos.m⁻² in July 2023 at station 8 followed by *Thalassia hemprichii*as as 159.16 nos.m⁻² in August 2023 at station 2. The maximum productivity was recorded in *Cymodocea serrulata* as 64.95 cm⁻²day⁻¹ in July 2023 at station-2. The maximum seagrass biomass was recorded in *Cymodocea serrulata* as 163.55 g dry weight m⁻² in July 2023 at station 8 followed by *Thalassia hemprichii*as as 163.05 g dry weight m⁻² in August 2023 at station 2.

A total of 19 fish species were recorded and among them, *Lutjanus* sp. was the dominant followed by *Terapon* sp. during the entire survey period. Maximum number of fish density were observed at Station 13 during December 2023 with 259 / 50 m⁻² followed by Station 12 in December 2023 with 233 / 50 m⁻².

3.4. Cage culture of fishes near outfall in Pattinamaruthoor coast

In Pattinamaruthoor fish cage, observations on fish revealed 11 species during July 2023 to December 2023. Among them, *Lujanus* sp. was the dominant followed by *Siganus*

sp. Maximum number of fish density was observed during August 2023 with 262 nos. Followed during November 2023 with 257 nos.

During the assessment period, climate-induced impacts such as bleaching and algal bloom have not been observed in the coral reef and seagrass areas.

3.5. Fish Landing Data

Study area: Landing areas of ten fishing villages - Thirespuram, Mottaigopuram, Siluvaipatti, Vellapatti, Tharuvaikulam, Pattinamaruthoor, Sippikulam, Vaipar, Periyasamipuram, Vembar.

The major fishery resources of Tuticorin coast are Tuna, Seer fishes, Groupers, Ribbon fishes, Penaeid shrimps, Crabs, lobster and so on. The fish stocks from the coast tend to concentrate along the continental shelf and the biodiversity is substantially higher than in temperate waters. Tuticorin is one of the major fish landing center along the Gulf of Mannar coast by both mechanized as well as traditional crafts. Tuticorin coast has 21 fishing villages which include 2 major landing and 20 minor landing areas. Among the 22 fish landing areas of Tuticorin coast, 10 major and minor landing areas have been randomly surveyed for the fish species and weight of fishes landed from July 2023 to December 2023. Major fishing gears operated in Tuticorin fishing area is Trawl net, Long line fishing, Gill net, Drift net, Purse seine, Trammel net, Stake net, traps and Hand line nets. Fishing activity in Tuticorin region was carried out by Deep Sea, Traditional and mechanized fishing vessels like Trawlers, Kattumaram, Fiber boats and Vallams. Commercial fish species and total catch landed at each village during this period was recorded and illustrated as follows.

The survey recorded maximum landing in Thirespuram with about 906027 kg. followed by Tharuvaikulam with about 575601 kg during July 2023 to December 2023. The catch yield obtained in all ten landing areas has been illustrated in the table 4 and Fig. 5. During the study, 104 species of fishery resources have been identified under the commercial fishery resource and are illustrated in the following table 5.

Landing areas	Catch landed / 6 months
Thirespuram	906027
Mottaigopuram	39028
Siluvaipatti	29015
Vellapatti	122591
Tharuvaikulam	575601
Pattinamaruthoor	13441
Vaipar	399137
Sippikulam	345422
Periyasamipuram	24977
Vembar	460912
Total catch	2916151

Table 4: Total catch in major landing centres during July 2023 to December2023 in Tuticorin coast

	Table 2. S	oecies	recorded in landing area	ıs - Tuti	icorin coast
1	Ablennes hians	36	Euthynnus affinis	71	Portunus sanguinolentus
2	Acanthocybium solandri	37	Gerres sp.	72	Psettodus sp.
3	Acanthurus sp.	38	Harpulina sp.	73	Rachycentron canadum
4	Aetoplatea sp.	39	Hemiramphus far	74	Rastrelliger kanagurta
5	Alectis indicus	40	Hilsa keele	75	Rhizoprionodon sp.
6	Aluterus monoceros	41	Himantura uarnak	76	Sardinella albella
7	Alopias sp.	42	Irundichthys sp.	77	Sardinella sp.
8	Arius sp.	43	Istiophorus sp.	78	Sargocentron rubrum
9	Atule mate	44	Isuruso xyrinchus	79	Saurida tumbil
10	Auxis thazard	45	Katsuwonu pelamis	80	Scarus ghibbus
11	Carangoides armatus	46	Lates calcarifer	81	Scarus ghobban
12	Carangoides sp.	47	Leiognathus sp.	82	Scolopsis vosmeri
13	<i>Caranx</i> sp.	48	Leiognathus equulus	83	Scomberoides
					commersonianus
14	Cardisoma canarium	49	Lethrinus sp.	84	Scomberoides tol
15	Cephalopholis boenack	50	Liza tade	85	Scomberoides lysan
16	Cephalopholis formosa	51	Lobotes surinamensis	86	Scomberomorous
					commerson
1/	Cephalopholis sonnerati	52	Loligo sp.	8/	Scylla serrata
18	Charybdis cruciata	53	Loligo duvauceli	88	Scylla tranquebarica
19	Chichoreus ramosus	54	<i>Lutjanus</i> sp.	89	Sepia pharonis
20	Chirocentrus sp.	55	Mene maculata	90	Sepiella sp.
21	Chiloscyllium griseum	56	Metapenaeus sp.	91	Sepioteuthis sp.
22	Coryphaena hippurus	57	Mobula japanica	92	Siganus javus
23	Cynoglossus sp.	58	Mugil cephalus	93	Sphyrnae putnamae
24	Dasyatis kuhlii	59	Nemapterus japonicus	94	Sphyraena barracuda
25	Dasyatis sp.	60	Nemapteryx caelata	95	Stolephorus commersonnii
26	Dasyatis uarnak	61	Octopus aegina	96	Strongylura leiura
27	Decapterus russelli	62	Octopus cyaneus	97	<i>Synatpura</i> sp.
28	Destodus erumi	63	Octopus dolfusii	98	Thunnus albacares
29	Diagramma pictum	64	Pampuspampus	99	Thunnusthynnus
30	Dorytheuthis sp.	65	Panulirus homarus	100	Trachurus japonicus
31	Drepane punctata	66	Panulirus ornatus	101	Trichurrus saavala
32	Epinephelus undulosus	67	Paraupeneus indicus	102	Turbinella pyrum
33	Epinephelus areolatus	68	Penaeus sp.	103	<i>Tylosurus</i> sp.
34	Epinephelus	69	Plectrohinchus sp.	104	l Ineneus vittatus
	malabaricus				
35	Epinephelus merra	70	Portunus pelagicus		



Fig.5: Total catch obtained during July 2023 to December 2023 in Tuticorin coast

Thirespuram

Total landing was recorded as 906027Kg. Maximum landing was recorded in September 2023 with 177433 kg and minimum in December 2023 with 106406 kg. Species dominantly observed varied according to the season – Emperors (*Lethrinus* sp.) dominant in September 2023; *Caranxsp.* Dominant in July 2023; and Groupers (*Epinephelus malabaricus*) dominant in September 2023. Species commonly recorded includes *Lutjanus* sp., *Scomberomorous commerson, Sardinella* sp., *Auxis thazard, Sphyrnae putnamae*

- Dominant species Lethrinus sp., Caranx sp., Epinephelus malabaricus, Lutjanus sp., Scomberomorous commerson, Sardinella sp., Auxis thazard, Sphyrnae putnamae
- Maximum catch recorded September 2023
- Minimum catch recorded December 2023

Mottaigopuram

Total landing was recorded as 39028 Kg. Maximum landing was recorded in September 2023 to about 7898 kg and minimum in December 2023 to about 4960 kg. Species dominantly found varied according to the season – Crustaceans - Shrimp (*Metapenaeus* sp., and *Penaeus* sp.,) dominant in all months; and *Portunus* sp. dominant in October 2023. Species commonly recorded includes, *Lethrinus* sp., *Sepiella* sp., *Parupeneus indicus*, *Loligo* sp.

- Dominant species Metapenaeus sp., Penaeus sp., Portunus sp., Lethrinussp,. Sepiella sp., Parupeneus indicus, Loligo sp.
- Maximum catch recorded September 2023
- Minimum catch recorded December 2023

Siluvaipatti

Total landing was recorded as 29015Kg. Maximum landing was recorded in October 2023 to about 5774 kg and minimum in December 2023 to about 3297 kg. Species dominantly observed varied according to the season – *Portunus pelagicus* dominant found throughout the study period; *Lethrinus* sp. doiminant in October 2023 and *Penaeus* sp. dominant in October 2023. Species commonly observed includes *Metapenaeus* sp., *Sepiella* sp., *Scarus* sp., *Epinephelus* sp., *Lutjanus* sp.

- Dominant species Portunus pelagicus, Lethrinus sp., Penaeus sp., Metapenaeus sp., Sepiella sp., Scarus sp., Epinephelus sp., Lutjanus sp.
- Maximum catch recorded October 2023.
- Minimum catch recorded December 2023.

Vellapatti

Total landing was recorded as 122591 Kg. Maximum landing was recorded in September 2023 to about 23572 kg and minimum in December 2023 to about 14906 kg. Species dominantly found varied according to the season – *Portunus pelagicus* dominant in September 2023; *Portunus sanguinolentus* dominant in November 2023; and *Lethrinus* sp., dominant in August 2023. Species commonly recorded includes *Carangoides* sp., *Lutjanus* sp., *Paraupeneus indicus, Chiloscyllium griseum, Caranx* sp.

- Dominant species Portunus pelagicus, Portunus sanguineolatus, Lethrinus sp., Carangoides sp., Lutjanus sp., Paraupeneus indicus, Chiloscyllium griseum, Caranx sp., etc.
- Maximum catch recorded September 2023.
- Minimum catch recorded December 2023.

Tharuvaikulam

Total landing was recorded as 575601Kg. Maximum landing was recorded in September 2023 to about 128313 kg and minimum in December 2023 to about 52790 kg. Species dominantly found varied according to the season –Needle fish (*Tylosurus* sp.) dominant in September 2023 and *Ablennes hians* dominant in November 2023. Species commonly found includes – *Strongylura leiura, Euthynnus affinis, Lethrinus* sp., *Auxis thazard, Caranx* sp., *Coryphaena* sp.

- Dominant species *Tylosurus* sp., *Ablennes hians*, *Strongylura leiura*, *Euthynnus affinis*, *Lethrinus* sp., *Auxis thazard*, *Caranx* sp., *Coryphaena* sp.
- Maximum catch recorded September 2023
- Minimum catch recorded December 2023

Pattinamaruthoor

Total landing was recorded as 13441 Kg. Maximum landing was recorded in July 2023 to about 2986 kg and minimum in December 2023 to about 1037 kg. Species dominantly found varied according to the season – *Portunus pelagicus* dominant in September 2023 and *Portunus sanguinolentus* dominant in October 2023. Species commonly found includes –*Carangoides* sp., *Hemiramphus far*, *Tylosurus* sp., *Lethrinus* sp.

- Dominant species Portunus pelagicus, Portunus sanguinolentus., Carangoides sp., Hemiramphus far, Tylosurus sp., Lethrinus sp, Paraupeneus indicus and Lutjanus sp.
- Maximum catch recorded July 2023.
- Minimum catch recorded December 2023.

Vaipar

Total landing was recorded as 399137 Kg. Maximum landing was recorded in September 2023 to about 73469 kg and minimum in July 2023 to about 58659 kg. Species dominantly found varied according to the season – Barracuda (*Sphyraena* sp.) dominant throughout the season and study period; *Sardinella* sp. dominant in July 2023; and *Caranx* sp. dominant in September 2023. Species commonly recorded includes – *Lethrinus* sp., *Strongylura* sp.

- Dominant species *Sphyraena* sp., *Sardinella* sp., *Caranx* sp., *Lethrinus* sp., *Strongylura* sp., *Tylosurus* sp., *Lutjanus* sp., *Rastrelliger kanagurta*.
- Maximum catch recorded September 2023
- Minimum catch recorded July 2023

Sippikulam

Total landing was recorded as 345422 Kg. Maximum landing was recorded in October 2023 to about 61764 kg and minimum landing in December 2023 to about 51123 kg. Species dominantly found varied according to the season *–Strongylura* sp. dominant in August 2023 and *Sardinella* sp. dominant in July 2023. Species commonly observed includes *Tylosurus* sp., *Sphyraena* sp., *Carangoides* sp., *Rastrelliger kanagurta*

- Dominant species *Strongylura* sp., *Sardinella* sp., *Tylosurus* sp., *Sphyraena* sp., *Carangoides* sp., *Rastrelliger kanagurta*, *Scomberomorous* sp., *Atule mate*.
- Maximum catch recorded October 2023.
- Minimum catch recorded December 2023.

Periyasamypuram

Total landing was recorded as 24977 Kg. Maximum landing was recorded in October 2023 to about 6098 kg and minimum in December 2023 to about 2797 kg. Species dominantly found varied according to the season – *Portunus* sp., dominant in all months; *Sepiella* sp., dominant in October 2023; and *Charybdis natator* dominant in September 2023. Species commonly found includes *Loligo* sp., *Doryteuthis* sp., *Lethrinus* sp. etc.

- Dominant species Portunus sp., Sepiella sp., Charybdis natato, Loligo sp., Doryteuthis sp., Lethrinus sp., Penaeus sp., Metapenaeus sp.
- Maximum catch recorded October 2023.
- Minimum catch recorded December 2023.

Vembar

Total landing was recorded as 460912 Kg. Maximum landing was recorded in October 2023 to about 88243 kg and minimum in December 2023 to about 52273 kg.

Species dominantly recorded varied according to the season – *Lethrinus* sp., and *Rastrelliger kanagurta*, were dominant in September 2023. Species commonly observed includes *Caranx* sp., *Upeneus* sp., *Atule mate*, etc.

- Dominant species Lethrinus sp., Rastrelliger kanagurta, Caranx sp., Upeneus sp., Atule mate, Sphyraena barracuda, Sardinella sp., Leiognathus sp.
- Maximum catch recorded October 2023
- Minimum catch recorded December 2023

The major dominant fishery resources and the peak landing month in the 10 landing areas are given in Table 6.

. Table 6: Dominant fishery resources and maximum catch month/s in the 10 landing areas of Tuticorin coast during July 2023 - December 2023

Landing areas	Dominant fishery resources	Peak season / month
	Emperors (Lethrinus sp.)	Sep-23
Therespuram	Trevally (Caranx sp.)	Jul-23
	Groupers (Epinephelus malabaricus)	Sep-23
	Shrimp (Metapenaeus sp.)	Sep-23
	Shrimp (Penaeus sp.)	Nov-23
Mottaigopuram	Crustaceans (Portunus sp.)	Oct-23
	Emperors (Lethrinus sp.)	Oct-23
	Crustaceans (Portunus pelagicus)	Sep-23
C.1	Emperors (Lethrinus sp.)	Oct-23
Siluvaipatti	Shrimp (Penaeus sp.)	Oct-23
	Shrimp (Metapenaeus sp.)	Nov-23
	Crustaceans (Portunus pelagicus)	Sep-23
Vellapatti	Crustaceans (Portunus sanguinolentus)	Nov-23
	Emperors (Lethrinus sp.)	Aug-23
	Needlefish (Tylosurus sp.)	Sep-23
Tharuvaikulam	Flat needlefish (Ablennes hians)	Nov-23
	Needlefish (Strongylura leiura)	Sep-23
	Crustaceans (Portunus pelagicus)	Sep-23
Pattinamaruthoor	Crustaceans (Portunus sanguinolentus)	Oct-23
	Jacks (Carangoides sp.)	Jul-23
Sippikulam	Spot tail needlefish (Strongylura sp.)	Aug-23

	Sardines (Sardinella sp.)	Jul-23
	Needlefish (Tylosurus sp.)	Nov-23
	Barracuda (Sphyraena sp.)	Oct-23
Vaipar	Sardine (Sardinella sp.)	Jul-23
	Trevally (Caranxsp.)	Sep-23
Dariyagamymuram	Crustaceans (Portunus sp.)	Nov-23
Pertyasamyputam	Cephalopods(Sepiella sp.)	Oct-23
X 7 1	Emperors (Lethrinus sp.)	Oct-23
Vembar	Indian Mackrael(Rastrelliger kanagurta)	Sep-23

4. Remarks

The marine environmental monitoring carried out during the period from July 2023 to December 2023 recorded no impact on the coastal ecology of Pattinamarudur including the coral reefs, seagrasses, associated fish population and other biological resources like macroand meiobenthos and plankton. Also, there were no notable impacts on the physical and chemical properties and heavy metal concentrations of the marine water and sediment except for the seasonal variations. The water temperature decreased during December, which was in accordance with the season and the prevailing climatic conditions such as heavy rain and local flood. The seawater became turbulent with high turbidity during the second fortnight in December due to the local flood, and so underwater visibility was not good. Fishing activity was affected by flooding in December, and hence fish landing data showed deviations from the baseline, which can be due to less fishing effort days, seasonal changes, and fishing pattern. There was no impact on coral and associated biodiversity due to bleaching caused by climate change. The monitoring of cage culture of fish shows good fish population within and outside the cages, which indicates that the environment is healthy and conducive for marine organisms.

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6. Photos

Status of seagrass, corals and fish population





Fishing Landing & Catch Monitoring

Thirespuram



Mottaigopuram



Siluvaipatti



Vellapatti



Tharuvaikulam



Pattinamaruthoor



Sippikulam



Vaipar



Periyasamypuram



Vembar





ANNEXURE -8

Annexure - 8

COMPLIANCE TO THE CONDITIONS LAID BY MOEF VIDE OFFICE MEMORANDUM No.F.No.J-13012 /8/2009-IA.II(T) dated 11.11.2020

	Period. July 2023 to December 2023
ATED BY MoEF	COMPLIANCE
source (Location of ntity, Distance from of transportation)	Our Boiler is Designed with a blend of 50:50 imported and Indian Coal. We are using imported coal in our plant from Indonesia and we are transporting the coal from port (Melavittan Station

e/amat

Period: July 2023 to December 2023

SI.No.	CONDITIONS STIPULATED BY MoEF	COMPLIANCE
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.	Our Boiler is Designed with a blend of 50:50 imported and Indian Coal. We are using imported coal in our plant from Indonesia and we are transporting the coal from port/Melavittan Station to plant by using trucks. The quantity of coal transported for the period from July'23 to December'23 is as mentioned below; Total -1671102 MT Imported Coal (Indonesia) - 1671102 MT Indian Coal - Nil
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.	Continuous Stack emission and ambient air quality monitoring are being carried out and records are being maintained. The monitored data for the period of January'23 to June'23 is enclosed as Annexure - 1. The results are well within the prescribed norms. FGD Feasibility Study Completed. We have floated Tenders and awaiting Bids for Appointment of Consulting agency for Tender Preparation, Bid Evaluation, and Engineering Support during Execution.
, 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.	At present Coal is being transported to our plant through trucks which are fully covered with tarpaulin. Railway line laying work is under Progress by Southern Railways close to our Plant. Engineering Scale Plan for "Takeoff line" to our Plant submitted to Southern Railways for Approval.
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 Environment Clearance. The 100% Fly ash utilization is to be achieved within four years in line with fly ash notification dated 14.09.1999, 27.8.2003,03.11.2009 & 25.01.2016 and amended time to time or extant regulation on fly ash utilization.	100 % Fly Ash utilization is being achieved.
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.	Noted.
f)	The Details Regarding monthly generation , utilization and disposal of fly ash (including bottom ash) shall be submitted to the ministry and its regional office	Complied. Attached as Annexure -09

ANNEXURE - 9

ANNEXURE -09

Period: July'2023 to December'2023

FLY ASH GENERATION & UTTILISATION DETAILS

Name of the Industry: Coastal Energen Private Limited,

2 X 600 MW Coal based Thermal Power Plant,

Thoothukudi District - 628 105.

	TOTAL ASH	GENERATION		USAGE	OF FLY ASH		USAG	E OF BOTTOM AS	SH	TOTAL	
FOR THE YEAR	FLY ASH GENERATION (LMT)	BOTTOM ASH GENERATION	TOTAL ASH GENERATION	CEMENT	BRICK INDUSTRIES	TOTAL FLY ASH UTTILISATION	LANDFILL	BRICK INDUSTRIES	CEMENT	BOTTOM ASH UTTILISATION	TOTAL ASH UTTLISATION
JULY - 2023	0.0485561	0.012139	0.0606951	5	0.0459942	0.0485561	0.012139	×	۲	0.012139	0.0606951
AUGUST-2023	0.09745	0.0158855	0.1133355	6	0.09745	0.09745	0.0158855	x	×	0.0158855	0.1133355
SEPTEMBER- 2023	0.1516733	0.0227986	0.1744719	ĩ	0.1516733	0.1516733	0.0220919	0.0007067	÷	0.0227986	0.1744719
OCTOBER-2023	0.1731505	0.0214619	0.1946124	Ĩ	0.1731505	0.1731505	0.0214619	×		0.0214619	0.1946124
NOVEMBER- 2023	0.090521	0.0335675	0.1240885	ũ.	0.090521	0.090521	0.0335675			0.0335675	0.1240885
DECEMBER- 2023	0.0688257	0.0290392	0.0978649		0.0688257	0.0688257	0.0270891	0.0019501	1	0.0290392	0.0978649
* 100% Utilization	n of Ash achieve	ed.									

